Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV*)	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

SOUNDEXCHANGE'S NOTICE OF SUBMISSION OF CORRECTED RESTRICTED AND PUBLIC VERSIONS OF THE WRITTEN REBUTTAL TESTIMONY OF DANIEL RUBINFELD

SoundExchange, Inc. ("SoundExchange") hereby submits the corrected restricted and public versions of the written rebuttal testimony of Daniel Rubinfeld for the purpose of removing redactions that were previously applied due to issues related to contractual restrictions on the submission of the relevant testimony to the CRB.

Specifically, SoundExchange has removed in the corrected testimony of Dr. Rubinfeld redactions applied to Appendix 2, Appendix 2B, and Appendix 2C. These Appendices describe the license agreements between Warner Music Inc. and Apple Inc. (the "Warner-Apple Agreement"), and Sony Music Entertainment and Apple Inc. (the "Sony-Apple Agreement"), for the Apple iTunes Radio service. As a result of the contents of the written rebuttal submissions, the contractual prohibitions relating to the submission of these agreements are no longer applicable. For the Judges' convenience, copies of these agreements are attached to Dr. Rubinfeld's corrected written rebuttal testimony.

Corrected restricted and public versions of the rebuttal testimony of Dr. Rubinfeld also accompany this Notice, along with a corrected version of SoundExchange's redaction log.

SoundExchange respectfully requests that the Judges replace the previously submitted restricted and corrected versions of this testimony with the corrected versions. SoundExchange also will provide corrected restricted and public versions of the testimony of Dr. Rubinfeld to the outside counsel of the other participants.

Dated: February 25, 2015

Respectfully submitted,

By: Glenn D. Pomerantz /zh

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INTRODUCTORY MEMORANDUM TO THE
WRITTEN REBUTTAL STATEMENT OF SOUNDEXCHANGE, INC.

PUBLIC VERSION

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I. INTRODUCTION

The written direct cases of SoundExchange and the Services presented two very different versions of the market. SoundExchange's witnesses came from all parts of the recorded music industry: "major" labels, independent labels, artist managers, and performers. They testified about trends not only in the negotiation of agreements but in consumer behavior. SoundExchange presented a detailed view of the "thick market" as a whole—an analysis of hundreds of marketplace agreements that serve as the most directly relevant evidence of the rates and terms willing buyers and willing sellers would agree to in a market unconstrained by the statutory license. SoundExchange's rate proposal is grounded in this and other evidence, in line with rates established in prior proceedings, and necessary to ensure fair treatment for all stakeholders (artists, copyright owners, and the Services themselves) as the market for music consumption rapidly moves to a music-access model.

The Services, in contrast, presented a very different written direct case. Their proffered marketplace consists of a grand total of *29* direct licenses, all of which (the evidence shows) the Services negotiated in the shadow of the statutory license and for the express purpose of presenting them as benchmarks in this proceeding. The terms are very different from the hundreds of marketplace agreements that SoundExchange submitted, and for good reason. The agreements—sponsored by just two of the Services (iHeart and Pandora)—are overwhelmingly with independent labels. Even the one agreement that iHeart secured with a major record company (Warner Music Group) contains terms that could not possibly be offered to all record companies (as required by the statutory license), because it is premised on [redacted], and iHeart cannot make a similar promise to everyone. Moreover, as discussed herein, the Services' economic analysis of the submitted agreements fails to withstand scrutiny.

To further support these proposed benchmarks, the Services contend they can "manipulate" listeners' experience—*i.e.*, they purportedly can "steer" listeners to the sound recordings of particular licensors allegedly willing to accept below market. According to the Services, this proves that the Services (the willing buyers) could drive rates down by trading financial remuneration for webcasting market share. Oddly, the Services routinely say, including in their testimony here, that their algorithms are driven by their users' thumbs rather than the Services' contracts; but for purposes of rate-setting, the Services now say they can, do and will manipulate the code and what their users hear in order to reward favored licensors and punish the disfavored. In the end, even this gambit is for naught, because the Services' litigation-driven "experiments" showed that their ability to "steer" is highly constrained – at least if the Services want to retain their users. In the end, all of the Services' machinations seek to direct the Judges to a radical so-called "reset"—proposals to plunge rates down dramatically from where they have been set in multiple proceedings, which would create an incredibly wide gap between the Services' rates and the rates paid by numerous other marketplace participants.

The Services offer four categories of evidence, each of which is answered by SoundExchange's witnesses in this written rebuttal case: (1) Proposed benchmarks consisting of direct licenses with a small number of copyright holders—while the same services continue to pay statutory rates to other sellers—paired with a critique of SoundExchange's "interactive" benchmark agreements *in past proceedings*; (2) Claims that statutory services promote sales or other revenue streams, but no evidence that statutory webcasting promotes an expansion of revenues to the record industry; (3) Assertions that statutory webcasters can ill afford to pay higher rates, despite the undisputed evidence that increasing numbers of webcasters are using the statutory license and revenues for webcasters continue to grow; and (4) Evidence related to the Services' contributions of technology and capital investment, without regard for the massive investments that record companies and recording artists have to make every year to develop the content at the core of the Services' offering.

This Introductory Memorandum offers a brief overview of our rebuttal testimony to each of these four categories of evidence, followed by a summary of the testimony offered by each of SoundExchange's witnesses in rebuttal.

II. OVERVIEW OF SOUNDEXCHANGE'S REBUTTAL CASE

A. The Services' Proffered Benchmarks Do Not Reflect Terms a Willing Buyer And Willing Seller Would Negotiate Outside the Shadow of the Statutory License.

SoundExchange's expert, Dr. Rubinfeld, analyzed the thick market of available direct licenses and concluded that licenses for on-demand services, appropriately adjusted to discount for pure interactivity, are the most comparable benchmarks for this rate-setting proceeding. Dr. Rubinfeld concluded that these directly negotiated agreements are more reliable benchmarks than ever before. Services previously categorized as "interactive" and "non-interactive" are now rapidly converging: the functionality of each type is moving quickly to take on features and attributes of the other. Non-interactive services with a substantial degree of customization and personalization come closer today to replicating the experience of on-demand services. Streaming services of both types are commonly available on the same platforms, including most notably mobile. As a result of this convergence, statutory and non-statutory services compete more than ever before for the same audience. That convergence will only continue to grow over the next rate term.

The benchmark agreements that Dr. Rubinfeld analyzed were negotiated between willing buyers and sellers without the direct compulsion of the statutory license. The differences in rights conferred between the two types of licenses are addressed by careful and conservative adjustments, supported by market evidence. And Dr. Rubinfeld confirmed his analysis with corroborative marketplace evidence beyond the direct licenses themselves—further demonstrating the soundness of SoundExchange's rate proposal.

In contrast, the Services' benchmark analysis instead comprises fewer than 30 agreements, almost all of which are with independent record labels, and all of which are derivative of the existing statutory rates. In its rebuttal case, SoundExchange shows that the services' proposed benchmarks are flawed for several reasons, including:

First, the Services' proffered benchmarks do not reflect a marketplace "in which no statutory license exists." *Web III Remand*, 79 FR at 23110. On the contrary, the rates in these agreements are intertwined with the statutory regime. Unless the focal point of the statutory rates should be the existing statutory rates—which the Services vigorously dispute—the focus must be on what willing sellers and buyers agree to in a market *without* a statutory license, not a market *derived from* the statutory license.

The Services' primary benchmarks, however, are indisputably derived from existing statutory rates. The proffered license between Pandora-MERLIN contains [redacted]. Charlie Lexton, one of MERLIN's two negotiators, will explain that the Pandora-MERLIN license depends entirely on the statutory licensing scheme: [redacted] In fact, the [redacted].

In other words, the deal does not reflect independently negotiated rates separate from the statutory license – it directly reflects the statutory rates that Pandora currently pays.[1] Beyond that, and as described throughout the rebuttal case, Pandora's claim that it should be able to receive a lower rate if it is willing to manipulate its users' experience through "steering" music to gain contractual advantages is—irrespective of other issues—an advantage that Pandora does not and cannot transfer to the market as a whole.

iHeartMedia's 28 direct licenses suffer from the same defects. As the evidence shows, iHeart's purpose with each was to negotiate a discount from the existing statutory broadcaster rates it pays for non-simulcast custom webcasting. In each license, the stated rates are either [redacted]. These statutorily derivative rates are not market based and reveal little, if anything, about what willing buyers would pay willing sellers in the absence of a statutory license.

Second, to divine a favorable valuation, the Services' experts ignore key provisions that confer value to the content owners and that were indispensable to the agreements ever being executed. The points the Services' experts say control their analyses were not part of the actual negotiations, and there is no reason to believe they ever would be in the future. For example, iHeartMedia's economists attempt to create an artificial divide between "statutory plays" and "incremental plays," valuing statutory plays at a rate much higher than the so-called "incremental

[1] In fact, the Pandora-MERLIN agreement is a thinly veiled effort by Pandora to put the Pureplay Settlement rates into the record of this proceeding, even though by statute those rates may not be considered in this proceeding.

plays." The true measure of the exchange must consider all aspects of the deal, but iHeart's experts ignore or do not value numerous elements of the agreement that had significant value for Warner and the 27 independent record labels.

Third, both the iHeartMedia and Pandora-MERLIN deals offer benefits to record companies that cannot be replicated across the industry and are not available under the statutory license. For instance, the agreements offer "steering" benefits without which the counterparties would not have agreed to the terms. "Steering" is the purported ability, as one Pandora witness says, to "manipulate" a consumer's listening experience to play sound recordings that are contractually advantageous to the service. But these steering benefits cannot be extrapolated industrywide. Simply put: Pandora and iHeart cannot agree to play *everyone's* music more than anyone else's music. The Services' proposed benchmark agreements contain a host of other first-mover incentives that the Services could not repeat industrywide. And the purported benchmarks represent a small percentage of performances on each service and a tiny fraction of the total universe of licenses between record companies and streaming services. For instance, by Pandora's own admission, a focus on the Pandora-MERLIN license would ignore roughly [redacted] of the performances on the Pandora service. A license that cannot be translated to account for the fact that the statutory license binds and benefits all record companies is little more than a ticket good for one ride only.

SoundExchange's economists Dr. Rubinfeld and Dr. Talley, supported by numerous fact witnesses, will offer testimony demonstrating that the Services' benchmarks simply do not stand for what the Services say they do. The licenses that Dr. Rubinfeld analyzed cut across the entirety of the market; they are not isolated one-off deals. The agreements were negotiated by and among multiple market players. And they represent true willing buyer/willing seller transactions in an effectively competitive market unconstrained by the statutory license. Especially in view of the increased convergence in offerings that make these deals more compelling than ever before, the Services' challenges to SoundExchange's benchmarks fail.

B. The Services Fail to Show That Statutory Services "Promote" Overall Sales or Other Revenue Streams.

The Services spend significant time arguing that statutory webcasting promotes record sales and does not interfere with other revenue streams. The Services claim they are no different in this regard than terrestrial radio, which does not pay for the content it performs and which the Services claim returns huge promotional benefits. Conversely, the Services contend that SoundExchange's benchmark agreements with on-demand streaming services should be ignored, because those services substitute for record sales.

SoundExchange's rebuttal witnesses demonstrate that the Services' claims regarding promotion and substitution are misguided and fail to undermine SoundExchange's benchmark analysis.

First, statutory webcasting does not whet the consumer's appetite in sound recordings; it serves the meal. As, Dennis Kooker, President, Global Digital Business and U.S. Sales for Sony Music Entertainment, will explain, statutory webcasters increasingly offer functionality approaching that of on-demand services. Statutory services offer a highly personalized experience and the ability to create individual "stations" that provide the user with the ability to narrow the webcast to the specific songs individual users want to hear.

Second, and unsurprisingly in light of this convergence, statutory services are substitutional of revenue from interactive services. SoundExchange's expert, Sarah Butler, surveyed consumers to determine what other form of listening to music (if any) they would turn to if they could not listen to Pandora or iHeartRadio. The largest percentage of users would otherwise listen to "interactive" services like Spotify if Pandora were no longer available. A much smaller percentage of users would otherwise listen to terrestrial radio. Thus, consumer evidence proves webcasting services are in competition with and are a substitute for "interactive" services, *not* terrestrial radio.

Third, the Services fail in their effort to show that statutory services promote download sales. The substantial evidence produced in this proceeding shows that streaming services, including statutory services, negatively impact sales of CDs and downloads. Pandora witness Stephan McBride's "Music Sales Experiments" do not prove otherwise. Dr. McBride purported to analyze diversionary promotion—the extent to which Pandora performances might boost the sale of certain sound recordings at the expense of others. SoundExchange's expert, David Blackburn, explains that this is the wrong question. The increased revenue that matters here is revenue that expands the total return to the music industry. Only such expansionary promotion would lead willing sellers industrywide to lower rates because of higher overall return from the willing buyers' services. None of the Services provide any evidence that the services provide expansionary promotion, which is unsurprising given the continuing contraction of recorded music revenues.

Fourth, The Services misunderstand notions of "promotion" and "substitution" as they relate to interactive services. As SoundExchange witness, Jennifer Fowler, Senior Vice President, U.S. Marketing and Revenue Generation for Sony Music, explains, record labels promote new tracks and artists to interactive services because that promotion drives additional streams on those services—which deliver significantly higher average revenue per user than do statutory services. Simply put, statutory services as well as direct-licensed streaming services are a consumption platform in and of themselves, and record labels treat them accordingly as a source of direct revenue – not as an opportunity to promote other streams of revenue.

C. The Services' Claims of Poor Financial Health Do Not Justify Their Below-Market Rate Proposals.

The Services claim they cannot afford the current rates, much less an increase in rates. Outside of these proceedings, however, the Services are much more bullish about their financial viability. Many Services are already profitable or on the verge of tremendous profitability. The deferral of profitability thus far reflects strategic decisions to defer short-term gains in favor of long-term profits. SoundExchange's expert Thomas Lys analyzes Pandora's statements and documents and demonstrates the company deliberately deferred short-term monetization in order to grow its user base. That strategy has yielded dramatic increases in Pandora's revenues and listening hours, at the expense of short-term profitability. Pandora now is shifting from growth to monetization, increasing the price of its subscription product and gradually increasing its RPM (revenue per thousand hours of listening) for its advertising product. As market analytics demonstrate, and Pandora's executives acknowledge, Pandora is now poised to "move decisively and assertively to capture the enormous market opportunity before" it. (Brian McAndrews on Pandora's Feb. 15, 2015, Earnings Call.) And, contrary to Pandora's argument that *Webcasting III* rates would halt its growth, Pandora's Michael Herring said outside this forum that he did not "think it would be a problem" for Pandora to pay a 50% increase in rates—rates within the range of *Webcasting III*.

Prof. Lys further shows that the Services' arguments about impeded investment are wrong theoretically and factually. David Pakman—a witness for both iHeartMedia and the NAB—makes assumptions about the webcasting market that are inconsistent with available evidence. Contrary to Mr. Pakman's opinions about the business being unprofitable, statutory webcasters continue to enter the market at high rates. Unprofitable, failing industries do not see entry growth.

By relying on profitability as the measure of an appropriate rate, Mr. Pakman essentially expects copyright owners to subsidize these strategic business decisions of webcasters to defer profitability in favor of short-term growth. That is not the standard that Congress has set. Copyright owners must be compensated, fairly, for the use of their works. They should not be compelled to do so at a reduced rate in order to guarantee a particular margin, when that margin is entirely the result of a business plan the copyright owners have had no say in creating.

D. Recording Artists And Copyright Owners' Relative Contributions Far Outweigh Those Of The Services.

Finally, both SoundExchange and the Services submitted evidence in their direct cases of their relative contributions to the copyrighted work and the service made available to the public. Comparing these relative contributions reveals that the balance of creative contributions, technological contributions, capital investment and risk tips sharply toward the artists and copyright owners. iHeart and the NAB described their efforts to craft programming around music and to provide a source of community connection. Pandora touted its Music Genome Project, and its investments in the development of its algorithm. And Pandora also expounds on its accomplishments in creating an advertising market for services like itself, despite advertiser resistance.

The investments the Services describe pale in comparison to the hundreds of millions of dollars the record labels have invested in developing new music, and to the risk that is inherent in finding the next big thing. That is an investment and a risk the Services need not take – they only need play what has already become successful. The Services do not have to put the creative energy, passion, risk and investment into creating the recordings, a point underscored in the testimony of SoundExchange rebuttal witness and independent artist Doria Roberts. None of the Services' proffered contributions compares to the creative contributions made every day by recording artists and record labels who create, market and distribute the music that is the core of a statutory services' offering.

III. SUMMARY OF SOUNDEXCHANGE'S WITNESSES' REBUTTAL TESTIMONY

SoundExchange's rebuttal case includes the written testimony of the following 12 fact and 6 expert witnesses.

A. Fact Witnesses

Dennis Kooker is President, Global Digital Business and U.S. Sales, for Sony Music Entertainment ("Sony Music"). The Global Digital Business Group handles digital distribution and sales initiatives on behalf of each of Sony's various label groups in the United States. Mr. Kooker's rebuttal testimony responds to arguments made by the Services that statutory webcasters compete directly with terrestrial radio, not interactive services, for listeners. He demonstrates—through examples and experiments—how statutory services have converged with on-demand services in recent years. Far from the experience of listening to terrestrial radio, statutory services of all types have evolved such that the user experience approaches an interactive listening experience. As a result, streaming services of all types compete for consumers, making Sony Music's agreements with interactive services the best available benchmark evidence for the rates and terms to which willing buyers and willing sellers would agree for the right to stream sound recordings.

Mr. Kooker's testimony also provides some insights into Sony Music's negotiations with interactive services revealing that the agreements reached represent give-and-take from both sides. While the Services' expert witnesses attempt to dismiss these negotiations as one-sided, Mr. Kooker's actual experience negotiating with interactive services proves that is not so and that these proposed benchmark agreements are competitive.

Aaron Harrison is Senior Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc. ("Universal"). He is responsible for negotiating Universal deals with numerous digital services, including online streaming services. Mr. Harrison's rebuttal testimony addresses the "steering" that Pandora and iHeart argue creates a fundamentally different negotiation from those that occur with interactive streaming services. Mr. Harrison explains that interactive services can also "steer" and that UMG has sought to prevent such discrimination through its agreements. Contrary to Pandora and iHeart's arguments that record labels would compete, driving down the price for non-interactive streaming, Mr. Harrison testifies that UMG would most likely seek protections—the same protections as it seeks from interactive services—against such steering as a key term of the agreement.

Mr. Harrison also provides examples from his negotiating experience of core financial terms on which UMG conceded to reach an agreement. His testimony explores a hypothetical negotiation with one of the statutory services, like Pandora, absent the statutory license, and concludes that the ultimate agreement would most closely resemble those UMG reaches with interactive services. Finally, Mr. Harrison provides necessary context to Profs. Fischel and Lichtman's conclusion from a term sheet exchanged between UMG and iHeartMedia that simulcast services are not amenable to paying statutory royalties through a greater-of rate structure.

Ron Wilcox is Executive Counsel, Business Affairs, Strategic and Digital Initiatives for Warner Music Group ("Warner"). Mr. Wilcox's rebuttal testimony responds to assertions made by Profs. Fischel and Lichtman regarding Warner's direct agreement with iHeartMedia, and the per-performance rate that Profs. Fischel and Lichtman purport to derive from that agreement. Mr. Wilcox explains that Profs. Fischel and Lichtman's hypothesis of the parties' negotiation has no basis in the actual negotiation, Warner's modeling of the agreement, or the agreement itself. Mr. Wilcox further explains how the terms of the actual agreement undermine Profs. Fischel and Lichtman's purported per-performance rate. Mr. Wilcox also discusses numerous terms of value in the agreement that Profs. Fischel and Lichtman either ignore or make no attempt to value in their per-performance rate analysis.

Mr. Wilcox's rebuttal testimony also provides factual information responding to the Services' erroneous claim that direct licenses with interactive services are not the product of a workably competitive market. Mr. Wilcox discusses actual experiences of Warner negotiations that demonstrate significant give-and-take on both sides of the negotiating table.

Charlie Lexton is the Head of Business Affairs and General Counsel at MERLIN, and was one of the two people at MERLIN primarily responsible for negotiation of MERLIN's recent license with Pandora. Having negotiated the license, he explains why it cannot support the rate proposals offered by Pandora or iHeartMedia. His testimony includes a detailed look at all of the aspects of the license – and their relationship to each other – a look that was not provided by Pandora or its economists. Mr. Lexton explains that the license was inextricably bound up with the existing rates that Pandora pays and that much of the consideration received by MERLIN members is not portable to the statutory license. He further explains how the effective compensation under the license is no lower than that which Pandora pays under the statutory license. Finally, he reports that several aspects of the license make an evaluation of its effective value per performance impossible at this time.

Glen Barros is the President and Chief Executive Officer of the Concord Music Group

("Concord"), a position he has held for twenty years. His testimony will explain the nature of the bargain in Concord's license with iHeartMedia, one of the 27 independent licenses that iHeartMedia lumps together. Mr. Barros will explain that the nature of the license was to enshrine a unique bargain in which Concord received value – [redacted] – that is not part of the statutory regime. Mr. Barros will also explain his view that webcasting is increasingly substitutional.

Simon Wheeler is the Director of Digital at the Beggars Group, one of the largest collections of independent record labels in the world. Mr. Wheeler will explain that the Pandora-MERLIN license that Beggars Group participates in is not the result of free market negotiations but rather experimentation with direct licensing under and during the terms set by the existing statutory license. He will describe how the value of that license is in opportunities that exist outside of, and cannot be imported to, the statutory license.

Darius Van Arman is the co-founder and co-owner of Secretly Group, a collection of prominent independent record labels in the United States, as well as their affiliated companies, including independent distributor SC Distribution. Having been referred to by Pandora in their direct case for his label's participation in the Pandora-MERLIN license, he will explain that direct license participation does not imply that a license is a strong basis for the statutory rate. He will explain why contractually based steering undermines the value of a direct license in informing the statutory license. Also, he will explain that the Pandora-MERLIN license is derived almost entirely from the existing rates Pandora pays. Finally, Mr. Van Arman will explain that there is a significant lack of operational certainty about the license itself, which weakens its ability to inform rates set by this proceeding.

Jim Burruss is Senior Vice President, Promotion Operations at Columbia Records, one of the recorded music labels within Sony Music Entertainment ("Sony Music"). In that position, Mr. Burruss oversees all of Columbia's promotional operations, which include but are not limited to promotion to terrestrial radio. Mr. Burruss's rebuttal testimony responds to the Services' contention that statutory webcasting has whatever promotional benefits airplay on terrestrial radio provides. Mr. Burruss explains that there are fundamental differences in this regard between terrestrial radio and both Internet simulcasts and custom radio.

Jennifer Fowler is Senior Vice President, U.S. Marketing and Revenue Generation, Sony Music Entertainment ("Sony Music"). Ms. Fowler oversees all marketing functions within the Sony Music U.S. Sales division, including retail and brand marketing, and insights and analytics. Ms. Fowler's rebuttal testimony responds to the Services' assertions—and particularly those made by Pandora's Timothy Westergren and Simon Fleming-Wood—that webcasting on statutory services promotes revenue generation from other sources for record companies. Ms. Fowler explains why Pandora and other statutory services are consumption platforms that substitute for other sources of revenue, particularly interactive subscription services, which generate significantly higher average revenue per user ("ARPU") returns. Ms. Fowler further responds to the Services' assertions that interactive subscription services do not provide promotional benefits. Ms. Fowler discusses editorial and related features of interactive services that are highly promotional of artists and that generate high ARPU returns.

Michael Huppe is the President and Chief Executive Officer of SoundExchange. Mr. Huppe will address the direct case testimony of witnesses from the National Association of Broadcasters and Sirius XM about the agreements they reached with SoundExchange in 2009. Mr. Huppe will demonstrate how the suggestion that SoundExchange had or exerted monopoly power is plainly contradicted by the facts surrounding each agreement.

Jonathan Bender is the Chief Operating Officer of SoundExchange. His testimony responds to the Services' proposed changes to the terms that govern the statutory license. Mr. Bender explains that these proposals – most of which are unsupported by testimony– would make the administration of the statutory license more costly, less efficient, and less fair to artists and copyright owners.

Doria Roberts has been an independent recording artist for over twenty years. On her own label Hurricane Doria Records, Ms. Roberts has released several of her own CDs and toured in support for many years, performing at venues across the United States and Canada. Ms. Roberts has performed at festivals such as Lilith Fair, the Michigan Womyn's Festival, the Montreaux Jazz Festival, and many more. Mr. Roberts responds to testimony from Tim Westergren, Tom Poleman, and others and offers her unique perspective on the creative contributions, risks and investments that she and other independent artists make to create the music that the Services depend on for their business. She testifies about the changes she has been forced to make to her own small business now that the market for sound recordings has shifted from one of "ownership" to one of "access."

B. Expert Witnesses

Daniel L. Rubinfeld, Robert L. Bridges Professor of Law, Professor of Economics, Emeritus, University of California, Berkeley, and Professor, NYU Law School, evaluates each of the benchmarks offered by the Services in the direct case and concludes that each is inconsistent with the willing buyer/willing seller standard. He observes that, in stark contrast to his own "thick market" analysis, the Services' collective reliance on a sum total of 29 market agreements – involving just two services and almost exclusively independent labels – provides a remarkably shaky foundation from which to derive an industrywide statutory rate. Dr. Rubinfeld also emphasizes that each of the Services' proffered deals should be immediately disqualified as benchmarks because they were negotiated in the direct shadow of the statutory license and were [redacted]. He further explains that the Services' benchmarks are atypical deals involving forms of consideration that cannot be replicated across the entire industry or fairly compared to the statutory license.

Dr. Rubinfeld goes on to show that the Services' rate calculations derived from these inappropriate benchmarks are themselves flawed. Profs. Fischel and Lichtman fundamentally distort the value of the iHeart-Warner agreement by focusing only on "incremental" plays, relying on one party's subjective projections, misapplying the terms of the agreement, and failing to account for all of the consideration Warner received under the deal. Dr. Shapiro's analysis of the Pandora-MERLIN deal is similarly flawed. Like Fischel and Lichtman, Shapiro inadequately accounts for the full bundle of consideration that was exchanged and the valuable first-mover advantages that were wrapped up in the Pandora-MERLIN deal.

Finally, Dr. Rubinfeld further demonstrates, as he did in his opening testimony, that direct licenses are the best available market evidence from which to determine a willing buyer/willing seller rate. He shows that the Services' various critiques of the interactive benchmark are misplaced. And he offers additional market evidence—beyond the direct licenses themselves—that corroborates SoundExchange's rate proposal. Dr. Rubinfeld demonstrates that recent licenses for non-interactive and/or ad-supported services that were negotiated in the less direct shadow of the statutory license contain rates that are consistent with SoundExchange's proposal and substantially higher than those in the Services' proffered benchmarks.

Eric Talley, Rosalinde and Arthur Gilbert Foundation Professor of Law, University of California, Berkeley, provides a through critique of the economic analysis offered by Profs. Katz and Shapiro. Prof. Talley explains that both Katz and Shapiro adopt constrained conceptual frameworks that are inconsistent with bargaining theory, the market at issue in this case, and the willing buyer/willing seller standard. He notes, for example, that the Katz and Shapiro characterization of interactive licensing ignores how competitive forces in the consumer market constrain sellers' pricing power. Prof. Talley also explains that the Services' attempt to differentiate the interactive and non-interactive markets misses the mark. He shows that Pandora's own steering experiments demonstrate that the bargaining dynamic in the interactive market is much the same as the bargaining dynamic that would exist in the hypothetical non-interactive market. Prof. Talley also demonstrates that neither Katz nor Shapiro convincingly account for the distorting effect that the shadow of the statutory license has on negotiated transactions.

Prof. Talley sets forth a structural bargaining framework that directly responds to the economic question at issue in this proceeding. His bargaining model offers several key insights: (1) competitive forces in the downstream consumer market constrain the range of prices negotiated in the interactive service market; (2) the statutory license significantly distorts agreements that are negotiated in its shadow; and (3) when the rate available through the statutory license is sufficiently low, the downward biasing effect can be so great that it outmatches all other potential biasing effects, including any biasing effects created by disproportionate seller-side bargaining power. In light of the shadow from the statutory license, Prof. Talley concludes that the Services' proffered benchmarks offer little probative value.

Thomas Z. Lys, Ph.D., is the Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management at the Kellogg School of Management, Northwestern University. Prof. Lys responds to the suggestion made by multiple witnesses in this proceeding—including David Pakman, Michael Herring, and the NAB's witnesses—that royalty rates should be set based on the current profitability of a specific webcaster or of the webcasting industry. Prof. Lys explains that, as a matter of basic economics, the Services' approach does not comport with the "willing buyer/willing seller" standard. Nor does this approach consider business strategies employed by firms that depress current profits in an effort to achieve growth.

Prof. Lys also provides a detailed financial analysis that disproves Michael Herring's claim that Pandora cannot afford to pay royalties set at the *Web III* level. As Prof. Lys's analysis shows, Pandora has turned a corner on profitability and has begun to "monetize" its large user base. This account is confirmed by Pandora's own public statements, its internal analysis, and analyst research, which all predict significant increases in the revenue Pandora generates from each hour of listening. Based on these increases, Pandora will comfortably be able to afford the rates in SoundExchange's rate proposal.

Prof. Lys also shows that Mr. Pakman's claims regarding unprofitability and lack of investment in the webcasting industry are inconsistent with contemporaneous evidence. He also shows that Mr. Pakman's analysis of venture capital investments in digital music fails to account for salient differences between digital music and the industries he analyzes. And Prof. Lys demonstrates that Mr. Pakman's analysis is irrelevant, because he fails to distinguish between digital music companies in general and statutory webcasters in particular.

Prof. Lys also demonstrates the invalidity of Profs. Fischel and Lichtman's Economic Value Added ("EVA") analysis. The EVA analysis ignores basic and fundamental concepts in economics relating to supply, demand, and market equilibrium. And, the EVA analysis is based on the economics of terrestrial radio. Prof. Lys shows why this approach ignores fundamental differences between the webcasting and terrestrial radio industries. Prof. Lys also demonstrates other serious flaws in how Profs. Fischel and Lichtman implemented their analysis. For example, eliminating a single significant outlier from the sample underlying this analysis results in *doubling* the predicted royalty rate.

Finally, Prof. Lys discusses a number of terms proposed by the licensee participants, including NAB's late fee proposal, NRBNMLC's tiered flat fee proposal, and Pandora's definition of revenue.

Marc Rysman, Professor of Economics at Boston University, explains that the webcasting industry exhibits characteristics that favor scale and market dominance. These characteristics—network effects, economies of scale, seller learning and switching costs—incentivize webcasters to adopt aggressive pricing strategies that sacrifice current or short-term profitability in exchange for growth and market leadership. Based on his observations of the webcasting industry, Prof. Rysman concludes that certain webcasters have, in fact, consciously pursued such growth-oriented strategies. Prof. Rysman's analysis refutes testimony offered by the licensee participants' witnesses that suggests that a webcaster's willingness to pay is constrained by its current profitability.

David Blackburn, Ph.D., is Vice President for NERA Economic Consulting and is based in NERA's Washington, DC, office. Dr. Blackburn analyzes the meaning of "promotion" in the context of these proceedings and specifically concludes—based in part on Pandora's own internal documents—that Stephan McBride analyzed the wrong question. Dr. Blackburn explains the two concepts of promotion: *expansionary* which increases revenues to the industry as a whole, and *diversionary* which merely shifts revenues between copyright owners. Only the former informs the rate to be set in these proceedings—an industrywide rate.

Dr. Blackburn also concludes that McBride's study is flawed for a number of reasons and defied by market evidence and internal documents from the Services. Finally, Dr. Blackburn sheds light on a key aspect of the market for all streaming—including interactive streaming—piracy. Because consumers view piracy as an alternative to free and paid streaming, the price for licenses for interactive streaming are necessarily at competitive levels to compete with the prevalence of unlicensed services.

Sarah Butler M.A., is Vice President for NERA Economic Consulting and is based in NERA's San Francisco office. Ms. Butler responds to iHeart's witness, Tom Poleman, and in particular his use of survey evidence regarding terrestrial radio to conclude that simulcast streaming is promotional. Ms. Butler also analyzes evidence from a number of market and proprietary surveys demonstrating that webcasting services view interactive services as their closest competitor. Finally, Ms. Butler conducted her own survey which demonstrates that Pandora and iHeartRadio substitute for Spotify and other streaming services that pay higher rates to the recorded music industry.

Dated: February 23, 2015

Respectfully submitted,

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Of Counsel

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	)))))))))	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

INDEX OF WITNESS TESTIMONY

WITNESS	TITLE
Dennis Kooker	President, Global Digital Business & U.S. Sales, Sony Music Entertainment
Aaron Harrison	Senior Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc.
Ron Wilcox	Executive Counsel, Business Affairs, Strategic and Digital Initiatives, Warner Music Group
Charlie Lexton	Head of Business Affairs & General Counsel, Music and Entertainment Rights Licensing Independent Network ("Merlin")
Glen Barros	President and Chief Executive Officer, Concord Music Group, Inc.
Simon Wheeler	Director of Digital, Beggars Group
Darius Van Arman	Co-Founder & Co-Owner, Secretly Group
Jim Burruss	Senior Vice President, Promotion & Marketing Operations Columbia Records, Sony Music Entertainment

Jennifer Fowler	Senior Vice President, U.S. Marketing & Revenue Generation Sony Music Entertainment
Michael Huppe	President & CEO, SoundExchange, Inc.
Jonathan Bender	Chief Operating Officer, SoundExchange, Inc.
Doria Roberts	Independent Recording Artist, Hurricane Doria Records
Daniel L. Rubinfeld, Ph.D.	Robert L. Bridges Professor of Law and Professor of Economics Emeritus, University of California, Berkeley and Professor of Law, New York University
Eric L. Talley, Ph.D.	Rosalinde and Arthur Gilbert Foundation Professor of Law and Director of the Berkeley Center for Law, Business, and the Economy, University of California, Berkeley
David Blackburn, Ph.D.	Microeconomist and Vice President for NERA Economic Consulting
Sarah Butler, M.S.	Vice President, NERA Economic Consulting
Thomas Z. Lys, Ph.D.	Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management, Kellogg School of Management, Northwestern University
Marc Rysman, Ph.D.	Professor of Economics Boston University

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

PUBLIC VERSION

INDEX OF SOUNDEXCHANGE EXHIBITS

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 001-RP	Dennis Kooker	Exhibit 1 – “All About That Bass” Airplay Charts	PUBLIC
SX EX. 002- RP	Dennis Kooker	Exhibit 2 – “Lips Are Movin” Airplay Charts	PUBLIC
SX EX. 003- RP	Dennis Kooker	Exhibit 3 – iHeart – Meghan Trainor Station Experiment Methodology and Results	PUBLIC
SX EX. 004- RP	Dennis Kooker	Exhibit 4 – iHeart – Meghan Trainor Station Experiment Demonstration	PUBLIC
SX EX. 005- RP	Dennis Kooker	Exhibit 5 – iHeart – Top 20 Artists Experiment Methodology and Results	PUBLIC
SX EX. 006- RP	Dennis Kooker	Exhibit 6 – Pandora – Top 20 Artists Experiment Methodology and Results	PUBLIC
SX EX. 007- RP	Dennis Kooker	Exhibit 7 – Pandora – Top 20 Artist Experiment Demonstration	PUBLIC

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 008- RP	Dennis Kooker	Exhibit 8 – Pandora-Spotify Artist Recommendation Features	PUBLIC
SX EX. 009- RR	Dennis Kooker	Exhibit 9 – [[redacted]	RESTRICTED
SX EX. 010- RR	Dennis Kooker	Exhibit 10 – [[redacted]	RESTRICTED
SX EX. 011- RR	Dennis Kooker	Exhibit 11 – CD of Sony Music Agreements	RESTRICTED
SX EX. 012- RR	Aaron Harrison	Exhibit 1 – [[redacted]	RESTRICTED
SX EX. 013- RR	Aaron Harrison	Exhibit 2 – [[redacted]	RESTRICTED
SX EX. 014- RR	Aaron Harrison	Exhibit 3 – [[redacted]	RESTRICTED
SX EX. 015- RR	Aaron Harrison	Exhibit 4 – [[redacted]	RESTRICTED
SX EX. 016- RR	Aaron Harrison	Exhibit 5 - [[redacted]	RESTRICTED
SX EX. 017- RR	Aaron Harrison	Exhibit 6 - [[redacted]	RESTRICTED
SX EX. 018- RR	Aaron Harrison	Exhibit 7 – CD of Agreements	RESTRICTED
SX EX. 019- RR	Aaron Harrison	Exhibit 8 - Clear Channel Negotiations Recap Email	RESTRICTED
SX EX. 020- RR	Ron Wilcox	Exhibit 1 – [[redacted]	RESTRICTED
SX EX. 021- RR	Ron Wilcox	Exhibit 2 – [[redacted]	RESTRICTED
SX EX. 022- RR	Ron Wilcox	Exhibit 3 – [redacted]	RESTRICTED
SX EX. 023- RR	Ron Wilcox	Exhibit 4 – [[redacted]	RESTRICTED
SX EX. 024- RR	Ron Wilcox	Exhibit 5 – [redacted]	RESTRICTED
SX EX. 025- RR	Ron Wilcox	Exhibit 6 – [[redacted]	RESTRICTED
SX EX. 026- RR	Ron Wilcox	Exhibit 7 – [redacted]	RESTRICTED

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 027- RR	Ron Wilcox	Exhibit 8 – [redacted]	RESTRICTED
SX EX. 028- RR	Ron Wilcox	Exhibit 9 – [redacted]	RESTRICTED
SX EX. 029- RR	Ron Wilcox	Exhibit 10 – [redacted]	RESTRICTED
SX EX. 030- RR	Ron Wilcox	Exhibit 11 – [redacted]	RESTRICTED
SX EX. 031- RR	Ron Wilcox	Exhibit 12 - CD of Agreements	RESTRICTED
SX EX. 032- RR	Charlie Lexton	Exhibit 1– Pandora-Merlin Licence	RESTRICTED
SX EX. 033- RR	Charlie Lexton	Exhibit 2– E-mail from Charlie Lexton, May 15, 2014	RESTRICTED
SX EX. 034- RR	Charlie Lexton	Exhibit 3– Merlin Opt-In Notice re Pandora	RESTRICTED
SX EX. 035- RR	Charlie Lexton	Exhibit 4– [redacted]	RESTRICTED
SX EX. 036- RR	Charlie Lexton	Exhibit 5– Merlin Press Release	RESTRICTED
SX EX. 037- RR	Charlie Lexton	Exhibit 6– [redacted]	RESTRICTED
SX EX. 038- RR	Charlie Lexton	Exhibit 7– [redacted]	RESTRICTED
SX EX. 039- RR	Charlie Lexton	Exhibit 8– First Amendment to Pandora-Merlin Licence	RESTRICTED
SX EX. 040- RR	Charlie Lexton	Exhibit 9 – CD of Merlin Agreements	RESTRICTED
SX EX. 041- RR	Glen Barros	Exhibit 1 – Concord-iHeartMedia License, October 1, 2013	RESTRICTED
SX EX. 042- RR	Glen Barros	Exhibit 2 – Draft of Concord-iHeartMedia License – Concord Counterproposal	RESTRICTED
SX EX. 043- RR	Glen Barros	Exhibit 3 – Merlin Notification Concerning Pandora License	RESTRICTED
SX EX. 044- RR	Simon Wheeler	Exhibit 1 – Merlin Notification of Proposed Action Concerning Pandora	RESTRICTED
SX EX. 045- RR	Simon Wheeler	Exhibit 2 – CD of Beggars Group Agreements	RESTRICTED

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 046- RR	Jennifer Fowler	Exhibit 1 – Results of Jennifer Hudson Pandora Advertising Campaign	RESTRICTED
SX EX. 047- RR	Jennifer Fowler	Exhibit 2 – [redacted]	RESTRICTED
SX EX. 048- RP	Jennifer Fowler	Exhibit 3 – Filtr Playlist	PUBLIC
SX EX. 049- RR	Jennifer Fowler	Exhibit 4 – [redacted]	RESTRICTED
SX EX. 050- RR	Jennifer Fowler	Exhibit 5 – [redacted]	RESTRICTED
SX EX. 051- RP	Michael Huppe	Exhibit 1 – SoundExchange Initial Rate Proposal, *Webcasting III*	PUBLIC
SX EX. 052- RP	Michael Huppe	Exhibit 2 – NAB-SoundExchange Agreement	PUBLIC
SX EX. 053- RP	Michael Huppe	Exhibit 3 – NAB-SoundExchange Joint Motion to Adopt Partial Settlement, June 1, 2009	PUBLIC
SX EX. 054- RP	Michael Huppe	Exhibit 4 – NAB Petition to Participate	PUBLIC
SX EX. 055- RP	Michael Huppe	Exhibit 5 – Sirius-SoundExchange Agreement	PUBLIC
SX EX. 056- RP	Jonathan Bender	Exhibit 1 – SoundExchange Notice and Recordkeeping Reply Comments	PUBLIC
SX EX. 057- RP	Doria Roberts	Exhibit 1 – Doria Roberts Performance Video	PUBLIC
SX EX. 058- RR	Daniel Rubinfeld	Appendix 1 – [redacted]	RESTRICTED
SX EX. 059- RR	Daniel Rubinfeld	Appendix 2 – [redacted]	RESTRICTED
SX EX. 060- RR	Daniel Rubinfeld	Exhibit 1 – [redacted]	RESTRICTED

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 061- RR	Daniel Rubinfeld	Exhibit 2 – [redacted]	RESTRICTED
SX EX. 062- RR	Daniel Rubinfeld	Exhibit 3 – [redacted]	RESTRICTED
SX EX. 063- RR	Daniel Rubinfeld	Exhibit 4 – [redacted]	RESTRICTED
SX EX. 064- RR	Daniel Rubinfeld	Exhibit 5 – [redacted]	RESTRICTED
SX EX. 065- RR	Daniel Rubinfeld	Exhibit 6 – [redacted]	RESTRICTED
SX EX. 066- RR	Daniel Rubinfeld	Exhibit 7 – [redacted]	RESTRICTED
SX EX. 067- RR	Daniel Rubinfeld	Exhibit 8 – [redacted]	RESTRICTED
SX EX. 068- RR	Daniel Rubinfeld	Exhibit 9 – [redacted]	RESTRICTED
SX EX. 069- RR	Daniel Rubinfeld	Exhibit 10 – [redacted]	RESTRICTED

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 070- RP	Daniel Rubinfeld	Exhibit 11 - Correction of Fischel and Lichtman Exhibit F "Per-Performance Royalty Payment Sufficient to Compensate Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"	PUBLIC
SX EX. 071- RR	Daniel Rubinfeld	Exhibit 12 – [[redacted]	RESTRICTED
SX EX. 072- RR	Daniel Rubinfeld	Exhibit 13 – [[redacted]	RESTRICTED
SX EX. 073- RR	Daniel Rubinfeld	Exhibit 14 – [[redacted]	RESTRICTED
SX EX. 074- RR	Daniel Rubinfeld	Exhibit 15 – [[redacted]	RESTRICTED
SX EX. 075- RR	Daniel Rubinfeld	Exhibit 16 – [redacted]	RESTRICTED
SX EX. 076- RR	Daniel Rubinfeld	Exhibit 17 – [[redacted]	RESTRICTED
SX EX. 077- RP	Daniel Rubinfeld	Exhibit 18 – Comparison of Subscription Services Pricing and Updated Interactivity Adjustment	PUBLIC
SX EX. 078- RR	Eric L. Talley	Exhibit 1 – [redacted]	RESTRICTED
SX EX. 079- RP	David Blackburn	Exhibit 1 – Appendix 1	PUBLIC
SX EX. 080- RR	David Blackburn	Exhibit 2 – Appendix 2	RESTRICTED
SX EX. 081- RR	David Blackburn	Exhibit 3 – Appendix 3	RESTRICTED
SX EX. 082- RR	David Blackburn	Exhibit 4 – Appendix 4	RESTRICTED
SX EX. 083- RP	Sarah Butler	Exhibit 1 – Butler CV	PUBLIC

EXHIBIT NO.	SPONSORING WITNESS	DESCRIPTION	RESTRICTED/ PUBLIC
SX EX. 084- RR	Sarah Butler	Exhibit 2 – Materials Considered	RESTRICTED
SX EX. 085- RR	Sarah Butler	Exhibit 3 – Role of Radio Study	RESTRICTED
SX EX. 086- RR	Sarah Butler	Exhibit 4 – Role of Radio Tables	RESTRICTED
SX EX. 087- RP	Sarah Butler	Exhibit 5 – Survey Instrument	PUBLIC
SX EX. 088- RP	Sarah Butler	Exhibit 6 – Survey Tables	PUBLIC
SX EX. 089- RP	Thomas Lys	Exhibit 1 – Pandora 2014 10-K	PUBLIC
SX EX. 090- RP	Thomas Lys	Exhibit 2 – Pandora 2013 10-K	PUBLIC
SX EX. 091- RP	Thomas Lys	Exhibit 3 – Transcript of Pandora 2014 Earnings Call	PUBLIC
SX EX. 092- RP	Thomas Lys	Exhibit 4 – Transcript of Pandora Statement at Nomura's Digital Media Conference, September 4, 2014	PUBLIC
SX EX. 093- RR	Thomas Lys	Exhibit 5 – Morgan Stanley, "Pandora Media Inc., Lower 4Q Results & Guide Highlight Slowing Usage Growth," (February 6, 2015)	RESTRICTED
SX EX. 094- RR	Thomas Lys	Exhibit 6 – Cowen & Company, Pandora Media, 4Q14 Results and '15 Guide Miss Expectations," (February 6, 2015)	RESTRICTED
SX EX. 095- RP	Marc Rysman	Exhibit 1 – YouTube Features	PUBLIC
SX EX. 096- RP	Marc Rysman	Exhibit 2 – Pandora Customization	PUBLIC
SX EX. 097- RR	Marc Rysman	Exhibit 3 – [redacted]	RESTRICTED
SX EX. 098- RR	Marc Rysman	Exhibit 4 – [redacted]	RESTRICTED
SX EX. 099- RR	Marc Rysman	Exhibit 5 – [redacted]	RESTRICTED
SX EX. 100- RR	Marc Rysman	Exhibit 6 – [redacted]	RESTRICTED

EXHIBIT NO.	**SPONSORING WITNESS**	**DESCRIPTION**	**RESTRICTED/ PUBLIC**
SX EX. 101- RR	Marc Rysman	Exhibit 7– [[redacted]	RESTRICTED
SX EX. 102- RR	Marc Rysman	Exhibit 8 – [[redacted]	RESTRICTED
SX EX. 103- RR	Marc Rysman	Exhibit 9 – [redacted]]	RESTRICTED

CERTIFICATE OF SERVICE

I hereby certify that on February 23, 2015, I caused a copy of **SOUNDEXCHANGE'S PUBLIC WRITTEN REBUTTAL STATEMENT** to be served via electronic mail and overnight mail, to the Participants as indicated below:

Participants

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/s/ Rose Leda Ehler
Rose Leda Ehler

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

DECLARATION AND CERTIFICATION OF KELLY M. KLAUS
REGARDING RESTRICTED INFORMATION

1. My name is Kelly M. Klaus. I am counsel for SoundExchange, Inc. ("SoundExchange") in Docket No. 14-CRB-0001-WR (2016-2020). I respectfully submit this declaration and accompanying Revised Redaction Log (Attachment A) to comply with the Copyright Royalty Judges' Protective Order, dated October 10, 2014. I am authorized by SoundExchange to submit this declaration on its behalf.

2. Attorneys working under my direction and I have reviewed SoundExchange's written rebuttal statement, witness statements, exhibits, and redaction log, all of which were submitted in this proceeding on February 23, 2015. I have also reviewed SoundExchange's corrected rebuttal testimony and revised redaction log submitted in this proceeding on February 25, 2015. Those attorneys and I also have reviewed the terms of the Protective Order.

3. After consulting with my client and the entities whose interests SoundExchange represents in this proceeding and who have provided confidential information for the preparation of this case, attorneys working under my direction and I have determined that portions of SoundExchange's written rebuttal statement, witness statements, and accompanying

exhibits contain information that should be treated as confidential under the Protective Order. Pursuant to the terms of the Protective Order, such confidential information has been designated and marked as “Restricted.”

4. The Restricted information that SoundExchange is submitting includes, among other things, (a) materials or testimony relating to or constituting contracts, contract terms, or performance data that are proprietary, not publicly available, commercially sensitive, or subject to express confidentiality obligations in agreements with third parties; (b) materials or testimony relating to or constituting internal business information, negotiating positions, negotiation strategy, financial data and projections, and competitive strategy that are proprietary, not publicly available, or commercially sensitive; and (c) third party information provided in confidence, not publicly available, or subject to express confidentiality obligations.

5. In addition, attorneys working under my direction and I have determined that portions of SoundExchange’s written rebuttal statement, witness statements, and accompanying exhibits contain information previously designated “Restricted” by a participant in this proceeding pursuant to the terms of the Protective Order.

6. The public disclosure of the Restricted information that SoundExchange is submitting would be likely to cause significant harm. The disclosure would provide an unfair competitive advantage to competitors and/or current or future negotiating counterparties of those whose information would be disclosed. Many but not all competitors and counterparties also are parties to this proceeding. Public disclosure of this information also would place SoundExchange, the entities whose interests it represents and their business partners, and other entities at a significant commercial disadvantage and would pose serious risk to their business

interests and strategies.

7. Pursuant to the terms of the Protective Order, SoundExchange is submitting under seal the materials designated Restricted and is redacting such materials from the Public version of its submission. Attachment A is a Revised Redaction Log that identifies the Restricted materials in SoundExchange's submission and sets forth the basis for each designation.

Pursuant to 28 U.S.C. § 1746 and 37 C.F.R. § 350.4(e)(1), I hereby declare under the penalty of perjury that, to the best of my knowledge, information and belief, the foregoing is true and correct.

Dated: February 25, 2015

Kelly M. Klaus / zk

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Counsel for SoundExchange, Inc.

ATTACHMENT A

SoundExchange's Written Rebuttal Statement Revised Redaction Log

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
Introductory Memorandum	p.1 (one redaction) p.5 (second redaction)	Information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding.
	p. 4 (two redactions) p. 5 (first redaction)	Restricted information concerning confidential negotiations and the terms of a confidential agreement between MERLIN and Pandora. Public disclosure of this information could place MERLIN, Pandora, or both of them at a competitive disadvantage.
	p. 6	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding
	p.14	Restricted information concerning confidential negotiations and the terms of a confidential agreement between Concord Music Group and iHeartMedia. Public disclosure of this information could place Concord, iHeartMedia, or both of them at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
Dennis Kooker	p. 15 (two redactions)	Restricted information disclosing confidential business data that Sony receives from a streaming service. Public disclosure would place Sony, the streaming service, or both at a competitive disadvantage.
	p. 19 (four redactions) p. 20 (seven redactions) Exhibit 9 Exhibit 10	Restricted information concerning the negotiation of confidential agreements between Sony and certain streaming services. Public disclosure of such information would place Sony, the services, or all of them, at a competitive disadvantage.
	Exhibit 11	Restricted information concerning the terms of confidential agreements between Sony and certain streaming services. Public disclosure of such information would place Sony, the services, or all of them, at a competitive disadvantage.
Aaron Harrison	¶ 11 (two redactions)	Restricted information disclosing confidential business data that Universal receives from a streaming service. Public disclosure would place Universal, the streaming service, or both at a competitive disadvantage.
	¶ 15 (two redactions) ¶ 16 (two redactions) Exhibit 1 Exhibit 7	Restricted information concerning the terms of confidential agreements between Universal and certain streaming services. Public disclosure of such information would place Universal, the services, or all of them, at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 23 (seven redactions) ¶ 24 (four redactions) ¶ 25 (four redactions ¶ 26 (three redactions) ¶ 31 (four redactions) ¶ 33 (two redactions) ¶ 34 (one redaction) ¶ 35 (two redactions) Exhibit 2 Exhibit 3 Exhibit 4 Exhibit 5 Exhibit 6	Restricted information consisting of Universal's confidential negotiation positions, processes, strategies, and goals and details of negotiations with certain streaming services. Public disclosure would place Universal, the services, or all of them, at a competitive disadvantage.
Ron Wilcox	¶ 3 (four redactions) ¶ 18 (first redaction) Footnote 5	Information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding.
	¶ 5 (two redactions) ¶ 6 (two redactions) ¶ 10 (two redactions) ¶ 11 (two redactions) ¶ 12 (two redactions) ¶ 13 (two redactions) ¶ 22 (three redactions) ¶ 23 (seven redactions) Footnote 3 Footnote 4 Footnote 6 Footnote 8 Footnote 9	Restricted information concerning the terms of a confidential agreement between Warner and iHeartMedia. Public disclosure would place Warner, iHeartMedia, or both, at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 7, ¶ 8 (two redactions) ¶ 15 ¶ 16 ¶ 18 (second redaction) ¶ 19 (two redactions) ¶ 24 ¶ 26 (two redactions) ¶ 27 (two redactions) Footnote 2 Footnote 7 Exhibit 1-7	Restricted information concerning confidential negotiations between Warner and iHeartMedia that, if disclosed, would reveal negotiating positions, negotiation strategies, confidential forecasts, and/or the terms of a confidential agreement. Disclosure of this information would place Warner and/or iHeartMedia at a competitive disadvantage.
	¶ 9 (two redactions)	Restricted information regarding performance of a confidential agreement between Warner and iHeartMedia that, if disclosed, would place Warner and/or iHeartMedia at a competitive disadvantage.
	¶ 20 ¶ 21	Restricted information concerning the terms of a confidential agreement between Warner and iHeartMedia and the negotiation of that agreement. In addition, information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding. Disclosure of this information would place Warner and/or iHeartMedia at a competitive disadvantage.
	¶ 29 (three redactions) ¶ 30 (two redactions) Exhibit 8 - 11	Restricted information concerning confidential negotiations and the terms of confidential agreements between Warner and certain streaming services that, if disclosed, would place Warner, the streaming

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
		services, or all of them at a competitive disadvantage.
	Exhibit 12	Restricted information concerning the terms of confidential agreements between Warner and certain streaming services. Public disclosure would place Warner, the streaming services, or all of them, at a competitive disadvantage.
Charlie Lexton	¶ 26 (first redaction) ¶ 45	Restricted information consisting of MERLIN's confidential negotiation positions, processes, strategies, and goals. Public disclosure would place MERLIN at a competitive disadvantage.
	¶ 4 (two redactions) ¶ 5 ¶ 18 (third redaction) ¶ 20 (three redactions) ¶ 21 (ten redactions) ¶ 22 (three redactions) ¶ 23 (five redactions) ¶ 24 (two redactions) ¶ 25 (two redactions) ¶ 26 (second and third redactions) ¶ 28 (five redactions) ¶ 29 (six redactions) ¶ 30 (four redactions) ¶ 31 (ten redactions) ¶ 32 (four redactions) ¶ 33 (six redactions) ¶ 35 (three redactions) ¶ 37 (three redactions)	Restricted information concerning confidential negotiations and the terms of a confidential agreement between MERLIN and Pandora. Public disclosure of this information could place MERLIN, Pandora, or both of them at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 38 (three redactions) ¶ 39 ¶ 41 ¶ 42 ¶ 44 (two redactions) ¶ 46 ¶ 47 (two redactions) ¶ 48 (four redactions) ¶ 52 (eight redactions) ¶ 53 (four redactions) ¶ 54 (two redactions) ¶ 55 (six redactions) ¶ 56 (four redactions) ¶ 57 (four redactions) ¶ 58 (three redactions) ¶ 59 (two redactions) ¶ 63 (two redactions) Exhibits 1-6	
	¶ 18 (second redaction) ¶ 60 (two redactions) ¶ 61 ¶ 62	Restricted information regarding performance of a confidential agreement between MERLIN and Pandora that, if disclosed, would place MERLIN, Pandora, or both of them at a competitive disadvantage.
	¶ 10 ¶ 13 (four redactions) ¶ 16 (two redactions) ¶ 17 (two redactions) ¶ 18 (first redaction	Restricted information concerning MERLIN's business and structure, including confidential information regarding membership, market share, and agreements between MERLIN and its members. Public disclosure would place MERLIN, its members, or all of them at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	Exhibit 7	Restricted information containing the terms of confidential agreements between MERLIN and certain digital music services. Public disclosure of this information could place MERLIN, the digital music services, or both at a competitive disadvantage.
Glen Barros	¶ 3 (two redactions) ¶ 20 (second and third redaction) ¶ 21 (second redaction) ¶ 30 (two redactions) Exhibit 1 Exhibit 3	Restricted information concerning the terms of a confidential agreement between Concord Music Group, Inc. and iHeartMedia. Public disclosure of this information could place Concord, iHeartMedia, or both of them at a competitive disadvantage.
	¶ 11 (three redactions)	Restricted information concerning Concord Music Group, Inc.'s repertoire. Public disclosure of this information could place Concord at a competitive disadvantage.
	¶ 15 (five redactions) ¶ 16 (three redactions) ¶ 17 (one redaction) ¶ 18 (one redaction) ¶ 19 (first, second, and fourth redaction) ¶ 20 (first and fourth through eighth redactions) ¶ 21 (first redaction) ¶ 22 (two redactions) ¶ 24 (three redactions) Exhibit 2	Restricted information concerning confidential negotiations between Concord Music Group, Inc., and iHeartMedia that, if disclosed, would reveal negotiating positions, negotiation strategies, confidential forecasts, and/or the terms of a confidential agreement. Disclosure of this information would place Concord, iHeartMedia or both of them at a competitive disadvantage.

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
	¶ 19 (third redaction)	Restricted information regarding performance of a confidential agreement between Concord Music Group, Inc. and iHeartMedia that, if disclosed, would place Concord, iHeartMedia, or both of them at a competitive disadvantage.
	¶ 26 (three redactions)	Restricted information concerning confidential negotiations between Concord Music Group, Inc., and a digital music service that, if disclosed, would reveal negotiating positions. Disclosure of this information would place Concord, the digital music service, or both at a competitive disadvantage.
	¶ 27 (one redaction) ¶ 28 (one redaction)	Restricted information concerning the terms of a confidential agreement between MERLIN and Pandora. Public disclosure of this information could place MERLIN, Pandora, or both of them at a competitive disadvantage.
	¶ 29 (three redactions)	Restricted information concerning the confidential terms of Concord Music Group, Inc.'s direct licenses with certain streaming services. Public disclosure of this information could place Concord, the streaming services, or all of them at a competitive disadvantage.

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
Simon Wheeler	¶ 5 (two redactions) ¶ 7 (three redactions) ¶ 8 (one redaction) ¶ 9 (two redactions) ¶ 10 (two redactions) ¶ 11 (four redactions) ¶ 16 (first, second, fourth, and fifth redactions) ¶ 18 (six redactions) ¶ 20 (one redaction) ¶ 23 (four redactions)	Restricted information concerning the terms of a confidential agreement between MERLIN and Pandora. Public disclosure of this information could place MERLIN, Pandora, or both of them at a competitive disadvantage.
	¶ 16 (third and sixth redactions) ¶ 25 (one redaction) ¶ 26 (two redactions) ¶ 27 (two redactions)	Restricted information regarding performance of a confidential agreement between MERLIN and Pandora that, if disclosed, would place MERLIN, Pandora, or both of them at a competitive disadvantage.
	¶ 28 (one redaction)	Restricted information concerning confidential negotiations between Beggars Group and Pandora that, if disclosed, would place Beggar's Group, Pandora, or both of them at a competitive disadvantage
Darius Van Arman	p. 1 p. 2 p. 4 (two redactions) p. 5 (four redactions) p. 6 (first four redactions) p. 7 (third redaction) p. 8	Restricted information concerning the terms of confidential agreements between MERLIN and certain streaming services. Public disclosure of such information would place MERLIN, the services, or all of them, at a competitive disadvantage.
	p. 6 (fifth and sixth redactions)	Restricted information regarding performance of a confidential

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	p. 7 (first, second, and fourth redactions)	agreement between MERLIN and Pandora that, if disclosed, would place MERLIN, Pandora, or both of them at a competitive disadvantage
Jennifer Fowler	¶ 7 (one redaction) ¶ 10 (two redactions) ¶ 13 (one redaction) ¶ 15 (one redaction) p. 7 (two redactions) Exhibit 1 Exhibit 2 Exhibit 5	Restricted information disclosing confidential business data that Sony receives from certain streaming services. Public disclosure would place Sony, the streaming services, or both at a competitive disadvantage.
	¶ 14 Exhibit 4	Restricted information regarding internal strategy to promote specific artist on an on demand streaming Service. Disclosure of this information could place the artist, Sony, the streaming service, or all of them at a competitive disadvantage.
Jonathan Bender	p. 2 (two redactions) p. 19 (six redactions)	Restricted information concerning the webcasting royalties received under the statutory license by a particular artist, Doria Roberts. Disclosure of this information could put Ms. Roberts at a competitive disadvantage in future licensing or royalty negotiations and could reduce SoundExchange’s ability to provide the Judges with such information in the future.

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
Daniel Rubinfeld, Ph.D.	p. 14 (heading 6) p. 15 (heading 7) p. 33 (heading 4) ¶ 3 ¶ 28 (two redactions) ¶ 50 ¶ 51 ¶ 52 ¶ 56 ¶ 58 ¶ 59 ¶ 64 ¶ 67 ¶ 69 ¶ 70 ¶ 71 ¶ 72 ¶ 75 ¶ 77 ¶ 120 ¶ 121 ¶ 127 ¶ 128 (two redactions) ¶ 129 ¶ 139 (three redactions) ¶ 161 ¶ 162 (two redactions) ¶ 163 ¶ 172 ¶ 175 ¶ 176 ¶ 180 ¶ 181 ¶ 182 ¶ 183 (table) ¶ 184 (four redactions) ¶ 185 ¶ 188 (two redactions) ¶ 189 ¶ 193 ¶ 194 (two redactions) ¶ 195 (five redactions) ¶ 197 ¶ 200	Restricted information concerning the terms of confidential agreements between record companies and digital music services. Public disclosure would place the record companies, the digital music services, or both at a competitive disadvantage.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 201 ¶ 250 Footnote 3 Footnote 20 Footnote 25 Footnote 29 Footnote 30 Footnote 32 Footnote 33 Footnote 35 Footnote 37 Footnote 38 Footnote 41 Footnote 42 Footnote 47 Footnote 53 Footnote 54 Footnote 56 Footnote 60 Footnote 96 Footnote 116 Footnote 117 Footnote 143 Footnote 144 Footnote 145 Footnote 152 Footnote 156 Footnote 157 Footnote 158 Exhibit 8 Exhibit 10 Exhibit 12 Exhibit 16 Appendix 2 ¶ 1 (two redactions) Appendix 2 ¶ 2 Appendix 2 ¶ 8 Appendix 2 ¶¶ 21-23 Appendix 2 ¶¶ 24-26 Appendix 2 ¶ 27 Appendix 2 ¶ 28 Appendix 2 ¶ 29 Appendix 2 ¶ 30 Appendix 2 ¶ 32 (chart)	

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	Appendix 2 ¶¶ 33-35 Appendix 2 ¶¶ 36-38 Appendix 2 ¶ 39 Appendix 2 ¶ 40 Appendix 2 ¶ 41 Appendix 2 ¶ 42 Appendix 2 ¶ 44 (chart) Appendix 2 footnote 1 Appendix 2 footnotes 13-31 Appendix 2 heading A Appendix 2 heading E.1 Appendix 2 heading E.2 Appendix 2 heading E.3 Appendix 2 heading E.4 Appendix 2 heading F.1 Appendix 2 heading F.2 Appendix 2 heading F.3 Appendix 2 heading F.4	
	p. 9 (heading 3) ¶ 23 (first redaction) ¶ 25 (two redactions) ¶ 30 ¶ 31 ¶ 32 ¶ 33 ¶ 34 ¶ 35 ¶ 36 ¶ 37 (two redactions) ¶ 38 ¶ 39 ¶ 40 ¶ 41 ¶ 42 ¶ 43 ¶ 44 (first redaction) ¶ 47 (first and third redactions) ¶ 48 (four redactions) ¶ 53 (two redactions) ¶ 54 (two redactions) ¶ 55	Information or analysis of information designated Restricted by iHeartMedia and/or Pandora pursuant to the Protective Order in this proceeding.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 57 ¶ 59 ¶ 60 ¶ 65 ¶ 68 ¶ 76 ¶ 79 (three redactions) ¶ 80 ¶ 81 ¶ 84 ¶ 87 ¶ 88 ¶ 90 ¶ 91 (two redactions) ¶ 92 ¶ 106 (two redactions) ¶ 142 ¶ 143 ¶ 144 ¶ 145 ¶ 146 (two redactions) ¶ 147 (two redactions) ¶ 148 ¶ 149 ¶ 150 ¶ 237 ¶ 249 Footnote 4 Footnote 23 Footnote 24 Footnote 34 Footnote 45 Footnote 52 Footnote 63 Footnote 65 Footnote 79 Footnote 80 Footnote 81 Footnote 122 Footnote 124 Exhibit 2 Exhibit 3 Exhibit 4 Exhibit 5	

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	Exhibit 6 Exhibit 7 Exhibit 9 Exhibit 11 Exhibit 13 Exhibit 17	
	¶ 23 (second redaction) ¶ 44 (second redaction) ¶ 45 ¶ 49 Footnote 12 Footnote 26 Footnote 28 Footnote 31 Exhibit 1	Restricted information concerning Warner's forecasts and models relating to the confidential negotiation of Warner's agreement with iHeartMedia. Disclosure of this information would place Warner, iHeartMedia, or both of them at a competitive disadvantage.
	¶ 47 (second redaction)	Restricted information regarding performance of a confidential agreement between Warner and iHeartMedia that, if disclosed, would place Warner, iHeartMedia, or both of them at a competitive disadvantage.
	¶ 125 (six redactions)	Restricted information concerning confidential negotiations between certain record companies and certain digital music services. Public disclosure would place the record companies, the digital music services, or both at a competitive disadvantage.
	¶ 168 (two redactions) ¶ 169	Calculations based on restricted information concerning confidential

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
	Exhibit 14	revenue data for Pandora and Spotify.
	Attachment – Materials Reviewed & Relied Upon	Description of documents previously designated Restricted by a participant pursuant to the Protective Order in this proceeding.
	Appendix 1 Exhibit 15	Restricted information comprising confidential performance data for major labels’ direct licenses with digital music services.
	Appendix 2 Section D Appendix 2a	Provisional redaction of comparable license analysis pursuant to contractual provision.
Eric Talley, Ph. D.	Footnote 52	Restricted information provided to MERLIN by Pandora regarding share of independent label plays on Pandora. Public disclosure would place MERLIN, Pandora, or both of them at a competitive disadvantage.
	p. 26 (two redactions) Footnote 33	Restricted information concerning the terms of a confidential agreement between MERLIN and Pandora. Public disclosure of such information would place MERLIN, Pandora, or both of them, at a competitive

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
		disadvantage.
	p. 25 (one redaction, not including footnote 52) p. 30 p. 31 (four redactions, including footnote 59) Exhibit 1	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding.
Thomas Lys, Ph. D.	p. iii (three redactions) p. ii (two redactions) ¶ 17 ¶ 31 ¶ 32 ¶ 36 ¶ 65 ¶ 66 ¶ 83 ¶ 84 ¶ 85 ¶ 86 ¶ 87 ¶ 88 ¶ 89 ¶ 94 ¶ 237 ¶ 238 ¶ 259 ¶ 264 Footnote 37 Footnote 49 Footnote 77 Footnote 78 Footnote 81 Footnote 94 Footnote 108 Footnote 188 Footnote 216 Footnote 217	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	Footnote 226 Footnote 230 Figure 2 Figure 23 Figure 24 Figure 39 Figure 40	
	¶ 139 Footnote 152	Information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding.
	Exhibits 5, 6	Proprietary analyst reports that, if disclosed in their entirety, would destroy their commercial value and interfere with SoundExchange's ability to obtain such information in the future.
Marc Rysman, Ph. D.	¶ 9 ¶ 80 Footnote 4 Footnote 108 Exhibit 3	Information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding.
	¶ 52 ¶ 53 ¶ 54 ¶ 56 ¶ 63 ¶ 65 ¶ 66 ¶ 71	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 75 ¶ 79 ¶ 83 ¶ 84 Footnotes 56 – 62 Footnote 64 Footnote 66 Footnote 76 Footnote 77 Footnote 81 Footnote 90 Footnote 91 Footnotes 93 – 97 Footnote 106 Footnote 107 Footnote 120 Footnote 124 Footnote 125, Exhibit 4 Exhibit 5 Exhibit 6 Exhibit 7 Exhibit 8 Exhibit 9	
David Blackburn, Ph.D.	p. 2 (heading IV.D.1) p. 22 (heading IV.D.1) ¶ 5 (two redactions) ¶ 12 ¶ 13 ¶ 17 (two redactions) ¶ 18 ¶ 19 ¶ 20 ¶ 21 ¶ 29 ¶ 31 (two redactions) ¶ 32 (two redactions) ¶ 34 (two redactions) ¶ 38 ¶ 52	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 53 (two redactions) ¶ 54 (four redactions) ¶ 55 (two redactions) Footnote 5 Footnote 6 Footnote 12 Footnote 13 Footnote 14 Footnote 15 Footnote 16 Footnote 20 Footnote 21 Footnote 22 Footnote 23 Footnote 24 Footnote 25 Footnote 26 Footnote 27 Footnote 30 Footnote 34 Footnote 37 Footnote 38 Footnote 39 Footnote 40 Footnote 41 Footnote 43 Footnote 44 Footnote 45 Footnote 46 Appendix 3 Appendix 4	
	¶ 26 ¶ 27 Figure 6 Table 1 Footnote 35	Restricted information regarding confidential reporting of Warner performances on iHeartMedia and Warner sales data. Public disclosure would place Warner, iHeartMedia, or both, at a competitive disadvantage. In addition, public disclosure of this information would interfere with SoundExchange's ability to obtain

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
		like information in the future.
	¶ 25 (two redactions)	Restricted information concerning the terms of a confidential agreement between Warner and iHeartMedia. Public disclosure would place Warner, iHeartMedia, or both, at a competitive disadvantage.
	¶ 33	Restricted information concerning reporting of music sales data tracked by a third party firm. Public disclosure of this information would interfere with SoundExchange's ability to obtain like information in the future.
	¶ 59 ¶ 61 Footnote 68 Footnote 69 Footnote 71 Footnote 72 Figure 8	Restricted information comprising proprietary confidential research conducted by Warner Music Group. Disclosure of this information would interfere with SoundExchange's ability to obtain like information in the future and place Warner at a competitive disadvantage.
	Appendix 2	Description of documents previously designated Restricted by a participant pursuant to the Protective Order in this proceeding.
Sarah Butler	¶ 19 ¶ 20 ¶ 21 ¶ 22	Information designated Restricted by iHeartMedia pursuant to the Protective Order in this proceeding.

SoundExchange Witness	Paragraph/Page/Exhibit	Description and Basis for Redaction
	¶ 25 (second redaction) Footnote 9 Footnotes 11 - 19 Exhibit 3 Exhibit 4	
	¶ 25 (first redaction) Footnote 21	Information designated Restricted by NAB pursuant to the Protective Order in this proceeding.
	¶ 25 (second redaction) ¶ 27 Footnote 22 Footnote 27	Information designated Restricted by Pandora pursuant to the Protective Order in this proceeding.
	¶ 28 (three redactions) Footnote 29 Footnote 30 Footnote 31 Footnote 32 Footnote 33	Restricted materials comprising proprietary information provided by a third-party research firm pursuant to a confidentiality agreement. Public disclosure of this information would interfere with SoundExchange's ability to obtain like information in the future
	Footnote 26	Restricted information comprising proprietary confidential research conducted by Universal Music Group. In addition, restricted information comprising proprietary confidential research conducted by Sony Music Entertainment. Disclosure of this information would interfere with SoundExchange's ability to obtain like information in the future and place Universal and Sony at a competitive disadvantage.
	¶ 25	Restricted information comprising

SoundExchange Witness	**Paragraph/Page/Exhibit**	**Description and Basis for Redaction**
	Footnote 20	proprietary confidential research conducted by Sony Music Entertainment. Disclosure of this information would interfere with SoundExchange's ability to obtain like information in the future and place Sony at a competitive disadvantage.
	Exhibit 2	Description of documents previously designated Restricted by a participant pursuant to the Protective Order in this proceeding.

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

REBUTTAL TESTIMONY OF
DENNIS KOOKER
President, Global Digital Business and U.S. Sales,
Sony Music Entertainment

PUBLIC VERSION

Witness for SoundExchange, Inc.

REBUTTAL TESTIMONY OF DENNIS KOOKER

BACKGROUND AND OVERVIEW

My name is Dennis Kooker. I am the President, Global Digital Business and U.S. Sales, for Sony Music Entertainment ("Sony Music"). I previously submitted written direct testimony, in which, among other things, I provided an overview of how the digital revolution has impacted the recorded music industry and the relevance of these market changes to digital licensing and the rates and terms for statutory webcasting.

I have reviewed the public redacted testimony of Simon Fleming-Wood. I understand that Mr. Fleming-Wood takes the position that Pandora does not compete in the market with on-demand services, but rather competes only with terrestrial and satellite radio. Mr. Fleming-Wood says that Pandora views itself as a *complement* to on-demand streaming. He says that Pandora is the "radio" and Spotify is the "record store." (Fleming-Wood WDT at 6-8).

I have also reviewed the testimony of Bob Pittman. I understand that Mr. Pittman takes the position that iHeartMedia ("iHeart") and other statutory webcasters should be seen as fundamentally different from on-demand and other directly licensed services. Mr. Pittman expresses the view that statutory webcasters, on the one hand, and on-demand services, on the other, "serve very different roles for both consumers and labels." (Pittman WDT at 6).

I disagree. Mr. Fleming-Wood and Mr. Pittman offer these opinions to distinguish statutory services from the most obvious and appropriate marketplace benchmark—on-demand subscription services. Statutory and on-demand services can and often do substitute for one another. Statutory services and interactive services provide consumers with streaming experiences that are rapidly converging. This convergence has occurred at an increasing rate over the last rate period and undoubtedly will continue through the 2016-2020 term. Because the consumer offerings are moving even closer to each other, our agreements with on-demand services are better benchmarks than ever to show what a willing buyer and willing seller would agree to in a market without a statutory license.

One notable difference between these types of services involves the commercial proposition for the consumer. Many statutory webcasters—relying on the low statutory rates (especially the rates paid by Pandora)—are free-to-the-consumer. On-demand subscription services, by contrast, generally require or encourage consumers to pay for the content they consume. Since the two current market offerings consist of fundamentally similar user experiences, cost is all the more likely to be a deciding factor for consumers. Moreover, because the functionality of statutory services so closely approximates that offered by the interactive services, consumers have little reason to pay for a subscription service. The head-to-head competition between services that offer similar functionality but have very different price points results in a downward pressure on rates in negotiations for direct licenses. The net impact to the recorded music industry, therefore, is that streaming generates a much smaller pool of total revenues to continue to incentivize the creation of music and pay those responsible—the artists and record labels who create and finance the music—for developing the sound recordings used across *all* streaming services.

Finally, I reviewed redacted versions of the written direct testimony of Profs. Carl Shapiro and Michael Katz. I understand that both argue that the market for interactive streaming licenses is not “workably competitive” or “effectively competitive.” I disagree with this proposition too. As I explain below, our negotiations with interactive streaming services involve substantial compromise.

CONVERGENCE

Statutory services compete directly with interactive and other directly licensed services. As a result, the proposed interactive benchmark agreements are the most appropriate and comparable marketplace evidence of the rates and terms for this proceeding.

I. Statutory Services (Including Simulcasters) Offer Functionality that Increasingly Approaches an On-Demand Listening Experience

Statutory and interactive services have been converging rapidly in the functionality they offer consumers. I discussed some of this convergence in my written direct testimony. Many consumers like the flexibility to "lean back" and have a programmed experience at some times, and to "lean forward" and select specific songs at other times. Statutory and interactive services have both made significant adjustments to their offerings to respond to this consumer preference. Statutory services have increased the number of personalization options available to users, moving those services closer to an on-demand listening experience. At the same time, interactive services like Spotify and Beats have added customized and programmed, radio-like streaming options to appeal to consumers when they want a lean back experience. To further illustrate this phenomenon, my testimony discusses some of the many examples of convergence between these types of services.

A. iHeartRadio

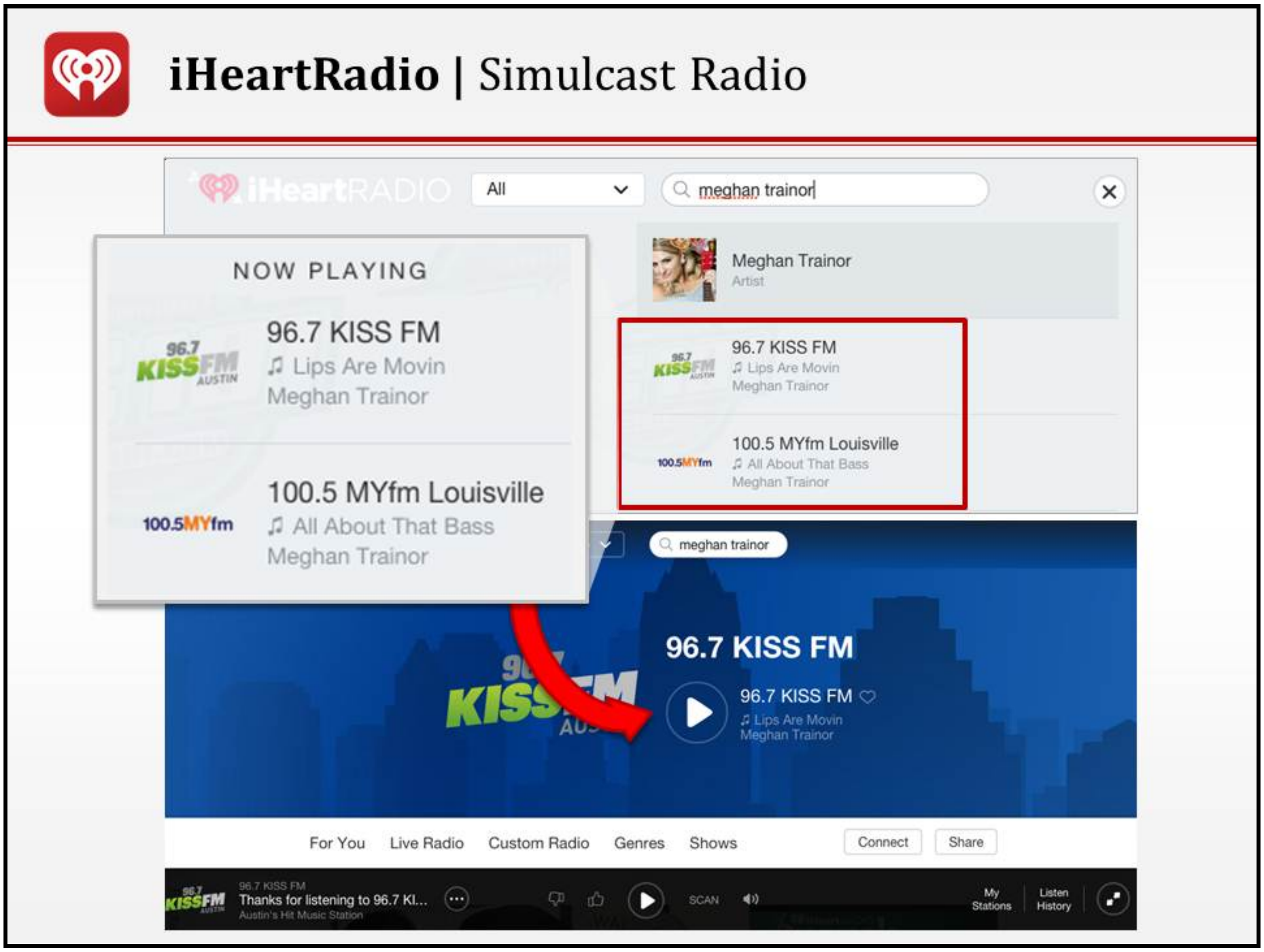
Convergence is not limited to customized or personalized streaming. In practice, simulcast streaming services operate in such a way as to closely resemble the experience of on-demand listening. This is particularly true for listening to popular tracks.

A user can search iHeart's simulcast radio service by genre and/or geographic area, and all simulcast stations responsive to that search will appear to that user, along with the songs currently being played on those stations. The user can then immediately listen to that song. For example, our team conducted a search for Top 40 & Pop stations in the United States. iHeartRadio simulcasts *220* stations[1] in this category (many more than the couple broadcast over-the-air in a local radio area). Of the 220 Top 40 & Pop stations, many identified that they were currently playing popular songs that the user could instantaneously access.

In addition, a user can use the general search function to search for an artist and iHeartRadio will show those simulcast stations currently playing that artist's music. As an example, our team conducted a search for Meghan Trainor, a Sony Music artist, and then recorded the results.[2] As shown below, iHeartRadio announced that Meghan Trainor's music was then playing on two simulcast stations: 96.7 KISS FM (Austin) and 100.5 MYfm (Louisville). It provided the user the option to pick between "All About that Bass" or "Lips Are Movin"—Meghan Trainor's two hit singles. This interface constantly refreshes to include new stations that are playing her songs as the song ends on other stations.

[1] The vast majority of these 220 stations appear to be simulcast transmissions of terrestrial radio broadcasts. It appears that a very small number are programmed stations (e.g. Michael Jackson and Friends). Even for these programmed stations, iHeartRadio provides the user with the ability to immediately know and access the song that is currently playing.

[2] We chose Meghan Trainor for these examples because she is an example of a currently popular artist in whom Sony Music has invested heavily (both in terms of time and money) and at substantial risk. I discussed this investment and risk in my direct testimony. Meghan has two current hit singles: "All About That Bass" and "Lips Are Movin." "Lips Are Movin" is No. 6 and "All About That Bass" is No. 12 on Billboard's February 14, 2015 Hot 100 chart. Meghan's album "Title" is No. 3 on Billboard's February 14, 2015 Billboard 200 chart.



The ability to search *all* (or a selected portion) of iHeartRadio's simulcast stations in a musical genre or a geographic region and immediately identify and access specific artists and/or songs being played, or alternatively, search for a specific artist and immediately access that artist's music from various simulcast stations, make iHeart's simulcast service fundamentally different from terrestrial radio. At my request, Sony Music staff pulled the play information for iHeart's own terrestrial radio stations in the two largest radio markets during the time period of the search described above (February 4-10, 2015).[3] "All About That Bass" was played a total of six times in the 168-hour period on Z100 in New York, and was played only two times during

[3] The airplay charts are attached as Exhibit 1.

the same time period on KIIS-FM in Los Angeles. A terrestrial radio listener would have to listen for hours (at least) to ensure that she would hear the song. By contrast, during the same time period, an iHeartRadio listener would be able to hear the song almost immediately.[4] I understand that iHeart and the National Association of Broadcasters ("NAB") contend that simulcasting is not comparable to or a substitute for on-demand streaming, but instead is just like terrestrial radio. As the above example illustrates, simulcasting services are competing with on-demand services by allowing users to search for currently playing artists and play specific tracks.[5]

iHeartRadio's custom streaming also demonstrates the rapid pace of convergence with on-demand services. iHeart offers a very predictable and narrowly tailored listening experience that approximates on-demand functionality. A user can hear several songs from the artist that he or she requests within the first few plays on a custom "station." As a result, the user is very likely to hear the *exact* song or songs he or she had in mind within minutes of starting the station. Indeed, because iHeartRadio appears to program the tracks of popular artists and the particular artist requested at the beginning of the listening session ("frontloading"), and permits users to

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[4] Even for songs in heavier rotations, such as Meghan Trainor's newest single "Lips Are Movin"—which for the same February week was No. 6 on the Billboard Hot 100 Chart—a terrestrial radio listener could not be sure that he or she would hear the song on the radio even if she listened for an extended period of time. For the week of February 4-10, spins on Z100 for "Lips Are Movin" totaled 39, and there were 51 spins on KIIS. (*See* Exhibit 2.) Indeed, during that week there was a period of up to approximately 13 hours on Z100, and a period of approximately 8 hours on KIIS in which the track was not played. Even for songs that are played once or twice within a two hour period (which songs are very few), a listener cannot reasonably predict when she will hear it or, depending on listening time, whether she will hear it at all.

[5] Another simulcast platform, TuneIn Radio, has offered the same ability to search for artists and select a particular station playing a track by that artist. Of course, if iHeartRadio and TuneIn can provide this functionality, so can others.

skip up to six tracks in an hour, a user often hears the particular song desired within seconds of starting the station.

To illustrate this point, our team conducted an experiment using iHeartRadio. We created 25 distinct user accounts with the same demographic information. For each account, we made a "Meghan Trainor" custom station with the goal of hearing her hit songs and "All About that Bass" in particular. We recorded information about every song that was played at the outset of listening. We skipped tracks that were not "All About that Bass," which was the main song we tested for on-demand listening. In 92% of our trials (23 out of 25 accounts), "All About that Bass" was one of the first seven songs that played. Importantly, iHeartRadio allows us to skip up to six tracks per station (although there appears to be a daily limit on skips for a single account). As a result, we heard the song right away or within a matter of seconds.[6] Our results also show that in *every case* the first song was either "All About That Bass" (60% of the time) or "Lips Are Movin" (40% of the time)—her two most popular songs.[7] On 96% of the stations (24/25), *two* or more Meghan Trainor songs were played. Furthermore, in 17 out of 25 cases (68% of the time) iHeart played *three* or more Meghan Trainor songs in the first seven songs played. Finally, of all songs played, 73% were by Meghan Trainor or one of the "featured artists" of that station (Taylor Swift, Demi Lovato, and Ariana Grande). Indeed, only 11 distinct songs were played in the 175 total that we recorded.

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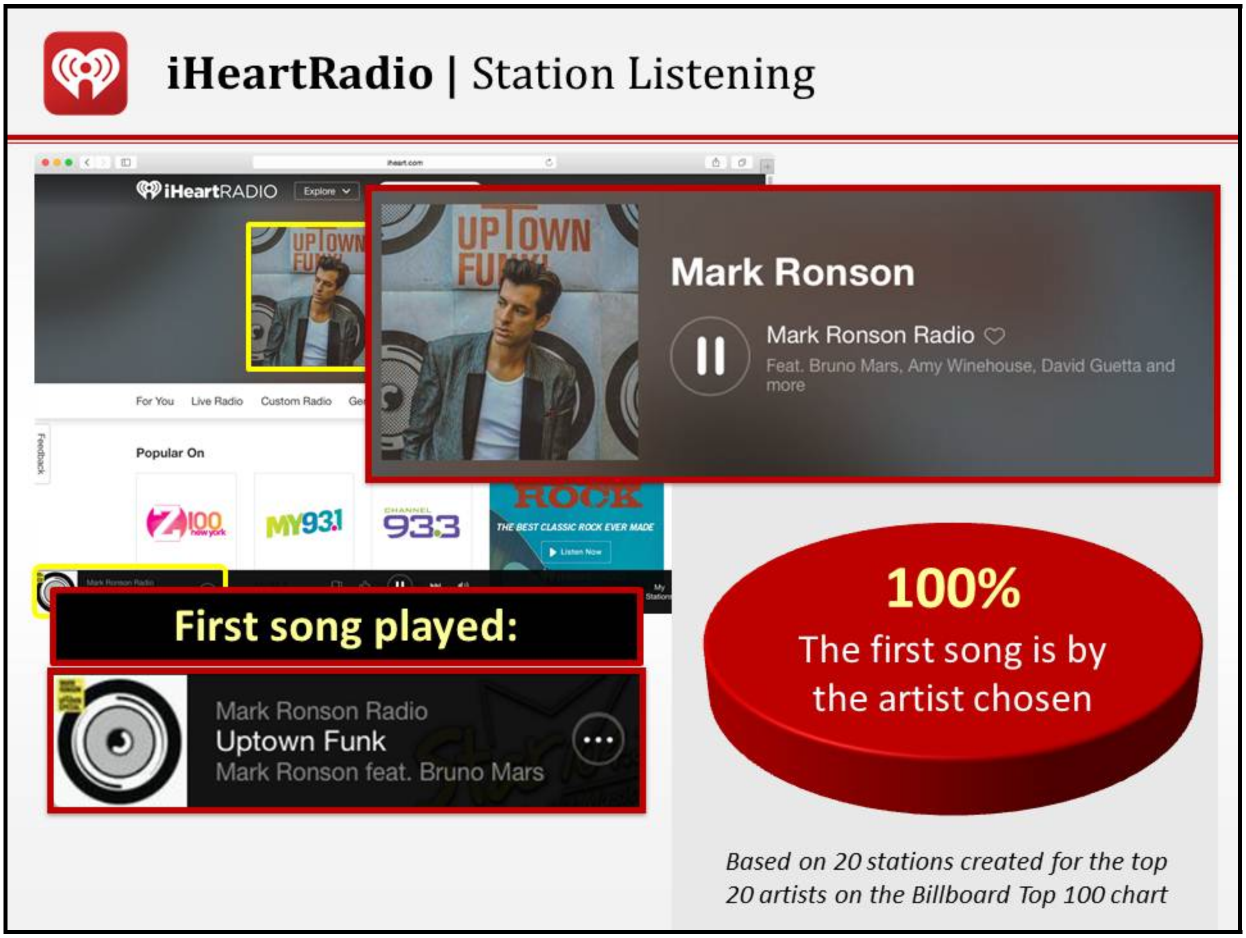
[6] I have attached a record of the results of this experiment as Exhibit 3. An animated demonstration of the experiment is attached as Exhibit 4.

[7] From our experiment, a motivated user has a 100% chance of hearing either "All About That Bass" or "Lips Are Movin" instantly on iHeartRadio's custom radio service. By way of comparison, the chance of turning on the radio and hearing either song on one of the local terrestrial radio stations that I mentioned in footnote 4, for the same week (February 4-10), is very small by comparison. The chances are 1.36% on Z100 and 1.60% on KIIS FM (dividing the total amount of airplay for both songs by the amount of total available airplay in a week).

Another experiment I directed involved the creation of stations for the top 20 artists on the Billboard Top 100 Artists Chart, and the creation of a record of the first five songs that played on the station. Our goal was to create an experience that resembled building a playlist on an on-demand service. In *every case*, the first song played was by the requested artist. That is, 100% of the time, iHeart first performed a sound recording by the selected artist. Half of the time (50%) the second sound recording performed was also by the requested artist. The other artists played on the stations we created were easily predicted based on the "features" line of the station – in fact, for each of the 20 artists tested, between three and five songs on the stations were either by the requested artist or the featured artists (and were often among the artist's new or most popular songs). For example, the Meghan Trainor station, which "features Taylor Swift, Demi Lovato, Ariana Grande and more" played only one out of the first five tracks ("Wanted" by Hunter Hayes) that was *not* by Meghan Trainor or one of these three featured artists.[8]

[8] The results of this experiment are attached as Exhibit 5.



As this experiment demonstrates, an iHeartRadio user can both listen to the artist she requests within the first few tracks played *and* can also know which other artists she will likely hear during the same listening session. And the above examples show that the songs played are often the artist's most popular current hits. This functionality gives the user an experience that resembles on-demand listening much more closely than it resembles terrestrial radio. Someone listening to terrestrial radio would be hard pressed to replicate the certainty of hearing their favorite artist 100% of the time that they turn the AM/FM dial.

Finally, we noticed that iHeartRadio's custom stations do not appear to run audio advertisements that might interrupt the user experience (although we did see visual ads).[9] The lack of audio advertising by iHeartRadio is obviously attractive to potential customers who might otherwise be enticed to try an on-demand subscription services. The on-demand services such as Spotify tout the ad-free environment on their paid tier as a selling point in converting users from their free tier.

B. Pandora

Although Pandora has had customized streaming for some time, it has in recent years, added numerous features that bring it even closer to an interactive experience. In 2014, Pandora added a feature to enable users to add multiple "seed" artists or tracks and additional personalization to its channels.[10] Pandora also added personalized station recommendations. As a result, a user can create hyper-personalized stations by adding a series of artists that the user wants to hear.

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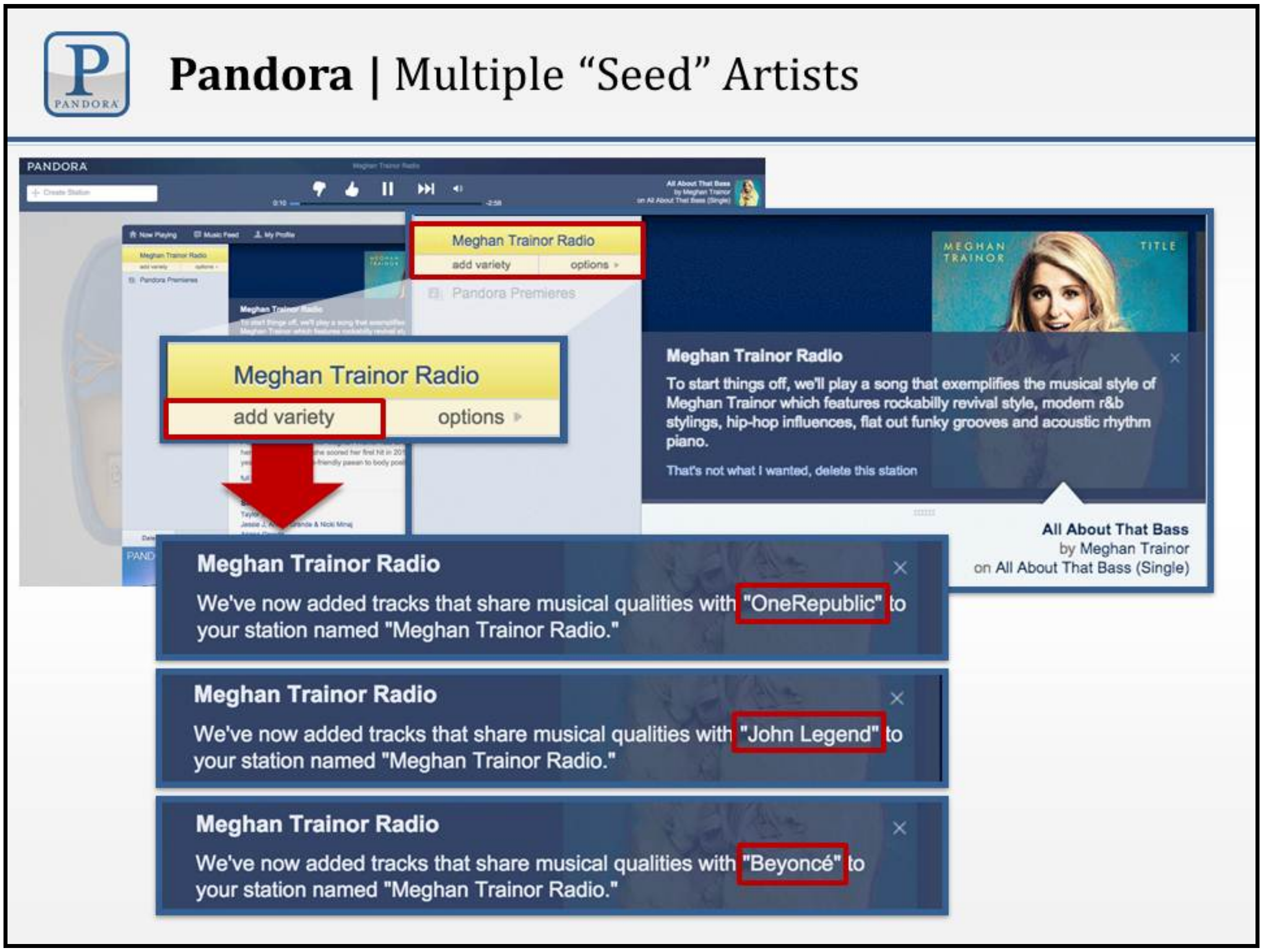
[9] iHeartRadio's own website confirms this observation: "Simply pick a song or artist to create your own commercial-free, uninterrupted Custom Station featuring music from that artist and similar ones." "Welcome to iHeartRadio: About Us" iHeartRadio.com *available at* <http://news.iheart.com/articles/about-iheartradio-390884/welcome-to-iheartradio-6906244/>. As Mr. Pittman stated: "We're still commercial-free on the iHeartRadio custom feature, because we can't figure out exactly how to put ads in a music collection." *Clear Channel CEO Bob Pittman: "Radio Is A Party"*, RadioILOVEIT.com *available at* < http://www.radioiloveit.com/radio-personality-radio-personalities/clear-channel-ceo-bob-pittman-radio-is-a-party/>

[10] Pandora's Blog describes how the service has evolved to "further personalize" the user experience by giving users the ability to review their station history, add variety to a station, and change "thumbs." *Get A Little More Personal with our New Design*, Pandora Blog, *available at* <http://blog.pandora.com/2015/01/30/get-a-little-more-personal-with-our-new-design/>. Popular reporting has noted this trend as well, observing that the new Pandora features "make[] it easier to personalize your radio experience." *Pandora Revamps its Mobile Apps with New UI, More Personalization*, GigaOm *available at* <https://gigaom.com/2014/12/02/pandora-revamps-its-mobile-apps-with-new-ui-more-personalization/>.



Pandora's CEO, Brian McAndrews, recently explained Pandora's convergence efforts to investors (*emphasis added*):

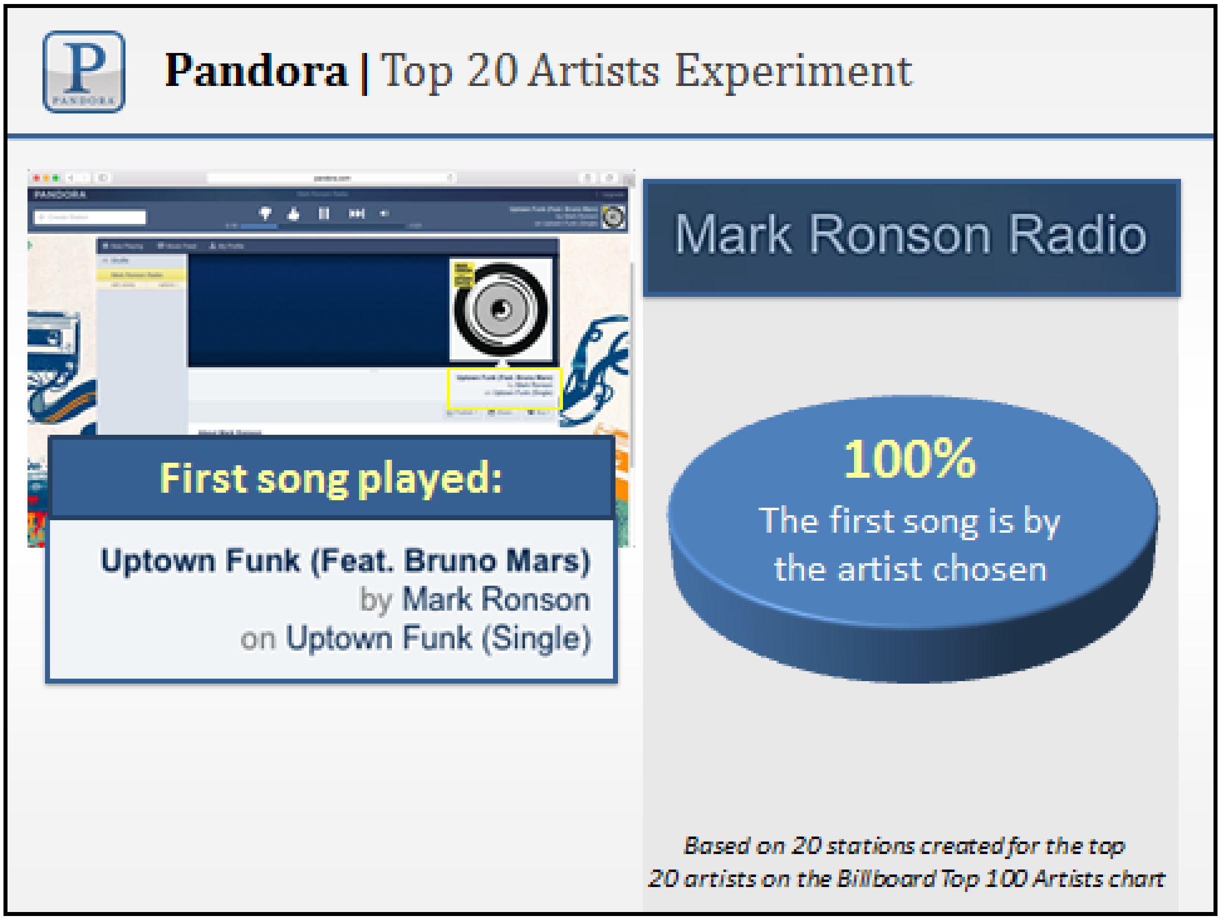
> We are in the *very early stages* of developing new ways to engage our listeners with our recent launches and station personalization, station recommendation and notification, . . . Looking ahead we have the right vision and team to make our listening experience even more personalized, ubiquitous and effortless and we will continue to invest to bring that vision to life.[11]

Hence, in its own words, Pandora sees more opportunities for convergence over the next rate term.

[11] Pandora's Q4 2014 Earnings Call Transcript, Seeking Alpha, *available at* <http://seekingalpha.com/article/2891856-pandora-media-p-ceo-brian-mcandrews-on-q4-2014-results-earnings-call-transcript?part=single>.

With Pandora, as with iHeartRadio, when creating a "station" based on a current popular artist, a track by that artist (usually one of their most popular tracks) is the *very first* track that plays on the station. We conducted an experiment similar to what we conducted for iHeartRadio to see how often a listener hears the same artists whose names she had used to create the station in the very first or second track chosen. As in the analogous iHeart experiment, we created a Pandora station for each of the top 20 artists on the Billboard Top 100 Artist Chart. We intended to essentially create a listening experience as if we had designed our own "playlist" of our favorite artists. We recorded information about the first song played on each of those stations.[12] For 20 out of 20 stations—or 100%—the very *first song* played was by the requested artist. For 19 of the 20 stations, the first *and* the fifth song were by the requested artist. Of those songs that were not by the "seeded" artist, 52% were from "Similar Artists" as identified by Pandora. As a result, over 70% of all plays were easily predicted as either being from the artist requested or a similar artist.

[12] The results of this experiment are attached as Exhibit 6. An animated demonstration of the experiment is attached as Exhibit 7.



As with iHeartRadio, the user-experience of Pandora's "non-interactive" service approaches that of on-demand streaming. This is further evidence that Pandora and other statutory services compete with interactive subscription services, and that our licenses with the latter provide the most appropriate benchmarks for this rate-setting proceeding.[13]

[13] *Pandora Station Suggestions Amp Up Personalization*, CNet *available at* <http://www.cnet.com/news/pandora-station-suggestions-amp-up-personalization/>. This same article reiterates a point made by Dominic Paschel, Pandora's Vice President, that "Pandora's model -- forsaking direct deals with labels to get its music instead through a license structure carved out by regulators -- means Pandora's market is fundamentally bigger. Subscription services like Beats and Spotify have higher licensing costs per track than Pandora, and that sets them up to rely on their ability to entice listeners to become paying subscribers. Pandora, on the other hand, turns to its free, ad-supported service as its big moneymaker. The audience size in the latter case is unfettered by getting listeners to cough up $10 a year, and so has the size advantage, he noted."

Notably, Pandora also markets itself as an engine of music discovery, but in many ways, these features closely resemble how users interact with Spotify when they are looking for specific artists or tracks to play. The "Similar Artists" feature on Pandora and the "Related Artists" feature on Spotify allow users to explore new music and learn about new (or their favorite) artists. Accordingly, users share a similar experience across both services, as demonstrated by Exhibit 8.

In sum, statutory webcasters have been adding features and functionality that bring the user experience ever closer to that provided by an on-demand subscription service. Given the rapid pace of technological change, I fully expect this phenomenon to continue through the next statutory rate period.

II. On the Flip Side, On-Demand Services Increasingly Offer Functionality Similar to that Traditionally Offered by Statutory Services, Thereby Increasing Competition Between the Two.

Mr. Fleming-Wood, in his written direct testimony, quotes (incompletely) Spotify's Daniel Ek, to the effect that Mr. Ek does not view Pandora "as a competitor." Mr. Ek's full quotation—the italicized portion of which Mr. Fleming-Wood omitted—speaks to the nature of Spotify's competition with Pandora: "I don't really view [Pandora] as a competitor. *The rest of the world seems to, for some reason*…"[14] What matters to these proceedings is not what Mr. Fleming-Wood or Mr. Ek say or think about whether they compete, but whether they present consumer offerings that in fact compete in the market for users.

As I demonstrated in the previous section, the statutory services have changed their functionality to compete with interactive services for lean forward listening. The converse also is true: interactive services developed new offerings to compete for lean back listening. In this

[14] *See* Exhibit 4 to Fleming-Wood Testimony, at 1.

section, I will highlight a few examples in the latter category. These and other examples further undermine the bright line distinctions that Mr. Fleming-Wood, Mr. Pittman and the services try to draw between their services and interactive subscription services.

A. Spotify

Since launching in the U.S. in July 2011, Spotify added a "Radio" feature that approximates the experience offered by statutory webcasters offering custom radio. It even includes "thumbs" like Pandora.[15] Spotify users can choose any song or artist and launch a radio station based on the selection—an experience that is very close to that offered by iHeart, Pandora and other statutory services.

Spotify likewise has increased its editorial content and curated playlists—meaning content selected for the user, rather than in response to an on-demand request for a particular track or playlist. Approximately [[redacted]] of total listening on Spotify occurs through listening to playlists created by Spotify or third parties such as Sony Music's Filtr.[16] This number is up from [[redacted]] just a year ago, showing that Spotify is capturing more lean back listening.

Similarly, Spotify's user interface has become more focused on recommendations. Curated playlists and suggested artists dominate the home—or "browse"—page. In these and other ways, Spotify is making the on-demand functionality secondary or even unnecessary. These developments allow Spotify to appeal to lean back listeners, increasing convergence and increasing the competition between Spotify and statutory streaming services.

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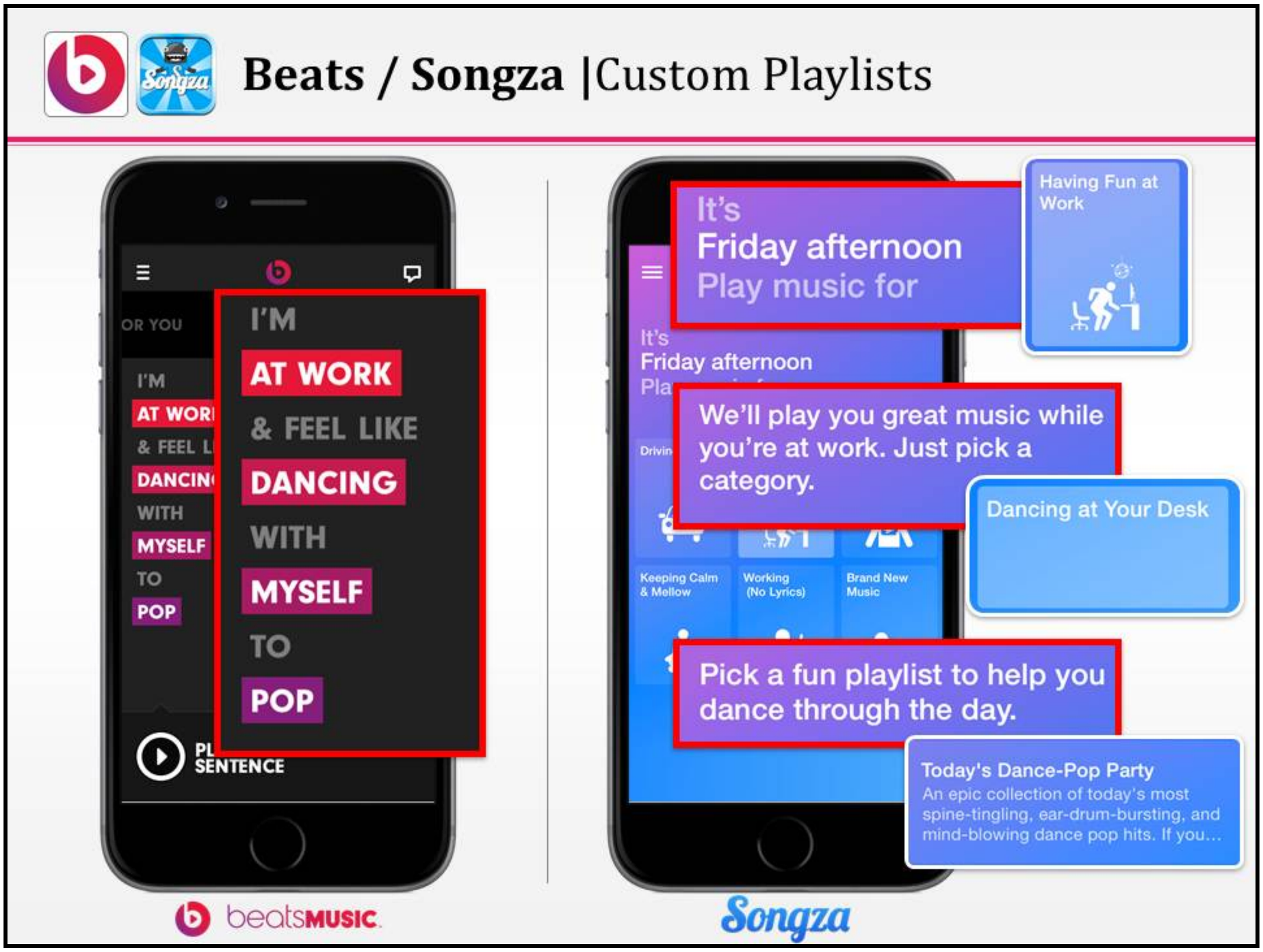
[15] *See, e.g., Spotify, Thumbs up for radio!* (Aug. 10, 2012) *available at* https://news.spotify.com/us/2012/08/10/thumbs-up-for-radio/.

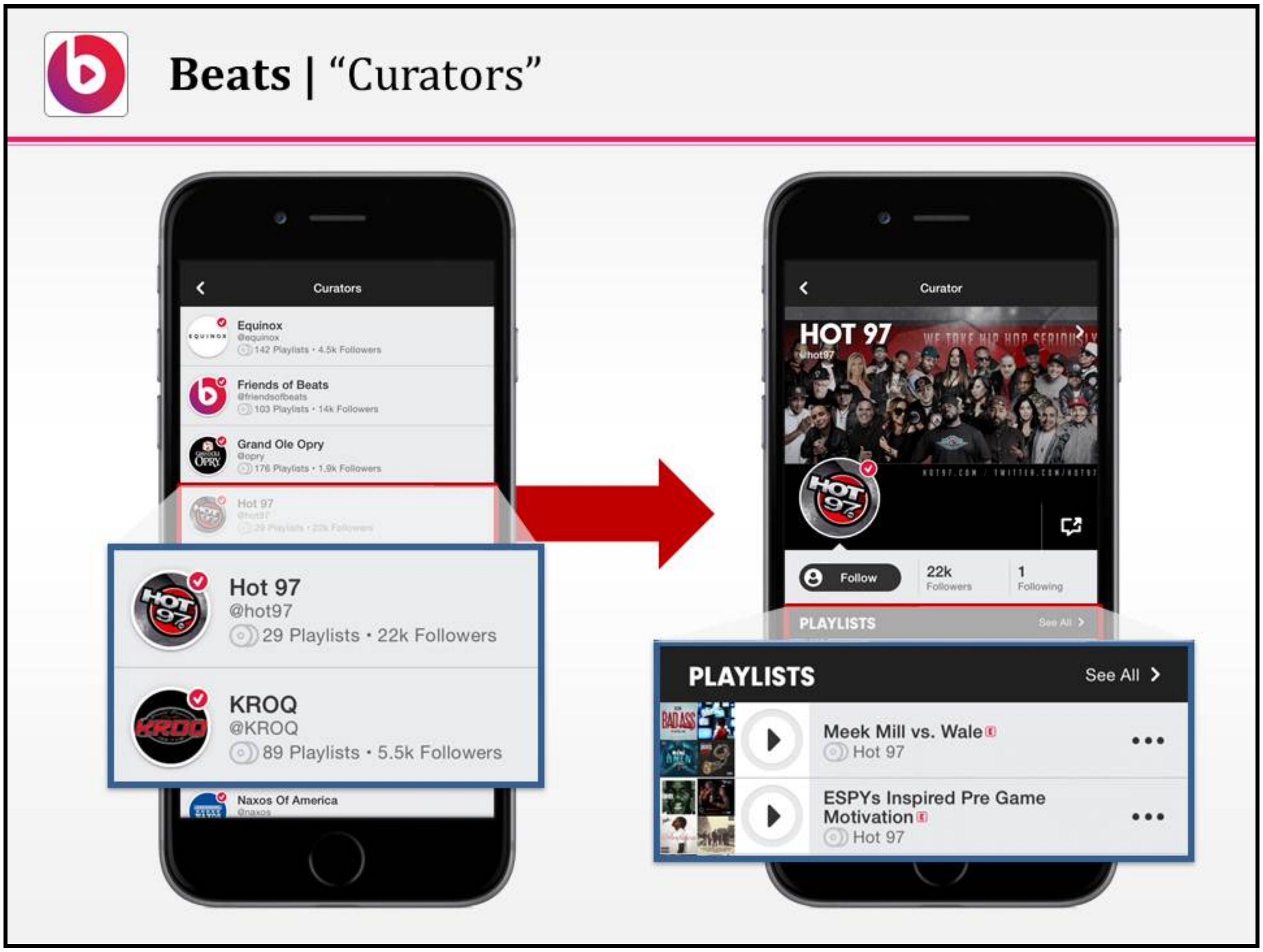
[16] Filtr is Sony Music's branded playlist application that works with Spotify to create playlists, often featuring our artists, and as a result helps to drive consumption of Sony Music sound recordings on Spotify.

B. Beats

Beats marketed “The Sentence” as a feature that distinguished Beats in the market. The Sentence asks the user for “mood” inputs and then provides a playlist. As the side-by-side comparison below demonstrates, The Sentence is very similar to the “mood” playlist feature that Songza, a statutory service, offers:



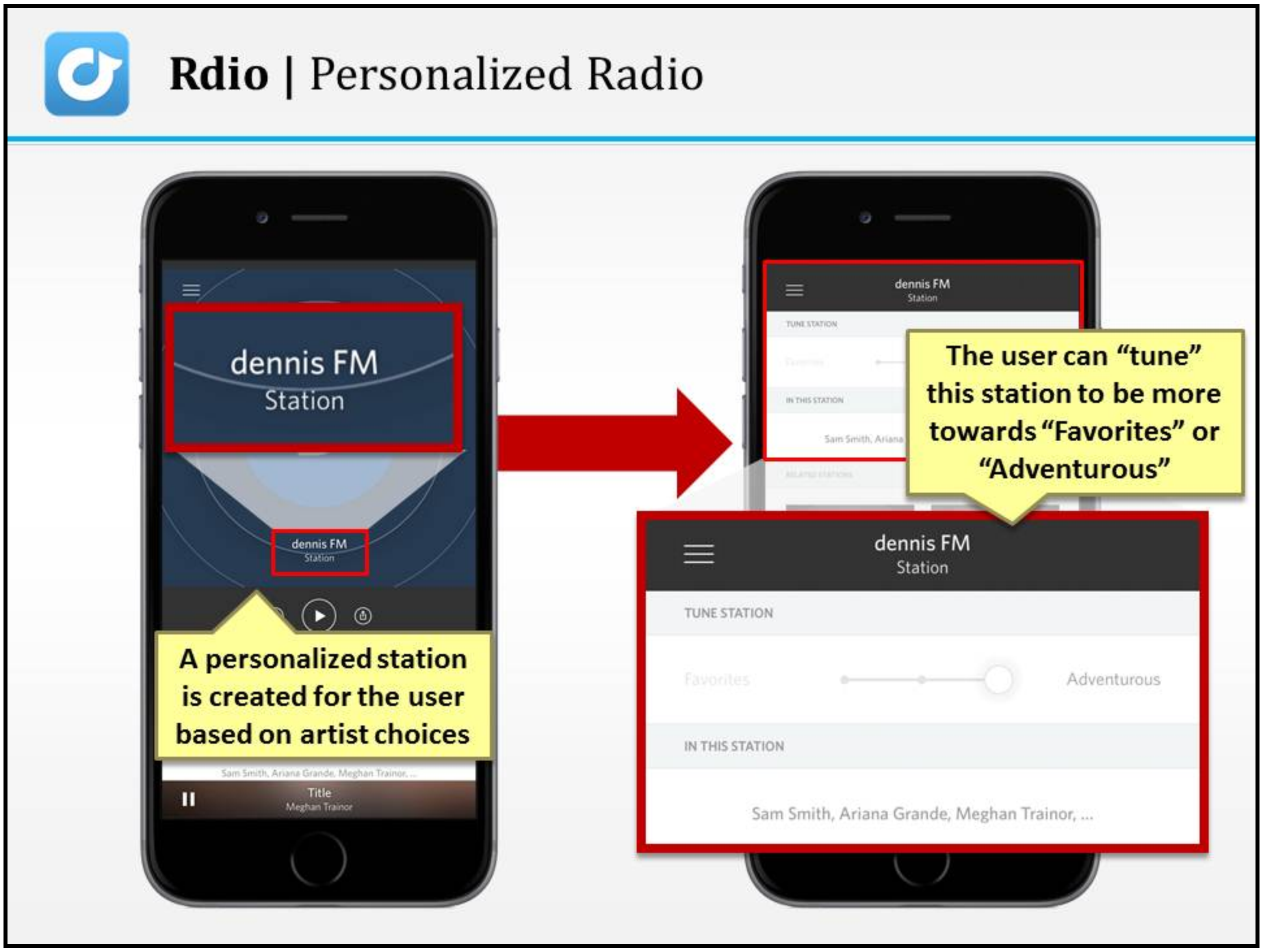
Beats also features curated playlists as a part of its subscription offering. As illustrated below, several of these playlists are by popular terrestrial radio stations such as Hot 97 and KROQ.



These programmed playlist features make the user experience on Beats similar to that offered by statutory services, including simulcasters. The convergence of consumer offerings and attendant competition between these services is obvious.

C. Rdio

My last example is Rdio, which recently launched a free radio tier that functions like a statutory service. Public articles at the time of Rdio's launch noted the convergence between traditionally on-demand and statutory services: "Rdio VP of Product Chris Becherer told me during a phone interview Wednesday that his company tried to do away with the artificial separation between online radio services like Pandora that offer a leanback experience, and full-fledged subscription offerings like Spotify or Rdio that are often perceived as places where you primarily go to listen to entire albums."[17] Upon signing in to Rdio, the user is presented with a personalized station just for them, for example, "@DennisFM." The user then can "tune" their station to play songs more like their "Favorites," or to be more "Adventurous," to hear different types of tracks.



In sum, the examples I have discussed and many others visible in the market demonstrate convergence of consumer offerings—statutory services becoming more lean forward, interactive

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[17] *Rdio Launches Personalized Radio Service to Steal Listeners Away from Pandora*, GigaOm.com (August 8. 2013) *available at* <https://gigaom.com/2013/08/08/rdio-launches-personalized-radio-stations-to-steal-listeners-away-from-pandora/>

subscription services becoming more lean back. That convergence will only continue to accelerate over the next five years.

Sony Music supports the free-to-consumer tiers of our licensed partners because they are coupled with conversion incentives that encourage the service to drive paid subscriptions. The statutory services, on the other hand, take advantage of below market rates that subsidize those statutory services at the cost of artists and music creators. As the music market rapidly evolves from an "ownership" model to an "access" model, it is essential that all streaming services contribute the going market royalty rate—a rate currently benchmarked against that paid by interactive services—to the total pool of revenue necessary to ensure that the music industry can continue to invest in sound recordings.

BARGAINING POWER OF INTERACTIVE SERVICES

As noted at the outset, I understand that the Services, through their expert witnesses, have argued that the Judges should disregard Sony Music's agreements with interactive services because the market is not "workably competitive." The Services are incorrect.

Our negotiations with interactive services involve extensive give-and-take before we reach a final agreement. Currently, there are prevailing rates in the market that have evolved over time for interactive streaming. Negotiations often vary from these rates and terms to suit the particular services' needs and the additional value that the service offers Sony Music. The rates and terms very rarely (if ever) match exactly those that Sony Music initially proposed.

For example, in our negotiation for a renewal term with [redacted]], we ultimately dropped the [redacted] with all its partners, but in circumstances where the partnership with the streaming service is very valuable, such as our partnership with [redacted]

[redacted]]. We estimated that this concession cost us [[redacted]. I have attached as Exhibit 9 an example of an email that was written contemporaneously with these negotiations that show [[redacted]] negotiating power. In an email dated [[redacted]], one of our lead negotiators reported to me that [“[redacted]”].

Of course, even services with on-demand functionality have as an ultimate threat that they could alter their service offerings to take advantage of the statutory license. Such a threat serves as significant leverage for the interactive service. For example, in our negotiations with [redacted]], it was clear to us that [redacted]] could walk away and opt into the statutory license. Exhibit 10 shows the impact this had on our negotiations: [redacted]”]. This illustrates how statutory rate schemes exert downward pressure on rates in negotiations for direct licenses.

Related to all this, I understand that the Judges have requested that the parties provide evidence of a substantial number of marketplace agreements, so that the Judges may assess how robust the market is. I have attached, as Exhibit 11, a CD with the relevant Sony Music agreements with interactive services. A review of the tremendous variations in these agreements—even in different agreements with the same service—demonstrates a wide range of negotiated rates and terms. This and other evidence demonstrates a workably competitive market.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Dennis Kooker

Exhibits Sponsored By Dennis Kooker

Exhibit No.	Sponsored By	Description
SX EX. 001-RP	Dennis Kooker	Ex. 1 – "All About That Bass" Airplay Charts
SX EX. 002- RP	Dennis Kooker	Ex. 2 – "Lips Are Movin" Airplay Charts
SX EX. 003- RP	Dennis Kooker	Ex. 3 – iHeart – Meghan Trainor Station Experiment Methodology and Results
SX EX. 004- RP	Dennis Kooker	Ex. 4 – iHeart – Meghan Trainor Station Experiment Demonstration
SX EX. 005- RP	Dennis Kooker	Ex. 5 – iHeart – Top 20 Artists Experiment Methodology and Results
SX EX. 006- RP	Dennis Kooker	Ex. 6 – Pandora – Top 20 Artists Experiment Methodology and Results
SX EX. 007- RP	Dennis Kooker	Ex. 7 – Pandora – Top 20 Artist Experiment Demonstration
SX EX. 008- RP	Dennis Kooker	Ex. 8 – Pandora-Spotify Artist Recommendation Features
SX EX. 009- RR	Dennis Kooker	Ex. 9 – [redacted]
SX EX. 010- RR	Dennis Kooker	Ex. 10 – [redacted]]
SX EX. 011- RR	Dennis Kooker	Ex. 11 – CD of Sony Music Agreements

MEDIABASE 24/7
7 Day
Spin Grid
Mainstream Hit

MEGHAN TRAINOR
All About That Bass
WHTZ-FM / New York

- Go to Song Analysis Report
- Go to WHTZ-FM Station Playlist
- Show 12-Week Graph
- Download to Spreadsheet

Past 4 Weeks

LW: Jan 28 - Feb 3 **TW: Feb 4 - Feb 10** **Updated: Wed Feb 11 3:09 AM PST**

Last 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 10	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Feb 9	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sun	Feb 8	3	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
Sat	Feb 7	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.
Fri	Feb 6	1	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Feb 5	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Feb 4	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

7 Day Total 6

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 3	1	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Feb 2	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sun	Feb 1	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sat	Jan 31	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.
Fri	Jan 30	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
Thu	Jan 29	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Jan 28	1	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.

1 Week Ago 6

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Jan 27	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Jan 26	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.
Sun	Jan 25	2	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1	.
Sat	Jan 24	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fri	Jan 23	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Jan 22	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Jan 21	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

SX EX. 001-1-RP

Jump to a Station: Submit

MEDIABASE 24/7
7 Day
Spin Grid
Mainstream Hit

MEGHAN TRAINOR
All About That Bass
KIIS-FM / Los Angeles

- Go to Song Analysis Report
- Go to KIIS-FM Station Playlist
- Show 12-Week Graph
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			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 10	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Feb 9	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sun	Feb 8	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sat	Feb 7	1	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fri	Feb 6	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Feb 5	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Feb 4	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

7 Day Total 2

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 3	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Feb 2	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sun	Feb 1	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sat	Jan 31	1	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fri	Jan 30	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Jan 29	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Jan 28	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

1 Week Ago 2

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Jan 27	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mon	Jan 26	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sun	Jan 25	2	.	1	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Sat	Jan 24	2	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
Fri	Jan 23	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Jan 22	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Wed	Jan 21	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

SX EX. 001-2-RP

Jump to a Station: [ ] Submit

MEDIABASE 24/7
7 Day
Spin Grid
Mainstream Hit

Past 4 Weeks

MEGHAN TRAINOR

Lips Are Movin

WHTZ-FM / New York

- Go to Song Analysis Report
- Go to WHTZ-FM Station Playlist
- Show 12-Week Graph
- Download to Spreadsheet

LW: Jan 28 - Feb 3   **TW: Feb 4 - Feb 10**   **Updated: Wed Feb 11 3:09 AM PST**

Last 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 10	7	.	.	1	.	.	.	.	.	.	.	.	.	1	.	1	.	.	1	.	1	.	1	.	1
Mon	Feb 9	5	.	1	.	.	1	.	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.	1	.
Sun	Feb 8	5	.	.	.	1	.	.	.	.	.	.	1	.	.	.	.	1	.	.	1	.	1	.	.	.
Sat	Feb 7	7	.	.	1	.	.	1	.	.	.	1	.	.	.	1	.	.	.	.	1	.	1	.	.	1
Fri	Feb 6	7	.	1	.	1	.	.	1	.	.	.	.	1	.	.	.	1	.	.	1	.	1	.	.	.
Thu	Feb 5	4	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	1	.
Wed	Feb 4	4	.	1	.	.	1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	1

7 Day Total 39

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 3	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	.	.	.	.
Mon	Feb 2	2	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	1	.	.
Sun	Feb 1	2	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.
Sat	Jan 31	4	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	.	.	1
Fri	Jan 30	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Thu	Jan 29	2	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	1	.	.
Wed	Jan 28	3	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.

1 Week Ago 16

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day					PM Drive				Nighttime				
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Jan 27	3	.	1	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.	.	.
Mon	Jan 26	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1
Sun	Jan 25	5	.	.	.	.	1	.	.	.	.	.	1	.	1	.	.	.	1	.	.	.	1	.	.	.
Sat	Jan 24	5	.	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	1	.	.	.	1	.	.	1
Fri	Jan 23	4	.	.	1	.	.	.	.	.	.	.	1	.	.	.	1	.	.	.	.	.	1	.	.	.
Thu	Jan 22	4	1	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	1	.	.
Wed	Jan 21	3	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1	.	.

SX EX. 002-1-RP

Main Menu | Reports by Format | Reports by Song | Reports by Station | Regions / Markets

Current Day | Daily | 7-Day | Year to Date | Retail   Video | Satellite Radio | Custom | Archived

Jump to a Station: [ ] Submit

MEDIABASE 24/7
7 Day
Spin Grid
Mainstream Hit

Past 4 Weeks

MEGHAN TRAINOR

Lips Are Movin

KIIS-FM / Los Angeles

- Go to Song Analysis Report
- Go to KIIS-FM Station Playlist
- Show 12-Week Graph
- Download to Spreadsheet

LW: Jan 28 - Feb 3   **TW: Feb 4 - Feb 10**   **Updated: Wed Feb 11 3:09 AM PST**

Last 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day				PM Drive				Nighttime			
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 10	6	.	.	.	1	.	1	.	.	.	1	.	.	.	.	1	.	.	.	1	.	.	.	1	.
Mon	Feb 9	6	.	1	.	.	1	.	.	.	.	.	1	.	.	.	.	1	.	.	1	.	1	.	.	.
Sun	Feb 8	7	.	1	1	.	1	.	.	.	.	.	.	1	.	.	1	.	.	.	.	.	1	.	1	.
Sat	Feb 7	7	.	.	.	1	.	1	.	.	.	1	.	1	.	1	.	.	.	.	.	.	.	1	.	1
Fri	Feb 6	8	.	1	.	1	.	.	.	.	1	.	.	1	.	.	1	.	1	.	1	.	.	1	.	.
Thu	Feb 5	9	1	.	1	.	1	.	.	.	.	1	.	.	.	1	.	1	.	1	.	.	1	.	1	.
Wed	Feb 4	8	.	1	.	1	.	.	.	.	1	.	.	.	1	.	1	.	1	.	1	.	.	.	1	.

7 Day Total 51

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day				PM Drive				Nighttime			
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Feb 3	6	1	.	.	.	.	1	.	.	.	1	.	.	.	1	.	.	1	.	.	.	.	.	1	.
Mon	Feb 2	6	.	.	.	1	.	1	.	.	.	.	.	.	1	.	.	1	.	1	.	.	1	.	.	.
Sun	Feb 1	6	.	.	1	.	.	.	1	.	.	.	.	1	.	.	1	.	.	.	1	.	.	.	1	.
Sat	Jan 31	6	.	.	.	1	.	1	.	.	.	1	.	1	.	.	1	.	.	.	.	.	.	.	1	.
Fri	Jan 30	3	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.
Thu	Jan 29	7	.	.	1	.	.	1	.	.	.	.	.	1	.	.	1	.	.	1	.	.	1	.	.	1
Wed	Jan 28	8	.	1	.	.	1	.	.	.	.	1	.	.	1	.	.	1	.	.	1	.	1	.	1	.

1 Week Ago 42

Previous 7 Days Monitored		Total Spins	Overnight						AM Drive				Mid-Day				PM Drive				Nighttime			
			12m	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12n	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p
Tue	Jan 27	7	.	.	.	1	.	.	.	.	.	1	.	1	.	.	1	.	.	1	.	1	.	1	.	.
Mon	Jan 26	7	.	1	.	.	1	.	.	.	.	.	.	1	.	.	1	.	1	.	1	.	.	.	1	.
Sun	Jan 25	8	.	1	.	1	.	1	.	.	.	.	1	.	.	1	.	.	.	1	.	.	1	.	1	.
Sat	Jan 24	6	.	.	.	1	.	.	.	.	1	.	1	.	.	1	.	.	.	.	1	.	.	1	.	.
Fri	Jan 23	6	1	.	1	.	.	1	.	.	.	.	1	.	.	.	1	.	.	.	.	.	1	.	.	.
Thu	Jan 22	6	.	.	.	.	1	.	.	.	.	.	.	1	.	1	.	.	1	.	.	1	.	.	1	.
Wed	Jan 21	10	.	1	.	1	1	.	1	.	.	.	1	.	1	.	.	1	.	1	.	.	1	.	.	1

SX EX. 002-2-RP

iHeartRadio Meghan Trainor Station Experiment

OVERVIEW OF EXPERIMENT: This experiment was designed to test an iHeartRadio user's ability to hear Meghan Trainor's hit songs, and particularly "All About That Bass," immediately after creating a custom station based on the artist, Meghan Trainor.

METHODOLOGY: We created a new iHeartRadio account for each trial (25 total), one without any previous listening biases, based on standard age and zip code information. Next, we created a custom radio station seeded with the artist, Meghan Trainor, and recorded each song played in order. We continued to do this until reaching the six-skip limit, ultimately recording the first seven songs that came on the station. I repeated this process twenty-four more times, creating a new account each time and then playing the first seven songs on the Meghan Trainor custom radio station.

RESULTS: The table on the following page lists the results of the experiment. Those songs highlighted in green are instances when "All About That Bass" played, and those in yellow are other Meghan Trainor songs.

- 92% of the time (23/25 stations) I was able to get "All About That Bass" to play within the first seven songs on the Meghan Trainor custom radio station
- 60% of the time (15/25 stations) "All About That Bass" was the first song to play. The other 40% of the time (10/25 stations) "Lips Are Movin" was the first song to play.
- 96% of the time (24/25 stations) two or more Meghan Trainor songs were played within the first seven songs.
- 68% of the time (17/25 stations) three or more Meghan Trainor songs were played within the first seven songs
- On average, 73% of all songs played were either by Meghan Trainor or a "featured artist."
- Only ten other songs were played among the first seven songs on the twenty-five accounts:
  1. Lips Are Movin - Meghan Trainor (22/25 stations)
  2. Title - Meghan Trainor (18/25 stations)
  3. Dear Future Husband - Meghan Trainor (5/25 stations)
  4. Shake It Off - Taylor Swift (24/25 stations)
  5. Really Don't Care - Demi Lovato (feat. Cher Lloyd) (21/25 stations)
  6. Love Me Harder - Ariana Grande (15/25 stations)
  7. Beg For It - Iggy Azalea (15/25 stations)
  8. A Thousand Years - Christina Perri (20/25 stations)
  9. Want U Back - Cher Lloyd (7/25 stations)
  10. Dark Horse - Katy Perry (5/25 stations)

RESULTS TABLE:

Station based on: Meghan Trainor (artist)
Featured Artists: Taylor Swift, Demi Lovato, Ariana Grande

Email Account	Song 1	Song 2	Song 3	Song 4	Song 5	Song 6	Song 7	MT count	Feat. Artist count	Total MT + feat. Artist
1. Email Account 1	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Title Meghan Trainor	Beg For It Iggy Azalea	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	A Thousand Years Christina Perri	3	2	5
2. Email Account 2	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Beg For It Iggy Azalea	Love Me Harder Ariana Grande	A Thousand Years Christina Perri	Want U Back Cher Lloyd	1	3	4
3. Email Account 3	Lips Are Movin Meghan Trainor	Shake It Off Taylor Swift	Title Meghan Trainor	Love Me Harder Ariana Grande	All About That Bass Meghan Trainor	A Thousand Years Christina Perri	Dark Horse Katy Perry	3	2	5
4. Email Account 4	Lips Are Movin Meghan Trainor	All About That Bass Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Shake It Off Taylor Swift	Title Meghan Trainor	Beg For It Iggy Azalea	Love Me Harder Ariana Grande	3	3	6
5. Email Account 5	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Title Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Lips Are Movin Meghan Trainor	Want U Back Cher Lloyd	A Thousand Years Christina Perri	3	2	5
6. Email Account 6	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Love Me Harder Ariana Grande	Lips Are Movin Meghan Trainor	Dark Horse Katy Perry	A Thousand Years Christina Perri	2	3	5
7. Email Account 7	Lips Are Movin Meghan Trainor	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Title Meghan Trainor	A Thousand Years Christina Perri	Dear Future Husband Meghan Trainor	4	2	6
8. Email Account 8	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Shake It Off Taylor Swift	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Love Me Harder Ariana Grande	Beg For It Iggy Azalea	Want U Back Cher Lloyd	2	3	5
9. Email Account 9	Lips Are Movin Meghan Trainor	Shake It Off Taylor Swift	Love Me Harder Ariana Grande	Title Meghan Trainor	Beg For It Iggy Azalea	Want U Back Cher Lloyd	A Thousand Years Christina Perri	2	2	4
10. Email Account 10	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Shake It Off Taylor Swift	Love Me Harder Ariana Grande	A Thousand Years Christina Perri	Dear Future Husband Meghan Trainor	3	3	6
11. Email Account 11	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Love Me Harder Ariana Grande	A Thousand Years Christina Perri	Beg For It Iggy Azalea	2	3	5
12. Email Account 12	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	All About That Bass Meghan Trainor	Beg For It Iggy Azalea	Shake It Off Taylor Swift	Want U Back Cher Lloyd	Dear Future Husband Meghan Trainor	3	2	5
13. Email Account 13	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Beg For It Iggy Azalea	Love Me Harder Ariana Grande	Really Don't Care Demi Lovato (feat. Cher Lloyd)	A Thousand Years Christina Perri	Dear Future Husband Meghan Trainor	3	2	5
14. Email Account 14	All About That Bass Meghan Trainor	Really Don't Care Demi Lovato (feaat. Cher Lloyd)	Love Me Harder Ariana Grande	Shake It Off Taylor Swift	Lips Are Movin Meghan Trainor	A Thousand Years Christina Perri	Title Meghan Trainor	3	3	6
15. Email Account 15	Lips Are Movin Meghan Trainor	Shake It Off Taylor Swift	Title Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	All About That Bass Meghan Trainor	Dark Horse Katy Perry	Dear Future Husband Meghan Trainor	4	2	6
16. Email Account 16	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Title Meghan Trainor	Beg For It Iggy Azalea	A Thousand Years Christina Perri	Want U Back Cher Lloyd	2	2	4
17. Email Account 17	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Shake It Off Taylor Swift	Title Meghan Trainor	A Thousand Years Christina Perri	Beg For It Iggy Azalea	3	2	5
18. Email Account 18	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Title Meghan Trainor	Love Me Harder Ariana Grande	Really Don't Care Demi Lovato (feat. Cher Lloyd)	A Thousand Years Christina Perri	Lips Are Movin Meghan Trainor	3	3	6
19. Email Account 19	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Love Me Harder Ariana Grande	Title Meghan Trainor	Shake It Off Taylor Swift	Want U Back Cher Lloyd	3	3	6
20. Email Account 20	Lips Are Movin Meghan Trainor	Shake It Off Taylor Swift	Beg For It Iggy Azalea	Love Me Harder Ariana Grande	Title Meghan Trainor	A Thousand Years Christina Perri	Dark Horse Katy Perry	2	2	4
21. Email Account 21	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Beg For It Iggy Azalea	Shake It Off Taylor Swift	Title Meghan Trainor	Really Don’t Care Demi Lovato (feat. Iggy Azalea)	A Thousand Years Christina Perri	3	2	5
22. Email Account 22	All About That Bass Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	Title Meghan Trainor	Shake It Off Taylor Swift	Beg For It Iggy Azalea	Dark Horse Katy Perry	A Thousand Years Christina Perri	2	2	4
23. Email Account 23	All About That Bass Meghan Trainor	Lips Are Movin Meghan Trainor	Beg For It Iggy Azalea	Shake It Off Taylor Swift	Title Meghan Trainor	Love Me Harder Ariana Grande	A Thousand Years Christina Perri	3	2	5
24. Email Account 24	Lips Are Movin Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Beg For It Iggy Azalea	A Thousand Years Christina Perri	Title Meghan Trainor	3	2	5
25. Email Account 25	Lips Are Movin Meghan Trainor	All About That Bass Meghan Trainor	Shake It Off Taylor Swift	Title Meghan Trainor	Really Don't Care Demi Lovato (feat. Cher Lloyd)	A Thousand Years Christina Perri	Love Me Harder Ariana Grande	3	3	6

= All About That Bass

= Other Meghan Trainor Song

SX EX. 003-2-RP

SX EX. 004- RP

Document Produced in Native Format

iHeartRadio Top 20 Artists Experiment

OVERVIEW OF EXPERIMENT: The aim of this experiment was to replicate the experience of making a playlist of artists—in this case, the top 20 on the Billboard Top 100 Artists Chart.

METHODOLOGY: We created a new iHeartRadio account, one without any previous listening biases, based on standard age and demographic information. Next, we created a custom station seeded with the artist at the top of the Billboard Top 100 Artists Chart for the week of February 21, 2015: Taylor Swift. As a typical user would, we skipped some songs and not others. No songs were thumbed down or up. We recorded when a song by the "seed" artist played and also when the "featured artists" played. After five songs, we moved on to the number two artist on the Top 100 Artists Chart, Ed Sheeran, and did the same thing. Following this pattern we progressed through the first 20 artists of the Top 100.

The twenty stations I created were based on the following artists:

1. Taylor Swift
2. Ed Sheeran
3. Sam Smith
4. Maroon 5
5. Meghan Trainor
6. Katy Perry
7. Nicki Minaj
8. Mark Ronson
9. Hozier
10. Fall Out Boy
11. Bruno Mars
12. Fifth Harmony
13. Beyonce
14. Missy Elliott
15. Ariana Grande
16. Ne-Yo
17. Ellie Goulding
18. Bob Dylan
19. Nick Jonas
20. The Weeknd

RESULTS: The table on the following page lists the results of the experiment. Those songs highlighted in green are by the same artist on which the station was based, and those in yellow are by a featured artist of the station's primary artist.

- 100% of the time the **first song played** was by the requested artist.
- 50% of the time the **second song played** was also by the requested artist.
- 100% of the time **three or more** of the first five songs were by the requested artist or a "featured artist."

RESULTS TABLE:

Station	Song 1	Song 2	Song 3	Song 4	Song 5	artist total	featured total	artist + featured
1. **Station Artist:** Taylor Swift **Featured Artists:** Cheyenne Kimball, Hayden Panettiere, Meghan Trainor	Shake It Off Taylor Swift	Style Taylor Swift	Wanted Hunter Hayes	Blank Space Taylor Swift	All About That Bass Meghan Trainor	3	1	4
2. **Station Artist:** Ed Sheeran **Featured Artists:** The Script, Sam Smith, The Fray	Thinking Out Loud Ed Sheeran	Don't Ed Sheeran	Breakeven The Script	I'm Not The Only One Sam Smith	I Lived One Republic	2	2	4
3. **Station Artist:** Sam Smith **Featured Artists:** MAGIC!, Ed Sheeran, Nick Jonas	Stay With Me Sam Smith	Rude MAGIC!	Latch Sam Smith	Jealous Nick Jonas	Me And My Broken Heart Rixton	2	2	4
4. **Station Artist:** Maroon 5 **Featured Artists:** The Script, Katy Perry, Imagine Dragons	Maps Maroon 5	Animals Maroon 5	I Bet My Life Imagine Dragons	Sugar Maroon 5	Dark Horse Katy Perry	3	2	5
5. **Station Artist:** Meghan Trainor **Featured Artists:** Taylor Swift, Demi Lovato, Ariana Grande	Lips Are Movin Meghan Trainor	Heart Attack Demi Lovato	Love Me Harder Ariana Grande	Title Meghan Trainor	Want U Back Cher Lloyd	2	2	4
6. **Station Artist:** Katy Perry **Featured Artists:** Ariana Grande, Miley Cyrus, Selena Gomez	Roar Katy Perry	Wrecking Ball Miley Cyrus	Wide Awake Katy Perry	The Heart Wants What It Wants Selena Gomez	Stay Rihanna	2	2	4
7. **Station Artist:** Nicki Minaj **Featured Artists:** Tyga, Iggy Azalea, Rihanna	Moment 4 Life Nicki Minaj	Motivation Kelly Rowland	No Worries Lil Wayne	Beg For It Iggy Azalea	Hookah Tyga	1	2	3
8. **Station Artist:** Mark Ronson **Featured Artists:** Bruno Mars, Amy Winehouse, David Guetta	Uptown Funk Mark Ronson (feat. Bruno Mars)	Locked Out Of Heaven Bruno Mars	Rehab Amy Winehouse	Weight of Love The Black Keys	Titanium David Guetta (feat. Sia)	1	3	4
9. **Station Artist:** Hozier **Featured Artists:** Milky Chance, Vance Joy, Sam Smith	From Eden (Album Version) Hozier	Stolen Dance Milky Chance	Take Me To Church (Album Version) Hozier	Sweater Weather The Neighbourhood	Riptide Vance Joy	2	2	4
10. **Station Artist:** Fall Out Boy **Featured Artists:** Panic! At the Disco, Paramore, Imagine Dragons	My Songs Know What You Did In The Dark Fall Out Boy	Centuries Fall Out Boy	Gives You Hell The All-American Rejects	Ain't It Fun Paramore	Sugar, We're Goin Down Fall Out Boy	3	1	4
11. **Station Artist:** Bruno Mars **Featured Artists:** Pharrell Williams, Ariana Grande, Maroon 5	Just The Way You Are Bruno Mars	When I Was Your Man Bruno Mars	Happy (From "Despicable Me 2") Pharrell Williams	Classic MKTO	Style Taylor Swift	2	1	3
12. **Station Artist:** Fifth Harmony **Featured Artists:** Becky G., Demi Lovato, Meghan Trainor	Sledgehammer Fifth Harmony	BO$$ Fifth Harmony	Shower Becky G.	Better Together Fifth Harmony	All About That Bass Meghan Trainor	3	2	5
13. **Station Artist:** Beyonce **Featured Artists:** Destiny's Child, Rihanna, Fergie	7/11 Beyonce	Say My Name Desiny's Child	Partition (Explicit Version) Beyonce	She Knows Ne-Yo	Drunk in Love Beyonce (feat. Jay-Z)	3	1	4
14. **Station Artist:** Missy Elliott **Featured Artists:** Outkast, Aaliyah, Mya	Work It (Promo LP Version) Missy Elliott	Lose Contol Missy Elliott (feat. Ciara & Fat Man Scoop)	Rock The Boat Aaliyah	Get Ur Freak On Missy Elliott	Apologize Timbaland	3	1	4
15. **Station Artist:** Ariana Grande **Featured Artists:** Iggy Azalea, Meghan Trainor, Selena Gomez	Love Me Harder Ariana Grande	Break Free Ariana Grande	Heart Attack Demi Lovato	Problem Ariana Grande	Dark Horse Katy Perry	3	0	3
16. **Station Artist:** Ne-Yo **Featured Artists:** Usher, Mario, Fabolous	Let Me Love You (Until You Learn To Love Yourself) Ne-Yo	Let Me Love You Mario	So Sick Ne-Yo	I Don't Mind Usher (feat. Juicy J)	All Of Me (Album Version) John Legend	2	2	4
17. **Station Artist:** Ellie Goulding **Featured Artists:** Sia, Jessie J, Lana Del Rey	Burn Ellie Goulding	Chandelier Sia	Lights Ellie Goulding	Royals Lorde	Summertime Sadness Lana Del Rey	2	2	4
18. **Station Artist:** Bob Dylan **Featured Artists:** Bob Dylan & The Band, Neil Young, John Lennon	Like A Rolling Stone (Album Version) Bob Dylan	Knockin' On Heaven's Door (Album Version) Bob Dylan	Imagine (2010 - Remaster) John Lennon	Heart of Gold (Remastered Album Version) Neil Young	Tangled Up In Blue (Album Version) Bob Dylan	3	2	5
19. **Station Artist:** Nick Jonas **Featured Artists:** Nick Jonas & The Administration, Shawn Mendes, Meghan Trainor	Chains Nick Jonas	Jealous Nick Jonas	Who I Am Nick Jonas & The Administration	Maps Maroon 5	Teacher Nick Jonas	3	1	4
20. **Station Artist:** The Weeknd **Featured Artists:** Jhene Aiko, August Alsina, PARTYNEXTDOOR	Wicked Games The Weeknd	No Love August Alsina	Earned It (Fifty Shades Of Grey) The Weeknd	Or Nah Ty Dolla Si$n (feat. Wiz Khalifa and DJ Mustard)	The Worst Jhene Aiko	2	2	4

= Song By Seeded Artist

= Song By Featured Artist

SX EX. 005-2-RP

Pandora Top 20 Artists Experiment

OVERVIEW OF EXPERIMENT: The aim of this experiment was to replicate the experience of making a playlist of artists—in this case, the top 20 on the Billboard Top 100 Artists Chart.

METHODOLOGY: We created a new Pandora account, one without any previous listening biases, based on standard age and demographic information. Next, we created a custom station seeded with the artist at the top of the Billboard Top 100 Artists Chart for the week of February 21, 2015: Taylor Swift. As a typical user would, we skipped some songs and not others. No songs were thumbed down or up. We recorded when a song by the "seed" artist played and also when a "Similar Artist" (as noted by Pandora) played. After five songs, we moved on to the number two artist on the Top 100 Artists Chart, Ed Sheeran, and did the same thing. Following this pattern we progressed through the first 20 artists of the Top 100.

The twenty stations I created were based on the following artists:

1. Taylor Swift
2. Ed Sheeran
3. Sam Smith
4. Maroon 5
5. Meghan Trainor
6. Katy Perry
7. Nicki Minaj
8. Mark Ronson
9. Hozier
10. Fall Out Boy
11. Bruno Mars
12. Fifth Harmony
13. Beyonce
14. Missy Elliott
15. Ariana Grande
16. Ne-Yo
17. Ellie Goulding
18. Bob Dylan
19. Nick Jonas
20. The Weeknd

RESULTS: The table on the following page lists the results of the experiment. Those songs highlighted in green are by the same artist on which the station was based, and those in yellow are by a "Similar Artist" of the station's primary artist.

- 100% of the time the **first song played** was by the requested artist.
- 95% of the time the requested artist **played twice** within the first five songs.
- 85% of the time at least **three of the first five songs** were by the requested artist or a "Similar Artist."
- 50% of the time at least **four of the first five songs** were by the requested or a "Similar Artist."

Station	Song 1	Song 2	Song 3	Song 4	Song 5	artist total	similar total	artist + similar
1. Station Artist: Taylor Swift Similar Artists: Ed Sheeran, The Band Perry, Carrie Underwood, Rascal Flatts	You Belong With Me - Taylor Swift	Just A Dream - Carrie Underwood	If I Die Young - The Band Perry	What Hurts The Most - Rascal Flatts	22 - Taylor Swift	2	3	5
2. Station Artist: Ed Sheeran Similar Artists: Sam Smith, Ron Pope, Parachute, Hozier	Give Me Love - Ed Sheeran	Take Me To Church - Hozier	I'm Not The Only One - Sam Smith	Free Fallin' (Acoustic)(Live) - John Mayer	I See Fire - Ed Sheeran	2	2	4
3. Station Artist: Sam Smith Similar Artists: Ed Sheeran, Disclosure, Hozier, Meghan Trainor	Lay Me Down (Acoustic Version) - Sam Smith	Tenerife Sea - Ed Sheeran	Stay With You - John Legend	La La La (ft. Sam Smith) - Naughty Boy	Latch (Acoustic) - Sam Smith	2	1	3
4. Station Artist: Maroon 5 Similar Artists: OneRepublic, Maroon 5 & Christina Aguilera, Jason Mraz, Imagine Dragons	Misery - Maroon 5	Stop And Stare - OneRepublic	You Found Me - The Fray	Best Day Of My Life - American Authors	Animals - Maroon 5	2	1	3
5. Station Artist: Meghan Trainor Similar Artists: Taylor Swift; Jessie J, Ariana Grande & Nicki Minaj; Ariana Grande; Mark Ronson	All About That Bass - Meghan Trainor	Stay With Me - Sam Smith	Price Tag - Jessie J	Cool Kids - Echosmith	Dear Future Husband - Meghan Trainor	2	0	2
6. Station Artist: Katy Perry Similar Artists: Taylor Swift, Maroon 5, Rihanna, Kesha	California Gurls - Katy Perry	We Found Love - Rihanna	Stronger (What Doesn't Kill You) - Kelly Clarkson	Tik Tok - Kesha	Teenage Dream - Katy Perry	2	2	4
7. Station Artist: Nicki Minaj Similar Artists: Beyonce, Rihanna, Drake, Lil Wayne	Super Bass - Nicki Minaj	Drunk In Love - Beyonce	The Motto - Drake	You Da One - Rihanna	Moment 4 Life - Nicki Minaj	2	3	5
8. Station Artist: Mark Ronson Similar Artists: Amy Winehouse, Madcon, The Roots, Ivy Levan	Uptown Funk (ft. Bruno Mars) - Mark Ronson	Valerie (BBC Sessions) - Amy Winehouse	Right As Rain - Adele	American Boy - Estelle	Toxic - Mark Ronson	2	1	3
9. Station Artist: Hozier Similar Artists: Vance Joy, Milky Chance, Ed Sheeran, The Lumineers	Someone New - Hozier	Drop The Game (R&B Mixtape Edit) - Flume & Chet Faker	Unsteady - X Ambassadors	99 Problems - Hugo (Rock)	Cherry Wine (Live) - Hozier	2	0	2
10. Station Artist: Fall Out Boy Similar Artists: Panic At The Disco, Paramore, My Chemical Romance, The Offspring	Dance, Dance - Fall Out Boy	Misery Business - Paramore	New Perspective - Panic At The Disco	Welcome To The Black Parade (Edit) - My Chemical Romance	Irresistable - Fall Out Boy	2	3	5
11. Station Artist: Bruno Mars Similar Artists: Mark Ronson, Jason Mraz, Sam Smith, OneRepublic	Marry You - Bruno Mars	A Thousand Years - Christina Perri	Maps - Maroon 5	Thinking Out Loud - Ed Sheeran	Locked Out Of Heaven - Bruno Mars	2	0	2
12. Station Artist: Fifth Harmony Similar Artists: Taylor Swift; Ariana Grande; Meghan Trainor; Jessie J, Ariana Grande & Nicki Minaj	Better Together - Fifth Harmony	Blank Space - Taylor Swift	Love Me Harder (ft. The Weeknd) - Ariana Grande	Impossible - Shontelle	Sledgehammer - Fifth Harmony	2	2	4
13. Station Artist: Beyonce Similar Artists: Nicki Minaj; Rihanna, Kanye West & Paul McCartney; Destiny's Child; Rihanna	7/11 - Beyonce	Rude Boy - Rihanna	The Crying Game - Nicki Minaj	Say My Name - Destiny's Child	Flawless Remix (ft. Nicki Minaj) - Beyonce	2	3	5
14. Station Artist: Missy Elliott Similar Artists: Eve, Busta Rhymes, Outkast, Ludacris	Gossip Folks - Missy Elliott	Goodies - Ciara	Tambourine - Eve	Dirt Off Your Shoulder - Jay-Z	Get Ur Freak On - Missy Elliott	2	1	3
15. Station Artist: Ariana Grande Similar Artists: Taylor Swift; Jessie J, Ariana Grande & Nicki Minaj; Iggy Azalea; Selena Gomez	Piano - Ariana Grande	Black Widow (ft. Rita Ora) - Iggy Azalea	Unconditionally - Katy Perry	Talk Dirty - Jason DeRulo	The Way - Ariana Grande	2	1	3
16. Station Artist: Ne-Yo Similar Artists: Mario, Usher, Trey Songz, Chris Brown	Sexy Love - Ne-Yo	Hate That I Love You - Rihanna	With You - Chris Brown	My Boo - Usher	Let Me Love You (Until You Learn To Love Yourself) - Ne-Yo	2	2	4
17. Station Artist: Ellie Goulding Similar Artists: Calvin Harris, Lana Del Rey, Flight Facilities, Tove Lo	Your Biggest Mistake - Ellie Goulding	Spectrum - Zedd	Titanium - David Guetta	Sweet Nothing - Calvin Harris	Young And Beautiful - Lana Del Rey	1	2	3
18. Station Artist: Bob Dylan Similar Artists: Neil Young, The Band, The Beatles, Buffalo Springfield	Blowin' In The Wind - Bob Dylan	Into the Mystic - Van Morrison	The Weight - The Band	The Needle & The Damage Done - Neil Young	Alberta #2 - Bob Dylan	2	2	4
19. Station Artist: Nick Jonas Similar Artists: Taylor Swift, Mark Ronson, Ed Sheeran, Ariana Grande	Teacher - Nick Jones	Sirens - Cher Lloyd	I Know Places - Taylor Swift	Leavin' - Jesse McCartney	Introducing Me - Nick Jonas	2	1	3
20. Station Artist: The Weeknd Similar Artists: Drake, Wiz Khalifa, Ty Dolla $ign, Frank Ocean	Next - The Weeknd	Doing It Wrong - Drake	Or Nah (ft. The Weeknd, Wiz Khalifa And DJ Mustard) (Remix) - Ty Dolla $ign	Poetic Justice - Kendrick Lamar	House Of Balloons/Glass Table Girls - The Weeknd	2	2	4

= Song By Seeded Artist

= Song By Featured Artist

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SX EX. 011 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**
	)	

WRITTEN REBUTTAL TESTIMONY OF

AARON HARRISON

Senior Vice President, Business & Legal Affairs,
Global Digital Business, UMG Recordings, Inc.

PUBLIC VERSION

Witness for SoundExchange, Inc.

REBUTTAL TESTIMONY OF AARON HARRISON

BACKGROUND

1. I am Senior Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc. My responsibilities include negotiating deals for the digital use of the recorded music repertoire of Universal Music Group ("UMG"). My written direct testimony sets forth my background in greater detail.

2. I have reviewed the public redacted written direct testimony of Prof. Carl Shapiro ("Shapiro WDT") and a version of the amended written direct testimony of Profs. Daniel Fischel and Douglas Licthman ("Fischel & Lichtman WDT") that has certain information regarding UMG unredacted. I understand that all three of these witnesses argue that the Judges should view the market for agreements with non-interactive services as "workably competitive," and the market for agreements with interactive services as not workably competitive, because these witnesses believe that non-interactive services can "steer" listeners to the music of particular labels, while interactive services purportedly cannot. (Shapiro WDT at 10-15; Fischel & Lichtman WDT, at 59.)

3. Profs. Shapiro, Fischel and Lichtman are wrong. Interactive services have the ability to influence what is played by users (or "steer"). Hence, our negotiations with all these services in a market without a statutory license would not be distinguished by a service's ability to steer. That ability is present in the entirely workably competitive market for interactive services to use our sound recordings.

4. I have also reviewed the public written direct testimony of Prof. Michael Katz ("Katz WDT".) I understand Prof. Katz to argue that the interactive services are not good

benchmarks because the major record labels can extract *above* monopolistic prices. (Katz WDT, at 31-34.)

5. Prof. Katz's observations are wrong as to UMG. Our negotiations with interactive services involve substantial back-and-forth, and we are unable to dictate the terms or prices of our licenses.

6. I also understand that Profs. Fischel and Lichtman rely, in part, on a term sheet exchanged between Clear Channel and UMG to suggest that the market for simulcast rates is not amenable to a "greater-of" rate structure. (Fischel & Lichtman WDT at 44-45.)

7. Profs. Fischel and Lichtman are wrong about this, too. The term sheets exchanged between Clear Channel and UMG show that simulcasters *could* operate under a "greater-of" rate structure.

DISCUSSION

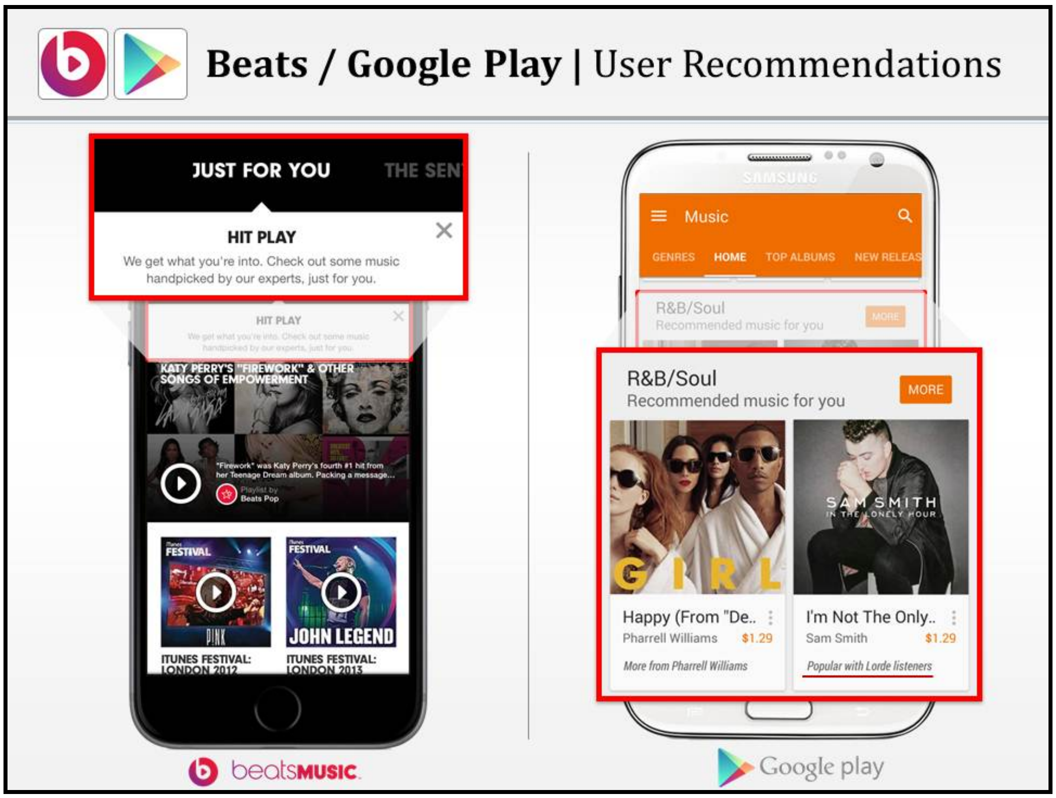
I. Agreements with Interactive Streaming Services Are Appropriate Market Evidence

8. Absent the statutory license, non-interactive and interactive services would be similarly situated with respect to negotiations with UMG. Our agreements with interactive services provide the best market evidence available for the rates and terms for non-interactive streaming to which willing buyers and willing sellers would agree absent a statutory license.

A. Interactive and Non-Interactive Services Can and Do "Steer" Users to Particular Content

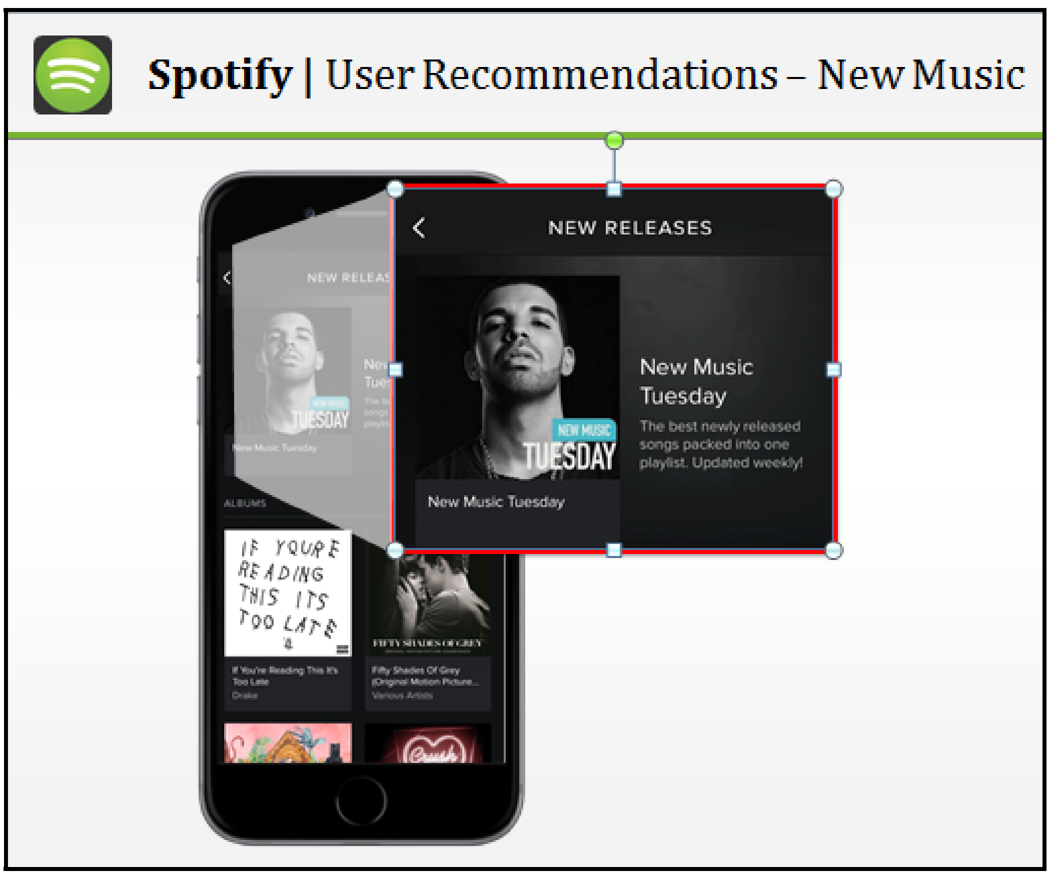
9. As noted, I understand that Profs. Shapiro, Fischel and Lichtman all assert that non-interactive services are materially different from interactive services from a negotiation perspective insofar as only the former are able to "steer" users to the content of a particular record label over the content of other record labels. The Professors are wrong.

10. Interactive services are distinct insofar as they allow users to select the specific track or the exact playlist (songs and ordering) that the user chooses, provided that the track(s) is/are among those the service offers. The market evidence, however, shows that interactive services recognize that their users want more than the ability to select the next track. They want features that editorialize, curate, and recommend the next track or playlist the user will hear. For example, the home screen of the Beats service recommends music "JUST FOR YOU" to the listener, and the home screen of the Google Play service offers a mood-based playlist recommended for the listener:



11. We have heard from our directly licensed partners that users of their subscription offerings want and are listening to service-programmed plays. For example, [redacted]] has told us in meetings that nearly [redacted] of its subscription service plays are programmed streams rather than on-demand plays.

12. Interactive services engage in substantial content development to provide users with discovery tools, playlists, and non-interactive streaming options. Many interactive services used The Echo Nest as a recommendation engine until Spotify acquired The Echo Nest last year. These features are very important to us, because it is one way that services can introduce new UMG artists or tracks to users. If demand for listening to those artists and tracks increases, then so do the revenues to UMG and its artists. For example, Spotify has a "NEW RELEASES" section that features a "New Music Tuesday" playlist as well as newly released albums. It is important to UMG that our artists are featured through the NEW RELEASES section, because users accessing that section are likely to request plays by those artists and their tracks, thereby increasing our share of plays on Spotify and increasing the amount of revenue the service returns to UMG.



13. I understand that Pandora and iHeartMedia assert that, absent a statutory license, non-interactive services would use their ability to steer users to plays of particular labels as leverage in negotiations. Specifically, I understand these participants to argue that content owners such as UMG would accept rates significantly below not only the rates of interactive services, but existing statutory rates as well, in exchange for services steering more users to that owner's sound recordings. I am not aware of any evidence that supports this proposition. Based on my experience negotiating agreements on behalf of UMG, we could and would negotiate for contractual commitments that would discourage a service from steering users away from our music.[1]

14. UMG has long recognized in our negotiations with interactive services that they have the ability to steer users away from UMG's music through the music they feature and recommend through the service, thereby decreasing our plays on the service and the revenue that flows to UMG and its artists. For example, UMG has observed that Rhapsody features independent labels' sound recordings in editorial space in excess of their SoundScan market share. We therefore have negotiated for protections against such steering.

15. For example, our agreement with [[redacted]] included such a term in the context of launching its programmed streaming service: [redacted]

---

[1] Prof. Shapiro noted a "tiny *gain* in advertising revenues" for steering toward UMG content. (Shapiro WDT at Appendix F, p. 9.) I do not know how big that gain is from the public version of his testimony, but Prof. Shapiro's observation suggests that UMG sound recordings benefit Pandora's revenues.

[redacted] (Exhibit 1.)

16. [[redacted]] agreed to a similar term which provides that [redacted] (This agreement is included as Exhibit 2 to my written direct testimony.)

17. These terms are very important to us and provide us with the ability to work with our directly licensed partners to ensure that our content is featured in editorial campaigns and other marketing and promotional materials. UMG devotes substantial resources to working with our partners to ensure that they feature our content to drive streams and the revenue those streams produce. Individuals at both our US distribution company (Universal Music Group Distribution, Corp.) and at the individual labels market and promote UMG releases to our interactive partners. Absent the commitments described above, UMG would risk not having its content featured at all or not having any ability to influence which artists and which content is prioritized.

18. Furthermore, if we did not have these commitments, the interactive services could effectively steer users toward other record labels' artists and sound recordings through the music they highlight. Absent the statutory license, UMG would insist on comparable protections—to

prevent discriminating against UMG, whether by featuring certain content or by a label-discriminatory algorithm—in any negotiations with non-interactive services.

19. To the extent that the ability to steer provides a service with leverage in rate negotiations, that steering and the protections that we have negotiated to mitigate the negative risk to UMG are built into UMG's agreements with interactive services.

B. Bargaining Power of Interactive Services

20. I understand that the Services have argued that the market for licenses between major recorded music companies and interactive streaming services is not workably competitive because, as they characterize it, the major record labels hold all of the bargaining power and are therefore "price-makers." In my experience with UMG, that is not true.

21. As a general matter, our negotiations with interactive services involve back-and-forth on the rates and terms of those licenses. Our negotiations last a substantial amount of time before we reach a deal. It is not unusual for a negotiation to last several months, involving many exchanges before a final agreement is executed. During this timeframe, there is give-and-take on many of the terms, including the core financial terms. Our offers and counteroffers represent financial valuations of the agreement. These are not merely negotiating positions without basis in reality.

22. Our content, of course, provides significant value to online streaming services. Indeed, without musical content, such services would not have a compelling consumer offering. However, UMG also relies on its partners, especially the ones that drive higher ARPU—such as Spotify—and we do not have the luxury to walk away from negotiations with those services whenever presented with demands that we do not like. As a result, Universal has made concessions that impact our business and ultimately forsake revenue.

23. For example, in renegotiating the [[redacted]] deal, we made many concessions, [[redacted] and other key financial terms. I have attached as Exhibit 2 a term sheet from our renewal discussions with [redacted]] in 2013 showing the back-and-forth and the many terms that [redacted] demanded. Notably, these terms show significant reduction from those that were being negotiated in advance of our initial deal with [redacted]] in 2009, including a drop in the revenue share from [[redacted]] to [[redacted]. (Exhibit 3.) When reviewed in light of the final agreements that we reached, it is clear that these negotiations were not one-sided.

24. Likewise, in the [redacted]] negotiation, we ultimately conceded to [[redacted]]. Attached as Exhibit 4 is an email showing the [redacted] UMG made to find an agreement with the [redacted] service.

25. In our negotiation with [redacted] for its [[redacted]], we made significant concessions from our typical [[redacted]]. After significant give-and-take, we ultimately settled on [[redacted]]. I have attached a term sheet that was exchanged as Exhibit 5.

26. In another example, negotiating with [redacted]] for their subscription service, we conceded to lower our [redacted]] and ultimately did not achieve the [redacted]]. (*See* Exhibit 6.)

27. Yet another example of the bargaining leverage wielded by interactive streaming services is our failed negotiations with Amazon regarding their Prime music services. We ultimately did not reach an agreement on economic terms, but the service launched without streaming rights to any of UMG's repertoire. Amazon continues to offer its service without our sound recordings.

28. Finally, I understand that the Judges are interested in seeing a robust set of agreements, representing a "thick market" of evidence. I have attached as Exhibit 7 a CD containing copies of the relevant UMG and EMI agreements.

C. Hypothetical Negotiation with a Webcasting Service

29. I believe the interactive services benchmarks are the most appropriate benchmarks because they represent what a willing buyer and willing seller would agree to in the market absent the influence of the statutory license. A license for non-interactive streaming would be similar. The functionality may vary between interactive and non-interactive services (as it also does among interactive services), but from UMG's perspective those variations would dictate only minor differences in licensing fees. The fundamental structure of the deal would remain the same.

30. In my written direct testimony, I outlined the general structure and terms that UMG aims to include in its direct deals with on-demand streaming services. I believe that absent the statutory license, our negotiations with webcasters would track our experience with on-demand services. If UMG were to negotiate with a webcaster in such a hypothetical world, it would seek the same deal structure that I explained in my written direct testimony: a greater-of compensation structure and conversion incentives designed to encourage the growth of the service's subscription tier; advances, guarantees, and/or shortfall payments to mitigate risk; guarantees to protect UMG's market share on the service; and other non-monetary terms that are crucial to a successful partnership.[2]

[2] I discuss these terms in my written direct testimony at pages 13-24.

31. Still in the hypothetical market, if a large commercial webcaster with a business model such as Pandora's sought to exploit UMG's repertoire, we would approach licensing in exactly the same manner as we do (and did) with [[redacted]]. Indeed, we did just that when [redacted]—which offered a non-interactive streaming service that I described in my written direct testimony—approached us for a direct license. We would aim to include incentives to convert to higher ARPU products, such as a subscription tier, or, in [[redacted]] case, [[redacted]]. If the webcaster chose not to convert users or agree to such a conversion funnel, we would need to be compensated with higher rates for the free tier. In sum, I believe our agreements with interactive services, adjusted for interactivity, are the most appropriate benchmarks to determine the rates to be set in this proceeding.

II. <u>Universal's Negotiations with iHeartMedia (then, Clear Channel)</u>

32. I understand that iHeart is relying on two term sheets that were exchanged between UMG and Clear Channel as "market" evidence that the simulcast rate should not be a "greater-of" rate structure. Because UMG ultimately did not reach an agreement with Clear Channel, I do not believe these term sheets represent market evidence.

33. Clear Channel proposed the [[redacted]] that is in the term sheets. UMG maintained that structure in the counterproposal term sheet [[redacted]].

34. The fact that Clear Channel pays the NAB per-performance rate [[redacted]] confirms that a "greater-of" rate structure would be appropriate here.

35. The term sheets should not be taken for more than what they are: very early stage negotiations that failed. UMG's incentive to continue negotiations with Clear Channel [[redacted]]. Clear Channel was also [redacted]]. I have attached a contemporaneous email that shows the impact this had on continuing a negotiation that UMG likely would not have been interested in otherwise. (Exhibit 8.)

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Aaron Harrison

Exhibits Sponsored By Aaron Harrison

Exhibit No.	Sponsored By	Description
SX EX. 012- RR	Aaron Harrison	Ex. 1 – [redacted]
SX EX. 013- RR	Aaron Harrison	Ex. 2 – [redacted]]
SX EX. 014- RR	Aaron Harrison	Ex. 3 – [redacted]]
SX EX. 015- RR	Aaron Harrison	Ex. 4 – [redacted]]
SX EX. 016- RR	Aaron Harrison	Ex. 5 - [redacted]
SX EX. 017- RR	Aaron Harrison	Ex. 6 - [redacted]]
SX EX. 018- RR	Aaron Harrison	Ex. 7 – CD of Agreements
SX EX. 019- RR	Aaron Harrison	Ex. 8 - Clear Channel Negotiations Recap Email

SX EX. 012 -RR

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SX EX. 013 -RR

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SX EX. 014 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 015 -RR

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SX EX. 018 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 019 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV*)	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

RON WILCOX

Executive Counsel, Business Affairs, Strategic and Digital Initiatives
Warner Music Group

PUBLIC VERSION

Witness for SoundExchange, Inc.

TESTIMONY OF RON WILCOX

BACKGROUND

My name is Ron Wilcox. I am Executive Counsel, Business Affairs, Strategic and Digital Initiatives for Warner Music Group ("Warner"). In that position, I lead the business affairs efforts for Warner's major strategic and digital initiatives, and I work closely with Warner's digital legal affairs lawyers and Warner's Digital Strategy and Business Development department. Recently, I added oversight of Warner's digital legal affairs team to my responsibilities. I am one of the Warner attorneys primarily responsible for developing Warner's relationships and negotiating agreements with digital music services, including agreements that authorize the transmission of Warner's labels' repertoire through streaming services. I previously submitted written direct testimony in this proceeding. My background and qualifications are set forth in my written direct testimony.

I submit this rebuttal testimony to respond to the amended written direct testimony submitted by Profs. Fischel and Lichtman, filed January 13, 2015 (hereinafter, "Fischel-Lichtman"), which analyzes and derives a rate recommendation from Warner's agreement with iHeartMedia ("iHeart").[1] I also respond to the written direct testimony of Simon Fleming-Wood and Bob Pittman, both filed October 7, 2014 ("Fleming-Wood" and "Pittman," respectively) and to the redacted written direct testimony of Prof. Carl Shapiro and Prof. Michael Katz also filed on October 7, 2014 ("Shapiro" and "Katz," respectively).

[1] Fishel-Lichtman's analysis is based on the Warner-iHeart agreement entered into as of October 1, 2013. As I explained in my written direct testimony, Warner and iHeart entered into an amendment to that agreement as of March 31, 2014. Except where my rebuttal testimony specifically discusses this amendment, references to the agreement herein are to the original agreement.

DISCUSSION

I. The Fischel-Lichtman Analysis Concerning the Warner-iHeart Agreement is Wrong.

1. I have reviewed a specially redacted version of the Fischel-Lichtman analysis. Specifically, I have reviewed a version of the Fischel-Lichtman analysis that includes unredacted information concerning the Warner-iHeart agreement that iHeart filed with a "restricted" designation. (Fischel-Lichtman, at ¶¶ 32-56 and Exhibits A-B.) I have not seen and I have no information regarding the "restricted" portions of the Fischel-Lichtman analysis that concern confidential information of any entity other than Warner.

2. Fischel-Lichtman assert that the Warner-iHeart agreement is marketplace evidence that, absent the statutory license, a willing buyer and willing seller would agree to a rate of $0.0005 per performance for a non-simulcast radio service containing all of the functionality offered by iHeart's personalized or customized radio service. That assertion is absurd. Fischel-Lichtman's analysis is based on incorrect and misleading assumptions and conclusions regarding the Warner-iHeart agreement, the parties' negotiations, and Warner's modeling.

A. Fischel-Lichtman Misdescribe the Warner-iHeart Agreement and Their Analysis Has No Basis in the Actual Negotiations.

3. Fischel-Lichtman base their analysis on the notion that "the Warner agreement reflects a bundle of two distinct sets of rights": one "bundle" purportedly for iHeart to have the right "to play the same number of Warner performances as it would have played absent the agreement" on its non-simulcast radio service; and a second "bundle" purportedly for iHeart to have the right to perform Warner sound recordings on such service above and beyond the first "bundle." (Fischel-Lichtman, at ¶ 45.) Fischel-Lichtman contend that, absent the direct agreement, Warner's share of performances on iHeart's non-simulcast radio service would be equivalent to [redacted] ("Warner's Pre-Agreement

Share"), [redacted][2] (*See id.*, at ¶¶ 19, 36.) The additional performances in Fischel-Lichtman's second "bundle" equal the difference between [redacted].[4] Based on this "bundle of two distinct sets of rights" construct, Fischel-Lichtman assert that the Judges should simply disregard the amount of compensation iHeart agreed to pay for the first purported "bundle"—performances of Warner sound recordings up to Warner's Pre-Agreement Share. (*Id.*, at ¶ 46.) Fischel-Lichtman then opine that the true willing buyer/willing seller negotiation between iHeart and Warner was for the second purported "bundle"—performances in excess of Warner's Pre-Agreement Share. (*Id.*, at ¶ 49.) Relying on projections that [redacted], Fischel-Lichtman assert that the value of this second "bundle" is $0.0005 per performance. (*Id.*, at ¶¶ 40, 51.)

4. Fischel-Lichtman have not accurately analyzed the agreement that Warner and iHeart executed or our negotiations with iHeart. Warner and iHeart never discussed a license

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[2] During our negotiations, [redacted]

[3] Under the agreement, [redacted]

[4] Notably, under the agreement, and contrary to Fischel-Lichtman's allegations, [redacted]

using the "bundles" construct used in the Fischel-Lichtman analysis; Warner did not model the agreement under that construct; and, most importantly, the agreement does not embody any such construct.

5. As I previously explained in my written direct testimony, [redacted]] These are not, however, the bundles used in the Fischel-Lichtman analysis. The agreement describes [redacted] (attached as Exhibit 1 to my written direct testimony).

6. [[redacted]] is for iHeart's personalized or customized, non-simulcast radio service. In exchange for these rights, iHeart agreed to pay [[redacted]]

[5] [[redacted] (*See* Fischel-Lichtman, at ¶ 38.)

7. With respect to [redacted]

8. Prior to entering into the agreement, we modeled Warner's potential [redacted] An example of that modeling from around July 2013 is contained in Exhibit 3. We believed that it was likely that Warner's [redacted]

9. Based on [[redacted]] that iHeart has provided to us, Warner's [[redacted]]

10. Warner negotiated [[redacted]

	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		

[redacted]

11. By way of example, assume that iHeart's non-simulcast radio service streamed five billion total performances in a particular month in the first full calendar year of the agreement (2014), and that Warner sound recordings accounted for 20% of those royalty-bearing

performances (one billion). [[redacted] Sticking with the same assumptions, iHeart could reduce the total effective per-performance rate paid to Warner below the NAB rate of $0.0023, but only by performing Warner sound recordings [redacted]

12. The actual economics of the Warner-iHeart agreement thus completely debunk the Fischel-Lichtman analysis. As demonstrated, [redacted] That is completely contrary to Fischel-Lichtman's theory that their first purported "bundle" [redacted]

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[6] [[redacted]

[redacted]] may be disregarded because the parties would never agree to value performances within that "bundle" at any rate other than the statutory rate. (Fischel-Lichtman, at ¶¶ 46-47.)

13. Likewise, Fischel-Lichtman's theory that Warner and iHeart valued the performances in their second purported "bundle" [redacted] at $0.0005 is demonstrably false. *In all cases*, [redacted]

14. At no time during our negotiations did iHeart ever claim, or provide to Warner, any modeling, that showed iHeart valuing the agreement as in the Fischel-Lichtman analysis.

15. At no time did Warner model the potential agreement with iHeart as in the Fischel-Lichtman analysis. Attached as Exhibit 4 are several of our models of the potential agreement. To provide context [[redacted]

[redacted]

16. None of the Warner models utilize the Fischel-Lichtman two "bundle" construct. The Warner models instead [redacted]

B. Fischel-Lichtman Pick and Choose Assumptions.

17. Fischel-Lichtman also make key errors in their analysis and omit inconvenient particulars that impact the result, even if their model were to have some basis in fact.

18. ***First***, as I have noted, Fischel-Lichtman base their analysis on the assumption that, absent the direct agreement, iHeart would have performed Warner's sound recordings at Warner's Pre-Agreement Share [[redacted]][7] (*See* Fischel-Lichtman, at ¶ 19.) Fischel-Lichtman assert that iHeart "would have continued to play [Warner's] music at this baseline level and would have paid for those performances at the statutory rate." (*Id.*) Fischel-Lichtman's assumption [[redacted]e

[7] As noted, [[redacted]]

[redacted]

19. For the Fischel-Lichtman analysis to have any basis in fact, it must account for [redacted] Again, the Fischel-Lichtman "bundles" are specious. But Fischel-Lichtman's analysis fails even on its own terms, not only for all of the reasons described above and below, but also because it does not account for [[redacted]

20. ***Second***, Fischel-Lichtman's assumption of [[redacted]

[redacted]]

21. ***Third***, Fischel-Lichtman model Warner's [[redacted]]

C. Fischel-Lichtman's Analysis Fails to Value Multiple Protections that Warner Received under the Agreement.

22. Fischel-Lichtman disregard that the agreement [[redacted]] (Fischel-Lichtman, at ¶ 34.) Regardless [[redacted]] I have discussed this and other important [[redacted]] in my written direct testimony.

23. Fischel-Lichtman make no attempt to determine the value of these protections. They instead either do not discuss these numerous protections or surmise that their value could

"overstate" or "understate" the $0.0005 Fischel-Lichtman rate. As already demonstrated, the $0.0005 rate that Fischel-Lichtman put forth is simply wrong: [[redacted]

For example:

- [[redacted]
- [[redacted]

8 [redacted]

[redacted]

- [redacted]
- [redacted]
- [redacted]
- [redacted]

24. Finally, I understand that Fischel-Lichtman contend that [[redacted]

9 [redacted]

[redacted]]

II. Response to Fleming-Wood's and Pittman's Assertion that Webcasters Do Not Compete with Interactive Services.

25. I understand that the Services participating in this proceeding contend that "non-interactive" services are fundamentally different from interactive services. Mr. Fleming-Wood and Mr. Pittman claim that non-interactive services compete primarily with terrestrial radio and do not compete in the market with "interactive" services, such as Spotify. (Fleming-Wood, at 6-8; Pittman, at 6.) I do not agree with these witnesses' view that non-interactive and interactive services compete in different markets. As explained in my written direct testimony, *all* digital streaming services have fundamentally changed how the recorded music industry distributes music. Non-interactive services include functionality that customizes and personalizes the user experience, so as to approach the experience of interactive. Interactive services, on the other hand, have increased their editorial, curation and playlist functionality to provide listeners with more of the "lean back" experience historically associated with non-interactive services. In short, the line between the two types of services is more blurry than bright, and it is not accurate to say they operate in different markets.

26. Mr. Pittman's views, in particular, are inconsistent [redacted] As noted in my written direct testimony, [[redacted]

[redacted]

27. The fact that iHeart requested [[redacted] (Exhibit 7.) [[redacted]

III. Response to Shapiro's and Katz's Claims that Warner Exerts Monopolistic Power.

28. I understand that Prof. Shapiro and Prof. Katz argue that the market for licenses between major recorded music companies and interactive streaming services is not sufficiently competitive because, as they characterize it, the major record labels hold all of the bargaining power. For Warner, this is far from true. Our negotiations with interactive streaming services with respect to economic terms and functionality are hard fought and take place over many months and sometimes more than a year. This back-and-forth is not a superfluous exercise in which Warner ultimately dictates the price. Rather, as evident from our actual negotiations, it involves give-and-take on both sides. Services, of course, range in their negotiating power from

large multifaceted companies that can both make offers and extert pressures beyond the bounds of the particular agreement being negotiated (for example, AT&T, Apple, Google) to smaller startups or companies with a niche product. Regardless, the negotiations are meaningful and our agreements always reflect that give-and-take.

29. For example, in our negotiation with [[redacted]] I have attached as Exhibit 8 an early term sheet [[redacted]] The agreements show, however, [[redacted]]

30. Another example of an interactive service that has exerted considerable leverage because [[redacted]] (Exhibits 9-10.) [redacted] (Exhibit 11, at 3.)

31. While not an interactive streaming service example, when Google Play first launched, Google offered a download store. To make Warner sound recordings available in the download store, Google needed rights from Warner. Initially, we could not reach an agreement for those rights. Despite not having Warner sound recordings available in its download store, Google Play launched in 2011. We eventually reached an agreement in 2012 to make Warner

sound recordings available in Google's download store in conjunction with the launch of the Google Play streaming service.

32. Finally, I have attached as Exhibit 12 a CD containing copies of numerous relevant Warner agreements with interactive services. I understand that the Judges are interested in seeing a substantial number of agreements, representing a "thick market" of evidence. These agreements make it clear that Warner negotiates for a range of rates and terms across the interactive services. Warner is not a price-maker, and it does not exert monopoly-like power.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Ron Wilcox

Exhibits Sponsored by Ron Wilcox

Exhibit No.	Sponsored By	Description
SX EX. 020- RR	Ron Wilcox	Ex.1 – [[redacted]
SX EX. 021- RR	Ron Wilcox	Ex. 2 – [redacted]
SX EX. 022- RR	Ron Wilcox	Ex. 3 – [redacted]
SX EX. 023- RR	Ron Wilcox	Ex. 4 – [redacted]
SX EX. 024- RR	Ron Wilcox	Ex. 5 – [redacted]
SX EX. 025- RR	Ron Wilcox	Ex. 6 – [redacted]
SX EX. 026- RR	Ron Wilcox	Ex. 7 – [[redacted]
SX EX. 027- RR	Ron Wilcox	Ex. 8 – [redacted]
SX EX. 028- RR	Ron Wilcox	Ex. 9 – [redacted]
SX EX. 029- RR	Ron Wilcox	Ex. 10 – [redacted]
SX EX. 030- RR	Ron Wilcox	Ex. 11 – [redacted]
SX EX. 031- RR	Ron Wilcox	Ex. 12 - CD of Agreements

SX EX. 020 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 021 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 022 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 023 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 024 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 025 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 026 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 027 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 028 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 029 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 030 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 031 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

CHARLIE LEXTON

Head of Business Affairs & General Counsel,
Music and Entertainment Rights Licensing Independent Network ("Merlin")

PUBLIC VERSION

Witness for SoundExchange, Inc.

TESTIMONY OF CHARLIE LEXTON

Introduction

1. My name is Charlie Lexton. I am the Head of Business Affairs and General Counsel at the Music and Entertainment Rights Licensing Independent Network, which is more commonly known as "Merlin." I have been at Merlin since January 2008, and assumed my present role in April 2008, but I have been working in the music industry for almost my entire professional career, spanning more than twenty years. I was one of the two people at Merlin primarily responsible for the negotiation of our recent licence with Pandora. I have attached a copy of the Pandora-Merlin licence as Exhibit 1 and will refer to it throughout my testimony.

2. I have reviewed the public versions of Pandora's testimony, including Pandora's rate proposal and the testimony of Mike Herring and Dr. Carl Shapiro. I am aware that Pandora has suggested that our licence supports a proposal for a per-performance royalty rate that is *below* even the statutory rates that Pandora pays outside of our licence and the minimum rate Pandora must pay under our licence. That is simply incorrect. I am also aware that iHeartMedia has now suggested our licence supports a per-performance rate that is similar to or lower than $0.0002 per performance. That is grossly incorrect.

3. From what I can discern, Pandora has made a number of statements that fundamentally misrepresent our agreement, because when I take all relevant facets of the deal into account, I cannot see how any reasonable calculation could support Pandora's rate proposal. Having negotiated the deal, I worry that Pandora has presented the licence as a series of distinct terms as opposed to a homogenous agreement where every term is interrelated and would not have been agreed absent the other terms. The latter is the better way to understand the licence and is the view I will present here. In particular, after providing appropriate background

information, I will explain: (a) how the direct licence was inextricably affected by, and would not have been agreed on its terms but for, the nature and terms of the existing compulsory licence; (b) how the direct licence in this instance offered unique consideration that is not provided under the statutory licence; (c) how the effective compensation under our direct licence is no lower than the compensation record labels would have received from Pandora under the statutory licence; and (d) how the terms, and implementation, of this experimental licence make it impossible to assess the actual value of the licence at this point.

4. In short, we knew (and Pandora knew) that it was going to pay the Pureplay statutory rates if we did not agree to a licence. Our choice was simple. For the approximately 18-month period in which the Pureplay settlement was still in effect and available to Pandora, we could either (a) leave our members to operate under those rates as Pandora has the right to and chooses to elect them under the statutory licence regime in the U.S.; or (b) try to obtain as much value as we could for our members that Pandora otherwise would not provide. We chose the latter, recognising however, that we were operating outside of our usual negotiating position in the market (where if we "walk away" from a negotiation, the counterparty is left unlicenced) and that such a licence could only be negotiated within the confines of Pandora's option to rely on the statutory licence. As a result, the rates we negotiated were agreed as a [[redacted]] of the statutory rates rather than as independently negotiated rates. We also negotiated the licence under the self-imposed remit that we were to avoid in any way undermining the statutory licence regime or otherwise passing comment on what an acceptable level may be for future statutory rates, hence our position that the [[redacted].] Attached as Exhibit 2 is an email chain showing Merlin's remit with respect to this licence.

5. From this vantage point, we were surprised to learn that Pandora held out our licence as the best example of what the market would and should pay for use of a sound recording. It is not that. Our licence was simply an opportunity to generate additional [[redacted]] when we knew any negotiation would be firmly anchored by the rates Pandora could elect to pay with no negotiation at all. In my view, this licence was therefore directly affected and inextricably bound by the existing statutory rates, not evidence of what the next statutory rates should be.

<u>Background</u>

6. I have worked in the music industry for virtually all of my career, spanning over twenty years now. Immediately after finishing university in 1989, I was self-employed working in music management and production. During, and after completing, my education at the College of Law in the United Kingdom from 1992 to 1994, I served as a Director of a brand new independent record label, Dorado Records Limited, that mixed soul, hip hop, jazz and dance music. I then trained and qualified as a Solicitor in the Media and Communications Department at the law firm DJ Freeman based in London where I worked from 1995 until the end of 1999. While at DJ Freeman, among other things, I continued my legal work for Dorado Records.

7. In 2000, I joined Universal Music International as Director, Legal and Business Affairs reporting to the General Counsel on a variety of record company matters, including intra-group licensing, artist agreements and label deals. I became Vice President of Business Affairs at EMI Music in June 2002. In that role, I was the head of business affairs for Continental Europe, Africa, and the Middle East. In that position, I worked on a variety of different matters including online and mobile digital distribution agreements, which at that time were largely with leading European telco operators and service providers.

8. I left EMI in the middle of 2005 and became a Director and Co-Owner of City Rockers, which was an independent record label and an artist management company. We worked with several exciting and innovative artists, but principally The Sunshine Underground in relation to whom we had a joint venture arrangement with Sony Music in the UK. I also continued to serve as a legal and business affairs consultant to a number of record labels (including EMI UK), often on digital content agreements.

9. It was in January 2008 that I started as a consultant to Merlin, which rapidly led to my employment, as from April 2008, running the organisation's legal and business affairs. In that capacity, I have a variety of responsibilities including management of our corporate framework, oversight of our legal advisers in a variety of jurisdictions, the running of our infringement action settlement negotiations, but most relevant here, alongside our CEO, I negotiate and manage Merlin's most important licences with digital music services.

Introduction to Merlin

10. Merlin is a global rights agency for the independent record label sector. The official formation of Merlin was announced in January 2007, and the organisation opened for membership in early 2008. As of February 2015, Merlin has approximately [redacted]] label and distributor members, who, in turn, represent over 20,000 labels in 40 countries. In our first nearly seven years of operation, Merlin has been able to negotiate direct licences in territories around the world, including with prominent digital music services like Spotify, Rdio, Google Play, Beats Music, and more recently, Pandora.

11. Broadly speaking, Merlin's purpose is to allow independent record companies to benefit from direct deals negotiated by Merlin on a collective basis. As such, Merlin is a one-stop-shop for recorded music rights licensing. It represents recorded music rights owned and/or

controlled by independent record labels and distributors who are eligible and choose to join Merlin. These are our members.

12. Merlin's core remit is to represent its members in negotiating licences with digital music services in the hope of overcoming market fragmentation issues that have historically challenged the independent music sector (particularly in the digital domain). This licensing activity only relates to non-physical exploitation rights in sound recordings, and generally does not cover a la carte download-only services such as the iTunes Store. Merlin is not involved in dealing in music publishing rights or active in music publishing.

13. Merlin also represents its members in pursuing and, where appropriate, settling claims against parties who infringe the copyrights of its members. While I understand this proceeding is about licensing and not infringement actions, this is important in order to understand the way we structure Merlin's membership. Generally speaking, our members fall into two basic categories: (a) those who allow Merlin both to represent their rights in the negotiation of non-exclusive licences *and* pursue and, where appropriate, settle copyright infringement actions; and (b) those who only permit Merlin to pursue and, where appropriate, settle infringement actions on their behalf. Approximately [[redacted]] of Merlin members fall into the first category, meaning that Merlin has the ability to negotiate licences with digital services for about [[redacted]] record label and distributor members. [[redacted]] – meaning members for whose rights we can negotiate a licence, on a non-exclusive basis, with a digital music service. [redacted] members range from individual labels and label groups to distributors and aggregators who may represent thousands of labels.

14. Merlin serves the independent recorded music sector. Membership is only open to businesses which own or control rights in master recordings and which have an annual share of

the global market for recorded music that is *less* than 5%. This restriction also applies to a case in which a record company is owned in whole or in part by a company with more than a 5% share of the global recorded music market. Therefore, not every recorded music company can become a Merlin member, but many can.

15. Importantly, all of the rights Merlin licences are non-exclusive, and each Merlin member also retains the right to "opt in" or "opt out" of each individual agreement, legal action, or settlement that Merlin enters. So, in practice, after Merlin has negotiated a licence, it generally sends a notice to its applicable members summarising the economic and other terms of the agreement and offering them the opportunity not to include their rights in such licence (we refer to this notice as a "Deal Notice"). Therefore, at the time we negotiate a licence with a digital music service, we cannot, as a rule, guarantee to the service that it will receive the rights to perform the repertoire of all of our members or of any of our members in particular. I have attached a sample Deal Notice for our Pandora-Merlin licence as Exhibit 3.

16. As a general matter, we estimate that if you include all of our [[redacted]] members (including the labels distributed by our distributor members), Merlin members own and/or control the rights to roughly 10% of the streaming sector of the global recorded music market. This is not a precise number, but is our general sense based on the royalty reporting we see from various of the services with whom we are in business. From deal to deal, our share may fluctuate in some part because services sometimes differ in audience preferences, consumer offering, and/or geographical footprints. More importantly, [[redacted]]

17. Even when we can identify the [[redacted] members that have opted into a Merlin licence, that does not necessarily enable us to estimate the actual share of the market that the service has licensed. This is because some of our [redacted] members are distributors. Distributors work to secure opportunities for their clients – music labels or sometimes individual artists – to have their music heard. But, like Merlin, distributors sometimes have opt-out or opt-in policies for their own clients, meaning that there are two different decision points – at the label-distributor level and at the distributor-Merlin level – to opt sound recordings out of the licences we negotiate.

18. The consequence of all of this is that while we are confident that our Category 1 membership in sum total represents approximately 10% of the streaming sector of the global recorded music market, on any particular service, [redacted]] are such that in the weeks before I submitted this testimony, we have been working with our members and Pandora on [[redacted]] This is notable, especially since there are only roughly [redacted]] left on the deal.

Context of Negotiations for the Pandora-Merlin Licence

19. I have been at Merlin since 2008 when we opened for membership and commenced licensing operations. In that time, I have been involved in negotiating and managing all of our high-value, high-profile licensing transactions. As I mentioned above, this includes the negotiation of the Merlin licence with Pandora, an endeavour that was led on the Merlin side by Charles Caldas, Merlin's Chief Executive Officer, and myself.

20. The negotiation began in [redacted]] with a presentation led by Pandora's ex-CEO and President Joe Kennedy and Vice President of Business Affairs and Assistant General Counsel, Chris Harrison. That presentation is attached as Exhibit 4. Pandora told us that their vision was that [[redacted]] of all internet radio performances in the US would be from independent labels. Pandora's pitch to us was that a direct licence would result in [[redacted]]

21. With respect to [[redacted]], Pandora identified several features of their service that they would give us access to [[redacted]]. For instance, they promised us [redacted] They offered to give us access to [redacted] of a label's performance. [[redacted]]. As far as we knew, none of this was available to our members under the statutory licence with Pandora and, at the very least, Pandora certainly was not offering it without a direct licence. [[redacted]] But they noted we would need to [redacted]] to enable this feature. [[redacted] This feature was part of [[redacted]] and ultimately became part of the [redacted]

22. With respect to [redacted]], Pandora suggested they could [[redacted]]. (Exhibit 4, at 7.) I also understood Pandora to have proposed [redacted] from the rate owed.

23. Finally, Pandora suggested in this initial proposal that the deal would result in [redacted] To support this suggestion, Pandora started by identifying [[redacted]]. Based on these rates, Pandora suggested we might be able to [[redacted]] and, in return, Pandora would [redacted]] All of these points were not just made to us in person but reflected in the presentation Pandora sent to us. (Exhibit 4.) They also said that they had [[redacted]

24. While the licence's specific terms [[redacted]] between that presentation and the execution of the deal, the core concept was in place: [[redacted]

25. Merlin is very supportive of a strong statutory royalty rate for webcasting services. As a result, we were conscious at all times to try to ensure that and intended that the agreement would not affect this Copyright Royalty Board proceeding. We thought that [[redacted]], it would be clear that this was just an example of a direct licence on terms agreed *because of* the existing statutory

rates. Due to the fact Pandora offered us [[redacted]], we understood this as an opportunity for experimentation given and within the constraints imposed by Pandora's existing statutory rates. This point was stated well by our CEO, Charles Caldas, in announcing the licence, when he said, "For the thousands of labels Merlin represents, this agreement with Pandora provides a real best of both worlds scenario: a hugely important opportunity to increase our members' revenues and access unparalleled opportunities for exposure, *whilst continuing to support a collective licensing framework*."[1] (Exhibit 5, emphasis added.)

26. I would emphasise, this was a very unusual negotiation for us. In my time at the Merlin organisation, the only other instance I recall where a similar dynamic has inhibited a true market negotiation was with [[redacted]]. The parallel in both cases – and even more so in Pandora – [[redacted] Both we and Pandora therefore knew that the negotiation both started at [[redacted]]. Unlike negotiations with services that do not operate under the statutory licence, we knew Pandora could walk away at any point and still use our content under the compulsory licence. Not only could Pandora walk away, Pandora knew the exact price of walking away, as they would merely have to pay the statutory rate they were already paying. As

[1] Merlin Press Release, August 6, 2014, *available at* http://www.merlinnetwork.org/news/post/merlin-and-pandora-partner-to-help-independent-labels-and-artists-grow-thei

such, we could not withhold our content or negotiate for headline royalty rates above the statutory rates.

<u>The Pandora-Merlin Licence Was Directly Related to and Intertwined With the Existing Statutory Rates</u>

27. Our licence with Pandora was an exercise in experimenting with direct licensing derived from the existing statutory rates. The features of the licence itself plainly reflect that in a number of ways.

28. First, the term of the licence is set to end on [[redacted]]. The term begins on [redacted] and, importantly, ends on [[redacted]]. (Exhibit 1, at ¶ 1(r).) [[redacted]]. In fact, the term can only be extended by [[redacted]] about continuing forward with this experimental arrangement.

29. Second, the reference point on royalty rates in the negotiations [[redacted]]. In fact, the stated royalty rates in the licence are [[redacted]]. (Exhibit 1, at § 3(a).) This is no accident. The reference point in the Pandora proposal to us was [[redacted]], and therefore I looked up those statutory rates. [[redacted]], but upon research, I learned that under their existing statutory rates, Pandora pays a separate, higher rate to subscribers. [[redacted]], as shown in the email I have attached as Exhibit 6. We then insisted that the stated rates in our

direct licence reflect [[redacted], which is memorialized in the licence itself.

30. The [[redacted]] also mirrors Pandora's alternative under statutory rates. Because Pandora is subject to a [[redacted]]. (Exhibit 1, at § 3(a)(i).) We understand that under the existing statutory rates, Pandora is subject to a percentage-of-revenue calculation that reaches all of their revenue. The direct licence [redacted]]. If we were going to make a similar direct licence with another statutory webcaster, all things being equal, we would insist on [[redacted]].

31. Third, the licence specifies that [redacted] (Exhibit 1, at § 15(b).) The purpose of this provision is self-evident: the [[redacted]] is dependent on Pandora eligibility for the Pureplay rates. If Pandora could no longer (or did not) elect the existing Pureplay rates, Merlin needed [redacted]] because the foundation of our evaluation of the licence [redacted]]. As I have said earlier, the rate we agreed to was a [redacted]]. I also viewed this [[redacted]] as a protection against the theoretical possibility of Pandora [[redacted]

[redacted] – i.e., I wanted to protect against the possibility of this agreement [[redacted]]. My calculation here was that [[redacted]]. As this [[redacted]] provision demonstrates, I can say unequivocally that we did not regard this as a deal we would have done on these terms in the absence of Pandora having the benefit of the existing Pureplay statutory rates.

32. Fourth, the licence makes royalty rates for [redacted]]. The licence expressly defines [redacted]] Our licence with Pandora, through these provisions, is built to [[redacted]], which acknowledges that [[redacted]].

33. Finally, [redacted]] under the licence are calculated with reference [redacted]]. The [[redacted], and the [[redacted]

[redacted]] were intended to ensure that [[redacted]] (The [[redacted]] the annual increases in the statutory rates for each of 2014 and 2015). (Exhibit 1, at §5(a).)

<u>The Licence Reflects Considerations That Are Unavailable Under the Compulsory Regime</u>

34. The direct licence was tied in many material respects to Pandora's existing statutory rates, but much of the consideration that Merlin labels received under the direct licence was either unavailable or not offered while Pandora was operating under statutory rates. Such consideration includes:

35. Steering: Pandora's promise to overindex Merlin labels, [[redacted]], is not a benefit that was available to our labels when Pandora operated under the statutory licence. This is because, by definition, Pandora cannot steer towards all copyright owners at once ([[redacted]). This is due to the fact that Pandora can only deliver a finite number of plays (i.e., the number of plays to make up total listening hours at any one time) and therefore for every label whose recordings are performed in excess of its "natural performance rate" [redacted] another label's recordings must be performed at a frequency below the label's natural performance rate. Consequently, I understood steering as a benefit that would only be available under a direct licence and which could only be available to a limited number of recipients (since, as a matter of logic, it is not possible for Pandora to overindex spins for all record labels). Furthermore, I understood that Pandora believed there was a limit to the extent it could adjust its play-listing algorithm to

deviate from the natural performance rate without negatively impacting its consumers' experience – and it was of great importance to Pandora to avoid such an outcome.

36. Steering is a particularly important benefit *because* it cannot be replicated across the market. Only so many direct licencees can receive the economic benefit of guaranteed steering before it becomes infeasible. By being the first of these direct licencees this therefore allowed us to have a preferential position on the service. In my experience, independent record companies are rarely, in fact almost never, given such an opportunity on a digital music service, especially as compared to major record companies. Thus, we regarded steering as a benefit that was uniquely beneficial for our members as part of a direct licence.

37. Bullets: Under the direct licence, Merlin labels have the ability to designate [redacted] that would otherwise be applicable. (Exhibit 1, at § 1(c).) Merlin, however, had to [[redacted] to enable this functionality. (Exhibit 1, at §§ 1(c)(v), 1(m).) Pandora made clear to us that [[redacted]. Attached as Exhibit 7 is an email from Chris Harrison of Pandora to me explaining that Bullets are not part of Pandora's service.

38. Importantly, the choice to designate a Bullet or not is [[redacted]]. In essence, the "Bullet" is a recognition that record companies can determine when there are special circumstances that are worthwhile to deviate from their normal per-performance royalty rate, much like services and record companies are free to enter into direct licences. Furthermore, and

in any event, given that the [[redacted]], this ensured that [[redacted].]

39. Pandora Presents and Pandora Premieres: Merlin labels received [[redacted]] to these programs. (Exhibit 1, at § 11.) My understanding is that Pandora Presents is a live concert program and Pandora Premieres involves the streaming of whole albums, and neither of these programs is paid for under Pandora's statutory rates, i.e., Pandora directly licences participation in those programs

40. Data: Pandora committed to give Merlin labels access to metrics about its listener usage for their artists. (Exhibit 1, at § 9.) To my knowledge, that is not required by the statutory licence.

41. Artist/Label Outreach: The direct licence provides Merlin members with access to [[redacted] (Exhibit 1, at §§ 7, 8, 10.) Each of these commercial opportunities is not part of the consideration our members receive under the statutory licence.

42. Discounted Advertising: The licence includes an offer for Merlin members to purchase display-only advertising at a [[redacted]] discount. (Exhibit 1, at § 6.) For our members, many of whom have limited advertising budgets, such a discount could translate into real dollars saved, and was not available under the statutory licence.

43. Each of these offerings could provide value to our members and, as far as I know, are either unavailable under the statutory licence or were not offered to our members regularly

before the direct licence. This demonstrates that our direct licence with Pandora provided considerable value that could not be replicated by the statutory licence.

44. A further benefit of the licence was a provision under which, [redacted]] (Exhibit 1, at ¶ 13.) [redacted]]

45. Also, one motivation for the licence that was unique and particular to Merlin was that we viewed a direct licence with Pandora as a possible way [[redacted].]

<u>The Effective Compensation Is, At Worst, No Lower Than Compensation Under the Existing Statutory Rates Paid By Pandora</u>

46. This licence is structured explicitly to protect the mechanisms of collective licensing and to preserve both the value of our members' rights and the performers that they represent and not to pass comment on the rate for webcasting other than to acknowledge that

Pandora is operating under the Pureplay rates in 2014 and 2015. Indeed, I would describe the licence far less in terms of actual rate numbers but more as a [[redacted]] of the existing statutory rates.

47. It is important to note that Pandora initially proposed [redacted] whereas the agreement we actually negotiated created a structure whereby [[redacted]]

48. It should also be noted that because the [redacted]], the consequence of the [redacted] is that in order to achieve the maximum benefit available to it under the direct agreement, Pandora would need to overweight spins for *each and every* Merlin member participating in the agreement by at least [redacted]] (Therefore, in terms of achieving the maximum discount, overweighting one label's plays by [redacted] does not balance out a failure to overweight another label.)

49. I recall that on the day the licence was announced, Pandora's CEO stated in *Billboard* magazine that Pandora doesn't "expect the deal to have a major impact on costs."[2] In fact, in the same article, our CEO Charles Caldas stated that the terms are no worse than the

[2] http://www.billboard.com/biz/articles/news/digital-and-mobile/6207066/pandora-signs-first-direct-label-deal-with-merlin

statutory rates previously received and added – which is true – "We wouldn't do any deal where there was any risk we were going to get paid less."

50. I understand that Pandora is proposing statutory royalty rates as low as $0.00110 for ad-supported performances and $0.00215 for subscription performances. I also understand that iHeartMedia has suggested that the rates implied by our direct licence are as low as $0.0002. While much of their economic analysis is redacted and unavailable to me, given the actual terms of the direct licence, I fail to see how that is possible.

51. A proper evaluation of our direct licence would have to recognise that its terms are interconnected and ensure that effective compensation will, at minimum, be no worse under our agreement than it is under Pandora's statutory rates.

52. In this regard, and most obviously, the [[redacted] both Pandora's and iHeartMedia's proposed rates and [[redacted]]. For the rates implied by our direct licence to move downward from those [redacted] rates, Pandora [[redacted]], which, as I noted above, would be impossible as services cannot steer toward all record companies at once. (Furthermore, all the other terms in our agreement would need to be disregarded.) Even if, for argument's sake, a service could [[redacted]]. (Exhibit 1, at § 4(b).) These rates, of course, are higher than the per-performance rates suggested by Pandora and considerably higher than the per-performance rates proposed by iHeartMedia. Put another way, the direct licence [[redacted]] It is also notable that the stated rates in the

direct licence [redacted]]. It would not make sense, then, that the licence would imply statutory rates in 2016 that are [[redacted]].

53. There are also at least four important additional and incremental sources of consideration that are necessary to understand the value of the direct licence. *First*, the Pandora and iHeartMedia rate proposals seem to entirely omit one key source of consideration: our direct licence includes a [[redacted]]. (Exhibit 1, at § 3(e).) This is a source of possible consideration that was *in addition to* what was offered by the statutory rates. Any statutory rate proposal based upon our direct licence would necessarily need to include a similar [[redacted]]. The inclusion of this provision further confirms that the direct licence is intended to create *additional* compensation for Merlin members. Moreover, if Pandora is correct that [[redacted]]. This was an extremely important facet of the deal for us because it preserved our ability to [[redacted]]. In fact, I do not believe we would have agreed to the licence without this provision.

54. *Second,* the definition of "Performance" in the agreement provides for [[redacted]]. My understanding is that Pandora

and other webcasters do not compensate Merlin members for such performances under the statutory licence; therefore, the payment for [[redacted]] represents either an upward adjustment as against the statutory rates or an expansion in the statutory definition of compensable performances.

55. Additionally, while much of Pandora's evidence is redacted, from the elements of the witness statements that are available to me, it seems to me that the direct licence's [[redacted]] has been used to justify an argument to reduce the statutory rates. Presumably, Pandora's theory would be that if a certain percentage of all performances[[redacted].] However, this would be to analyse the provision regarding [redacted]] in isolation rather than in context of the entire agreement – in particular [[redacted]]. To give an illustrative example, [[redacted].] However, such an argument in relation to our direct licence would ignore the effect of the [[redacted].]

56. *Third*, the First Amendment to our direct licence provides [[redacted] (Exhibit 8.) [redacted]] would

need to be added to any effective rate implied by the licence. Given the term is [redacted], and Merlin will receive at least [redacted]].

57. *Fourth,* the direct licence includes [[redacted] which is intended to ensure that [[redacted]] (Exhibit 1, at § 5.) So for example if Pandora grew listener hours by 25% in 2014, we would [redacted] We viewed this as a potentially significant advantage since [[redacted]]

58. The [[redacted]] are therefore exceptionally meaningful to the question of effective compensation. For example, if the statutory royalty rates were set at the level that iHeartMedia proposes, there is no question that the [[redacted]] under the direct licence. Furthermore, given that the rates we agreed were [[redacted]

[redacted]]

<u>The Effective Compensation Under the Pandora-Merlin Licence Is Entirely Unclear At This Time</u>

59. This direct licence was announced in August 2014 and only runs until the end of [redacted]]. As of the time I submit this testimony, many of the key features of the deal have not been properly implemented or are just now in their early stages and, crucially, we do not and cannot at this point know the value of the [[redacted]] under the agreement.

60. [[redacted]] Notably, despite the contractual requirement that [[redacted]]

61. Some of the delay is because it has taken time and is an ongoing task to determine what sound recordings are covered by the deal [redacted]

[redacted]]). Further, if a Merlin member is a distributor, that does not mean that all of the labels represented by that distributor are now operating under the direct licence. The distributor has to determine whether all or some of the labels it distributes will participate. As of now, it is still unclear exactly which and how many sound recordings are covered by the licence.

62. At the same time, some of the key features of the direct licence from the technological side are either not built out or are only recently being implemented. Pandora was not in a position, technically speaking, to fully implement the deal on signature, and even though the agreement [[redacted].]

63. [[redacted]] and as a consequence of the issues I have discussed, it is therefore impossible to assess the value of a direct licence which [[redacted]

64. Finally, I understand that the Judges are interested in seeing a robust set of agreements, representing a "thick market" of evidence. I have attached as Exhibit 9 a CD containing copies of relevant Merlin agreements with digital music services.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Charlie Lexton

<u>Exhibits Sponsored By Charlie Lexton</u>

Exhibit No.	Sponsored By	Description
SX EX. 032- RR	Charlie Lexton	Ex. 1 - Pandora-Merlin Licence
SX EX. 033- RR	Charlie Lexton	Ex. 2 – E-mail from Charlie Lexton, May 15, 2014
SX EX. 034- RR	Charlie Lexton	Ex. 3 – Merlin Opt-In Notice re Pandora
SX EX. 035- RR	Charlie Lexton	Ex. 4 – [redacted]
SX EX. 036- RR	Charlie Lexton	Ex. 5 – Merlin Press Release
SX EX. 037- RR	Charlie Lexton	Ex. 6 – [redacted]
SX EX. 038- RR	Charlie Lexton	Ex. 7 – [redacted]
SX EX. 039- RR	Charlie Lexton	Ex. 8 – First Amendment to Pandora-Merlin Licence
SX EX. 040- RR	Charlie Lexton	Ex. 9 – CD of Merlin Agreements

SX EX. 032 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 033 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 034 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 035 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 036 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 037 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 038 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 039 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 040 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

GLEN BARROS

President and Chief Executive Officer, Concord Music Group, Inc.

PUBLIC VERSION

Witness for SoundExchange, Inc.

TESTIMONY OF GLEN BARROS

1. My name is Glen Barros. I am the President and CEO of Concord Music Group, Inc. ("Concord"), one of the world's leading independent music companies. I have been with Concord in that role for the last twenty years.

2. I am familiar with the portions of the public versions of the written direct testimony of Steven Cutler and the amended written direct testimony of Professors Daniel Fischel and Douglas Lichtman that discuss iHeartMedia's direct licenses with 27 independent record companies, including Concord. Most of those discussions were redacted out of the public versions but I was able to see that Concord's direct license with iHeartMedia was offered as a possible benchmark and that iHeartMedia has suggested that the 27 independent record licenses would purportedly support a per-performance royalty of $0.0002 per performance. I have attached a copy of our license with iHeartMedia as Exhibit 1 and will refer to it throughout my testimony.

3. I also am familiar with iHeartMedia's rate request and assume iHeartMedia takes the position that our direct license supports that rate request. It does not. As I will explain in this testimony, our direct license with iHeartMedia represented a unique opportunity for an exchange of value that is not transferrable to the statutory license context. To put it simply, in return for <u>unique</u> considerations, [redacted], we agreed to [redacted].

4. I present this testimony to provide our understanding of the negotiation and terms of our license with iHeartMedia. It is a bit difficult for me to directly respond to iHeartMedia's analysis of that license because the analysis is largely restricted. So, I will instead explain how

we understand the value of the license. And we do regard the deal as valuable. I just take issue with the assertion that a deal that reflected such unique considerations as our license should be considered evidence for what a willing buyer and seller would agree to for webcasting in the next rate period (through 2020). I also do not think it is a fair characterization of our license to suggest that it would support per-performance rates as low as what iHeartMedia proposes.

5. After providing some relevant background information about the Concord Music Group and describing the context for the negotiations of the iHeartMedia license, I will address these points in more detail. I will conclude by commenting, based on my many years in the music industry and 20 years at the head of Concord, on the suggestion by participants in this proceeding that royalties should be reduced because of the purported promotional value of webcasting services.

Background and Qualifications

6. I have been fortunate to live in the world of the music industry for my entire professional career. After completing a Bachelor of Science degree *summa cum laude* in Music and Business from NYU in 1988, I held various positions in record distribution, record production and music publishing. Eventually I became Chief Operating Officer of AEC Music Group, a division of Alliance Entertainment Corporation. My work at AEC Music Group involved the acquisition and management of record companies and record distributors with combined annual revenues in excess of $100 million. Shortly after Alliance purchased Concord in 1994, I became the President and CEO of Concord Music Group (then known as Concord Records). Even through a number of ownership changes, I have been in that position ever since, and am heavily involved in all of Concord's business operations and, of particular relevance here, licensing deals with digital music services.

7. In addition to my work at Concord, I am very active in the community of the music industry, especially in the independent music community. I am currently on the Board of Directors for the American Association of Independent Music ("A2IM"). I am also currently on the Board of Directors for the Recording Industry Association of America ("RIAA") and the International Federation of the Phonographic Industry ("IFPI").

8. I am extremely proud to be part of Concord's continuing legacy. The Concord Music Group, originally known as Concord Jazz, was named after the Concord Jazz Festival (in Concord, CA) and, since its origin in 1973, is renowned for producing legendary work in the jazz and traditional pop fields. Over the past twenty years, we've acquired a number of other labels and have significantly broadened our musical scope well beyond just jazz. Such legends of the music industry as Ray Charles, Rosemary Clooney, Sam Cooke, Count Basie, John Coltrane, Creedence Clearwater Revival, Miles Davis, Duke Ellington, Ella Fitzgerald, John Lee Hooker, Barry Manilow, Thelonious Monk, Otis Redding and Sonny Rollins have all recorded for labels that are now part of the Concord Music Group. This family of labels includes Concord, Rounder, Fantasy, Concord Jazz, Stax, Telarc, Hear Music, and Heads Up, among many others. In addition to representing our historical recordings, we continue to develop new music, having the honor to currently work with such diverse and important artists as Sir Paul McCartney, Alison Krauss, Chick Corea, James Taylor, Carole King, George Benson, Raffi, Kenny G, Steve Martin, Gregg Allman, Ben Harper, and Esperanza Spalding.

9. What has not changed over the years is our commitment to putting out outstanding recordings no matter the genre. For instance, while our jazz recordings received four Grammy awards this year, another of our recordings won a Grammy award for best bluegrass album, and one of our affiliated artists (via our strategic partnership with Loma Vista), St.

Vincent, won for best alternative music album. Our "market share" of award-winning recordings is strong. In fact, in all years combined, Concord recordings have won 210 GRAMMY awards, which by our count is over 5% of all GRAMMYs ever awarded, measured by category.

10. With such a rich history among our labels and a broad array of artists, it is not surprising that we own the rights to a substantial number of recordings that were fixed prior to February 15, 1972 or, as they are more commonly characterized, "Pre-72" recordings. For instance, one of our most iconic sets of recordings is the entire body of work from the band Creedence Clearwater Revival. Another is the evergreen Vince Guaraldi 1965 album, *A Charlie Brown Christmas*. Many of the recordings of our classic soul label, Stax, are also Pre-72 recordings, as are those of Little Richard and Sam Cooke on our Specialty label. And much of our truly legendary jazz catalog, which includes names like John Coltrane, Miles Davis, Thelonius Monk and Sonny Rollins was also made prior to 1972. The list goes on and on. Unlike many record companies, we often make substantial investments not just in new artists but also in showcasing our classic catalogs and acquiring new ones, such as the Vee-Jay Records catalogue we purchased last year, which includes some amazing gems from the 1950s and 1960s.

11. In all, I estimate we have about [redacted] Pre-72 sound recordings currently in our database for licensing to music services, which is about [redacted] of that database. We also have a substantial number of additional Pre-72 sound recordings – maybe as many as [redacted] more – that we would make the effort to include in our database if we were certain that we could receive compensation for them from digital music services.

12. I note this because, while every record company may have certain differences in its repertoire, for us, issues like whether a music service will pay for performances of Pre-72 recordings have a significant impact on our assessment of the value we receive from licensing

our repertoire to a service. That issue, therefore, has impacted our negotiations for direct licenses with digital music services, including our license with iHeartMedia. While Pre-72 recordings are one example of a particular concern for Concord, other labels may have their own particular issues that affect their licensing practices. Such idiosyncratic reasoning is especially true among independent record companies who vary greatly in shape and size and often can be driven in their decision-making by a host of label-specific considerations.

<u>Negotiations Over the iHeartMedia-Concord License</u>

13. For an independent music company such as Concord, a strong partnership with iHeartMedia, formerly Clear Channel, is a very attractive proposition. I understand them to be the largest owner of terrestrial broadcast stations, operating nearly 850 of them around the country which are reported to reach nearly 250 million listeners a month. iHeartMedia also runs some of the most prominent live music events each year, including the iHeartRadio Media Festival. It generates billions of dollars in revenue each year from those sources without even beginning to account for its digital presence. We, therefore, welcomed the opportunity to meet with iHeartMedia to discuss the possibility of a direct license.

14. The discussions of a possible direct license began in August 2012, not long after iHeartMedia and Big Machine Label Group ("BMLG"), which features such prominent artists as Taylor Swift and Tim McGraw, had announced a direct license. The BMLG announcement indicated that iHeartMedia was willing to offer a share of terrestrial broadcast revenue to record labels willing to engage in a direct license. For decades, record companies have been seeking recognition of a performance right on over-the-air terrestrial broadcasts, and we were well aware of how large the terrestrial revenue base was – and how it exceeds any digital revenue base that existed in 2012, or now for that matter. Entering the conversation with iHeartMedia, we

generally assumed it would be difficult to get better terms than BMLG had secured, given the prominence of its artists on terrestrial radio. But the opportunity to share in terrestrial revenue was a significant one and, from our perspective, a conversation worth having.

15. In August 2012, we met in person with Steven Cutler and Tres Williams of iHeartMedia to discuss a deal. In early September, 2012, they sent us an outline of proposed deal terms. Later in September, they followed up with a video presentation, in which they [redacted] That counterproposal was sent to iHeartMedia on October 2, 2012. Our position was that [redacted] Attached as Exhibit 2 is a copy of that draft license that includes [redacted] iHeartMedia refused [redacted] We took that to mean that [redacted]

<u>The Concord-iHeartMedia License Was Centered Around a Unique Value Trade-off</u>

16. We continued to negotiate with iHeartMedia over the next several months. Our understanding was that they were willing to offer us a [redacted] As noted above, this [redacted] because it was an altogether new stream of revenue from a pool that we knew was huge and likely to continue to be

huge for the term of the direct license. While we could not know for certain, we believed that [redacted]

17. We understood that an arrangement for a share of terrestrial revenue was not the same as receiving a terrestrial royalty because there cannot be a terrestrial royalty due while there is still not a terrestrial performance right in the United States. Because there is no terrestrial performance right, both we and iHeartMedia understood that this [redacted] was not a payment for terrestrial performances. Rather, it was another way to compensate Concord for the rights granted in the license and to do so by tapping into a revenue pool that was massive and previously unavailable.

18. That said, this motivation for this direct license was not simply a matter of earning a certain amount of money, like a flat fee or advance. We appreciated the opportunity to participate in an established revenue pool that had the potential to be quite significant if any of our artists were to catch the attention of radio programmers. At least anecdotally, radio playlists can be narrow at times, so with a hit and revenue sharing, there is a possibility for a large influx of revenue. The possible upside then of the [redacted] is significant, particularly when you have as much faith in the quality of your artists' recordings as we do. In my view, it is not something that can be accounted for just by looking at what we have received to date, as it can always scale especially if a particular artist has a radio hit.

19. Also, despite not being given [redacted], we believed we would benefit from having a direct license relationship, i.e., becoming a preferred partner. In that regard, iHeartMedia offered a number of opportunities to collaborate for our mutual benefit. For instance, recognizing our prominence in jazz, iHeartMedia offered to allow Concord [redacted]

[redacted], which was an attractive proposition both for ourselves and our artists. [redacted] Of course, iHeartMedia made no promise of additional – or any – terrestrial plays, nor did we request any. Regardless, we knew that by executing a direct license, we would gain the opportunity to [redacted] and we would, for lack of a better phrase, be "on the radar" within iHeartMedia's ecosystem – one that spanned the full breadth of the digital, terrestrial, and live music world.

20. In return, iHeartMedia wanted us to agree to [redacted]. As reflected in the ultimate license, iHeartMedia wanted royalty rates for its then-nascent custom radio platform that [redacted]. In fact, our direct license expressly refers to [redacted]. (Exhibit 1, at § 1(ee).) At the time, iHeartMedia was operating under broadcaster/NAB rates that closely approximated the CRB rates set by the Judges in the *Webcasting III* proceeding. So, as I understood it, for agreeing to [redacted] the non-simulcast digital rates and standard webcast rates, Concord would receive an additional [redacted] *and* we would deepen our relationship with one of the most significant companies in the music industry. In addition, during the course of the negotiation, iHeartMedia agreed to [redacted]. Again, there was no confusion about the desire [redacted] because the license itself expressly [redacted]. (Exhibit 1, at § 1(d).)

21. In many ways, that was the standard offer that iHeartMedia was making for a direct license. But that alone would not have been enough to lead us to agree to the direct license. Given Concord's unique catalog with its high number of Pre-72 sound recordings, we needed iHeartMedia to [redacted]. They did and the license expressly [redacted] Exhibit 1, at § 1(h).

22. Though there were undoubtedly other components of the license that were heavily negotiated, this was, to me at least, the ultimate tradeoff: Concord would receive [redacted]; and (c) and the opportunity to deepen our relationship with iHeartMedia and hopefully find additional ways to work together in the future. In return, iHeartMedia would receive a [redacted] as well as access to our artists and repertoire across their platforms.

23. As an example of the possibilities of this new relationship, during the course of this negotiation, we were preparing for an important new release by Paul McCartney. iHeartMedia was preparing for its iHeartRadio Festival in Las Vegas that year. Even though we had not completed the direct license at the time, we started to work with iHeartMedia on a major

marketing campaign that centered around Paul headlining the event. This clearly demonstrated the possibilities associated with our two companies having a direct partnership.

24. In September 2013, iHeartMedia announced its direct license with Warner Music Group. We were given the impression that, at this point, [redacted] Because the trade-off offered Concord [redacted] we had been seeking [redacted] and gave us – an independent music company – the opportunity to build a positive relationship with a major industry player, we decided to agree.

25. It is very important to understand that we would not have agreed to the rates proposed by iHeartMedia in the absence of those unique opportunities. The tradeoff of value was inextricably bound together. And, while the spirit of the discussion (and our continuing relationship) was to look for collaborative, win-win situations, there was no business reason to agree to the license without these unique considerations.

26. The importance of compensation for performances of [redacted], at least for Concord, is clear from our other direct licensing behavior. At one point, we were in early discussions with [redacted] for a possible direct license. We learned, however, that, at least at that time, [redacted] This was one of the reasons that negotiation never progressed.

27. By contrast, based upon our understanding of the Pandora-MERLIN license, [redacted]. Because MERLIN was the contracting party with

Pandora, individual members, such as Concord, were not allowed to see the text of the actual agreement, only a summary forwarded by MERLIN to its members. Attached as Exhibit 3 is a copy of the summary provided to us by MERLIN.

28. Since the MERLIN license required Pandora to [redacted]

Concord's Direct Licenses Are Not Useful In Determining Statutory Rates

29. Our direct licensing behavior should not be taken as an indication that Concord believes that either the Concord direct license with iHeartMedia or the Pandora-MERLIN license should be the basis for the statutory webcasting rates. Quite the opposite: Both of those licenses reflect value tradeoffs that are not applicable to the statutory license rates. As far as I understand it, the statutory license cannot require a service to allow us to participate in [redacted]. In fact, many webcasters have no [redacted] to speak of and, therefore, a revenue share from them would be meaningless. Similarly, if the statutory license does not expressly guarantee that [redacted], that would exclude the substantial consideration at the core of our willingness to agree to those licenses. Finally, there is no meaningful way that I am aware of that the statutory license can require a service to provide record companies with partnership opportunities, especially those related to non-digital platforms such as live events. That is why direct licensing always exists as an

alternative if a service wants to seek a discount off statutory rates by offering other value that is unavailable to record companies under the statutory license.

30. If the purpose of this proceeding is to determine what the market rate would be if there was no statutory rate, then it does not make a lot of sense to me to use our direct license, which is built around references to various existing statutory rates, in deciding what the statutory rate should be for the next rate period. Our license with iHeartMedia was a product of [redacted] Exhibit 1, at §1(ee). A license that is so obviously tethered to statutory rates reflects a different kind of bargain, because the service, iHeartMedia, [redacted] in crafting a direct license with us. Furthermore, our direct license, as I explained before, involved consideration that is simply unavailable as part of the statutory royalty rate, like becoming a preferred partner. To use our license as the basis for the statutory license would then be impossible without ignoring the most important pieces of consideration that actually influenced our willingness to enter the deal.

Webcasting Is Increasingly Substitutional

31. While we at Concord are always thinking about ways to create collaborative situations with digital music services, it is important to remember that the digital music business is still in its early years and that business models associated with it are in flux. In part, we viewed the iHeartMedia direct license as an experiment – a chance to work with an industry powerhouse in the true spirit of partnership, wherein both parties' needs are holistically met. This includes both sides receiving income and marketing benefits from our arrangement.

However, as someone who has been at the forefront of a leading independent music company for the last 20 years, when I look at the webcasting world, I take umbrage at the frequent suggestion by webcasters that their service is “promotional” and therefore they should not have to pay copyright owners the fair value of the recordings that are the content they sell. To me this is equivalent of a retailer telling you that it “promotes” your product by selling the product in its store. Webcasters are using music to engage their audience and ultimately generate income, which is the end point for their service. The days in which webcasting operations can act as if they are purely promotional are over, if they ever existed. In webcasting, music *is* the experience and, as individuals continue to access music via services such as these rather than purchase copies for their own collection, sales of recorded music continue to decline, with overall industry sales being down more than 50% from their high prior to the digital revolution. It seems clear to me, therefore, that webcasting is increasingly becoming more substitutional as an enterprise.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Glen Barros

Exhibits Sponsored By Glen Barros

Exhibit No.	Sponsored By	Description
SX EX. 041 - RR	Glen Barros	Ex. 1 - Concord-iHeartMedia License, October 1, 2013
SX EX. 042 - RR	Glen Barros	Ex. 2 - Draft of Concord-iHeartMedia License – Concord Counterproposal
SX EX 043 - RR	Glen Barros	Ex. 3 - Merlin Notification Concerning Pandora License

SX EX. 041 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 042 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 043 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

SIMON WHEELER

Director of Digital, Beggars Group

PUBLIC VERSION

Witness for SoundExchange, Inc.

REBUTTAL TESTIMONY OF SIMON WHEELER

1. I am the Director of Digital at Beggars Group. I have previously submitted testimony in this proceeding that sets forth my professional background and experience with the music industry – in particular, my experience with negotiating licenses with digital music services.

2. I am generally familiar with the rates proposed by Pandora and am aware that Pandora's economist relies upon Pandora's license with Merlin as a benchmark in this proceeding. I have also reviewed the public version of the testimony of Pandora witness Mike Herring.

3. In Mr. Herring's testimony, he specifically points to Beggars Group as a notable label group opting into the direct license. I submit this testimony to respond and explain my view of that license, which is that it is not very informative for setting the statutory royalty rate. The Pandora license is not the result of free market negotiations, but rather the result of an opportunity to experiment with direct licensing under the statutory license. As I will explain below, we do see value in that opportunity, but it is, by and large, value that does not translate well to the statutory license.

4. As a Merlin member, Beggars Group receives notifications of proposed Merlin actions that inform whether we opt into the Merlin action or agreement. I have attached as Exhibit 1 a copy of the notice we received from Merlin concerning the Pandora license. I will refer to Exhibit 1 throughout my testimony.

The Pandora-Merlin License Is Not a Marketplace Deal

5. The Pandora-Merlin license was entangled from the outset with the existing statutory rates that Pandora was already paying. In fact, the Merlin notification plainly indicated that Pandora

operates currently under the "Pureplay" rate structure and [redacted] (Exhibit 1, at 4.) This was plain to me as soon as I saw that the stated rates in the license were [redacted] statutory rates that Pandora pays. (Exhibit 1, at 9-10.) That is not surprising to me. Unlike most negotiations, in this instance, Pandora had direct access to our repertoire through the statutory license and already knew the rates applicable to that statutory license.

6. That is an entirely different negotiation than the types of negotiations that I described in my previous testimony involving services that include on-demand functionality. If anything, the Pandora-Merlin license is more akin to digital services that allow user-generated content. As I described in my previous testimony, those negotiations are riddled by the fact that the record company has a very limited ability to withhold its content. Here, Merlin and its members, including Beggars, have no ability to withhold content and no ability to price their content anywhere above the statutory license rate.

7. I would find it very difficult to assess whether we would have agreed to this deal in the absence of the existing statutory rates that Pandora pays. That just never factored into our decision because we understood that the license runs on a term that is [redacted] with the existing statutory rates. If the statutory rates applicable to Pandora change after the existing rates expire, my understanding is that the [redacted]. (Exhibit 1, at 10.) Given this, the only assessment that we can make is whether the general construct of negotiating a direct license [redacted] the existing statutory rates is worthwhile.

8. I can tell you that we would not have opted into a deal that set Beggars' obligations [redacted] the term applicable to the existing statutory rates. Unlike a deal in the marketplace, we consider the Pandora-Merlin deal to be a reflection of the existing statutory regime.

<u>This Was a Statutory Rate Experiment</u>

9. We knew from the start that this was a short-term experiment to test if there are benefits to direct licensing *pursuant to* [redacted]. That is why it is so important that Merlin and, in turn, we have the ability to walk away from the deal if Pandora's [redacted].

10. I was acutely aware that this proceeding was soon to start and that the deal would [redacted] set in this proceeding took effect. We felt the agreement was structured as carefully as possible not to impact the existing rates and was mindful of the impending proceedings as the deal was put together. We were confident that the way the deal was structured would not be seen as undercutting existing rates. We had comfort in opting because the deal was so [redacted] on the existing statutory rates, no one would suggest it was anything but the outgrowth of those rates. We were wrong. Someone did and that someone was Pandora. But it is difficult to understand how this type of license could inform the real question I addressed in my prior testimony, i.e., what is the value of a performance of music in the *absence* of the statutory rates, particularly where statutory music services are becoming indistinguishable from on-demand services.

11. Moreover, while there was an ability to experiment with [redacted] in terms of compensation to the [redacted], we were mindful that the artist share under the license must be treated [redacted] as it was outside of the license. Hence, the license ultimately required [redacted], which further confirms that the license was primarily an opportunity to experiment with compensation to labels.

12. This discussion explains why I would not look to the Pandora-Merlin license to understand what willing record companies would sell their music for in the absence of a statutory regime. The rest of my testimony explains why Beggars Group would opt into the license despite these reservations.

<u>The Pandora-Merlin Experiment Allowed Beggars to Maximize Activity During a Period of Bounded Rates</u>

13. On other music platforms, such as on-demand or interactive services, we have several ways of maximizing revenue beyond just pushing for additional activity. We can, for instance, couple an upsell incentive with a share of subscription revenue. This is why, as I described in my prior testimony, we are not platform agnostic in general.

14. Once statutory rates are set for a non-interactive service, the primary way, and perhaps the only way, to increase that revenue stream is to maximize activity on the service. This is for two reasons. First, the economic terms of the relationship are pre-defined by the statutory license and therefore are naturally constraining. So, we have largely lost the ability to negotiate over the rules of monetization before the negotiation commences. Second, because services are increasingly user-specific or tailored, we find ourselves making the best of difficult situations caused by increased personalization. We must maximize revenue out of the service now. Short of pressing play ourselves, there is not much else we can do to inspire revenue except to seek to maximize activity. There is a finite size to the activity, i.e., consumption of music, on any particular non-interactive music service, even one that is growing and even one as large as Pandora. Yes, activity *is* the end user product, and our revenue stream as a record company is tied to the amount of activity, i.e. performances, of our repertoire.

15. This is certainly how I regard Pandora. The rates they pay for the use of Beggars Group Music have been defined for years now by the statutory royalties they elect. We do not

regard Pandora as an opportunity to expand other sources of revenue – Pandora is a consumption platform. So, the monetization challenge is how to increase activity on a service where the rates and terms are not subject to negotiation or forces of the market.

16. By opting in to the Pandora-Merlin deal, we made a decision to attempt to maximize our activity first, not last. The Merlin notification suggested that our activity would increase and, beyond a certain level of increase – [redacted] – the [redacted] would not be operative. I understand that Pandora has told Beggars Group that it is overindexing Merlin labels at a rate of [redacted]. Now, I have yet to see any reporting data from Pandora that confirms this or puts in real terms how this affects the royalties we have received. However, if the Merlin notification is accurate, and any discount [redacted] is capped at [redacted] steering, and if Pandora is accurately reporting their steering, and it is at [redacted], then Beggars Group has increased its monetization above its natural performance rate in a very significant manner. On a consumption-based platform where the rates are bounded by regulatory forces, the most we can do is seek to maximize our own consumption.

17. The other reason we chose to participate in this limited term license is that steering cannot be replicated across the industry. It is not often the case that independents are offered the first opportunity to maximize *relative* consumption vis-à-vis other record companies. This was one of those rare opportunities where Pandora, for whatever reason, presented us first with the opportunity. Now, we are fully aware that Pandora cannot possibly steer *all* record companies so the *relative* benefit in this license is not something that can be translated to the statutory context. Put another way, the very nature of steering is that some record companies are steered toward and some companies, as a result, are steered *against*. It cannot be the case that all record companies are steered towards at the same time.

18. We also received important comfort in the form of the [redacted] on royalty steering discounts. The Merlin notification stated unequivocally that [redacted] (Exhibit 1, at 14.) Based on this assurance, my understanding is that the [redacted] establishes that, [redacted] steering, the total royalties on a per-play basis would be no different. Similarly, the [redacted] insure parity with the statutory license regime because they expressly account for [redacted]. (Exhibit 1, at 10.) These assurances led me to believe that the agreement would lead to *increased*, not decreased, royalties.

19. To avoid any confusion, these consumption-maximization reasons all start with the assumption that, because Pandora knows what it can and must pay per performance under its existing statutory rates, we cannot truly negotiate with Pandora as if the license was the product of a free market. Put another way, independent record companies will not be able to have a meaningful discussion with Pandora about the market value of a sound recording performance unless and until Pandora's eligibility for its current statutory rates has lapsed or the applicable statutory rates are set at a level that requires Pandora to pay near the levels of its actual competitors, including on-demand streaming companies in the music streaming marketplace. If that world existed right now, we would not just assume that the market rate is the ballpark of what Pandora pays under the statutory regime.

<u>The Pandora-Merlin License Presented Opportunities Unique From the Statutory License</u>

20. While the core financial terms of the Pandora-Merlin license are [redacted] to the statutory rates available to Pandora, we also opted into the limited period direct license in hopes of exploring valuable opportunities that don't often happen in a direct licensing context.

21. Before detailing these unique opportunities, I want to comment briefly on the characterization by Pandora and others that they are affording us "promotional opportunities" under this deal merely by increasing our label plays on the service. As I explained in my prior testimony, I do not regard consumption on non-interactive services as promotional. This is consumption on a consumption-oriented service. Consumption is the product we are paid on. So, while increasing consumption of Beggars repertoire helps increase consumption on that platform, it does not meaningfully assist us with other streams of revenue.

22. I sometimes find that Pandora appears to talk under an old-fashioned mindset where it regards itself as being an extension of terrestrial radio. That is not how I see Pandora and not how the market regards them. Put into Pandora's language, if they regard an activity as "promotional" (in their words), that means we should provide them rights to our repertoire for nothing or almost nothing on the basis that there will be some other form of commercial benefit post-consumption. But consumption on platforms like Pandora is not a form of inverted commerce in which the play of our music has a higher value to us than the use of our music has to the service. Pandora's way of thinking simply does not make sense to me in a consumption world because in that space, the monetization comes through the listen and not the purchase. If anything, I regard these increasingly customized webcasting services as creating cannibalization of consumption from other streams of revenue.

23. By contrast, I did see some of the opportunities presented by the direct license as being unique. I attended a meeting in September 2014 in which I had a lively discussion with Pandora about a number of opportunities that were not as available to Beggars Group prior to the license. These include [redacted] to parts of the service that do not operate under statutory rates (e.g., [redacted]), direct communications with fans on Pandora's platform, [redacted] etc. Most of these opportunities are not tied to the statutory license and some of them, [redacted], may not even be eligible transmissions under the statutory license. So, one of our motivations for doing a direct deal was the ability to tap into opportunities that may not have been available or *as* available when Pandora simply rested on its statutory rate terms.

24. Pandora also said they would provide us with preferential access to their data. Because we opted into the Merlin license, we are now starting to receive access to data and other partnership opportunities before other record companies. Because the provision of data or preferential access to interactive album premieres or advertising discounts are all benefits that are not required by a statutory license, they demonstrate that there is significant negotiated value in the direct licenses that is not reflected or translated into the statutory rate.

We Have Not Been Able to Understand the True Value of the Merlin-Pandora License

25. In many different ways, the performance under this license whose term is more than half over has been puzzling if not disappointing. We have found real and significant obstacles in [redacted]. This has led us to question what the true value is of the license. While we are confident Pandora will ultimately deliver on its promise, we are now past the mid-point of the license and the feature implementations still continue to develop.

26. For example, so far there has been a real dearth of [redacted]. I do not know whether [redacted] or other mechanisms in the deal have been triggered. Outside of an anecdote reported in a meeting about steering for all Merlin labels, I am not aware of how much Beggars Group repertoire has been steered or played. I do not even yet know if there was a guarantee shortfall for Pandora in 2014.

27. [redacted] and on a very limited basis. Pandora has reported that it is still working or just now piloting other features such as the [redacted]. These types of obstacles are troubling, particularly when the license term is short and quickly expiring. We may never be able to take full opportunity of all the negotiated clauses.

28. With respect to the purported "promotional opportunities" like branded shows or album premieres, we have had lively conversations with Pandora but these, [redacted]. That mindset misses the point completely. All uses of our sound recordings deserve compensation.

29. Taken together, there is a significant amount of information we do not have that I would need before deciding whether we would agree again to a license structure like this that is tied directly to statutory rates, irrespective of the rates themselves. For instance, we would need granular data on the service and any artificial increase of performances. If I am trying to assess the value of a license, and whether to renew it, lapse it, or modify it, I always think it is important to look at how the deal has actually performed. Thus, even if one can overlook the statutory effect on the Merlin license and disregard the inability to replicate the benefits across

the industry, I would have a hard time assessing the market value of the Pandora-Merlin license given the difficulties with implementation of the deal and lack of available reporting so far.

30. Finally, I understand that the Judges are interested in seeing a robust set of agreements, representing a "thick market" of evidence. I have attached as Exhibit 2 a CD containing copies of the relevant Beggars Group agreements.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Simon Wheeler

Exhibits Sponsored By Simon Wheeler

Exhibit No.	Sponsored By	Description
SX EX. 044 - RR	Simon Wheeler	Ex. 1 – Merlin Notification of Proposed Action Concerning Pandora
SX EX. 045 - RR	Simon Wheeler	Ex. 2 – CD of Beggars Group Agreements

SX EX. 044 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 045 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	**)))))))))**	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

DARIUS VAN ARMAN

Co-Founder and Co-Owner of Secretly Group

PUBLIC VERSION

Witness for SoundExchange, Inc.

REBUTTAL TESTIMONY OF DARIUS VAN ARMAN

My name is Darius Van Arman, and I am the co-founder and co-owner of Secretly Group, which includes the record labels Dead Oceans, Jagjaguwar, The Numero Group and Secretly Canadian, and which is affiliated to and has common ownership with the independent distribution company SC Distribution. I set forth my background and experience in the music industry in my prior testimony in this proceeding.

In this testimony, I will address the Pandora-MERLIN license offered as a benchmark in this proceeding by Pandora and iHeartMedia. I have reviewed the public version of the testimony of Pandora CFO, Mike Herring. I am also aware that economists from Pandora and iHeartMedia have analyzed that license, though I was unable to view most of their analysis about the deal because it was designated restricted. I do know, however, that both Pandora and iHeartMedia contend that the Pandora-MERLIN license supports their rate proposals, which start at \$0.00110 per performance and \$0.0005 per performance, respectively.

I am in a unique position to comment on the Pandora-MERLIN license. In his testimony, Mike Herring specifically used Jagjaguwar as an example of a notable record company repertoire covered by the license. (Written Direct Testimony of Michael Herring, at ¶ 35.) In so doing, he noted that Jagjaguwar was "[c]o-founded by Darius Van Arman, a member of SoundExchange's board of directors." The implication, I assume, is that it would be noteworthy if one of the record labels in my group had opted into the Pandora-MERLIN license.

This mistakes the decision to participate in a direct license offer—especially one that is derived from [redacted] the existing statutory rates themselves—for the relevant question of this proceeding: whether such a license is worthwhile to be a benchmark for the statutory license in the next rate period. That is the question I will respond to here. I have a strong view that the Pandora-MERLIN license is an inappropriate basis on which to derive statutory license rates for webcasting in future years.

My testimony will address three points. First, licenses based upon contractually-based steering do not translate well to the statutory license context. Second, the Pandora-MERLIN license is not a good basis for the statutory license because it is too closely derived from and related to the existing statutory license rates that Pandora pays. Third, there is still not enough operational certainty around this license—even though it is set to expire [redacted]—to give record labels any comfort in application of its terms to the statutory license.

As I've noted elsewhere, the statutory license is vital, especially for the independent music community. I hope the Judges will not allow the Pandora-MERLIN license undermine the statutory royalty rate.

I. <u>The Pandora-MERLIN License's Reliance on Contractually-Based Steering Undermines Its Value In Determining the Statutory Royalty Rate</u>

In my direct testimony, I spoke about my concerns regarding the growing use of pro-rata terms or "play-share incentives," i.e., contractual terms that offer record labels a promise to skew a service's plays in their favor in return for economic concessions, usually on per-play rates. (Written Direct Testimony, at 14.) In many ways, the Pandora-MERLIN license, with its prominent promise of steering incentives, is an example of what I had in mind.

At the outset, let me say that I understand the appeal of gaining a first-mover or direct-license advantage, particularly in an environment where independent record companies are typically not afforded the first opportunity to take advantage of such a term. In such a context, there may be good reason to act defensively and seek to secure position within a platform when you know a service is willing to substitute editorial discretion for contractually-based preferential treatment. There may even be some basis to justify direct participation in such an arrangement on the basis that unlike many steering arrangements, the Pandora-MERLIN license is well known and MERLIN is an inclusive and open-ended collective such that most record companies —regardless of their size and including artists who are self-releasing—could choose to obtain the benefits of the MERLIN license if they chose to join. While I would prefer an environment in which services provided repertoire to consumers and let the value of the sound recordings stand on their own merit, I recognize that services, both interactive and non-interactive, will create contractually-based play-share incentives at times, and each record label, including those of Secretly Group, must weigh the appropriate value to give to such incentives in the existing market based on direct licenses.

All of that is, in my opinion, besides the point for this proceeding. What I unquestionably object to is the use of play-share incentives as a method of weakening the statutory license. Whether or not it makes sense for record company A to sign a direct deal that steers plays towards them and away from other record companies, it is obvious to me that such a deal is not universalizable.

By that, I mean that the benefits offered record companies through direct license participation are extremely diluted or entirely negated when the license is applied to all copyright owners and artists subject to the compulsory license. This is because the basis of a steering arrangement is favoring certain sound recordings because, as a service, they are available to you to play at a relatively lower cost or because you have received some other economic concession in return. That may well be the reality of the directly licensed market, but that is not the world operating under the statutory license. As I have said previously, the statutory license is immensely important because it *is* the level playing field. Services receive the ability to play all sound recordings on the same basis. Thus, steering arrangements are antithetical to a core principle of the statutory license—parity among sound recordings on a platform, regardless of ownership.

Grafting concepts like steering onto the level playing field of the statutory license artificially deflates the value of a sound recording to the industry as a whole. Put another way, if a play-share incentive cannot be universalized to extend to all record companies and artists, then neither should the discount or trade-off given by the record company or artist to the service be foisted upon *all* record companies and artists as well. To do so would doubly denigrate the record company that resists the play-share incentive. That company would suffer by resisting steering in the direct license market, and be penalized again by the benchmarking of that same steering against the statutory license. This dynamic, alongside my personal conviction that I've previously shared, makes me desire a world where such direct deals are not permitted to have play-share incentives. However, regardless of whether such deals should be allowed, it is unquestionable to me that such deals should not be used to determine (and ultimately weaken) the statutory license.

II. <u>The Pandora-Merlin License Is Too Closely Related to the Statutory License to Serve as the Basis for the Statutory License</u>

It is no secret that the Pandora-MERLIN license was derived from the existing statutory license rates available to Pandora. Perhaps because Pandora is barred from relying upon those rates as a basis for their rate proposal, Pandora proposed an offer that starts and ends with those rates [redacted] From what I know of the license, I understand that the stated headline rates [redacted]. To me, it seems impudent to allow a deal derived so intimately from the statutory rates serve such a role in determining the statutory rates.

In my direct testimony, I spoke in some detail about the importance of a strong statutory license. (Written Direct Testimony, at 15-16.) In that testimony, I explained that record companies, especially independent record companies, will have a difficult time negotiating above the statutory rate with a service that is eligible to use the statutory license. The Pandora-MERLIN license is a good example of this. Here, Pandora operates under existing statutory rates. Pandora makes a direct license that, at least in one part, [redacted] (here, for additional spins or [redacted]). Pandora then presents that [redacted] part of the direct deal to the Copyright Royalty Board in hopes of lowering the statutory rate. And then, in the next cycle, Pandora again or another service can make another direct deal, discounted off the new lower statutory royalty rate, and point to how closely related it is to the statutory license. And so on. So long as direct deals derived from the existing statutory rates are used to determine the next statutory rates, the statutory rate will be infinitely regressive, regardless of what is actually happening in the market. And, so long as the statutory license is compulsory such that record companies like mine have no ability to walk away from this arrangement, the statutory license will operate as a ceiling—a collapsing ceiling under the dynamic I describe. Thus, in my view, the statutory rate must be set without regard to deals directly tied to the existing rates, such as the Pandora-MERLIN license.

I have spent the last several months reflecting on the relationship between the Pandora-MERLIN license and this proceeding. The license—the first direct license that serial statutory licensee Pandora has ever executed—was announced less than 10 weeks before the parties submitted their cases. Pandora then relied upon the direct license a license with no meaningful record of performance—to argue that *all* record companies and artists should receive a lower royalty rate than even the one specified in the Pandora-MERLIN license from *all* webcasters, regardless of whether those webcasters steer or offer any of the other benefit received by the MERLIN labels under the Pandora-MERLIN license. Given the very short time between the announcement of the license and the filing of the parties' cases, economists from Pandora (and subsequently, iHeartMedia) must have rushed to analyze the deal, even though the implementation of many of the actual features and operations of the deal have been delayed many months into its [redacted]. And, I expect there will be rebuttal testimony touting the updated figures of MERLIN members opting in to the license or how the interest in this license has stimulated another deal with another independent company, though that same testimony likely will not explain that Pandora is paying [redacted].

Observing all of this has very much impacted my thinking about the Pandora-MERLIN direct license. It strikes me that some distance between a direct license offered as a benchmark and the statutory proceeding itself may be useful, if not crucial.

III. <u>There is Very Little Operational Certainty Around the Pandora-MERLIN License Despite</u> [redacted]

In many ways, the Pandora-MERLIN license is more of a commercial thought concept than an actual reality. Several months into a license that is set to expire at the end of [redacted], I am concerned about the delayed implementation and ongoing uncertainty as to the operation of the deal. I do not imagine I am alone. Pandora has faced challenges in [redacted]. In fact, this month Pandora has undergone a [redacted]. And, even though Mr. Herring's testimony touted the participation of Jagjaguwar in the license, our actual participation has been limited at best. At this point in time, I lack confidence that we have (or will) obtain the benefit of our bargain under the license to all the features we were promised or that anyone will have a true sense of the value conferred by the license amongst the operational uncertainty.

That is far from the only problem associated with the implementation of the license. The mechanics of the direct license are not in place yet. As I understand it, [redacted]. We are particularly concerned with that issue because we are a label group that firmly stands behind treating artists fairly, and we always understood that at least the [redacted] to ensure transparency to all stakeholders. We are also very concerned from the perspective of our affiliated distribution company, SC Distribution, which has the responsibility to accurately and in a timely fashion account to the labels it distributes. Right now SC Distribution is not confident it can fulfill this responsibility, because it doesn't have a clear vision of how and when the revenue stemming from the Merlin-Pandora deal will flow to it. In fact, though there is less than a year left on the license, [redacted] That may only be the tip of the iceberg, as I do not know whether Pandora has actually fully implemented the many featured offerings it promised as part of the license.

Absent assurances that these operational issues will be resolved well and quickly, I am reticent to put *any* value on the license, regardless of any and all other considerations. This is a quickly expiring license whose term ends [redacted] Given the timing, we are concerned both that we will not receive the benefit of the consideration promised under the license and that it will be difficult to appropriately value what consideration the license represents given its delayed implementation. With respect to the proceeding, I question whether it makes sense to rely at all upon a license that still is not close to fully operational with less than a year left in its term.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Darius Van Arman

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

TESTIMONY OF

JIM BURRUSS

Senior Vice President, Promotion Operations
Columbia Records, Sony Music Entertainment

Witness for SoundExchange, Inc.

BACKGROUND

1. My name is Jim Burruss. I am Senior Vice President, Promotion Operations at Columbia Records. Columbia is one of the recorded music labels within Sony Music Entertainment ("Sony Music"). I have held this position since 2000. I am responsible for all of Columbia's promotional operations. An important part of these operations involves the promotion of Columbia releases to terrestrial radio. However, our operations include numerous other channels for promoting our artists' releases, including television (performances, interviews, panels), retail, music video channels, print media, recorded advertising on both television and radio, social media outlets, online publications, blogs, internet sites that relate to music and popular culture, and concerts, to name just a few.

2. I have spent my entire professional life in the music business, with a particular emphasis on record promotion. Prior to assuming my current position, I was Vice President of Operations at Columbia. Before that, I was a promotion manager for Columbia. Before joining Columbia, I worked in promotions for Virgin Records and for RCA Records. I started in the business as an on-air disc jockey and program director at my college radio station, KUSF in San Francisco.

DISCUSSION

3. I have reviewed the written direct testimony of Bob Pittman. Mr. Pittman asserts that terrestrial radio provides "billions of dollars" of "free advertising" to artists and labels. (Pittman WDT, at ¶ 10.) I disagree. Music is the backbone of the terrestrial radio industry. Terrestrial radio stations are the only business in this country that can build their business on recorded music without paying for it.

4. I also have reviewed the written direct testimony of Tom Poleman. Mr. Poleman expresses his opinions on terrestrial radio's reach impact on record sales. Mr. Poleman assumes that the internet simulcast of terrestrial broadcasts have exactly the same effect as terrestrial broadcast. (Poleman WDT, at ¶ 10.) Based on my knowledge of promotion to terrestrial radio and my knowledge of Internet radio, Mr. Poleman's speculation is unjustified.

5. Finally, I have reviewed the written direct testimony of John Dimick and Robert Francis Kocak ("Buzz Knight"). Mr. Dimick and Mr. Knight assert that, because record labels work to promote their music to terrestrial radio, then internet simulcasts of terrestrial performances *necessarily* must be at least as "promotional" as terrestrial radio is. (Dimick WDT, at ¶ 51; Knight WDT, at ¶¶ 27-31.) Again, I disagree. The nature of terrestrial radio, on the one hand, and Internet webcasting (simulcast and custom), on the other, are fundamentally different in terms of the potential promotional benefit to record labels and their artists.

I. Music Is Critically Important to the Success of Terrestrial Radio

6. The music played on terrestrial radio is the *content* not the advertising. Music is not "filler" or "free advertising" to record labels. Music is the content that the station provides and what its users want. A significant amount of airtime on terrestrial radio, particularly FM radio, is music. Terrestrial radio stations play our music because they believe it is responsive to consumer demand. Broadcasters collectively make billions of dollars a year from the advertising run on terrestrial radio.

7. If music offerings do not attract a sufficient audience, station programmers will not hesitate to switch to a different format and/or to abandon music altogether in favor of talk radio, news, or some other content that they think will attract listeners. But, station programmers have continued to play music and attract listeners. An overwhelming share of the success of

terrestrial radio—like simulcasting and webcasting services—is due to the contribution of artists and record labels that create the music that they play.

8. Terrestrial radio's free use of our content to drive its business is an anomaly. No other business enjoys a business model that allows for the performance of our full-length recordings to a mass public audience without paying for the right to do so. Music publishers are paid for the use of their copyrights on terrestrial radio in the U.S. I understand that outside the U.S., publishers and record companies both receive remuneration for the use of their works on terrestrial radio. I think that the anomalous situation in this country is unfair, but that is a matter for the Congress to address. In the meantime, we have made the best of a bad situation by trying to obtain some promotional benefit out of the free broadcast of our music. We promote our most promising new music to terrestrial radio stations because we know that a large audience listens to terrestrial radio stations to hear our music; because that type of exposure helps to stoke awareness and interest in the music; and because the nature of terrestrial offering means that listeners who like our music may be incentivized to pay for that music.

9. I agree with Mr. Poleman that when a station offers music, that music must "resonate with [] listeners," so they will keep "tuning into" those stations." (Poleman WDT, at ¶ 6.) Our promotion departments work with terrestrial radio programmers to expose them to new music that we think will resonate with their listeners.

10. Columbia puts painstaking time, energy and investment into its artists and sound recordings before they ever reach my desk. I help bring that great music to people's ears through terrestrial radio, but terrestrial radio is by no means the only way that listeners hear or discover

music.[1] Television, on-demand streaming services, and blogs, as well as other channels I described in Paragraph 1, drive new music discovery. Many Columbia releases have "broken"—i.e., have come to public attention—without significant radio airplay. Some recent examples include Beyoncé's December 2013 release of *Beyoncé*, announced by her on Facebook and simultaneously made available for download through the iTunes Store; J. Cole's promotion of his December 2014 release, *2014 Forest Hills Drive*, through Twitter and interviews with the press and others; the various *Glee* albums and individual tracks, for which the successful television show led to the sale of tens of millions of downloads; Barbara Streisand's latest album *Partners*, driven in part by her appearance on the Jimmy Fallon Tonight Show; Tony Bennett *Duets 1,* due to, among other things, an NBC special featuring his music; and Jackie Evancho, after gaining attention as contestant on America's Got Talent. *Beyoncé* and J.Cole received significant radio airplay *after* their releases, but otherwise none of these examples received significant radio airplay before or after release.

II. Non-Interactive Webcasting, including Simulcast and Custom Webcasting, on the One Hand, and Terrestrial Broadcasting, on the Other, are Fundamentally Different in Terms of Promoting Revenue-Generating Opportunities for Record Labels and their Artists

11. I understand that iHeartMedia and the National Association of Broadcasters contend that, because record labels devote resources to promoting new music to terrestrial radio, record labels *necessarily* believe that Internet simulcasts of terrestrial broadcasts have the same promotional benefits. I disagree.

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[1] Notably, in promotion efforts, Columbia has used the number of streams a new track has on Spotify (in addition to other measures of potential) to convince terrestrial radio station programmers to play that new track or artist.

12. Terrestrial radio is fundamentally different than Internet simulcast. Hundreds of millions of people tune in to terrestrial radio every day.[2] Only a small fraction of that number listen to Internet simulcasts. Hence, there is no comparison between terrestrial broadcasts and internet simulcasts in terms of the size of the audience.

13. I know that some custom webcasting services—most notably, Pandora—have listener bases that significantly exceed those of internet simulcasts. Notwithstanding the size of the listener base, the promotional proposition of custom webcasting, like internet simulcasting, is fundamentally different than that from terrestrial radio. The same terrestrial radio broadcast reaches the entire audience tuned into the station at that time. In addition, there are a finite number of stations broadcasting music within listeners' geographic range.

14. Custom webcasting, on the other hand, allows users to create artist- or genre-specific stations that are "narrowcast" only to that individual. The services' computer algorithms will refine the music offered to the user, and the user can switch to other "stations" with different artist or genre specifications. As a result of these and other custom webcasting features, users can have much higher confidence that they will hear the music they want by remaining on the service, a lower likelihood of doing something to purchase music or pay for access to music than they would in the terrestrial radio environment.

15. Similar considerations to those I discuss in Paragraph 14 apply to simulcast services. A user of iHeart's online simulcast service, for example, can search the iHeart simulcast network by genre or geographic location; see a menu of simulcast (and other

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[2] The Radio Advertising Bureau reports that 243,451,000 people (or 91.3% of all people over 12) tune in to radio each week. <http://www.rab.com/whyradio/Full_Fact_Sheet_v4.pdf>

programmed) stations and the songs currently playing; and, pick among those songs currently playing the one he or she wants to hear. The user can also "search" for a particular artist and (if that artist is currently playing), among the options iHeart presents are simulcast stations currently playing a song by that artist. The user can switch to that station. Alternatively, the user can simply switch to iHeart's custom radio offering, and start (or resume) the cycle I described in Paragraph 14. In either case, the listener will be less likely to pay for music ownership or access than they would if the simulcast service did not exist.

16. Our radio promotion staff does not promote to streaming services, including simulcasters. We understand that our music will be played on those services. The size of the simulcast audience, however, does not justify independent promotional efforts. In the case of custom webcasting, in addition to considerations I have described above, computer algorithms, rather than program managers and editorial personnel, drive programming decisions. As a result, there is little that our promotion staff can do to expose the service to new artists or releases that may be of interest to the listening audience.

17. I understand that much of Sony's online marketing and promotion efforts are focusing on our on-demand partners, such as Spotify, Beats and others. That is not done within my department. I understand that Jennifer Fowler of Sony Music's sales division is discussing those efforts in more detail.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Jim Burruss

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

REBUTTAL TESTIMONY OF

JENNIFER FOWLER

Senior Vice President, U.S. Marketing & Revenue Generation
Sony Music Entertainment

PUBLIC VERSION

Witness for SoundExchange, Inc.

BACKGROUND

1. My name is Jennifer Fowler. I am Senior Vice President, U.S. Marketing and Revenue Generation, Sony Music Entertainment ("Sony Music"). I have held this position since June 2014. In this position, I am responsible for overseeing all marketing functions within the Sony Music U.S. Sales division. I have a diverse range of responsibilities that include retail and brand marketing, as well as insights and analytics. A critical component of my role is identifying opportunities to monetize our artists' recorded music. Sony Music underwrites the development, production and marketing of that music by making substantial financial investments each year.

2. I have worked in the music business since starting my career in 1996. Prior to assuming my current position, I was Senior Vice President, Digital Marketing for RCA Records, one of the labels within Sony Music. In that position, I was responsible for RCA's efforts to market its artists and releases through numerous digital platforms. Before joining RCA, I worked for eMusic, an independent online music retailer, where I was Director, Label & Artist Relations. I started my career in the music industry working for an independent promotion company.

REBUTTAL TESTIMONY

3. I have reviewed the public redacted versions of the written direct testimony submitted by Pandora's Timothy Westergren and Simon Fleming-Wood. These witnesses assert that Pandora promotes record sales and other forms of revenue generation that benefit artists and their record labels. I understand that Pandora and other services point to this and similar testimony to argue that statutory webcasting services promote revenue-generation, while interactive, on-demand services substitute for revenue-generating opportunities. The statutory services thus implicitly argue that their content rates should not be set with reference to what on-

demand services pay. I disagree with the services' premise that they do not compete with on-demand services and that they should enjoy preferential rates because they—in purported contrast to on-demand services—provide promotional benefits. Pandora and other statutory webcasters are consumption platforms: they provide users with a destination to consume our product and are not significantly additive of other forms of revenues. Our directly licensed interactive-service partners—such as Spotify, Beats and others—also are consumption platforms. However, our directly licensed partners typically generate significantly higher average revenue per user ("ARPU") returns than do statutory webcasters for the consumption of the same product. Our directly licensed partners also provide greater opportunities than statutory services do for increasing awareness of our artists and their music. The promotion by our directly licensed partners, in turn, generates more streaming consumption of our artists' content, and accordingly higher ARPU as more of our sound recordings are performed on directly licensed services.

I. In a World Rapidly Moving to an Access Model, Statutory Services Like Pandora Are Not "Promotional" of Revenue

4. Mr. Westergren and Mr. Fleming-Wood assert that, because Pandora plays music, and its users hear that music, the Judges should assume that Pandora has the power to drive other revenue opportunities. (Westergren WDT, at ¶¶ 36-38; Fleming-Wood WDT, at ¶¶ 28-30 [Mr. Fleming-Wood's ¶ 31, which is under the heading of "Pandora Promotional Programs for Artists and Labels," is redacted entirely, and I have not reviewed any of it.].)

5. The clear trend in the market is that listening to online streaming—a music access model—is rapidly replacing the purchase of CDs, digital downloads and the like—a music ownership model. In a world built on music access, streaming is not driving demand for product;

streaming is the product. And, in such a world, increasing ARPU is key to paying returns on the music that users consume.

6. Pandora and other statutory services that are ad-supported and free-to-the-listener do not generate high ARPU returns for the streaming consumption of a record company's core product. If anything, consumption of music on statutory services reduces users' interest in or desire for subscribing to higher-ARPU interactive services. I am not aware of any marketplace evidence showing that the use of statutory services promotes users to sign up for on-demand subscription services. In the music-access world, the substitution of statutory services for directly licensed subscription services undermines one of our most important sources of revenue generation.

7. Pandora seeks out the use of our artists' content for the programs Mr. Fleming-Wood describes at ¶¶ 29-30 of his written direct testimony. These programs primarily increase use of Pandora's service. Pandora users who like the music they hear through these Pandora programs are more likely to add a Pandora station playing these programs than listen to the artists through our directly licensed streaming partners or purchase the music. For example, Pandora recently sponsored a live concert with Jack White at Madison Square Garden and set up a Pandora station to stream this program. After the concert, Pandora [redacted] Pandora obviously believes that the promotional value to Pandora justifies the costs it incurs to sponsor these programs. Indeed, Mr. Fleming-Wood states that such "events are a beneficial marketing platform and overall value-add *for the service* [*i.e.*, Pandora]." (Fleming-Wood WDT, at ¶ 29, emphasis added.)

8. Likewise, Pandora from time to time has asked us to participate in a "Pandora Premieres" campaign. As we understand it, Pandora Premieres requires a record label to grant Pandora exclusive pre-release rights to perform the sound recordings, and also to waive the fee for such performances. Pandora campaigns do not encourage users to subscribe to higher ARPU offerings through our directly licensed partners. On the contrary, to the extent that users like the music they hear and want to create an artist station based on that music, the Premieres program is more likely to encourage users to create such stations on Pandora. This arrangement helps strengthen Pandora's brand and user loyalty to that service. (*See* Fleming-Wood WDT, at ¶ 30 ("Pandora itself receives significant benefits from Pandora Premieres").) We have not participated in the Pandora Premieres program.

9. We cannot promote our artists' releases through Pandora as we do on terrestrial radio or through our directly licensed streaming partners. Pandora does not program or editorialize music. Historically, we have understood that the algorithm dictates the frequency with which consumers are exposed to and made aware of our artists and their music. Pandora does not give record labels tools to "promote" their tracks across the Pandora platform. I am not aware of any strategic path to breaking songs or artists on Pandora.

10. I have overseen efforts to advertise on Pandora's service for RCA's artists. The results to date have not indicated that Pandora has a strong effect on music sales. For example, Exhibit 1 contains the results of an advertising campaign we conducted on Pandora for a Jennifer Hudson release. The campaign included over [redacted] ad impressions. However, the click-through rate from those ads to the iTunes Store (where users could purchase the track) was [redacted], a disappointing result. Pandora is never a material part of the standard marketing mix at any Sony Music label, particularly insofar as online advertising is concerned.

Our standard investments—where we've seen much more success driving revenue and conversion to paid services—are through search engine marketing (SEM – Google, Bing), social media (Facebook, YouTube, Twitter), and music recognition (Shazam).

11. Pandora also features a "buy button" in its user interface. A user may click the buy button to be taken to an online retailer to purchase the track they are listening to. Pandora has not provided us with, and I am not aware of, any data showing that this feature results in significant numbers of record sales.

II. Sony Music Labels Do Market and Promote Artists to *On-Demand* Streaming Services

12. The shift in the market toward access models has created a critical shift in the way our labels approach marketing and promotion. We now invest substantial resources and effort in marketing our releases and content to on-demand streaming services such as Spotify. This type of marketing has the potential to drive more consumption—and, accordingly, more revenue from higher ARPU services.

13. For example, our label sales representatives seek out strategic placement on partner homepages, social channels, in recommendation features and in marketing communications that highlight new releases. Exhibit 2 is an example of a [redacted]

This type of editorial promotion is in stark contrast to Pandora, which does not utilize significant editorial features to promote artists. Moreover, the promotion of our artists through subscription services encourages users to continue listening to those services, which in turn generates higher ARPU returns than if users listened to the same artist (or artist channels) on statutory services.

14. We also have created a playlisting service, Filtr, that programs playlists for promotion within the Spotify service and other directly licensed partners. Exhibit 3 contains examples of how Filtr playlist buttons appear in the Spotify user interface. These buttons feature images of our artists and encourage users to stream performances from the playlists. Filtr currently has over four million followers and has contributed to the success of artists like [redacted] as shown in Exhibit 4. Again, this encourages users to continue streaming performances through these higher ARPU services.

15. Our directly licensed partners offer a variety of other editorial features that garner exposure for our artists, including pairing artists with service-owned playlists to add a curation element to the playlist; and messaging through social media, with links to the artist's tracks on the service; and many others. Such editorial features increase awareness of our artists and generate high ARPU returns on performances of our artists' tracks. Anecdotally, Calvin Harris, a Sony Music artist illustrates the power of these features. [redacted] (*See* Exhibit 5, at 8.)

16. To sum up, extensive promotional activities are taking place through our directly licensed partners. It simply is not the case, as the statutory services state, that they are today's radio, and interactive services are the record store. Music discovery and promotion are happening through interactive sites—with significantly better ARPU returns than on statutory

services—and that discovery and promotional activity will only increase during the next rate term.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Jennifer Fowler

Exhibits Sponsored By Jennifer Fowler

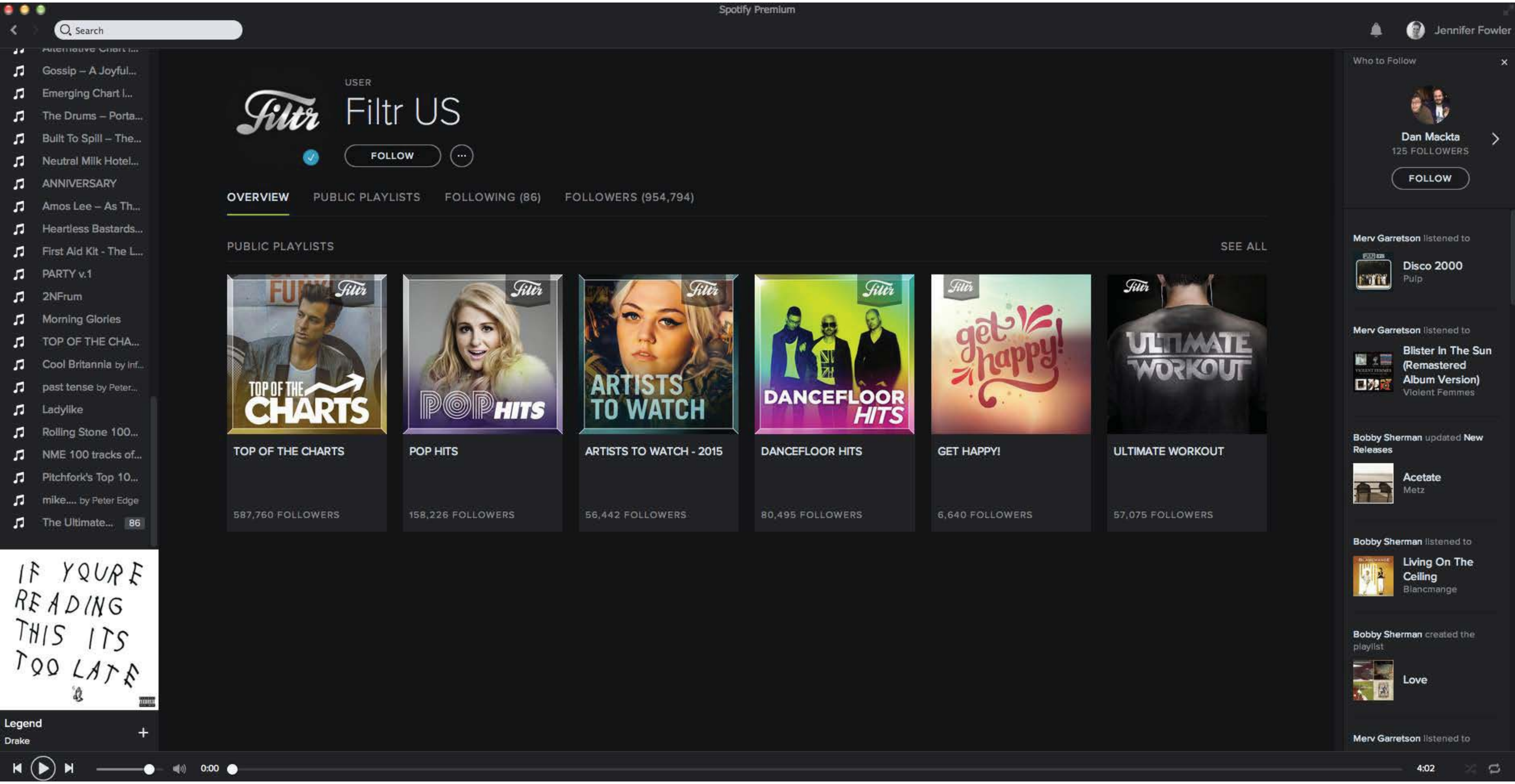
Exhibit No.	Sponsored By	Description
SX EX. 046 - RR	Jennifer Fowler	Ex. 1 – Results of Jennifer Hudson Pandora Advertising Campaign
SX EX. 047 - RR	Jennifer Fowler	Ex. 2 – [redacted]
SX EX. 048 - RP	Jennifer Fowler	Ex. 3 – Filtr Playlist
SX EX. 049 - RR	Jennifer Fowler	Ex. 4 – [redacted]
SX EX. 050 - RR	Jennifer Fowler	Ex. 5 – [redacted]

SX EX. 046 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 047 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)



RESTRICTED – Subject to Protective Order in Docket No. 14-CRB-001-WR (2016-20) (Web IV)

SX EX. 048-1-RP

SX EX. 049 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 050 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

MICHAEL J. HUPPE

President & CEO,
SoundExchange, Inc.

Witness for SoundExchange, Inc.

BACKGROUND

1. My name is Michael Huppe. I am President and CEO of SoundExchange, Inc. ("SoundExchange"). I submitted written testimony in the direct phase of this proceeding that provided information about my professional background and SoundExchange as an organization.

2. Here, I address two very specific topics: (a) SoundExchange's 2009 agreement with the National Association of Broadcasters ("NAB") and (b) SoundExchange's 2009 agreement with Sirius XM, Inc. ("Sirius XM"). In 2009, I was Executive Vice President and General Counsel of SoundExchange and was directly involved in the negotiation of these agreements.

3. I have reviewed the written direct testimony of NAB witness Steven Newberry ("Newberry WDT") and Sirius XM witness David Frear ("Frear WDT"). While I respect and appreciate their efforts to help reach these agreements, I take issue with many of the things they say about the agreements, and have a significantly different perspective of the circumstances surrounding those agreements. I submit this testimony to provide the Judges with the appropriate and accurate context concerning those agreements and, in turn, respond to some of Mr. Newberry's and Mr. Frear's comments about the same.

4. At the outset, I want to note that I take the confidentiality of settlement discussions, including those related to these two agreements, very seriously. Preserving confidentiality is something parties should do, something we expect, and something our counterparties expect that we will do. This type of approach is critical to encouraging such discussions in the future. If a copyright user cannot trust that we will keep confidential their settlement communications, or vice versa, that may well impact whether and how they are willing to have those communications with us. I am surprised and disappointed that the NAB

did not respect the confidentiality of our settlement discussions. Because I believe it is highly inappropriate to disclose the details of private settlement discussions, I will not follow suit; instead, I will respect the confidentiality of the exchanges that led to these settlement agreements. I do not believe it takes confidential settlement communications to show that the positions taken by NAB about our settlement agreements are unfounded.

5. Consequently, my testimony will not address what the representatives from NAB or Sirius told me or other representatives of SoundExchange during their respective confidential settlement talks. Rather, my testimony will respond to Mr. Newberry and Mr. Frear by providing the Judges with facts surrounding the context of those agreements.

6. I will make one important observation at the outset that regards both of these agreements. In both instances, there was significant uncertainty on both sides of the negotiating table about what would happen in the *Webcasting III* proceeding if no settlement was reached. At the time of these two settlement agreements, the parties were preparing for the proceeding and no one – not SoundExchange, NAB, Sirius XM or any other party – had yet submitted a rate proposal, or a direct case, or a shred of evidence before the Judges.

7. No one was able at that time to predict what would happen in the *Webcasting III* proceeding, much less what rates the Judges would decide upon. Indeed, this was only the second webcasting proceeding before the Copyright Royalty Board. Each party bore the risk that the Judges would adopt rates that differed significantly from the rates the party proposed. In fact, the rates ultimately adopted by the Judges, and confirmed on remand, differed from SoundExchange's initial rate proposal, attached hereto as Exhibit 1. That alone is noteworthy because Mr. Newberry and Mr. Frear suggest the Judges' outcome was a foregone conclusion at the time these agreements were negotiated. That is just not true. While SoundExchange trusted

(and trusts) the Judges to faithfully apply the evidence and legal standards, and while we had confidence in the strength of our legal position, the rate-setting process had not yet even begun, and there was uncertainty for all sides such that no party – SoundExchange, NAB, or Sirius XM – could act as if the Judges had already set the rates for the 2011-2015 period.

SoundExchange-NAB 2009 Agreement

8. Steven Newberry stated in his testimony that the rates set by the CRB for 2006 through 2010 necessarily formed the baseline of our discussions with NAB. (Newberry WDT, at ¶ 20.) In one respect, I agree with him. Our agreement with NAB covered the years 2009 through 2015 and so it overlapped with some years where rates were already set by the Judges for the statutory license. Of course, when parties are negotiating an agreement for the same rights that are available under an existing statutory license – as we were – it only makes sense that the discussions are going to be influenced by the rates currently available under the statutory license. That can hardly be a surprise to anyone. In fact, it would make little sense for either party to entirely ignore what NAB members would otherwise pay for the use of our music in 2009 or 2010.

9. That does not mean, however, that NAB "entered the negotiations with no leverage" or, as Mr. Newberry suggests, that SoundExchange knew that NAB had no leverage. (Newberry WDT, at ¶ 20.) If that were true, then there would be no reason to agree to a *lower* rate in the first two years of the agreement than NAB members would have paid under the statutory license. But we did. Under our agreement, NAB members could elect to pay $0.0015 per play in 2009, instead of the *Webcasting II* rates of $.0018 per play, and elect to pay $0.0016 per play in 2010, instead of the *Webcasting II* rates of $.0019 per play. (NAB-SoundExchange

Agreement,[1] at § 4.2 (Exhibit 2).) Also, if NAB had no leverage at all, then one might expect that we would not have agreed to a *lower* rate in 2011 than the *Webcasting II* rate provided for 2010. This was not something that escaped NAB's notice. In their press release announcing our agreement, NAB specifically noted that rates were "reduced in 2009 and 2010 by approximately 16 percent, then gradually increase through 2015 . . ."[2]

10. The NAB had a very different take on the settlement in 2009 than Mr. Newberry does five years later. At the time we reached this agreement and submitted it to the Judges, NAB filed a *joint* statement with us in which we both told the Judges that our agreement had "already been embraced by over 380 commercial broadcasters comprising thousands of individual stations" and the agreement "manifestly provides a reasonable basis for setting statutory terms and rates." (Joint Motion to Adopt Partial Settlement, June 1, 2009 (Exhibit 3).) And, when we announced the actual agreement, NAB's Executive Vice President, Dennis Wharton, said that our agreement "ensur[ed] the continued viability of Internet streaming for America's radio stations . . ."[3] It is hard to reconcile NAB's representation to the Judges and public statements at the time of the actual settlement with the fundamentally inconsistent testimony of Mr. Newberry more than five years later. Indeed, Mr. Newberry's assertion that he did not understand the precedential value of the agreement is preposterous. (Newberry WDT, at ¶ 30.) Whether or not the agreement was precedential under the WSA, Mr. Newberry and the NAB offered it to the

[1] Notice of Agreements Under the Webcaster Settlement Act of 2008, 74 Fed. Reg. 9293 (March 3, 2009).

[2] NAB Press Release, February 16, 2009, *available at http://www.nab.org/documents/newsroom/pressRelease.asp?id=1733*

[3] *Id.*

Copyright Royalty Board as the basis to establish rates and terms for a whole category of licensees.

11. It is just as hard to reconcile the actions of broadcasters over the last five years with his testimony. Under the NAB settlement, broadcasters must *elect* to pay the rates identified in our settlement in order to take advantage of the rates the NAB negotiated. As my colleague, Jonathan Bender, testified in the direct phase of this proceeding, there were 678 licensees who elected to pay under the NAB settlement in 2011, which jumped to 851 licensees in 2012 and 949 licensees in 2013. (Bender WDT, at 13 (Figure 2).) The license category related to the NAB agreement rates is one of the largest areas of growth in statutory webcasting, both in terms of absolute number of licensees and relative percentage increase in licensees. Licensees operating under the NAB settlement make up, by far, the largest category of statutory licensees–more than half of all commercial webcasters. And, notably, that growth has occurred in 2011 through 2013–the years that are contemporaneous with the *Webcasting III* rate period, years where the rates escalate in the NAB settlement, and years *after* NAB received its discount off the *Webcasting II* rates.

12. As Mr. Newberry is one of the leading figures at the NAB, I would have expected him to speak out loudly and forcefully over the years before so many of his fellow broadcasters–including so many new broadcasters–signed onto the agreement. It seems odd that now, years after scores of NAB members have elected to utilize the rates that we negotiated with NAB, and when the agreement is about to expire, that Mr. Newberry is criticizing the agreement and claiming the rates are unacceptable as a result of NAB being forced into the deal.

13. Mr. Newberry suggests that our agreement “was really a take-it-or-leave-it result between a monopoly seller that held all of the cards and a buyer that had no viable alternatives.”

(Newberry WDT, at ¶ 3.) In fact, I understand that based upon Mr. Newberry's characterization of our negotiations, an economist retained by NAB has also accused SoundExchange of acting as a monopolist in negotiating this agreement. That characterization does not match up with the facts.

14. NAB had (and has) options to negotiating with SoundExchange. First, NAB or its members could have chosen to fully participate in the *Web III* proceeding before the Judges. Strangely, Mr. Newberry claims that "NAB did not consider litigation over rates for the 2011 to 2015 period to be a meaningful option. The proceeding had already begun by the time that we began our discussions with SoundExchange." (Newberry WDT, at ¶ 22.) While it is true that the proceeding had just begun, NAB had in fact retained legal counsel and filed a petition *to participate* in the *Webcasting III* proceeding. (NAB Petition to Participate, February 4, 2009 (Exhibit 4).) NAB had clearly preserved its option to litigate as an alternative to negotiation, and hired counsel to pursue that route if necessary.

15. Mr. Newberry repeatedly implies that the broadcasters would not be treated fairly by the Judges at the Copyright Royalty Board. He says, among other things, that the NAB lacked "any reason" to "believe that another litigation would lead to a better result from the same Judges." (Newberry WDT, at ¶ 3.) He states that "we did not view the CRB as a forum that was likely to adopt reasonable license fees for broadcasters or webcasters in the next proceeding," and "we did not expect the same Judges to be more favorably disposed to broadcasters in a proceeding in 2009-2010 than they were in the proceeding in 2006-2007." (Newberry WDT, at ¶ 22.) I take issue with Mr. Newberry's not-so-subtle suggestion that the Judges at the CRB were biased against broadcasters. Our experience, including in instances when we have not received

the outcome we hoped for, are that the Judges at the CRB do their best to faithfully apply the law based on the evidence presented to them.

16. Second, as another alternative to negotiation with SoundExchange, the NAB could also have chosen to avoid engagement altogether: Many statutory licensees don't actually participate in the proceedings, even if they intend to rely on the statutory license once the rates are set.

17. Third, if NAB was concerned about the leverage of SoundExchange, NAB could have elected to negotiate directly with copyright owners for the use of their sound recordings. Mr. Newberry himself notes that the NAB "negotiated a series of waivers of the statutory license conditions" directly with record companies that "were an important part of the overall package and had significant value to us." (Newberry WDT, at ¶ 28.) If NAB was able to negotiate those waivers, surely it could have explored the possibility of negotiating direct licenses if it was so concerned about SoundExchange's leverage at the time. And, in fact, NAB was free to negotiate direct licenses with copyright owners *after* 2009 as an alternative to its purportedly one-sided bargain with SoundExchange.

18. Finally, NAB's members had the option to walk away from Internet streaming altogether – an option that is unavailable to SoundExchange and its members. Broadcasters, and all webcasting licensees, always have the opportunity to choose not to perform sound recordings. In the course of his testimony, Mr. Newberry states that "[m]usic is just part of what we offer," and that "[o]nly a very small percentage of our audience listens over the Internet." (Newberry WDT, at ¶¶ 11, 14.) He asserts that "we could not convince our local advertisers that distant listeners [reached by streaming] offered them any value," and oftentimes, that no one is even listening to streams by broadcasters. (Newberry WDT, at ¶¶ 15, 31.) If that is so, and if NAB

felt that the agreement it reached with SoundExchange was, or was destined to be, so "one-sided," NAB and/or its members did not need to accept an agreement or participate at all. Instead of running away, however, NAB members elected to participate in the rates set by the NAB and SoundExchange agreement in droves, both in 2009 and in later years.

19. SoundExchange and its constituencies do not have that same choice. It's important to remember that the record companies and recording artists we represent completely lack the power to refuse the use of their music, and are obliged to permit any eligible service to use their sound recordings because the services can always go to the Copyright Royalty Board and use the statutory license. By contrast, the NAB represents broadcasters who have the discretion to utilize (or not) those sound recordings, at the timing they choose, with a myriad of different business models.

20. In discussing leverage, it is also worth noting the relative characteristics of the two organizations that Mr. Newberry is comparing. The NAB represents the interests of the over 15,000 broadcasters (including most of the largest broadcast groups in the country) that, by its own estimate, generate upwards of $17.4 billion a year in the United States alone.[4] SoundExchange is a nonprofit organization with a limited mission representing the interests of creators who are subject to a statutory license, operating in a recording industry whose combined revenue is a fraction of the broadcasting industry.

21. In sum, I reject Mr. Newberry's suggestion that the agreement between NAB and SoundExchange was the result of one-sided leverage. While SoundExchange serves copyright

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[4] NAB Annual Report, at 19, *available at* http://www.nab.org/documents/about/2014_NAB_Annual_Report.pdf; NAB "Frequently Asked Questions About Broadcasting", *available at* http://www.nab.org/documents/resources/broadcastFAQ.asp

owners and artists—all of whom have no ability to withhold their music from a service operating under the statutory licensee, the services—including the NAB, a trade association representing virtually the entire broadcast radio industry, and its members—always have several options that bypass agreements with SoundExchange altogether.

SoundExchange-Sirius XM 2009 Agreement

22. Mr. Frear also attacks the 2009 Agreement that his company, Sirius XM, previously agreed to with SoundExchange. Mr. Frear noted three reasons why he now believes that agreement does not reflect a willing buyer/willing seller agreement: (a) Sirius XM was suffering financial hardship; (b) Sirius XM's webcasting service is small or ancillary to their overall business; and (c) the parties, namely SoundExchange, were aware of the regulatory backdrop of the Judges. (Frear WDT, at ¶ 37.) I will address each in turn.

23. Mr. Frear's discussion of how Sirius XM's financial condition impacted these negotiations is not consistent with his own statements in 2009. At the time of our agreement, Mr. Frear reported to investors that Sirius XM had positive adjusted EBITDA for three straight quarters, its revenues were up $7 million, its contribution margin was up by $20 million, and so forth.[5] Also, in the same month that the agreement was announced, Sirius XM began imposing a "Music Royalty Fee" to pass-through royalty costs to their customers, which should have lowered Sirius XM's costs and increased their margins.[6] These events call into question how

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[5] Sirius XM Radio Q2 2009 Earnings Call Transcript, May 7, 2009, *available at* http://seekingalpha.com/article/154293-sirius-xm-radio-q2-2009-earnings-call-transcript?part=single

[6] John Paczkowski, *Fee Increase Coming for Sirius XM Subscribers*, All Things Digital. June 5, 2009, *available at* http://allthingsd.com/20090605/fee-increase-coming-for-sirius-xm-subscribers-internal-doc/

dire the financial circumstances were at Sirius XM and whether royalties, particularly webcasting royalties, had any significant impact on Sirius XM in 2009.

24. Mr. Frear also suggests that Sirius XM could not afford to—or rather chose not to—bear the costs of litigating *Webcasting III*. But Sirius XM could have done so. For instance, Mr. Frear notes that Sirius and XM spent a combined $150 million on their merger. (Frear WDT, at ¶ 46.) To put that in context, SoundExchange distributed total *royalties* from all licensees in 2009 of only $155.5 million.[7] Stated differently, at the time of the agreement in question, Sirius and XM were spending roughly the same amount on *one* regulatory proceeding as the *cumulative royalty payments* that *all* artists and record labels received from SoundExchange for the *entire* year.

25. Mr. Frear also notes that SoundExchange "funds rate litigation expenses out of the royalty payments it collects, so the costs of litigation are spread widely among it[s] thousands of members." (Frear WDT, at ¶ 47.) Setting aside his suggestion that the *tens of thousands* of copyright owners and artists have no sensitivity to litigation expenses—or that SoundExchange, a nonprofit organization, has a luxurious litigation budget as compared to Sirius XM—it bears noting that Sirius XM funds its litigation expenses out of the revenue it derives from its 27.3 *million* subscribers.[8]

26. Whether or not Sirius XM faced significant financial hardship or lacked an appetite for litigation, the statutory license must account for a wide variety of services, some large, some small, some in good financial condition, some not so much. Moreover, as I

[7] SoundExchange 2009 Annual Report, *available at* http://www.soundexchange.com/wp-content/uploads/2013/04/2009-Annual-Report-03-30-11.pdf

[8] That number is as of February 2015. Sirius XM Corporate Overview, *at* https://www.siriusxm.com/corporate.

discussed earlier in this testimony with respect to NAB, any service, including Sirius XM, has a host of options besides negotiating an agreement with SoundExchange. This includes waiting to see what the Judges decide—not litigating *and* not negotiating an agreement—a costless short-term option. Given the supposed ancillary nature of webcasting to Sirius XM's overall business model, such a "wait-and-see" approach might be perfectly justified. Indeed, as I noted above, there are many, many licensees who never participate in a proceeding.

27. And, the option to negotiate direct licenses with any and all copyright owners is *always* an alternative to fully participating in a Copyright Royalty Board proceeding. So is shutting down a webcasting service altogether if the costs of operating a small, ancillary revenue stream are too great for operating a business at that time. Put another way, if Sirius XM was in dire straits, it had several other options short of making an agreement with SoundExchange. Of course, Sirius XM did not choose any of these paths; it voluntarily agreed to rates that it has willingly paid ever since.

28. Mr. Frear's real complaint with the agreement appears to be that "[i]f no agreement was reached, Sirius XM would be stuck with the rates set in *Web II*." (Frear WDT, at ¶ 50.) As an initial matter, Mr. Frear is wrong when he claims that the Judges set a rate of ".18 cents for the first year of the *Web II* rate period, with further increases each year of that period." (Frear WDT, at ¶ 34.) The *Webcasting II* rates started at .08 cents in 2006 and *ended* at .19 cents in 2010.[9] But, also, that is not a criticism of the agreement's *Webcasting III* rates. And, of course, parties negotiating for a service offering that is otherwise eligible for existing statutory rates will consider the existing rates in negotiating the deal. That is not a basis to disregard the value of our agreement.

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[9] 72 Fed. Reg. 24084, at 24096 (May 1, 2007).

29. Mr. Frear is simply wrong to conclude that based upon these points, SoundExchange "exercised the market power of a collective representing the entire industry" and precluded any competition among rights owners. (Frear WDT, at ¶ 50.) First, services are always free to negotiate directly with record companies. Second, it would not make sense that SoundExchange would permit a *discount* of existing rates in this agreement if SoundExchange had the sort of power and leverage Mr. Frear suggests. (Sirius XM-SoundExchange Agreement,[10] at § 4.2 (Exhibit 5).) Here, Sirius XM received lower rates in 2009 and 2010 than the *Webcasting II* rates for the same years and got a lower rate in the final year of the rate term than the NAB agreement. Lastly, Mr. Frear suggests that SoundExchange would not have agreed to lower rates with Sirius XM, even if it were economically rational, because "such an outcome could have harmed SoundExchange's ability to use the NAB WSA Agreement rates as benchmarks in future rate proceedings such as this one." (Frear WDT, at ¶ 50.) But under the provisions of the WSA, *both* parties had to agree to designate the rates as precedential. Otherwise, the rates would be non-precedential, and could not be used in this or any other proceeding. As is apparent, Sirius XM and SoundExchange each agreed that the settlement rates could be used as precedent, and Mr. Frear is now simply trying to back away from what he agreed to in 2009.

30. In sum, both Mr. Newberry and Mr. Frear inaccurately portray the context of SoundExchange's agreements with NAB and Sirius XM. Neither NAB nor Sirius XM disavowed these agreements at the time they were signed. Indeed, they or their members flocked to take advantage of the newly negotiated rates. Nor did NAB or Sirius XM disavow the

[10] Notice of Agreements Under the Webcaster Settlement Act of 2009, 74 Fed. Reg. 40614 (August 12, 2009).

agreements for years in which they and their members elected to pay under these settlements rather than express any objection. It is only now, years later and in the context of a rate proceeding, that they are claiming that SoundExchange acted like a monopolist. Given the facts surrounding these agreements, those claims are unsupportable.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Michael Huppe

Exhibits Sponsored By Michael Huppe

Exhibit No.	Sponsored By	Description
SX EX. 051 - RP	Michael Huppe	Ex. 1 - SoundExchange Initial Rate Proposal, *Webcasting III*
SX EX. 052 - RP	Michael Huppe	Ex. 2 - NAB-SoundExchange Agreement
SX EX. 053 - RP	Michael Huppe	Ex. 3 - NAB-SoundExchange Joint Motion to Adopt Partial Settlement, June 1, 2009
SX EX. 054 - RP	Michael Huppe	Ex. 4 - NAB Petition to Participate
SX EX. 055 - RP	Michael Huppe	Ex. 5 - Sirius XM-SoundExchange Agreement

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Washington, D.C.

In the Matter of: Digital Performance Right in Sound Recordings and Ephemeral Recordings	Docket No. 2009-1 CRB Webcasting III

PROPOSED RATES AND TERMS OF SOUNDEXCHANGE, INC.

Pursuant to Section 351.4(b)(3) of the Copyright Royalty Judges' Rules and Procedures, 37 C.F.R. § 351.4(b)(3), SoundExchange, Inc. ("SoundExchange") proposes the rates and terms set forth herein for eligible nonsubscription transmissions and transmissions made by a new subscription service other than a service as defined in 37 C.F.R. § 383.2(h) (collectively, "Webcast Transmissions"), together with the making of ephemeral recordings necessary to facilitate Webcast Transmissions, under the statutory licenses set forth in 17 U.S.C. §§ 112(e) and 114 during the period January 1, 2011 through December 31, 2015.

Pursuant to 37 C.F.R. § 351.4(b)(3), SoundExchange reserves the right to revise its proposed rates and terms at any time during the proceeding up to, and including, the filing of its proposed findings of fact and conclusions of law.

I. Proposed Settlements

On June 1, 2009, SoundExchange and the National Association of Broadcasters ("NAB") submitted a Joint Motion to Adopt Partial Settlement requesting that the Copyright Royalty Judges adopt certain rates and terms for "Broadcast Retransmissions" and "Broadcaster Webcasts," as defined therein. On August 13, 2009, SoundExchange and College Broadcasters, Inc. ("CBI") submitted a Joint Motion to Adopt Partial Settlement requesting that the Copyright

Royalty Judges adopt certain rates and terms for eligible nonsubscription transmissions made by noncommercial educational webcasters over the internet, as more specifically provided therein. SoundExchange requests adoption by the Copyright Royalty Judges of the proposed regulations appended to the NAB and CBI motions as the statutory rates and terms for the activities addressed therein. SoundExchange respectfully urges the Copyright Royalty Judges to publish those proposed regulations promptly for notice and comment pursuant to 17 U.S.C. § 801(b)(7)(A) and 37 C.F.R. § 351.2(b)(2), because completing the notice and comment process with respect to those settlements would allow the Copyright Royalty Judges and the parties to know the status of those settlements and hopefully narrow the range of issues potentially at issue in this proceeding.

II. Other Royalty Rates

For all Webcast Transmissions and related ephemeral recordings not covered by its proposed settlements with NAB and CBI, SoundExchange requests royalty rates as set forth below.

A. Commercial Webcasters

1. Minimum Fee

Pursuant to 17 U.S.C. §§ 112(e)(3) and (4) and 114(f)(2)(A) and (B), SoundExchange requests that all licensees (as defined in 37 C.F.R. § 380.2(g)) that are commercial webcasters (as defined in 37 C.F.R. § 380.2(d)) pay an annual, nonrefundable minimum fee of $500.00 for each calendar year or part of a calendar year of the license period during which they are licensees, for each individual channel and each individual station (including any side channel maintained by a broadcaster that is a licensee, if not covered by SoundExchange's proposed settlement with NAB), subject to an annual cap of $50,000.00 for a licensee with 100 or more channels or stations. For each licensee, the annual minimum fee described in this paragraph shall constitute the minimum fees due under both 17 U.S.C. §§ 112(e)(4) and 114(f)(2)(B). Upon payment of the minimum fee, a licensee would receive a credit in the amount of the minimum fee against any additional royalty fees payable in the same calendar year.

2. Per Performance Rates

For Webcast Transmissions and related ephemeral recordings by commercial webcasters as defined in 37 C.F.R. § 380.2(d), in addition to the minimum fee, SoundExchange requests royalty rates as follows:

Year	Rate Per Performance
2011	$0.0021
2012	$0.0023
2013	$0.0025
2014	$0.0027
2015	$0.0029

B. Noncommercial Webcasters

1. Minimum Fee

Pursuant to 17 U.S.C. §§ 112(e)(3) and (4) and 114(f)(2)(A) and (B), SoundExchange requests that all licensees (as defined in 37 C.F.R. § 380.2(g)) that are noncommercial webcasters (as defined in 37 C.F.R. § 380.2(h)) pay an annual, nonrefundable minimum fee of $500.00 for each calendar year or part of a calendar year of the license period during which they are licensees, for each individual channel and each individual station (including any side channel maintained by a broadcaster that is a licensee, if not covered by SoundExchange's proposed settlement with CBI). For each licensee, the annual minimum fee described in this paragraph shall constitute the minimum fees due under both 17 U.S.C. §§ 112(e)(4) and 114(f)(2)(B).

2. Per Performance Rates

For Webcast Transmissions and related ephemeral recordings by noncommercial webcasters as defined in 37 C.F.R. § 380.2(h), SoundExchange requests that if, in any month, a noncommercial webcaster makes total transmissions in excess of 159,140 aggregate tuning hours (as defined in 37 C.F.R. § 380.2(a)) on any individual channel or station, the noncommercial webcaster shall pay additional fees for the transmissions it makes on that channel or station in excess of 159,140 aggregate tuning hours at the following rates:

Year	Rate Per Performance
2011	$0.0021
2012	$0.0023
2013	$0.0025
2014	$0.0027
2015	$0.0029

C. Ephemeral Recordings

SoundExchange requests that the royalty payable under 17 U.S.C. § 112(e) for the making of ephemeral recordings used by the licensee solely to facilitate transmissions for which it pays royalties as provided above shall be included within, and constitute 5% of, such royalty payments.

III. Terms

SoundExchange requests that the terms currently set forth in 37 C.F.R. Part 380 be continued, subject to the changes described herein.

A. Server Log Retention

SoundExchange requests that the regulations expressly confirm that the records a licensee is required to retain pursuant to 37 C.F.R. § 380.4(h), and that are subject to audit under 37 C.F.R. § 380.6, include original server logs sufficient to substantiate rate calculation and reporting, which must be made available to the qualified auditor selected by the Collective in the event of an audit.

B. Late Fees for Reports of Use

SoundExchange requests that reports of use be added to the list in 37 C.F.R. § 380.4(e) of items that, if provided late, would trigger liability for late fees.

C. Identification of Licensees

SoundExchange requests that the regulations require statements of account to correspond to notices of use and reports of use by (1) identifying the licensee in exactly the way it is identified on the corresponding notice of use and report of use, and (2) covering the same scope of activity (e.g., the same channels or stations). In addition, SoundExchange requests that the regulations make clear that the "Licensee" is the entity identified on the notice of use, statement of account, and report of use, and that each "Licensee" must submit its own notices of use, statements of account, and reports of use. Finally, SoundExchange requests that the regulations require licensees to use an account number, that is assigned to them by SoundExchange, on their statements of account and reports of use.

D. Technical and Conforming Changes

SoundExchange requests certain technical and conforming changes to the regulations, including ones for the sake of clarity or consistency across licenses. These proposed changes are reflected in the redlined proposed regulations that SoundExchange is submitting as an attachment hereto. Only provisions affected by these technical and conforming changes are included in the redlined attachment.

Respectfully submitted,

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Of Counsel

September 29, 2009

Attachment
<u>SoundExchange's Requested Technical and Conforming Changes</u>

PART 380—RATES AND TERMS FOR CERTAIN ELIGIBLE NONSUBSCRIPTION TRANSMISSIONS, NEW SUBSCRIPTION SERVICES AND THE MAKING OF EPHEMERAL REPRODUCTIONS

§ 380.1 General.

(c) *Relationship to voluntary agreements.* Notwithstanding the royalty rates and terms established in this part, the rates and terms of any license agreements entered into by Copyright Owners and ~~digital audio services~~<u>Licensees</u> shall apply in lieu of the rates and terms of this part to transmission within the scope of such agreements.

§ 380.2 Definitions.

(g) *Licensee* is a person that has obtained a statutory license under 17 U.S.C. 114, and the implementing regulations, to make eligible nonsubscription transmissions, or noninteractive digital audio transmissions as part of a new subscription service (as defined in 17 U.S.C. 114(j)(8)) <u>other than a Service as defined in § 383.2(h)</u>, or that has obtained a statutory license under 17 U.S.C. 112(e), and the implementing regulations, to make Ephemeral Recordings for use in facilitating such transmissions.

§ 380.4 Terms for making payment of royalty fees and statements of account.

(b)(2)(i) By a majority vote of the nine Copyright Owner representatives and the nine Performer representatives on the SoundExchange board as of the last day preceding the condition precedent in paragraph (b)(2) of this section, such representatives shall file a petition with the Copyright Royalty ~~Board~~<u>Judges</u> designating a successor to collect and distribute royalty payments to Copyright Owners and Performers entitled to receive royalties under 17 U.S.C. 112(e) or 114(g) that have themselves authorized ~~such~~<u>the</u> Collective.

(c) *Monthly payments.* A Licensee shall make any payments due under § 380.3 ~~by~~<u>on a monthly basis on or before</u> the 45th day after the end of each month for that month, except that payments due under § 380.3 for the period beginning January 1, 2006, through the last day of the month in which the Copyright Royalty Judges issue their final determination adopting these rates and terms shall be due 45 days after the end of such period. All monthly payments shall be rounded to the nearest cent.

(g)(2) If the Collective is unable to locate a Copyright Owner or Performer entitled to a distribution of royalties under paragraph (g)(1) of this section within 3 years from the date of payment by a Licensee, such ~~distribution may first be applied to the costs directly attributable to the administration of that distribution. The foregoing shall apply notwithstanding the common law or statutes of any State~~<u>royalties shall be handled in accordance with § 380.8</u>.

§ 380.6 Verification of royalty payments.

(c) *Notice of intent to audit.* The Collective must file with the Copyright Royalty ~~Board~~Judges a notice of intent to audit a particular Licensee, which shall, within 30 days of the filing of the notice, publish in the Federal Register a notice announcing such filing. The notification of intent to audit shall be served at the same time on the Licensee to be audited. Any such audit shall be conducted by an independent and Qualified Auditor identified in the notice, and shall be binding on all parties.

§ 380.7 Verification of royalty distributions.

(c) *Notice of intent to audit.* A Copyright Owner or Performer must file with the Copyright Royalty ~~Board~~Judges a notice of intent to audit the Collective, which shall, within 30 days of the filing of the notice, publish in the Federal Register a notice announcing such filing. The notification of intent to audit shall be served at the same time on the Collective. Any audit shall be conducted by an independent and Qualified Auditor identified in the notice, and shall be binding on all Copyright Owners and Performers.

Society for Testing and Materials (ASTM) publication ''Standard Specification for Roof and Rock Bolts and Accessories'' (ASTM F432–95).

II. Desired Focus of Comments

MSHA is particularly interested in comments that:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.*, permitting electronic submissions of responses.

A copy of the proposed information collection request can be obtained by contacting the employee listed in the ADDRESSES section of this notice, or viewed on the internet by accessing the MSHA home page (*http://www.msha.gov/*) and selecting ''Rules & Regs'', and then selecting ''FedReg. Docs''. On the next screen, select ''Paperwork Reduction Act Supporting Statement'' to view documents supporting the **Federal Register** Notice.

III. Current Actions

MSHA is seeking to continue the requirement for mine operators to obtain certification from the manufacturer that roof and rock bolts and accessories are manufactured and tested in accordance with the applicable American Society for Testing and Materials (ASTM) specifications and make that certification available to an authorized representative of the Secretary.

Type of Review: Extension.

Agency: Mine Safety and Health Administration.

Title: Safety Standards for Roof Bolts in Metal and Nonmetal Mines and Underground Coal Mines.

OMB Number: 1219–0121.

Frequency: On occasion.

Affected Public: Business or other for-profit.

Respondents: 833.

Responses: 3,292.

Total Burden Hours: 165 hours.

Total Burden Cost (capital/startup): $0.

Total Burden Cost (operating/maintaining): $0.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

Dated at Arlington, Virginia, this 25th day of February, 2009.

John Rowlett.

Director, Management Services Division.

[FR Doc. E9–4417 Filed 3–2–09; 8:45 am]

BILLING CODE 4510–43–P

LIBRARY OF CONGRESS

Copyright Office

Notification of Agreements Under the Webcaster Settlement Act of 2008

AGENCY: Copyright Office, Library of Congress.

ACTION: Notice of agreement.

SUMMARY: The Copyright Office is publishing three agreements which set rates and terms for the reproduction and performance of sound recordings made by certain specified webcasters, under two statutory licenses. Webcasters who meet the eligibility requirements may choose to operate under the statutory licenses in accordance with the rates and terms set forth in the agreements published herein rather than the rates and terms of any determination by the Copyright Royalty Judges.

FOR FURTHER INFORMATION CONTACT: Stephen Ruwe, Attorney Advisor, or Tanya M. Sandros, Deputy General Counsel, Copyright GC/I&R, P.O. Box 70400, Washington, DC 20024. Telephone: (202) 707–8380. Telefax: (202) 707–8366. See the final paragraph of the SUPPLEMENTARY INFORMATION for information on where to direct questions regarding the rates and terms set forth in the agreement.

SUPPLEMENTARY INFORMATION: On October 16, 2008, President Bush signed into law the Webcaster Settlement Act of 2008 (''WSA''), Public Law 110–435, 122 Stat. 4974, which amends Section 114 of the Copyright Act, title 17 of the United States Code, as it relates to webcasters. The WSA allows SoundExchange, the Receiving Agent designated by the Librarian of Congress in his June 20, 2002, order for collecting royalty payments made by eligible nonsubscription transmission services under the Section 112 and Section 114 statutory licenses, see 67 FR 45239 (July 8, 2002), to enter into agreements on behalf of all copyright owners and performers to set rates, terms and conditions for webcasters operating under the Section 112 and Section 114 statutory licenses for a period of not more than 11 years beginning on January 1, 2005. The authority to enter into such settlement agreements expired on February 15, 2009.

Unless otherwise agreed to by the parties to an agreement, the rates and terms set forth in such agreements apply only to the time periods specified in the agreement and have no precedential value in any proceeding concerned with the setting of rates and terms for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings. To make this point clear, Congress included language expressly addressing the precedential value of such agreements. Specifically, Section 114(f)(5)(C), as added by the WSA, states that: ''Neither subparagraph (A) nor any provisions of any agreement entered into pursuant to subparagraph (A), including any rate structure, fees, terms, conditions, or notice and recordkeeping requirements set forth therein, shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral recordings or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice and recordkeeping requirements by the Copyright Royalty Judges under paragraph (4) or Section 112(e)(4). It is the intent of Congress that any royalty rates, rate structure, definitions, terms, conditions, or notice and recordkeeping requirements, included in such agreements shall be considered as a compromise motivated by the unique business, economic and political circumstances of small webcasters, copyright owners, and performers rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller, or otherwise meet the objectives set forth in Section 801(b). This subparagraph shall not apply to the extent that the receiving agent and a webcaster that is party to an agreement entered into pursuant to subparagraph (A) expressly authorize the submission of the agreement in a proceeding under this subSection.'' 17 U.S.C. 114(f)(5)(C) (2009).

On February 13, 2009, SoundExchange and the Corporation for Public Broadcasting (''CPB'') notified the Copyright Office that they had negotiated an agreement for the reproduction and performance of sound recordings by small commercial webcasters under the Section 112 and Section 114 statutory licenses and requested that the Copyright Office publish the Rates and Terms in the **Federal Register**, as required under Section 114(f)(5)(B) of the Copyright Act, as amended by the WSA.

On February 15, 2009, SoundExchange and the National Association of Broadcasters (''NAB'') notified the Copyright Office that they had negotiated an agreement for the reproduction and performance of sound recordings by small commercial webcasters under the Section 112 and Section 114 statutory licenses and requested that the Copyright Office publish the Rates and Terms in the **Federal Register**, as required under Section 114(f)(5)(B) of the Copyright Act, as amended by the WSA.

On February 15, 2009, SoundExchange and the Small Webcasters [1] notified the Copyright Office that they had negotiated an agreement for the reproduction and performance of sound recordings by small commercial webcasters under the Section 112 and Section 114 statutory licenses and requested that the Copyright Office publish the Rates and Terms in the **Federal Register**, as required under Section 114(f)(5)(B) of the Copyright Act, as amended by the WSA.

Thus, in accordance with the requirement set forth in amended Section 114(f)(5)(B), the Copyright Office is publishing the submitted agreements, as Appendix A (Agreement made between SoundExchange and CPB); Appendix B (Agreement made between SoundExchange and NAB); and Appendix C (Agreement made between SoundExchange and Small Webcasters), thereby making the rates and terms in the agreements available to any webcasters meeting the respective eligibility conditions of the agreements as an alternative to the rates and terms of any determination by the Copyright Royalty Judges.

The Copyright Office has no responsibility for administering the rates and terms of the agreement beyond the publication of this notice. For this reason, questions regarding the rates and terms set forth in the agreement should be directed to SoundExchange (for contact information, see *http://www.soundexchange.com*).

Dated: February 24, 2009.

Marybeth Peters,

Register of Copyrights.

Note: The following Appendices will not be codified in the Code of Federal Regulations.

Appendix A

Agreement Concerning Rates and Terms

This Agreement Concerning Rates and Terms (''*Agreement*''), dated as of January 13, 2009 (''*Execution Date*''), is made by and between SoundExchange, Inc. (''*SoundExchange*'') and the Corporation for Public Broadcasting (''*CPB*''), on behalf of all Covered Entities (SoundExchange, and CPB each a ''*Party*'' and, jointly, the ''*Parties*''). Capitalized terms used herein are defined in Article 1 below.

Whereas, SoundExchange is the ''receiving agent'' as defined in 17 U.S.C. 114(f)(5)(E)(ii) designated for collecting and distributing statutory royalties received from Covered Entities for their Web Site Performances;

Whereas, the Webcaster Settlement Act of 2008 (codified at 17 U.S.C. 114(f)(5)) authorizes SoundExchange to enter into agreements for the reproduction and performance of Sound Recordings under Sections 112(e) and 114 of the Copyright Act that, once published in the **Federal Register**, shall be binding on all Copyright Owners and Performers, in lieu of any determination by the Copyright Royalty Judges;

Whereas, in view of the unique business, economic and political circumstances of CPB, Covered Entities, SoundExchange, Copyright Owners and Performers at the Execution Date, the Parties have agreed to the royalty rates and other consideration set forth herein for the period January 1, 2005 through December 31, 2010;

Now, therefore, pursuant to 17 U.S.C. 114(f)(5), and in consideration of the mutual promises contained in this Agreement and for other good and valuable consideration, the adequacy and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

Article 1

Definitions

The following terms shall have the meanings set forth below:

1.1 ''*Agreement*'' shall have the meaning set forth in the preamble.

1.2 ''*ATH*'' or ''*Aggregate Tuning Hours*'' means the total hours of programming that Covered Entities have transmitted during the relevant period to all listeners within the United States from all Covered Entities that provide audio programming consisting, in whole or in part, of Web Site Performances, less the actual running time of any sound recordings for which the Covered Entity has obtained direct licenses apart from this Agreement. By way of example, if a Covered Entity transmitted one hour of programming to ten (10) simultaneous listeners, the Covered Entity's Aggregate Tuning Hours would equal ten (10). If three (3) minutes of that hour consisted of transmission of a directly licensed recording, the Covered Entity's Aggregate Tuning Hours would equal nine (9) hours and thirty (30) minutes. As an additional example, if one listener listened to a Covered Entity for ten (10) hours (and none of the recordings transmitted during that time was directly licensed), the Covered Entity's Aggregate Tuning Hours would equal 10.

1.3 ''*Authorized Web Site*'' means any Web Site operated by or on behalf of any Covered Entity that is accessed by Web Site Users through a Uniform Resource Locator (''*URL*'') owned by such Covered Entity and through which Web Site Performances are made by such Covered Entity.

1.4 ''*CPB*'' shall have the meaning set forth in the preamble.

1.5 ''*Collective*'' shall have the meaning set forth in 37 CFR 380.2(c).

1.6 ''*Copyright Owners*'' are Sound Recording copyright owners who are entitled to royalty payments made pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114(f).

1.7 ''*Covered Entities*'' means NPR, American Public Media, Public Radio International, and Public Radio Exchange, and, in calendar years 2005 through 2007, up to four-hundred and fifty (450) Originating Public Radio Stations as named by CPB. CPB shall notify SoundExchange annually of the eligible Originating Public Radio Stations to be considered Covered Entities hereunder (subject to the numerical limitations set forth herein). The number of Originating Public Radio Stations considered to be Covered Entities is permitted to grow by no more than 10 Originating Public Radio Stations per year beginning in calendar year 2008, such that the total number of Covered Entities at the end of the Term will be less than or equal to 480. The Parties agree that the number of Originating Public Radio Stations licensed hereunder as Covered Entities shall not exceed the maximum number permitted for a given year without SoundExchange's express written approval, except that CPB shall have the option to increase the number of Originating Public Radio Stations that may be considered Covered Entities as provided in Section 4.4.

1.8 ''*Ephemeral Phonorecord*'' shall have the meaning set forth in Section 3.1(b).

1.9 ''*Execution Date*'' shall have the meaning set forth in the preamble.

1.10 ''*License Fee*'' shall have the meaning set forth in Section 4.1.

1.11 ''*Music ATH*'' means ATH of Web Site Performances of Sound Recordings of musical works.

1.12 ''*NPR*'' shall mean National Public Radio, with offices at 635 Massachusetts Avenue, NW., Washington, DC 20001.

1.13 ''*Originating Public Radio Stations*'' shall mean a noncommercial terrestrial radio broadcast station that (i) is licensed as such by the Federal Communications Commission; (ii) originates programming and is not solely a repeater station; (iii) is a member or affiliate of NPR, American Public Media, Public Radio International, or Public Radio Exchange, a member of the National Federation of Community Broadcasters, or

[1] The ''Small Webcasters'' that negotiated the agreement are Attention Span Radio; Blogmusik (Deezer.com); Born Again Radio; Christmas Music 24/7; Club 80's Internet Radio; Dark Horse Productions; Edgewater Radio; Forever Cool (Forevercool.us); Indiwaves (Set YourMusicFree.com); Ludlow Media (MandarinRadio.com); Musical Justice; My Jazz Network; PartiRadio; Playa Cofi Jukebox (Tropicalglen.com); Soulsville Online; taintradio; Voice of Country; and Window To The World Communications (WFMT.com).

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another public radio station that is qualified to receive funding from the Corporation for Public Broadcasting pursuant to its criteria; (iv) qualifies as a ''noncommercial webcaster'' under 17 U.S.C. 114(f)(5)(E)(i); and (v) either (a) offers Web Site Performances only as part of the mission that entitles it to be exempt from taxation under Section 501 of the Internal Revenue Code of 1986 (26 U.S.C. 501), or (b) in the case of a governmental entity (including a Native American tribal governmental entity), is operated exclusively for public purposes.

1.14 ''*Party*'' shall have the meaning set forth in the preamble.

1.15 ''*Performers*'' means the independent administrators identified in 17 U.S.C. 114(g)(2)(B) and (C) and the individuals and entities identified in 17 U.S.C. 114(g)(2)(D).

1.16 ''*Person*'' means a natural person, a corporation, a limited liability company, a partnership, a trust, a joint venture, any governmental authority or any other entity or organization.

1.17 ''*Phonorecords*'' shall have the meaning set forth in 17 U.S.C. 101.

1.18 ''*Side Channel*'' means any Internet-only program available on an Authorized Web Site or an archived program on such Authorized Web Site that, in either case, conforms to all applicable requirements under 17 U.S.C. 114.

1.19 ''*SoundExchange*'' shall have the meaning set forth in the preamble and shall include any successors and assigns to the extent permitted by this Agreement.

1.20 ''*Sound Recording*'' shall have the meaning set forth in 17 U.S.C. 101.

1.21 ''*Term*'' shall have the meaning set forth in Section 7.1.

1.22 ''*Territory*'' means the United States, its territories, commonwealths and possessions.

1.23 ''*URL*'' shall have the meaning set forth in Section 1.3.

1.24 ''*Web Site*'' means a site located on the World Wide Web that can be located by a Web Site User through a principal URL.

1.25 ''*Web Site Performances*'' means all public performances by means of digital audio transmissions of Sound Recordings, including the transmission of any portion of any Sound Recording, made through an Authorized Web Site in accordance with all requirements of 17 U.S.C. 114, from servers used by a Covered Entity (*provided that* the Covered Entity controls the content of all materials transmitted by the server), or by a sublicensee authorized pursuant to Section 3.2, that consist of either (a) the retransmission of a Covered Entity's over-the-air terrestrial radio programming or (b) the digital transmission of nonsubscription Side Channels that are programmed and controlled by the Covered Entity. This term does not include digital audio transmissions made by any other means.

1.26 ''*Web Site Users*'' means all those who access or receive Web Site Performances or who access any Authorized Web Site.

Article 2

Agreement Pursuant to Webcaster Settlement Act of 2008

2.1 *General.* This Agreement is entered into pursuant to the Webcaster Settlement Act of 2008 (Pub. L. 110–435; to be codified at 17 U.S.C. 114(f)(5)).

2.2 *Eligibility Conditions.* The only webcasters (as defined in 17 U.S.C. 114(f)(5)(E)(iii)) eligible to avail themselves of the terms of this Agreement as contemplated by 17 U.S.C. 114(f)(5)(B) are the Covered Entities, as expressly set forth herein. The terms of this Agreement shall apply to the Covered Entities in lieu of other rates and terms applicable under 17 U.S.C. 112 and 114.

2.3 *Agreement Nonprecedential.* Consistent with 17 U.S.C. 114(f)(5)(C), this Agreement, including any rate structure, fees, terms, conditions, and notice and recordkeeping requirements set forth therein, is nonprecedential and shall not be introduced nor used by any Person, including the Parties and any Covered Entities, admissible as evidence or otherwise taken into account in any administrative, judicial, or other proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges under 17 U.S.C. 114(f)(4) or 112(e)(4), or any administrative or judicial proceeding pertaining to rates, terms or reporting obligations for any yet-to-be-created right to collect royalties for the performance of Sound Recordings by any technology now or hereafter known. Any royalty rates, rate structure, definitions, terms, conditions and notice and recordkeeping requirements included in this Agreement shall be considered as a compromise motivated by the unique business, economic and political circumstances of webcasters, copyright owners, and performers, and the pending appeal of the decision of the Copyright Royalty Judges by NPR on behalf of itself and its member stations, rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller, or otherwise meet the objectives set forth in Section 801(b) of the Copyright Act.

2.4 *Reservation of Rights.* The Parties agree that the entering into of this Agreement shall be without prejudice to any of their respective positions in any proceeding with respect to the rates, terms or reporting obligations to be established for the making of Ephemeral Phonorecords or the digital audio transmission of Sound Recordings after the Term of this Agreement on or by Covered Entities under 17 U.S.C. 112 and 114 and their implementing regulations. The Parties further acknowledge and agree that the entering of this Agreement, the performance of its terms, and the acceptance of any payments and reporting by SoundExchange (i) do not express or imply any acknowledgement that CPB, Covered Entities, or any other persons are eligible for the statutory license of 17 U.S.C. 112 and 114, and (ii) shall not be used as evidence that CPB, the Covered Entities, or any other persons are acting in compliance with the provisions of 17 U.S.C. 114(d)(2)(A) or (C) or any other applicable laws or regulations.

Article 3

Scope of Agreement

3. *General.*

(a) *Public Performances.* In consideration for the payment of the License Fee by CPB, SoundExchange agrees that Covered Entities that publicly perform under Section 114 all or any portion of any Sound Recordings through an Authorized Web Site, within the Territory, by means of Web Site Performances, may do so in accordance with and subject to the limitations set forth in this Agreement; *provided that:* (i) Such transmissions are made in strict conformity with the provisions of 17 U.S.C. 114(d)(2)(A) and (C); and (ii) such Covered Entities comply with all of the terms and conditions of this Agreement and all applicable copyright laws. For clarity, there is no limit to the number of Web Site Performances that a Covered Entity may transmit during the Term under the provisions of this Section 3.1(a), if such Web Site Performances otherwise satisfy the requirements of this Agreement.

(b) *Ephemeral Phonorecords.* In consideration for the payment of the License Fee by CPB, SoundExchange agrees that Covered Entities that make and use solely for purposes of transmitting Web Site Performances as described in Section 3.1(a), within the Territory, Phonorecords of all or any portion of any Sound Recordings (''*Ephemeral Phonorecords*''), may do so in accordance with and subject to the limitations set forth in this Agreement; *provided that:* (i) Such Phonorecords are limited solely to those necessary to encode Sound Recordings in different formats and at different bit rates as necessary to facilitate Web Site Performances licensed hereunder; (ii) such Phonorecords are made in strict conformity with the provisions set forth in 17 U.S.C. 112(e)(1)(A)–(D); and (iii) the Covered Entities comply with 17 U.S.C. 112(a) and (e) and all of the terms and conditions of this Agreement.

3.2 *Limited Right to Sublicense.* Rights under this Agreement are not sublicensable, except that a Covered Entity may employ the services of a third Person to provide the technical services and equipment necessary to deliver Web Site Performances on behalf of such Covered Entity pursuant to Section 3.1, but only through an Authorized Web Site. Any agreement between a Covered Entity and any third Person for such services shall (i) contain the substance of all terms and conditions of this Agreement and obligate such third Person to provide all such services in accordance with all applicable terms and conditions of this Agreement, including, without limitation, Articles 3, 5 and 6; (ii) specify that such third Person shall have no right to make Web Site Performances or any other performances or Phonorecords on its own behalf or on behalf of any Person or entity other than a Covered Entity through the Covered Entity's Authorized Web Site by

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virtue of this Agreement, including in the case of Phonorecords, pre-encoding or otherwise establishing a library of Sound Recordings that it offers to a Covered Entity or others for purposes of making performances, but instead must obtain all necessary licenses from SoundExchange, the copyright owner or another duly authorized Person, as the case may be; (iii) specify that such third Person shall have no right to grant any further sublicenses; and (iv) provide that SoundExchange is an intended third-party beneficiary of all such obligations with the right to enforce a breach thereof against such third party.

3.3 *Limitations.*

(a) *Reproduction of Sound Recordings.* Except as provided in Section 3.2, nothing in this Agreement grants Covered Entities, or authorizes Covered Entities to grant to any other Person (including, without limitation, any Web Site User, any operator of another Web Site or any authorized sublicensee), the right to reproduce by any means, method or process whatsoever, now known or hereafter developed, any Sound Recordings, including, but not limited to, transferring or downloading any such Sound Recordings to a computer hard drive, or otherwise copying the Sound Recording onto any other storage medium.

(b) *No Right of Public Performance.* Except as provided in Section 3.2, nothing in this Agreement authorizes Covered Entities to grant to any Person the right to perform publicly, by means of digital transmission or otherwise, any Sound Recordings.

(c) *No Implied Rights.* The rights granted in this Agreement extend only to Covered Entities and grant no rights, including by implication or estoppel, to any other Person, except as expressly provided in Section 3.2. Without limiting the generality of the foregoing, this Agreement does not grant to Covered Entities (i) any copyright ownership interest in any Sound Recording; (ii) any trademark or trade dress rights; (iii) any rights outside the Territory; (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other Person; or (v) any rights outside the scope of a statutory license under 17 U.S.C. 112(e) and 114.

(d) *Territory.* The rights granted in this Agreement shall be limited to the Territory.

(e) *No Syndication Rights.* Nothing in this Agreement authorizes any Web Site Performances to be accessed by Web Site Users through any Web Site other than an Authorized Web Site.

3.4 *Effect of Non-Performance by any Covered Entity.* In the event that any Covered Entity breaches or otherwise fails to perform any of the material terms of this Agreement it is required to perform (including any obligations applicable under Section 112 or 114), or otherwise materially violates the terms of this Agreement or Section 112 or 114 or their implementing regulations, the remedies of SoundExchange shall be specific to that Covered Entity only, and shall include, without limitation, (i) termination of that Covered Entity's rights hereunder upon written notice to CPB, and (ii) the rights of SoundExchange and Copyright owners under applicable law. SoundExchange's remedies for such a breach or failure by an individual Covered Entity shall not include termination of this Agreement in its entirety or termination of the rights of other Covered Entities, except that if CPB breaches or otherwise fails to perform any of the material terms of this Agreement, or such a breach or failure by a Covered Entity results from CPB's inducement, and CPB does not cure such breach or failure within thirty (30) days after receiving notice thereof from SoundExchange, then SoundExchange may terminate this Agreement in its entirety, and a prorated portion of the License Fee for the remainder Term shall, after deduction of any damages payable to SoundExchange by virtue of the breach or failure, be credited to statutory royalty obligations of Covered Entities to SoundExchange for the Term as specified by CPB.

Article 4

Consideration

4.1 *License Fee.* The total license fee for all Web Site Performances and Ephemeral Phonorecords made during the Term shall be one million eight hundred and fifty thousand dollars ($1,850,000) (the *"License Fee"*), unless additional payments are required as described in Section 4.3 or 4.4. The Parties acknowledge that CPB has paid SoundExchange two hundred and fifty thousand dollars ($250,000) of such amount prior to the Execution Date. Within ten (10) business days after publication of this Agreement in the **Federal Register**, CPB shall pay SoundExchange the balance of one million six hundred thousand dollars ($1,600,000).

4.2 *Calculation of License Fee.* The Parties acknowledge that the License Fee includes: (i) An annual minimum fee of five hundred dollars ($500) for each Covered Entity for each year during the Term, except that the annual minimum fee was calculated at two hundred and fifty dollars ($250) per year for each Covered Entity substantially all of the programming provided by which is reasonably classified as news, talk, sports or business programming; (ii) additional usage fees calculated in accordance with the royalty rate structure applicable to noncommercial webcasters under the Small Webcaster Settlement Act of 2002 (see 68 FR 35,008 (June 11, 2003)); and (iii) a discount that reflects the administrative convenience to SoundExchange of receiving one payment that covers a large number of separate entities for six (6) calendar years, as well as the "time value" of money and protection from bad debt that arises from being paid in advance for calendar years 2009 and 2010.

4.3 *Total Music ATH True-Up:* If the total Music ATH for all Covered Entities, in the aggregate for calendar years 2008, 2009 and 2010 combined, as estimated in accordance with the methodology described in Attachment 1, is greater than seven hundred sixty four million six hundred thousand (764,600,000) (approximately the amount that would result from 10% year-over-year Music ATH growth in 2008, 2009 and 2010), CPB shall make an additional payment to SoundExchange for all such Music ATH in excess of seven hundred sixty four million six hundred thousand (764,600,000) for all Covered Entities in the aggregate at the rate of $0.00251 per ATH. Such payment shall be due no later than March 1, 2011.

4.4 *Station Growth True-Up:* If the total number of Originating Public Radio Stations that wish to make Web Site Performances in any of calendar year 2008, 2009 and 2010 exceeds the number of such Originating Public Radio Stations considered Covered Entities in the relevant year, and the excess Originating Public Radio Stations do not wish to pay royalties for such Web Site Performances apart from this Agreement, CPB may elect by written notice to SoundExchange to increase the number of Originating Public Radio Stations considered Covered Entities in the relevant year effective as of the date of the notice. To the extent of any such elections for all or any part of calendar year 2008, 2009 or 2010, CPB shall make an additional payment to SoundExchange for each calendar year or part thereof it elects to have an additional Originating Public Radio Station considered a Covered Entity, in the amount of five hundred dollars ($500) per Originating Public Radio Station per year. Such payment shall accompany the notice electing to have an additional Originating Public Radio Station considered a Covered Entity.

4.5 *Late Fee.* The Parties hereby agree to the terms set forth in 37 CFR 380.4(e) as if that Section (and the applicable definitions provided in 37 CFR 380.2) were set forth herein.

4.6. *Payments to Third Persons.*

(a) SoundExchange and CPB agree that, except as provided in Section 4.6(b), all obligations of, *inter alia,* clearance, payment or attribution to third Persons, including, by way of example and not limitation, music publishers and performing rights organizations (PROs) for use of the musical compositions embodied in Sound Recordings, shall be solely the responsibility of CPB and the Covered Entities.

(b) SoundExchange and CPB agree that all obligations of distribution of the License Fee to Copyright Owners and Performers in accordance with 37 C.F.R 380.4(g) shall be solely the responsibility of SoundExchange. In making such distribution, SoundExchange has discretion to allocate the License Fee between Section 112 and 114 in the same manner as the majority of other webcasting royalties.

Article 5

Reporting, Auditing and Confidentiality

5.1 *Reporting.* CPB and Covered Entities shall submit reports of use concerning Web Site Performances as set forth in Attachments 1 and 2.

5.2 *Verification of Information.* The Parties hereby agree to the terms set forth in 37 CFR 380.4(h) and 380.6 as if those Sections (and the applicable definitions provided in 37 CFR 380.2) were set forth herein. The exercise by SoundExchange of any right under this Section 5.2 shall not prejudice any other rights or remedies of SoundExchange.

5.3 *Confidentiality.* The Parties hereby agree to the terms set forth in 37 CFR § 380.5 as if that Section (and the applicable definitions provided in 37 CFR § 380.2) were set forth herein, except that:

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(a) The following shall be added to the end of the first sentence of § 380.5(b): ''or documents or information that become publicly known through no fault of SoundExchange or are known by SoundExchange when disclosed by CPB'';

(b) The following shall be added at the end of § 380.5(c): ''and enforcement of the terms of this Agreement''; and

(c) The following shall be added at the end of § 380.5(d)(4): ''subject to the provisions of Section 2.3 of this Agreement''

Article 6

Non-Participation In Further Proceedings

CPB and any Covered Entity making Web Site Transmissions in reliance on this Agreement shall not directly or indirectly participate as a party, *amicus curiae* or otherwise, or in any manner give evidence or otherwise support or assist, in any further proceedings to determine royalty rates and terms for digital audio transmission or the reproduction of Ephemeral Phonorecords under Section 112 or 114 of the Copyright Act for all or any part of the Term, including any appeal of the Final Determination of the Copyright Royalty Judges, published in the **Federal Register** at 72 FR 24084 (May 1, 2007), any proceedings on remand from such an appeal, or any other related proceedings, unless subpoenaed on petition of a third party (without any action by CPB or a Covered Entity to encourage such a petition) and ordered to testify in such proceeding. Notwithstanding anything to the contrary herein, any entity that is eligible to be treated as a ''Covered Entity'' but that that does not elect to be treated as a Covered Entity may elect to participate in such proceedings.

Article 7

Term and Termination

7.1 *Term.* The term of this Agreement commenced as of January 1, 2005, and ends as of December 31, 2010 *(''Term'').* As conditions precedent to reliance on the terms of this Agreement by any Covered Entity, (a) CPB must pay the License Fee as and when specified in Section 4.1, and (b) NPR must withdraw its appeal of the Final Determination of the Copyright Royalty Judges, published in the **Federal Register** at 72 FR 24084 (May 1, 2007), which it has agreed to do within ten (10) days after the publication of this Agreement in the **Federal Register**.

7.2 *Mutual Termination.* This Agreement may be terminated in writing upon mutual agreement of the Parties.

7.3 *Consequences of Termination.*

(a) *Survival of Provisions.* In the event of the expiration or termination of this Agreement for any reason, the terms of this Agreement shall immediately become null and void, and cannot be relied upon for making any further Web Site Performances or Ephemeral Phonorecords, except that (i) Articles 6 and 8 and Sections 2.3, 5.2 and 7.3 shall remain in full force and effect; and (ii) Article 4 and Section 5.1 shall remain in effect after the expiration or termination of this Agreement to the extent obligations under Article 4 or Section 5.1 accrued prior to any such termination or expiration.

(b) *Applicability of Copyright Law.* Any Web Site Performances made by a Covered Entity or other Originating Public Radio Station in violation of the terms of this Agreement or Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with this Agreement), outside the scope of this Agreement, or after the expiration or termination of this Agreement for any reason shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106(6), the remedies in 17 U.S.C. 501 *et seq.*, the provisions of 17 U.S.C. 112(e) and 114, and their implementing regulations unless the Parties have entered into a new agreement for such Web Site Performances.

Article 8

Miscellaneous

8.1 *Applicable Law and Venue.* This Agreement shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with this Agreement shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC. The Parties and Covered Entities, to the extent permitted under their state or tribal law, consent to the jurisdiction and venue of the foregoing court and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the Person for which it is intended at its address set forth in this Agreement (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

8.2 *Rights Cumulative.* The remedies provided in this Agreement and available under applicable law shall be cumulative and shall not preclude assertion by any Party of any other rights or the seeking of any other remedies against the other Party hereto. This Agreement shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with this Agreement). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. Neither this Agreement nor any such failure or delay shall give rise to any defense in the nature of laches or estoppel. No single or partial exercise of any right, power or privilege granted under this Agreement or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by either Party of full performance by the other Party in any one or more instances shall be a waiver of the right to require full and complete performance of this Agreement and of obligations under applicable law thereafter or of the right to exercise the remedies of SoundExchange under Section 3.4.

8.3 *Severability.* Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited by or invalid under applicable law, such provisions shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

8.4 *Amendment.* This Agreement may be modified or amended only by a writing signed by the Parties.

8.5 *Entire Agreement.* This Agreement expresses the entire understanding of the Parties and supersedes all prior and contemporaneous agreements and undertakings of the Parties with respect to the subject matter hereof.

8.6 *Headings.* The titles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

In witness whereof, the Parties hereto have executed this Agreement as of the date first above written.

Attachment 1

Reporting

1. *Definitions.* The following terms shall have the meaning set forth below for purposes of this Attachment 1. All other capitalized terms shall have the meaning set forth in Article 1 of the Agreement.

(a) *''Content Logs''* shall have the meaning set forth in Section 4(a)(ii) of this Attachment 1.

(b) *''Current Period''* shall mean the period commencing with the first day after the end of the Historic Period and continuing to the end of the Term.

(c) *''Historic Period''* shall mean the period from April 1, 2004 through the last day of the month of the Execution Date.

(d) *''Major Format Group''* shall mean each of the following format descriptions characterizing the programming offered by various Covered Entities: (i) Classical; (ii) jazz; (iii) music mix; (iv) news and information; (v) news/classical; (vi) news/jazz; (vii) news/music mix; and (viii) adult album alternative. A Covered Entity's Major Format Group is determined based on the format description best describing the programming of the principal broadcast service offered by the Covered Entity and will include all channels streamed.

(e) *''Reporting Data''* shall mean, for each Sound Recording for which Reporting Data is to be provided, (1) the relevant Covered Entity (including call sign and community of license of any terrestrial broadcast station and any Side Channel(s)); (2) the title of the song or track performed; (3) the featured recording artist, group, or orchestra; (4) the title of the commercially available album or other product on which the Sound Recording is found; (5) the marketing label of the commercially available album or other product on which the sound recording is found; and (6) play frequency.

(f) *''Specified Reports''* are reports that provide Reporting Data concerning over-the-air performances of Sound Recordings that are also Web Site Performances by an

Originating Public Radio Station. The Parties agree that such reports will initially be the ones provided by Mediaguide, Inc. or a successor thereto (''Mediaguide''). In the event that Mediaguide, or other agreed-upon source of Specified Reports, should cease to provide Reporting Data that satisfy the function of such reports hereunder, the Parties shall promptly identify and agree upon an alternative vendor of reports, or an alternative approach to providing Reporting Data to SoundExchange, provided that such alternative reports or approaches are available on commercial terms comparable to Mediaguide reports.

2. *General.*

All data required to be provided hereunder shall be provided to SoundExchange electronically in the manner provided in 37 CFR 370.3(d), except to the extent the parties agree otherwise. CPB shall consult with SoundExchange in advance concerning the content and format of all data to be provided hereunder, and shall provide data that is accurate, to the best of CPB's and the relevant Covered Entity's knowledge, information and belief. The methods used to make estimates, predictions and projections of data shall be subject to SoundExchange's prior written approval, which shall not be unreasonably withheld.

3. *Data for the Historic Period.*

(a) *For 2004.* CPB and SoundExchange shall use reasonable efforts to obtain available Specified Reports regarding Covered Entities for the period April 1, 2004 through December 31, 2004. NPR has previously provided SoundExchange with all available Music ATH data from the Music Webcasting Report dated September, 2004, in the form of an Excel spreadsheet. CPB represents that such data includes Music ATH data for all Major Format Groups.

(b) *For 2005–2008.*

(i) If Covered Entities have Reporting Data, or other information reportable under 37 CFR Part 370, with respect to Web Site Performances during the Historic Period, such Covered Entities shall provide such information to CPB, which shall provide the same to SoundExchange, as soon as practicable, and in any event by no later than sixty (60) days after the end of the Historic Period. Such data shall be provided in a format consistent with Attachment 2.

(ii) CPB and SoundExchange shall use reasonable efforts to obtain available Specified Reports regarding Covered Entities for the Historic Period. CPB and SoundExchange shall each pay one-half of the costs for such Specified Reports.

(iii) CPB has previously provided SoundExchange with the Streaming Census Report dated October 18, 2007 which SoundExchange has accepted which includes estimates of total Music ATH during the Historic Period, and of the allocation thereof to Major Format Groups, Covered Entities and applicable period.

4. *Data Collection and Reporting for the Current Period.* CPB shall provide data regarding Web Site Performances during the Current Period to SoundExchange, and Covered Entities shall provide such data to CPB, consistent with the following terms:

(a) *ATH and Content Logs.* For each calendar quarter during the Current Period:

(i) *Music ATH Reporting.* CPB shall provide reports (the ''ATH Reports'') of Music ATH by Covered Entities reasonably representative of all Major Format Groups, having relatively high Music ATH among the set of Covered Entities, and representing at least 60% of the total Music ATH by the Covered Entities in 2009 and at least 80% of the total Music ATH by the Covered Entities in 2010. Such ATH reports shall be accompanied by the Content Logs described in Section 4(a)(ii) for the periods described therein for all Covered Entities for which ATH Reports are provided. All ATH Reports and Content Logs for a quarter shall be provided by CPB together in one single batch, but all data shall be broken out by Covered Entity and identify each Covered Entity's Major Format Group. The ATH Reports shall be in a form similar to the Streaming Census Report dated October 18, 2007, which reported two hundred ten million (210,000,000) total Music ATH for all Covered Entities for calendar year 2007, except as otherwise provided in this Section 4(a)(i). If the ATH Reports satisfy the requirements set forth above in this Section 4(a)(i), all Covered Entities shall be deemed in compliance with the terms of this Section 4(a)(i).

(ii) *Reporting Period and Data.* The information about Music ATH referenced in Section 4(a)(i) shall be collected from Covered Entities for two 7-consecutive-day reporting periods per quarter in 2009 and 2010. The first ATH Report shall be provided no later than 180 days after the Execution Date. Thereafter, the ATH Reports shall be provided within thirty (30) days of the end of each calendar quarter. During these reporting periods, Covered Entities described in Section 4(a)(i) above shall prepare logs containing Reporting Data for all their Web Site Performances *(''Content Logs'').* These Content Logs shall be compared with server-based logs of Music ATH throughout the reporting period before the ATH Report is submitted to SoundExchange.

(iii) *Additional Data Reporting.* Each quarter, CPB shall, for Covered Entities representing the highest 20% of reported Music ATH in 2009 and the highest 30% of reported Music ATH in 2010, provide SoundExchange Reporting Data collected continuously during each 24 hour period for the majority of their Web Site Performances, along with the Covered Entity's Music ATH, for the relevant quarter. If during any calendar quarter of the Current Period, additional Covered Entities, in the ordinary course of business, collect Reporting Data continuously during each 24 hour period for the majority of their Web Site Performances, CPB shall provide SoundExchange such data, along with each such Covered Entity's Music ATH, for the relevant quarter.

(b) *ATH and Format Surveys.* CPB shall semiannually survey all Covered Entities to ascertain the number, format and Music ATH of all channels (including but not limited to Side Channels) over which such Covered Entities make Web Site Performances. CPB shall provide the results of such survey to SoundExchange within sixty (60) days after the end of the semiannual period to which it pertains.

(c) *Consolidated Reporting.* Each quarter, CPB shall provide the information required by this Section 4 in one delivery to SoundExchange, with a list of all Covered Entities indicating which are and are not reporting for such quarter.

(d) *Timing.* Except as otherwise provided above, all information required to be provided to SoundExchange under this Section 4 shall be provided as soon as practicable, and in any event by no later than sixty (60) days after the end of the quarter to which it pertains. Such data shall be provided in a format consistent with Attachment 2.

5. *Development of Technological Solutions.* During the Term, CPB and Covered Entities shall cooperate in good faith with efforts by SoundExchange to develop and test a technological solution that facilitates reporting.

Attachment 2

Reporting Format

1. *Format for Reporting Data.* All Reporting Data provided under Attachment 1, Sections 3(b)(i) and 4(a)(ii) shall be delivered to SoundExchange in accordance with the following format:

Column 1	Station or Side Channel
Column 2	Sound Recording Title
Column 3	Featured Artist, Group or Orchestra
Column 4	Album
Column 5	Marketing Label
Column 6	Play Frequency

2. *Format for Music ATH.* All Music ATH reporting by Covered Entities under the following provisions of Attachment 1 shall be delivered to SoundExchange in accordance with the following format:

a. Section 3(b)(i) (the ''Historic Period'')

Column 1	Station or Side Channel
Column 2	Major Format Group
Column 3	ATH
Column 4	2004 and 2007

b. Section 4(a)(i) (the ''Current Period'')

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Column 1	Station or Side Channel
Column 2	Major Format Group
Column 3	ATH
Column 4	Reporting Period

3. *Major Format Groups.* All requirements to provide ''Major Format Group'' as that term is defined in Attachment 1, Section 1(d), shall correspond with one of the following:

Major format groups
Classical
Jazz
Music Mix
News and Information
News/Classical
News/Jazz
News/Music Mix
Adult Album Alternative

Appendix B—Agreed Rates and Terms for Broadcasters

Article 1—Definitions

1.1 *General.* In general, words used in the rates and terms set forth herein (the ''Rates and Terms'') and defined in 17 U.S.C. 112(e) or 114 or 37 CFR Part 380 shall have the meanings specified in those provisions as in effect on the date hereof, with such exceptions or clarifications set forth in Section 1.2.

1.2 *Additional Definitions*

(a) *''Broadcaster''* shall mean a webcaster as defined in 17 U.S.C. 114(f)(5)(E)(iii) that (i) has a substantial business owning and operating one or more terrestrial AM or FM radio stations that are licensed as such by the Federal Communications Commission; (ii) has obtained a compulsory license under 17 U.S.C. 112(e) and 114 and the implementing regulations therefor to make Eligible Transmissions and related ephemeral recordings; (iii) complies with all applicable provisions of Sections 112(e) and 114 and applicable regulations; and (iv) is not a noncommercial webcaster as defined in 17 U.S.C. 114(f)(5)(E)(i).

(b) *''Broadcaster Webcasts''* shall mean eligible nonsubscription transmissions made by a Broadcaster over the internet that are not Broadcast Retransmissions.

(c) *''Broadcast Retransmissions''* shall mean eligible nonsubscription transmissions made by a Broadcaster over the internet that are retransmissions of terrestrial over-the-air broadcast programming transmitted by the Broadcaster through its AM or FM radio station, including ones with substitute advertisements or other programming occasionally substituted for programming for which requisite licenses or clearances to transmit over the internet have not been obtained. For the avoidance of doubt, a Broadcast Retransmission does not include programming transmitted on an internet-only side channel.

(d) *''Eligible Transmission''* shall mean either a Broadcaster Webcast or a Broadcast Retransmission.

(e) *''Small Broadcaster''* shall mean a Broadcaster that, for any of its channels and stations (determined as provided in Section 4.1) over which it transmits Broadcast Retransmissions, and for all of its channels and stations over which it transmits Broadcaster Webcasts in the aggregate, in any calendar year in which it is to be considered a Small Broadcaster, meets the following additional eligibility criteria: (i) During the prior year it made Eligible Transmissions totaling less than 27,777 aggregate tuning hours; and (ii) during the applicable year it reasonably expects to make Eligible Transmissions totaling less than 27,777 aggregate tuning hours; provided that, one time during the period 2006–2015, a Broadcaster that qualified as a Small Broadcaster under the foregoing definition as of January 31 of one year, elected Small Broadcaster status for that year, and unexpectedly made Eligible Transmissions on one or more channels or stations in excess of 27,777 aggregate tuning hours during that year, may choose to be treated as a Small Broadcaster during the following year notwithstanding clause (i) above if it implements measures reasonably calculated to ensure that that it will not make Eligible Transmissions exceeding 27,777 aggregate tuning hours during that following year. As to channels or stations over which a Broadcaster transmits Broadcast Retransmissions, the Broadcaster may elect Small Broadcaster status only with respect to any of its channels or stations that meet all of the foregoing criteria.

(f) *''SoundExchange''* shall mean SoundExchange, Inc. and shall include its successors and assigns.

Article 2—Agreement Pursuant to

Webcaster Settlement Act of 2008

2.1 *Availability of Rates and Terms.* Pursuant to the Webcaster Settlement Act of 2008, and subject to the provisions set forth below, Broadcasters may elect to be subject to the rates and terms set forth herein (the ''Rates and Terms'') in their entirety, with respect to such Broadcasters' Eligible Transmissions and related ephemeral recordings, for all of the period beginning on January 1, 2006, and ending on December 31, 2015, in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, by complying with the procedure set forth in Section 2.2 hereof. Any person or entity that does not satisfy the eligibility criteria to be a Broadcaster must comply with otherwise applicable rates and terms.

2.2 *Election Process in General.* To elect to be subject to these Rates and Terms, in lieu of any royalty rates and terms that otherwise might apply under 17 U.S.C. 112(e) and 114, for all of the period beginning on January 1, 2006, and ending on December 31, 2015, a Broadcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by the later of (i) March 31, 2009; (ii) 30 days after publication of these Rates and Terms in the **Federal Register**; or (iii) in the case of a Broadcaster that is not making Eligible Transmissions as of the publication of these Rates and Terms in the **Federal Register** but begins doing so at a later time, 30 days after the Broadcaster begins making such Eligible Transmissions. On any such election form, the Broadcaster must, among other things, identify all its stations making Eligible Transmissions. If, subsequent to making an election, there are changes in the Broadcaster's corporate name or stations making Eligible Transmissions, or other changes in its corporate structure that affect the application of these Rates and Terms, the Broadcaster shall promptly notify SoundExchange thereof. Notwithstanding anything else in these Rates and Terms, a person or entity otherwise qualifying as a Broadcaster that has participated in any way in any appeal of the Final Determination of the Copyright Royalty Judges concerning royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2006, through December 31, 2010 published in the **Federal Register** at 72 FR 24084 (May 1, 2007) (the ''Final Determination'') or any proceeding before the Copyright Royalty Judges to determine royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2011, through December 31, 2015 (including Docket No. 2009–1 CRB Webcasting III and Docket No. 2009–2 CRB New Subscription II, as noticed in the **Federal Register** at 74 FR 318–20 (Jan. 5, 2009)) shall not have the right to elect to be treated as a Broadcaster or claim the benefit of these Rates and Terms, unless it withdraws from such proceeding prior to submitting to SoundExchange a completed and signed election form as contemplated by this Section 2.2.

2.3 *Election of Small Broadcaster Status.* A Broadcaster that elects to be subject to these Rates and Terms and qualifies as a Small Broadcaster may elect to be treated as a Small Broadcaster for any one or more calendar years that it qualifies as a Small Broadcaster. To do so, the Small Broadcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by no later than January 31 of the applicable year, except that election forms for 2006–2009 shall be due by no later than the date for the election provided in Section 2.2. On any such election form, the Broadcaster must, among other things, certify that it qualifies as a Small Broadcaster; provide information about its prior year aggregate tuning hours and the formats of its stations (e.g., the genres of music they use); and provide other information requested by SoundExchange for use in creating a royalty distribution proxy. Even if a Broadcaster has once elected to be treated as a Small Broadcaster, it must make a separate, timely election in each subsequent year in which it wishes to be treated as a Small Broadcaster.

2.4 *Representation of Compliance and Non-waiver.* By electing to operate pursuant to the Rates and Terms, an entity represents and warrants that it qualifies as a Broadcaster and/or Small Broadcaster, as the case may be. By accepting an election by a transmitting entity or payments or reporting made pursuant to these Rates and Terms, SoundExchange does not acknowledge that the transmitting entity qualifies as a Broadcaster or Small Broadcaster or that it has complied with the requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act (including these Rates and Terms). It is the responsibility of each transmitting entity to ensure that it is in full compliance with applicable requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act. SoundExchange is not in a position to, and does not, make determinations as to whether each of the many services that rely on the statutory licenses is eligible for statutory licensing or any particular royalty payment classification, nor does it continuously verify that such services are in full compliance with all applicable requirements. Accordingly, a Broadcaster agrees that SoundExchange's acceptance of its election, payment or reporting does not give or imply any acknowledgment that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms) and shall not be used as evidence that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms). SoundExchange and copyright owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with all applicable requirements that are not inconsistent with these Rates and Terms.

Article 3—Scope

3.1 *In General.* In consideration for the payment of royalties pursuant to Article 4 and such other consideration specified herein, Broadcasters that have made a timely election to be subject to these Rates and Terms as provided in Section 2.2 are entitled to publicly perform sound recordings within the scope of the statutory license provided by Section 114 by means of Eligible Transmissions, and to make related ephemeral recordings for use solely for purposes of such Eligible Transmissions within the scope of Section 112(e), in accordance with and subject to the limitations set forth in these Rates and Terms and in strict conformity with the provisions of 17 U.S.C. 112(e) and 114 and their implementing regulations (except as otherwise specifically provided herein or waived by particular copyright owners with respect to their respective sound recordings), in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, for all of the period beginning on January 1, 2006, and ending on December 31, 2015.

3.2 *Applicability to All Eligible Services Operated by or for a Broadcaster.* If a Broadcaster has made a timely election to be subject to these Rates and Terms as provided in Section 2.2, these Rates and Terms shall apply to all Eligible Transmissions made by or for the Broadcaster that qualify as a Performance under 37 CFR 380.2(i), and related ephemeral recordings. For the avoidance of doubt, a Broadcaster may not rely upon these Rates and Terms for its Eligible Transmissions of one broadcast channel or station and upon different Section 112(e) and 114 rates and terms for its Eligible Transmissions of other broadcast channels or stations.

3.3 *No Implied Rights.* These Rates and Terms extend only to electing Broadcasters and grant no rights, including by implication or estoppel, to any other person or except as specifically provided herein. Without limiting the generality of the foregoing, these Rates and Terms do not grant (i) any copyright ownership interest in any sound recording; (ii) any trademark or trade dress rights; (iii) any rights outside the United States (as defined in 17 U.S.C. 101); (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other person; or (v) any rights with respect to performances or reproductions outside the scope of these Rates and Terms or the statutory licenses under 17 U.S.C. 112(e) and 114.

Article 4—Royalties

4.1 *Minimum Fees.* Each Broadcaster will pay an annual, nonrefundable minimum fee of $500 for each of its individual channels, including each of its individual side channels, and each of its individual stations, through which (in each case) it makes Eligible Transmissions, for each calendar year or part of a calendar year during 2006–2015 during which the Broadcaster is a licensee pursuant to licenses under 17 U.S.C. 112(e) and 114, provided that a Broadcaster shall not be required to pay more than $50,000 in minimum fees in the aggregate (for 100 or more channels or stations). For purposes of these Rates and Terms, each individual stream (e.g., HD radio side channels, different stations owned by a single licensee) will be treated separately and be subject to a separate minimum, except that identical streams for simulcast stations will be treated as a single stream if the streams are available at a single Uniform Resource Locator (URL) and performances from all such stations are aggregated for purposes of determining the number of payable performances hereunder. Upon payment of the minimum fee, the Broadcaster will receive a credit in the amount of the minimum fee against any royalties payable for the same calendar year for the same channel or station. In addition, an electing Small Broadcaster also shall pay a $100 annual fee (the ''Proxy Fee'') to SoundExchange for the reporting waiver discussed in Section 5.1.

4.2 *Royalty Rates.* Royalties for Eligible Transmissions made pursuant to 17 U.S.C. 114, and the making of related ephemeral recordings pursuant to 17 U.S.C. 112(e), shall, except as provided in Section 5.3, be payable on a per-performance basis, as follows:

Year	Rate per performance
2006	$0.0008
2007	0.0011
2008	0.0014
2009	0.0015
2010	0.0016
2011	0.0017
2012	0.0020
2013	0.0022
2014	0.0023
2015	0.0025

4.3 *MFN.* If at any time between publication of this Agreement in the **Federal Register** and December 31, 2015, SoundExchange enters into an agreement with a Broadcaster specifying terms and conditions for the public performance of sound recordings within the scope of the statutory license provided by Section 114 by means of Eligible Transmissions, and the making of related ephemeral recordings within the scope of Section 112(e), upon principal financial or other material terms that are more favorable to such Broadcaster than the principal financial or other material terms set forth in these Rates and Terms, then SoundExchange shall afford electing Broadcasters hereunder the opportunity, in each Broadcaster's sole discretion, to take advantage of the terms and conditions of such agreement, in their entirety, in lieu of these Rates and Terms, with respect to the Broadcaster's Eligible Transmissions, from the date such more favorable terms became effective under such other agreement and continuing until the earlier of (i) the expiration of such other agreement, or (ii) December 31, 2015.

4.4 *Ephemeral Royalty.* The royalty payable under 17 U.S.C. 112(e) for any ephemeral reproductions made by a Broadcaster and covered hereby is deemed to be included within the royalty payments set forth above. SoundExchange has discretion to allocate payments hereunder between the statutory licenses under Sections 112(e) and 114 in the same manner as statutory webcasting royalties for the period 2011–2015, provided that such allocation shall not, by virtue of a Broadcaster's agreement to this Section 4.4, be considered precedent in any judicial, administrative, or other proceeding.

4.5 *Payment.* Payments of all amounts specified in these Rates and Terms shall be made to SoundExchange. Minimum fees and, where applicable, the Proxy Fee shall be paid by January 31 of each year. Once a Broadcaster's royalty obligation under Section 4.2 with respect to a channel or station for a year exceeds the minimum fee it has paid for that channel or station and year, thereby recouping the credit provided by Section 4.1, the Broadcaster shall make monthly payments at the per-performance rates provided in Section 4.2 beginning with the month in which the minimum fee first was recouped.

4.6 *Monthly Obligations.* Broadcasters must make monthly payments where required by Section 4.5, and provide statements of account and reports of use, for each month on the 45th day following the end of the month in which the Eligible Transmissions subject to the payments, statements of account, and reports of use were made.

4.7 *Past Periods.* Notwithstanding anything else in this Agreement, to the extent that a Broadcaster that elects to be subject to these Rates and Terms has not paid royalties for all or any part of the period beginning on January 1, 2006, and ending on February 28, 2009, any amounts payable under these Rates and Terms for Eligible Transmissions during such period for which payment has not previously been made shall be paid by no later than April 30, 2009, including late fees as provided in Section 4.8 from the original due date.

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4.8 *Late Fees.* A Broadcaster shall pay a late fee for each instance in which any payment, any statement of account or any report of use is not received by SoundExchange in compliance with these Rates and Terms and applicable regulations by the due date. The amount of the late fee shall be 1.5% of a late payment, or 1.5% of the payment associated with a late statement of account or report of use, per month, compounded monthly, or the highest lawful rate, whichever is lower. The late fee shall accrue from the due date of the payment, statement of account or report of use until a fully-compliant payment, statement of account or report of use is received by SoundExchange, provided that, in the case of a timely provided but noncompliant statement of account or report of use, SoundExchange has notified the Broadcaster within 90 days regarding any noncompliance that is reasonably evident to SoundExchange.

Article 5—Reporting, Auditing and Confidentiality

5.1 *Small Broadcasters.* While SoundExchange's ultimate goal is for all webcasters to provide census reporting, requiring census reporting by the smallest Broadcasters at this time may present undue challenges for them, reduce compliance, and significantly increase SoundExchange's distribution costs. Accordingly, on a transitional basis for a limited time and for purposes of these Rates and Terms only, and in light of the unique business and operational circumstances currently existing with respect to these entities, electing Small Broadcasters shall not be required to provide reports of their use of sound recordings for Eligible Transmissions and related ephemeral recordings. The immediately preceding sentence applies even if the Small Broadcaster actually makes Eligible Transmissions for the year exceeding 27,777 aggregate tuning hours, so long as it qualified as a Small Broadcaster at the time of its election for that year. Instead, SoundExchange shall distribute the aggregate royalties paid by electing Small Broadcasters based on proxy usage data in accordance with a methodology adopted by SoundExchange's Board of Directors. In addition to minimum royalties hereunder, electing Small Broadcasters will pay to SoundExchange a $100 Proxy Fee to defray costs associated with this reporting waiver, including development of proxy usage data. SoundExchange hopes that offering this option to electing Small Broadcasters will promote compliance with statutory license obligations and thereby increase the pool of royalties available to be distributed to copyright owners and performers. SoundExchange further hopes that selection of a proxy believed by SoundExchange to represent fairly the playlists of Small Broadcasters will allow payment to more copyright owners and performers than would be possible with any other reasonably available option. Small Broadcasters should assume that, effective January 1, 2016, they will be required to report their actual usage in full compliance with then-applicable regulations. Small Broadcasters are encouraged to begin to prepare to report their actual usage by that date, and if it is practicable for them to do so earlier, they may wish not to elect Small Broadcaster status.

5.2 *Reporting by Other Broadcasters in General.* Broadcasters other than electing Small Broadcasters covered by Section 5.1 shall submit reports of use on a per-performance basis in compliance with the regulations set forth in 37 CFR Part 370, except that the following provisions shall apply notwithstanding the provisions of applicable regulations from time to time in effect:

(a) Broadcasters may pay for, and report usage in, a percentage of their programming hours on an aggregate tuning hour basis as provided in Section 5.3.

(b) Broadcasters shall submit reports of use to SoundExchange on a monthly basis.

(c) As provided in Section 4.6, Broadcasters shall submit reports of use by no later than the 45th day following the last day of the month to which they pertain.

(d) Except as provided in Section 5.3, Broadcasters shall submit reports of use to SoundExchange on a census reporting basis (i.e., reports of use shall include every sound recording performed in the relevant month and the number of performances thereof).

(e) Broadcasters shall either submit a separate report of use for each of their stations, or a collective report of use covering all of their stations but identifying usage on a station-by-station basis.

(f) Broadcasters shall transmit each report of use in a file the name of which includes (i) the name of the Broadcaster, exactly as it appears on its notice of use, and (ii) if the report covers a single station only, the call letters of the station.

(g) Broadcasters shall submit reports of use with headers, as presently described in 37 CFR 370.3(d)(7).

(h) Broadcasters shall submit a separate statement of account corresponding to each of their reports of use, transmitted in a file the name of which includes (i) the name of the Broadcaster, exactly as it appears on its notice of use, and (ii) if the statement covers a single station only, the call letters of the station.

5.3 *Limited ATH-Based Reporting.* Recognizing the operational challenge of census reporting, Broadcasters generally reporting pursuant to Section 5.2 may pay for, and report usage in, a percentage of their programming hours on an aggregate tuning hours basis, if (a) census reporting is not reasonably practical for the programming during those hours, and (b) if the total number of hours on a single report of use, provided pursuant to Section 5.2, for which this type of reporting is used is below the maximum percentage set forth below for the relevant year:

Year	Maximum percentage
2009	20%
2010	18%
2011	16%
2012	14%
2013	12%
2014	10%
2015	8%

To the extent that a Broadcaster chooses to report and pay for usage on an aggregate tuning hours basis pursuant to this Section 5.3, the Broadcaster shall (i) report and pay based on the assumption that the number of sound recordings performed during the relevant programming hours is 12 per hour; (ii) pay royalties (or recoup minimum fees) at the per-performance rates provided in Section 4.2 on the basis of clause (i) above; (iii) include aggregate tuning hours in reports of use provided pursuant to Section 5.2; and (iv) include in reports of use provided pursuant to Section 5.2 complete playlist information for usage reported on the basis of aggregate tuning hours. SoundExchange may distribute royalties paid on the basis of aggregate tuning hours hereunder in accordance with its generally-applicable methodology for distributing royalties paid on such basis.

5.4 *Verification of Information.* The provisions of applicable regulations for the retention of records and verification of statutory royalty payments (presently 37 CFR 380.4(h) and 380.6) shall apply hereunder. The exercise by SoundExchange of any right under this Section 5.4 shall not prejudice any other rights or remedies of SoundExchange or sound recording copyright owners.

5.5 *Confidentiality.* The provisions of applicable regulations concerning confidentiality (presently 37 CFR 380.5 (and the applicable definitions provided in 37 CFR 380.2)) shall apply hereunder.

Article 6—Additional Provisions

6.1 *Applicable Regulations.* To the extent not inconsistent with the Rates and Terms herein, all applicable regulations, including 37 CFR Parts 370 and 380, shall apply to activities subject to these Rates and Terms.

6.2 *Participation in Specified Proceedings.* A Broadcaster that elects to be subject to these Rates and Terms agrees that it has elected to do so in lieu of any different statutory rates and terms that may otherwise apply during any part of the 2006–2015 period and in lieu of participating at any time in a proceeding to set rates and terms for any part of the 2006–2015 period. Thus, once a Broadcaster has elected to be subject to these Rates and Terms, it shall not at any time participate as a party, intervenor, *amicus curiae* or otherwise, or give evidence or otherwise support or assist, in *Intercollegiate Broadcasting Sys.* v. *Copyright Royalty Board* (D.C. Circuit Docket Nos. 07–1123, 07–1168, 07–1172, 07–1173, 07–1174, 07–1177, 07–1178, 07–1179), *Digital Performance Right in Sound Recordings and Ephemeral Recordings* (Copyright Royalty Judges' Docket No. 2009–1 CRB Webcasting III), *Digital Performance Right in Sound Recordings and Ephemeral Recordings for a New Subscription Service* (Copyright Royalty Judges' Docket No. 2009–2 CRB New Subscription II) or any successor proceedings to determine royalty rates and terms for reproduction of ephemeral phonorecords or digital audio transmission under Section

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112(e) or 114 of the Copyright Act for all or any part of the period 2006–2015, including any appeal of the foregoing or any proceedings on remand from such an appeal, unless subpoenaed on petition of a third party (without any action by a Broadcaster to encourage or suggest such a subpoena or petition) and ordered to testify or provide documents in such proceeding.

6.3 *Use of Agreement in Future Proceedings*.

(a) Consistent with 17 U.S.C. 114(f)(5)(C), and except as specifically provided in Section 6.3(b), neither the Webcaster Settlement Act nor any provisions of these Rates and Terms shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of musical works or sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges.

(b) Pursuant to 17 U.S.C. 114(f)(5)(C), submission of these Rates and Terms in a proceeding under 17 U.S.C. 114(f) is expressly authorized. For the avoidance of doubt, this Section 6.3(b) does not authorize participation in a proceeding by an entity that has agreed not to participate in the proceeding (pursuant to Section 6.2 or otherwise).

6.4 *Effect of Direct Licenses.* Any copyright owner may enter into a voluntary agreement with any Broadcaster setting alternative Rates and Terms governing the Broadcasters' transmission of copyrighted works owned by the copyright owner, and such voluntary agreement may be given effect in lieu of the Rates and Terms set forth herein.

6.5 *Default.* A Broadcaster shall comply with all the requirements of these Rates and Terms. If it fails to do so, SoundExchange may give written notice to the Broadcaster that, unless the breach is remedied within 30 days from the date of receipt of notice, the Broadcaster's authorization to make public performances and ephemeral reproductions under these Rates and Terms will be automatically terminated. No such cure period shall apply before termination in case of material noncompliance that has been repeated multiple times so as to constitute a pattern of noncompliance, provided that SoundExchange has given repeated notices of noncompliance. Any transmission made by a Broadcaster in violation of these Rates and Terms or Section 112(e) or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms), outside the scope of these Rates and Terms, or after the expiration or termination of these Rates and Terms shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106 and the remedies in 17 U.S.C. 501–506, and all limitations, exceptions and defenses available with respect thereto.

Article 7—Miscellaneous

7.1 *Acknowledgement.*

(a) The parties acknowledge this agreement was entered into knowingly and willingly.

(b) This agreement is limited solely to webcasting royalties, and the parties acknowledge that it shall not be cited in connection with any efforts to obtain, and sets no precedent related to, over-the-air performance royalties.

(c) The parties further agree that the preceding acknowledgement in Section 7.1(a) does not in any way imply Broadcasters' agreement that the royalty rate standard set forth in 17 U.S.C. 114(f)(2)(B) is an appropriate rate standard to apply to Broadcasters. Broadcasters shall never be precluded by virtue of such acknowledgement from arguing in the context of future legislation or otherwise that a different royalty rate standard should apply to them, and SoundExchange shall never rely upon by such acknowledgement as a basis for arguing that the royalty rate standard set forth in 17 U.S.C. 114(f)(2)(B) should apply to Broadcasters.

7.2 *Applicable Law and Venue*. These Rates and Terms shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with these Rates and Terms shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC. SoundExchange and Broadcasters consent to the jurisdiction and venue of the foregoing court and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the person for which it is intended at its last known address (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

7.3 *Rights Cumulative*. The rights, remedies, limitations, and exceptions provided in these Rates and Terms and available under applicable law shall be cumulative and shall not preclude assertion by any party of any other rights, defenses, limitations, or exceptions or the seeking of any other remedies against another party hereto. These Rates and Terms shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. No single or partial exercise of any right, power or privilege granted under these Rates and Terms or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by any party of full performance by another party in any one or more instances shall be a waiver of the right to require full and complete performance of these Rates and Terms and of obligations under applicable law thereafter.

7.4 *Entire Agreement*. These Rates and Terms represent the entire and complete agreement between SoundExchange and a Broadcaster with respect to their subject matter and supersede all prior and contemporaneous agreements and undertakings of SoundExchange and a Broadcaster with respect to the subject matter hereof.

Appendix C

Agreed Rates and Terms

1. General

(a) *Availability of Rates and Terms.* Pursuant to the Webcaster Settlement Act of 2008, and subject to the provisions of Section 2, Eligible Small Webcasters may elect to be subject to the rates and terms set forth herein (the ''Rates and Terms'') in their entirety, with respect to their eligible nonsubscription transmissions and related ephemeral recordings, in lieu of other rates and terms applicable under 17 U.S.C. 112(e) and 114, by complying with the procedure set forth in Section 2 hereof. Any person or entity that does not satisfy the eligibility criteria to be an Eligible Small Webcaster during any calendar year during the period 2006–2015 must comply with otherwise applicable rates and terms for that year.

(b) *Compliance.* Any Eligible Small Webcaster relying upon the statutory licenses set forth in 17 U.S.C. 112(e) and 114 shall comply with the requirements of those Sections, these Rates and Terms and other applicable regulations.

(c) *Effect of Direct Licenses.* These Rates and Terms are without prejudice to, and subject to, any voluntary agreements that an Eligible Small Webcaster may have entered into with any sound recording copyright owner.

(d) *Precedential Effect of Rates and Terms.* Eligible Small Webcasters agree that these Rates and Terms (including any royalty rates, rate structure, fees, definitions, terms, conditions, or notice and recordkeeping requirements set forth herein), shall not be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding, except as specifically provided in this Section 1(d). This prohibition applies to, but is not limited to, those proceedings involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements. These Rates and Terms shall be considered as a compromise motivated by the unique business, economic and political circumstances of small webcasters, copyright owners, and performers rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller. Eligible Small Webcasters shall not, in any way, seek to use in any way these Rates and Terms in any such proceeding and further agree to take whatever steps are appropriate to prevent use of such rates and terms in those proceedings. SoundExchange may disclose, describe or explain any provision of these Rates and Terms in any proceeding without giving it precedential effect.

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2. Election for Treatment as an Eligible Small Webcaster

(a) *Election Process in General.* An Eligible Small Webcaster that wishes to elect to be subject to these Rates and Terms with respect to its eligible nonsubscription transmissions and related ephemeral recordings, in lieu of any royalty rates and terms that otherwise might apply under 17 U.S.C. 112(e) and 114, for any calendar year that it qualifies as an Eligible Small Webcaster during the period beginning on January 1, 2006, and ending on December 31, 2015, shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by no later than the first date on which the webcaster would be obligated under these Rates and Terms to make a royalty payment for such year. An Eligible Small Webcaster that fails to make a timely election shall pay royalties for the relevant year as otherwise provided under 17 U.S.C. 112 and 114.

(b) *Election of Microcaster Status.* An Eligible Small Webcaster that elects to be subject to these Rates and Terms and qualifies as a Microcaster may elect to be treated as a Microcaster for any one or more calendar years that it qualifies as a Microcaster. To do so, the Microcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by no later than the first date on which the Eligible Small Webcaster would be obligated under these Rates and Terms to make a royalty payment for each year it elects to be treated as a Microcaster. On any such election form, the Eligible Small Webcaster must, among other things, certify that it qualifies as a Microcaster; provide its prior year Gross Revenues, Third Party Participation Revenues and Aggregate Tuning Hours; and provide other information requested by SoundExchange for use in creating a royalty distribution proxy. Even if an Eligible Small Webcaster has once elected to be treated as a Microcaster, it must make a separate, timely election in each subsequent year in which it wishes to be treated as a Microcaster.

(c) *Participation in Proceedings.* Notwithstanding anything else in these Rates and Terms, a person or entity otherwise qualifying as an Eligible Small Webcaster that has participated in any way in any appeal of the Final Determination of the Copyright Royalty Judges concerning royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2006, through December 31, 2010 published in the **Federal Register** at 72 FR 24084 (May 1, 2007) (the "Final Determination") or any proceeding before the Copyright Royalty Judges to determine royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2011, through December 31, 2015 (including Docket No. 2009–1 CRB Webcasting III and Docket No. 2009–2 CRB New Subscription II, as noticed in the **Federal Register** at 74 FR 318–20 (Jan. 5, 2009)) shall not have the right to elect to be treated as an Eligible Small Webcaster or claim the benefit of these Rates and Terms, unless it withdraws from such proceeding and submits to SoundExchange a completed and signed election form within thirty (30) days after publication of these Rates and Terms in the **Federal Register**. An Eligible Small Webcaster that elects to be subject to these Rates and Terms for any one or more years agrees that it has elected to do so in lieu of any different statutory rates and terms that may otherwise apply during that year and in lieu of participating at any time in a proceeding to set rates and terms for any part of the 2006–2015 period. Thus, once an Eligible Small Webcaster has elected to be subject to these Rates and Terms it shall not at any time (even if it is no longer eligible, or has no longer elected to be treated, as an Eligible Small Webcaster) directly or indirectly participate as a party, *amicus curiae* or otherwise, or in any manner give evidence or otherwise support or assist, in any further proceedings to determine royalty rates and terms for reproduction of ephemeral phonorecords or digital audio transmission under Section 112(e) or 114 of the Copyright Act for all or any part of the period 2006–2015, including any appeal of the Final Determination, any proceedings on remand from such an appeal, any proceeding before the Copyright Royalty Judges to determine royalty rates and terms applicable to the statutory licenses under Sections 112(e) and 114 of the Copyright Act for the period 2011–2015, any appeal of such proceeding, or any other related proceedings.

(d) *Compliance.* By electing Eligible Small Webcaster and/or Microcaster status, a transmitting entity represents that it is eligible therefor and in compliance with all requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act. By accepting an election by a transmitting entity or payments or reporting made pursuant to these Rates and Terms, SoundExchange does not acknowledge that the transmitting entity qualifies as an Eligible Small Webcaster or Microcaster or that it has complied with the requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act (including these Rates and Terms). It is the responsibility of each transmitting entity to ensure that it is in full compliance with the requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act. SoundExchange is not in a position to, and does not, make determinations as to whether each of the many services that rely on the statutory licenses is eligible for statutory licensing or any particular royalty payment classification, nor does it continuously verify that such services are in full compliance with all applicable requirements. Accordingly, an Eligible Small Webcaster agrees that SoundExchange's acceptance of its election, payment or reporting does not give or imply any acknowledgment that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms) and shall not be used as evidence that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms). SoundExchange and copyright owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with those requirements.

3. Royalty Rates for Eligible Small Webcasters

For eligible nonsubscription transmissions made by an Eligible Small Webcaster during the period 2006–2015, except an electing Microcaster, the royalty rate shall be—

(1) On any transmissions not exceeding 5,000,000 Aggregate Tuning Hours per month (equivalent to approximately 6,945 average simultaneous listeners, listening for thirty consecutive days, 24 hours a day), the greater of (i) ten percent (10%) of the Eligible Small Webcaster's first $250,000 in Gross Revenues and twelve percent (12%) of any Gross Revenues in excess of $250,000 during the applicable year; or (ii) seven percent (7%) of the Eligible Small Webcaster's Expenses during the applicable year; and

(2) On any transmissions in excess of 5,000,000 Aggregate Tuning Hours per month, the commercial webcasting rates provided in the Final Determination (for the period 2006–2010) or the then-applicable commercial webcasting rates under Sections 112(e) and 114 (for the period 2011–2015).

4. Minimum Annual Fees

(a) *In General.* For each year from 2006–2015, an Eligible Small Webcaster shall pay annual minimum fees as follows:

(1) $500 for electing Microcasters, which shall constitute the only royalty payable hereunder by an electing Microcaster, except that an electing Microcaster also shall pay a $100 annual fee (the "Proxy Fee") to SoundExchange for the reporting waiver discussed in Section 6(a), and the provisions of Section 5(d) shall apply;

(2) $2,000, for Eligible Small Webcasters other than electing Microcasters that had Gross Revenues during the prior year of not more than $50,000 and reasonably expect Gross Revenues of not more than $50,000 during the applicable year; or

(3) $5,000, for Eligible Small Webcasters that had Gross Revenues during the prior year of more than $50,000 or reasonably expect Gross Revenues to exceed $50,000 during the applicable year.

(b) The amounts specified in Section 4(a) shall be paid by January 31 of each year.

(c) All minimum fees (but not the Proxy Fee for the reporting waiver for Microcasters) shall be fully creditable toward royalties due for the year for which such amounts are paid, but not any other year.

5. Payments

(a) *Qualification to Make Current Payments as Eligible Small Webcaster.* If the Gross Revenues, plus the Third Party Participation Revenues and revenues from the operation of New Subscription Services, of a transmitting entity and its Affiliates have not exceeded $1,250,000 in any year, and the transmitting entity reasonably expects to be an Eligible Small Webcaster in a given year, the transmitting entity may make payments for that year on the assumption that it will be an Eligible Small Webcaster for that year for so long as that assumption is reasonable.

(b) *True-Up Between Gross Revenues and Expenses.* In making monthly payments, an Eligible Small Webcaster shall, at the time a payment is due, calculate its Gross Revenues and Expenses for the year through the end of the applicable month and pay the applicable

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percentage of Gross Revenues or Expenses, as the case may be, for the year through the end of the applicable month, less any amounts previously paid for such year. For the purposes of illustration only, if an Eligible Small Webcaster has $100,000 in Gross Revenues and $2,000 in Expenses in Month 1, the monthly payment shall be $10,000 (10% of aggregate gross yearly revenue up to $250,000). In Month 2, if the Eligible Small Webcaster has $100,000 in Gross Revenue and $2,000 in Expenses, then the Eligible Small Webcaster shall pay $10,000 in monthly payments (10% of aggregate gross yearly revenue for the year up to $250,000 less the $10,000 paid in Month 1). In Month 3, if the Eligible Small Webcaster has $100,000 in Gross Revenue and $2,000 in Expenses, then the Eligible Small Webcaster shall pay $11,000 in monthly payments (10% of aggregate gross yearly revenue for the year up to $250,000 plus 12% of aggregate gross yearly revenue for the amount above $250,000, less prior payments).

(c) *Effect if Eligibility Condition is Exceeded.* Except as provided in Section 5(e), if a transmitting entity has made payments for any year based on the assumption that it will qualify as an Eligible Small Webcaster, but the actual Gross Revenues plus Third Party Participation Revenues and revenues from the operation of New Subscription Services in that year of the transmitting entity and its Affiliates exceed the Gross Revenue threshold provided in Section 8(e), then the transmitting entity shall receive a six (6) month grace period measured from the first month following the month in which such revenues exceed $1,250,000 (the ''Grace Period''). During the Grace Period, the transmitting entity shall pay the rates as specified in Section 3(a). From and after the date the Grace Period has expired, the transmitting entity will pay the commercial webcasting rates provided in the Final Determination (for 2006–2010) or the then-applicable commercial webcasting rates under Sections 112(e) and 114 (for 2011–2015), only for periods after the expiration of the Grace Period.

(d) *Effect if Microcaster Eligibility Condition is Exceeded.* Except as provided in Section 5(e), if a transmitting entity has made payments and not reported usage for any year based on the assumption that it will qualify as a Microcaster, but the actual Gross Revenues plus Third Party Participation Revenues, Expenses, or Aggregate Tuning Hours in that year of the transmitting entity and its Affiliates exceed a threshold provided in Section 8(h), then the transmitting entity's payments for that entire year shall retroactively be adjusted as provided in this Section 5(d). By no later than January 31 of the following year, the transmitting entity shall notify SoundExchange whether it elects to be treated for the entire year in which such threshold was exceeded as either an Eligible Small Webcaster but not a Microcaster, or as a transmitting entity fully subject to the Final Determination (for 2006–2010) or to the then-applicable commercial webcasting rates under Sections 112(e) and 114 (for 2011–2015) (whichever of the foregoing it elects, the ''Elected Status''). At the same time, the transmitting entity must pay all amounts that would have been due for that year if it had originally elected the Elected Status, less any royalties previously paid hereunder as a Microcaster for that year (but not less the Proxy Fee). The transmitting entity need not provide reports of use for that year, and SoundExchange may distribute the royalties paid by the transmitting entity for that year based on the proxy usage data applicable to Microcasters. For the year following the year in which such threshold was exceeded, the transmitting entity must comply with applicable requirements as either an Eligible Small Webcaster but not a Microcaster, or as a transmitting entity fully subject to the Final Determination (for 2006–2010) or to the then-applicable commercial webcasting rates under Sections 112(e) and 114 (for 2011–2015).

(e) *True-Up for Certain Corporate Transactions.* If a transmitting entity that has at any time elected to be treated as an Eligible Small Webcaster under these Rates and Terms, and has not ceased to qualify as an Eligible Small Webcaster through growth in its business and thereafter paid full commercial webcasting rates for a period of at least twelve (12) full months (after any Grace Period applicable under Section 5(c)), becomes a party to or subject of any merger, sale of stock or all or substantially all of its assets, or other corporate restructuring, such that, upon the consummation of such transaction, the transmitting entity or its successor (including a purchaser of all or substantially all of its assets) does not qualify, or reasonably expect to qualify, as an Eligible Small Webcaster for the then-current year, then the transmitting entity or its successor shall, within thirty (30) days after the consummation of such transaction, pay to SoundExchange the difference between (1) the payment the transmitting entity would have been required to make under the commercial webcasting rates provided in the Final Determination (for 2006–2010) or under the then-applicable commercial webcasting rates under Sections 112(e) and 114 (for 2011–2015) for each year in which it elected to be treated as an Eligible Small Webcaster under these Rates and Terms, from January 1, 2006 through the date of such transaction, and (2) the royalty payments it made under these Rates and Terms for each such year. The burden of proof shall be on the transmitting entity or its successor to demonstrate its actual usage for purposes of determining the payment it would have been required to make under such commercial webcasting rates for each such year. If the transmitting entity has insufficient records to determine the payment it would have been required to make under such commercial webcasting rates for each such year, then such calculation shall be made on the basis of the assumption that it made transmissions of 5,000,000 Aggregate Tuning Hours per month, and 15.375 performances per each such Aggregate Tuning Hour, during the relevant period.

(f) *Remittance.* Payments of all amounts specified in these Rates and Terms shall be made to SoundExchange as provided in Section 7(a). Eligible Small Webcasters shall not be entitled to a refund of any amounts paid to SoundExchange, but if an Eligible Small Webcaster makes an overpayment of royalties (other than payments of minimums) during a year, SoundExchange shall, at its discretion, either refund the overpayment or give the Eligible Small Webcaster a credit in the amount of its overpayment, which credit shall be available to be applied to its payments for the immediately following year only.

(g) *Ephemeral Recordings Royalty.* SoundExchange has discretion to allocate payments hereunder between the statutory licenses under Sections 112(e) and 114 in the same manner as the majority of other webcasting royalties.

(h) *Past Periods.* Notwithstanding anything else in this Agreement, to the extent that an Eligible Small Webcaster that elects to be subject to these Rates and Terms has not paid royalties for all or any part of the period beginning on January 1, 2006, and ending on February 28, 2009, any amounts payable under these Rates and Terms for eligible nonsubscription transmissions during such period for which payment has not previously been made shall be paid by no later than April 30, 2009, including late fees as provided in Section 5(i) from the original due date.

(i) *Late Fee.* An Eligible Small Webcaster shall pay a late fee for each instance in which any payment, any statement of account or any report of use is not received by SoundExchange in full compliance with these Rates and Terms and applicable regulations by the due date. The amount of the late fee shall be 1.5% of a late payment, or 1.5% of the payment associated with a late statement of account or report of use, per month, or the highest lawful rate, whichever is lower. The late fee shall accrue from the due date of the payment, statement of account or report of use until a fully-compliant payment, statement of account or report of use is received by SoundExchange.

6. Notice and Recordkeeping

(a) *Microcasters.* SoundExchange believes that accurate census reporting by services is the best way for it to obtain data for making fair royalty distributions to copyright owners and performers, and for that reason, Section 6(b) generally requires census reporting by Eligible Small Webcasters. However, SoundExchange has observed a low level of compliance by the smallest webcasters with the payment and notice and recordkeeping requirements imposed by applicable regulations. Moreover, where SoundExchange has received reports of use from the smallest webcasters, it has had to devote levels of resources to processing those reports that are high relative to the usage and payment involved. While SoundExchange's ultimate goal is for all webcasters to provide census reporting, requiring census reporting by the smallest webcasters at this time may further reduce compliance and significantly increase distribution costs.

Accordingly, on a transitional basis for a limited time and for purposes of these Rates and Terms only, and in light of the unique business and operational circumstances currently existing with respect to these services, electing Microcasters shall not be required to provide reports of their use of

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sound recordings for eligible nonsubscription transmissions and related ephemeral recordings. Instead, SoundExchange shall distribute the aggregate royalties paid by electing Microcasters based on proxy usage data in accordance with a methodology adopted by SoundExchange's Board of Directors. In addition to minimum royalties hereunder, electing Microcasters will pay to SoundExchange a $100 Proxy Fee to defray costs associated with this reporting waiver, including development of proxy usage data. SoundExchange hopes that offering this option to electing Microcasters will promote compliance with statutory license obligations and thereby increase the pool of royalties available to be distributed to copyright owners and performers. SoundExchange further hopes that selection of a proxy believed by SoundExchange to represent fairly the playlists of the smallest webcasters will allow payment to more copyright owners and performers than would be possible with any other reasonably available option. Microcasters should assume that, effective January 1, 2016, they will be required to report their actual usage in full compliance with then-applicable regulations. Microcasters are encouraged to begin to prepare to report their actual usage by that date, and if it is practicable for them to do so earlier, they may wish not to elect Microcaster status.

(b) *Reports to Be Provided by other Eligible Small Webcasters.* As a condition of these Rates and Terms, except as provided in Section 6(a), an Eligible Small Webcaster shall submit reports of use of sound recordings to SoundExchange covering the following for all of its eligible nonsubscription transmissions, on a channel by channel basis:

(1) The featured recording artist, group or orchestra;

(2) The sound recording title;

(3) The title of the retail album or other product (or, in the case of compilation albums created for commercial purposes, the name of the retail album upon which the track was originally released);

(4) The marketing label of the commercially available album or other product on which the sound recording is found;

(5) The International Standard Recording Code (''ISRC'') embedded in the sound recording, if available;

(6) The copyright owner information provided in the copyright notice on the retail album or other product (*e.g.*, following the symbol (P) (the letter P in a circle) or, in the case of compilation albums created for commercial purposes, in the copyright notice for the individual track);

(7) The Aggregate Tuning Hours, on a monthly basis, for each channel provided by the Eligible Small Webcaster as computed by a recognized industry ratings service or as computed by the Eligible Small Webcaster from its server logs;

(8) The channel for each transmission of each sound recording; and

(9) The start date and time of each transmission of each sound recording.

If at any time during the period through December 31, 2015, Eligible Small Webcasters would be required under regulations applicable to the Section 112(e) or 114 statutory license to provide reports of use more extensive than provided in this Section 6(b), then any incremental information required by such regulations shall be provided under these Rates and Terms in addition to the information identified above.

(c) *Provision of Reports.* Reports of use described in Section 6(b) shall be provided at the same time royalty payments are due under Section 7(a).

(d) *Server Logs.* To the extent not already required by the current regulations set forth in 37 CFR Part 380, all Eligible Small Webcasters shall retain for a period of at least four (4) years server logs sufficient to substantiate all information relevant to eligibility, rate calculation and reporting hereunder. To the extent that a third-party web hosting or service provider maintains equipment or software for an Eligible Small Webcaster and/or such third party creates, maintains, or can reasonably create such server logs, the Eligible Small Webcaster shall direct that such server logs be created and maintained by said third party for a period of at least four years and/or that such server logs be provided to, and maintained by, the Eligible Small Webcaster. SoundExchange shall have access to the same pursuant to applicable regulations for the verification of statutory royalty payments (presently 37 CFR 380.6).

7. Additional Provisions

(a) *Monthly Obligations.* All Eligible Small Webcasters except electing Microcasters must make monthly payments, provide statements of account, and submit reports of use as described in Section 6 for each month on the forty-fifth (45th) day following the month in which the transmissions subject to the payments, statements of account, and reports of use were made.

(b) *Proof of Eligibility.* At all times, the burden of proof shall be on the Eligible Small Webcaster to demonstrate eligibility for the Rates and Terms set forth herein and for Microcaster status, and at all times the obligation shall be on the Eligible Small Webcaster to maintain records sufficient to determine eligibility. Failure to retain sufficient records to determine eligibility shall constitute a violation of these Rates and Terms and shall render a transmitting entity ineligible for the rates and terms set forth herein. An Eligible Small Webcaster that elects to be governed by the rates and terms set forth herein shall make available to SoundExchange, within thirty (30) days after SoundExchange's written request at any time during the three (3) years following a period during which it is to be treated as an Eligible Small Webcaster for purposes of these Rates and Terms, sufficient evidence to support its eligibility as an Eligible Small Webcaster and/or Microcaster during that period, including but not limited to an accounting of all Affiliate and Third Party Participation Revenue, and Aggregate Tuning Hours on a monthly basis. Any proof of eligibility provided hereunder shall be provided with a certification signed by the Eligible Small Webcaster if a natural person, or by an officer or partner of the Eligible Small Webcaster if the Eligible Small Webcaster is a corporation or partnership, stating, under penalty of perjury, that the information provided is accurate and the person signing is authorized to act on behalf of the Eligible Small Webcaster.

(c) *Default.* An Eligible Small Webcaster shall comply with all the requirements of these Rates and Terms. If it fails to do so, SoundExchange may give written notice to the Eligible Small Webcaster that, unless the breach is remedied within thirty days from the date of notice and not repeated, the Eligible Small Webcaster's authorization to make public performances and ephemeral reproductions under these Rates and Terms will be automatically terminated. Such termination renders any public performances and ephemeral reproductions as to which the breach relates actionable as acts of infringement under 17 U.S.C. 501 and fully subject to the remedies provided by 17 U.S.C. 502–506.

(d) *Applicable Regulations.* To the extent not inconsistent with the terms herein, use of sound recordings by Eligible Small Webcasters shall be governed by, and Eligible Small Webcasters shall comply with, applicable regulations, including 37 CFR Part 380. Without limiting the foregoing, the provisions of applicable regulations for the retention of records and verification of statutory royalty payments (presently 37 CFR 380.4(h) and 380.6) shall apply hereunder. Eligible Small Webcasters shall cooperate in good faith with any such verification, and the exercise by SoundExchange of any right with respect thereto shall not prejudice any other rights or remedies of SoundExchange or sound recording copyright owners.

(e) *Applicable Law and Venue.* These Rates and Terms shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with these Rates and Terms shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC. SoundExchange and Eligible Small Webcasters consent to the jurisdiction and venue of the foregoing court and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the person for which it is intended at its last known address (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

(f) *Rights Cumulative.* The remedies provided in these Rates and Terms and available under applicable law shall be cumulative and shall not preclude assertion by any party of any other rights or the seeking of any other remedies against another party hereto. These Rates and Terms shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent

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with these Rates and Terms). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. Neither these Rates and Terms nor any such failure or delay shall give rise to any defense in the nature of laches or estoppel. No single or partial exercise of any right, power or privilege granted under these Rates and Terms or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by any party of full performance by another party in any one or more instances shall be a waiver of the right to require full and complete performance of these Rates and Terms and of obligations under applicable law thereafter.

(g) *Entire Agreement.* These Rates and Terms represent the entire and complete agreement between SoundExchange and an Eligible Small Webcaster with respect to their subject matter and supersede all prior and contemporaneous agreements and undertakings of SoundExchange and an Eligible Small Webcaster with respect to the subject matter hereof.

8. Definitions

As used in these Rates and Terms, the following terms shall have the following meanings:

(a) An *''Affiliate''* of a transmitting entity is a person or entity that directly, or indirectly through one or more intermediaries—

(1) Has securities or other ownership interests representing more than 50 percent of such person's or entity's voting interests beneficially owned by—

(A) Such transmitting entity; or

(B) A person or entity beneficially owning securities or other ownership interests representing more than 50 percent of the voting interests of the transmitting entity;

(2) Beneficially owns securities or other ownership interests representing more than 50 percent of the voting interests of the transmitting entity; or

(3) Otherwise Controls, is Controlled by, or is under common Control with the transmitting entity.

(b) The term *''Aggregate Tuning Hours''* has the meaning given that term in 37 CFR § 380.2(a), as published in the Final Determination.

(c) A *''Beneficial Owner''* of a security or other ownership interest is any person or entity who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise, has or shares voting power with respect to such security or other ownership interest.

(d) The term *''Control''* means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person or entity, whether through the ownership of voting securities, by contract or otherwise.

(e) An *''Eligible Small Webcaster''* is a person or entity that (i) has obtained a compulsory license under 17 U.S.C. 112(e) and 114 and the implementing regulations therefor to make eligible nonsubscription transmissions over the Internet and related ephemeral recordings; (ii) complies with all provisions of Sections 112(e) and 114 and applicable regulations; (iii) is not a noncommercial webcaster as defined in 17 U.S.C. 114(f)(5)(E)(i); and (iv) in any calendar year in which it is to be considered an Eligible Small Webcaster has, together with its Affiliates, annual Gross Revenues plus Third Party Participation Revenues and revenues from the operation of New Subscription Services of not more than $1,250,000. In determining qualification under this Section 8(e), a transmitting entity shall exclude—

(1) Income of an Affiliate that is a natural person, other than income such natural person derives from another Affiliate of such natural person that is either a media or entertainment related business that provides audio or other entertainment programming, or a business that primarily operates an Internet or wireless service; and

(2) Gross Revenues of any Affiliate that is not engaged in a media or entertainment related business that provides audio or other entertainment programming, and is not engaged in a business that primarily operates an Internet or wireless service, if the only reason such Affiliate is Affiliated with the transmitting entity is that (i) it is under common Control of the same natural person or (ii) both are beneficially owned by the same natural person.

In the case of a person or entity that offers both eligible nonsubscription transmissions (as defined in 17 U.S.C. 114(j)(6)) and a New Subscription Service, these Rates and Terms apply only to the Eligible Small Webcaster's eligible nonsubscription transmissions and not the New Subscription Service.

(f) The term *''Expenses''*—

(1) Means all costs incurred (whether actually paid or not) by an Eligible Small Webcaster, except that capital costs shall be treated as Expenses allocable to a period only to the extent of charges for amortization or depreciation of such costs during such period as are properly allocated to such period in accordance with United States generally accepted accounting principles (''GAAP'');

(2) Includes the fair market value of all goods, services, or other non-cash consideration (including real, personal, tangible, and intangible property) provided by an Eligible Small Webcaster to any third party in lieu of a cash payment and the fair market value of any goods or services purchased for or provided to an Eligible Small Webcaster by an Affiliate of such webcaster; and

(3) Shall not include—

(A) The imputed value of personal services rendered by up to 5 natural persons who are, directly or indirectly, owners of the Eligible Small Webcaster, and for which no compensation has been paid;

(B) The imputed value of occupancy of residential property for which no Federal income tax deduction is claimed as a business expense;

(C) Costs of purchasing phonorecords of sound recordings used in the Eligible Small Webcaster's service;

(D) Royalties paid for the public performance of sound recordings; or

(E) The reasonable costs of collecting overdue accounts receivable, provided that the reasonable costs of collecting any single overdue account receivable may not exceed the actual account receivable.

(g) The term ''*Gross Revenues*''—(1) Means all revenue of any kind earned by a person or entity, less—

(A) Revenue from sales of phonorecords and digital phonorecord deliveries of sound recordings;

(B) The person or entity's actual costs of other products and services actually sold through a service that makes eligible nonsubscription transmissions, and related sales and use taxes imposed on such transactions, costs of shipping such products, allowance for bad debts, and credit card and similar fees paid to unrelated third parties;

(C) Revenue from the operation of a New Subscription Service for which royalties are paid in accordance with provisions of 17 U.S.C. 112 and 114; and

(D) Revenue from the sale of assets in connection with the sale of all or substantially all of the assets of such person's or entity's business, or from the sale of capital assets; and

(2) Includes—

(A) All cash or cash equivalents;

(B) The fair market value of goods, services, or other non-cash consideration (including real, personal, tangible, and intangible property);

(C) In-kind and cash donations and other gifts (but not capital contributions made in exchange for an equity interest in the recipient); and

(D) Amounts earned by such person or entity but paid to an Affiliate of such person or entity in lieu of payment to such person or entity.

Gross revenues shall be calculated in accordance with U.S. Generally Accepted Accounting Principles (GAAP), except that a transmitting entity that computes Federal taxable income on the basis of the cash receipts and disbursements method of accounting for any taxable year may compute its gross receipts for any period included in such taxable year on the same basis.

(h) A *''Microcaster''* is an Eligible Small Webcaster that, together with its Affiliates, in any calendar year in which it is to be considered a Microcaster, meets the following additional eligibility criteria: (i) Transmits sound recordings only by means of eligible nonsubscription transmissions (as defined in 17 U.S.C. 114(j)(6)); (ii) had annual Gross Revenues plus Third Party Participation Revenues during the prior year of not more than $5,000 and reasonably expects Gross Revenues plus Third Party Participation Revenues during the applicable year of not more than $5,000; (iii) has Expenses during the prior year of not more than $10,000 and reasonably expects Expenses during the applicable year of not more than $10,000; and (iv) during the prior year did not make eligible nonsubscription transmissions exceeding 18,067 Aggregate Tuning Hours, and during the applicable year reasonably does not expect to make eligible nonsubscription transmissions exceeding 18,067 Aggregate Tuning Hours.

(i) The term *''New Subscription Service''* has the meaning given that term in 17 U.S.C. 114(j)(8).

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(j) The *''Third Party Participation Revenues''* of a transmitting entity are revenues of any kind earned by a person or entity, other than the transmitting entity, including those:

(1) That relate to the public performance of sound recordings and are subject to an economic arrangement in which the transmitting entity receives anything of value; or

(2) That are earned by such person or entity from the sale of advertising of any kind in connection with the transmitting entity's eligible nonsubscription transmissions.

By way of example only, a transmitting entity's Third Party Participation Revenues would include revenues earned by the transmitting entity's proprietor, a marketing partner of the transmitting entity, or an aggregator through which the transmitting entity's transmissions are available, by virtue of the transmitting entity's transmissions.

[FR Doc. E9–4439 Filed 3–2–09; 8:45 am]

BILLING CODE 1410–30–P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: National Archives and Records Administration (NARA).

ACTION: Notice.

SUMMARY: NARA is giving public notice that the agency proposes to request extension of a currently approved information collection, Financial Disclosure Report, Standard Form 714, which is required as a condition of access to specifically designated classified information along with a favorably adjudicated personnel security background investigation or reinvestigation that results in the granting or updating of a security clearance. Additionally, NARA proposes to make changes to the Standard Form 714 and the instructions to the form. Specific proposed changes will be provided upon request to NARA at the addresses provided below. The public is invited to comment on the proposed information collection pursuant to the Paperwork Reduction Act of 1995.

DATES: Written comments must be received on or before May 4, 2009 to be assured of consideration.

ADDRESSES: Comments should be sent to: Paperwork Reduction Act Comments (NHP), Room 4400, National Archives and Records Administration, 8601 Adelphi Rd., College Park, MD 20740–6001; or faxed to 301–713–7409; or electronically mailed to *tamee.fechhelm@nara.gov*.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the proposed information collection and supporting statement should be directed to Tamee Fechhelm at telephone number 301–837–1694, or fax number 301–713–7409.

SUPPLEMENTARY INFORMATION: Pursuant to the Paperwork Reduction Act of 1995 (Pub. L. 104–13), NARA invites the general public and other Federal agencies to comment on proposed information collections. The comments and suggestions should address one or more of the following points: (a) Whether the proposed information collection is necessary for the proper performance of the functions of NARA; (b) the accuracy of NARA's estimate of the burden of the proposed information collection; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways, including the use of information technology, to minimize the burden of the collection of information on all respondents; and (e) whether small businesses are affected by this collection. The comments that are submitted will be summarized and included in the NARA request for Office of Management and Budget (OMB) approval. All comments will become a matter of public record. In this notice, NARA is soliciting comments concerning the following information collection:

Title: Financial Disclosure Report.

OMB number: 3095–0058.

Agency form number: Standard Form 714.

Type of review: Regular.

Affected public: Business or other for-profit.

Estimated number of respondents: 25,897.

Estimated time per response: 2 hours.

Frequency of response: On occasion.

Estimated total annual burden hours: 51,794 hours.

Abstract: Executive Order 12958, as amended, ''Classified National Security Information'' authorizes the Information Security Oversight Office to develop standard forms that promote the implementation of the Government's security classification program. These forms promote consistency and uniformity in the protection of classified information.

The Financial Disclosure Report contains information that is used to assist in making eligibility determinations for access to specifically designated classified information pursuant to Executive Order 12968, ''Access to Classified Information,'' by appropriately trained adjudicative personnel. The data may later be used as part of a review process to evaluate continued eligibility for access to such specifically designated classified information or as evidence in legal proceedings.

The Financial Disclosure Report helps law enforcement entities obtain pertinent information in the preliminary stages of potential espionage and counter terrorism cases.

Dated: February 26, 2009.

Martha Morphy,

Assistant Archivist for Information Services.

[FR Doc. E9–4502 Filed 3–2–09; 8:45 am]

BILLING CODE 7515–01–P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: National Archives and Records Administration (NARA).

ACTION: Notice.

SUMMARY: NARA is giving public notice that the agency proposes to request extensions of two currently approved information collections. The first is a survey of Customer Satisfaction at the National Personnel Records Center (Military Personnel Records [MPR] facility) of the National Archives and Records Administration. The second is voluntary survey of museum visitors at each Presidential library. The information provides feedback about our visitors' experiences at the libraries. The public is invited to comment on the proposed information collection pursuant to the Paperwork Reduction Act of 1995.

DATES: Written comments must be received on or before May 4, 2009 to be assured of consideration.

ADDRESSES: Comments should be sent to: Paperwork Reduction Act Comments (NHP), Room 4400, National Archives and Records Administration, 8601 Adelphi Rd, College Park, MD 20740–6001; faxed to 301–713–7409; or electronically mailed to *tamee.fechhelm@nara.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the proposed information collection and supporting statement should be directed to Tamee Fechhelm at telephone number 301–837–1694; fax number 301–713–7409; or *tamee.fechhelm@nara.gov.*

SUPPLEMENTARY INFORMATION: Pursuant to the Paperwork Reduction Act of 1995 (Pub. L. 104–13), NARA invites the

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Washington, D.C.

In the Matter of: Digital Performance in Sound Recordings and Ephemeral Recordings	Docket No. 2009-1 CRB Webcasting III

RECEIVED
JUN 01 2009
Copyright Royalty Board

JOINT MOTION TO ADOPT PARTIAL SETTLEMENT

SoundExchange, Inc. ("SoundExchange") and the National Association of Broadcasters ("NAB") (collectively the "Parties") have reached a partial settlement of the above-captioned proceeding (the "Proceeding") for certain internet transmissions by commercial broadcasters. The Parties are pleased to submit the proposed regulatory language attached as Exhibit A (the "Settlement") for publication in the *Federal Register* for notice and comment in accordance with 17 U.S.C. § 801(b)(7)(A) and 37 C.F.R. § 351.2(b)(2). The Parties respectfully request that the Judges adopt the Settlement in its entirety as a settlement of rates and terms under Sections 112 and 114 of the Copyright Act for "Broadcast Retransmissions" (internet retransmissions of the over-the-air signals of commercial broadcasters) and "Broadcaster Webcasts" (other eligible nonsubscription transmissions over the internet by commercial broadcasters), as more specifically defined in the Settlement.

I. The Parties

SoundExchange and NAB are both participants in this Proceeding.

SoundExchange is a nonprofit organization that is jointly controlled by representatives of both sound recording copyright owners and performers. The Copyright Royalty Judges have designated SoundExchange as the collective to receive and distribute royalties under Sections 112 and 114 on behalf of all copyright owners and performers, and SoundExchange currently maintains more than 35,000 artist accounts and more than 4,000 copyright owner accounts.

NAB is a trade association whose members include more than 8,300 local radio and television stations and also broadcast networks. Many of NAB's radio broadcaster members make internet transmissions subject to licensing under Sections 112 and 114.

II. Nature of the Settlement

Under the authorization granted in the Webcaster Settlement Act of 2008, Pub. L. No. 110-435, 122 Stat. 4974 (2008) (to be codified at 17 U.S.C. § 114(f)(5)), the Parties concluded an agreement concerning royalty rates and terms for Broadcaster Webcasts and Broadcast Retransmissions during the period 2006-2015. That agreement was published in the *Federal Register* on March 3, 2009. Notification of Agreements under the Webcaster Settlement Act of 2008, 74 Fed. Reg. 9293 (Mar. 3, 2009). Under the Webcaster Settlement Act, an agreement is "available, as an option, to any commercial webcaster or noncommercial webcaster meeting the eligibility conditions of such agreement." 17 U.S.C. § 114(f)(5)(B).

Broadly speaking, the entities eligible to elect to be covered by the agreement, as contemplated by the Webcaster Settlement Act, are commercial broadcasters licensed under Sections 112 and 114. *See* Agreed Rates and Terms for Broadcasters, §§ 1.2(a), 2.1, 2.2, 74 Fed. Reg. at 9299. Over 380 commercial broadcasters have elected to take advantage of this agreement in lieu of the rates to be determined in this Proceeding. These include such major broadcasters as Bonneville International, CBS Radio, Clear Channel Communications, Entercom Communications and Greater Media, which are among the larger payors of webcasting royalties and have withdrawn as participants in this proceeding. However, it includes many smaller broadcasters as well.

The Settlement implements the royalty rates and terms of the Parties' Webcaster Settlement Act agreement for the period 2011-2015, within the context of regulations based on the Copyright Royalty Judges' current webcasting regulations at 37 C.F.R. Part 380. Thus, the Settlement specifies statutory rates and terms for Broadcast Retransmissions and Broadcaster Webcasts by Broadcasters. Adoption of the Settlement would bring into alignment the statutory rates and terms and Webcaster Settlement Act rates and terms for commercial broadcasters for the period 2011-2015.

III. Adoption of the Settlement by the Copyright Royalty Judges

Pursuant to 17 U.S.C. § 801(b)(7)(A), the Copyright Royalty Judges have the authority "[t]o adopt as a basis for statutory terms and rates . . . an agreement concerning such matters reached among some or all of the participants in a proceeding at any time during the proceeding." Such an agreement may serve as the basis of proposed regulations if other interested parties who "would be bound by the terms, rates or other determination" set by the agreement are afforded "an opportunity to comment on the agreement," *id.* § 801(b)(7)(A)(i), and provided, in the event a participant to the proceeding raises an objection, the Judges conclude that the rates and terms set forth in the settlement agreement "provide a reasonable basis for setting statutory terms or rates." *Id.* § 801(b)(7)(A)(ii).

Because the rates and terms provided by the Settlement have already been embraced by at over 380 commercial broadcasters comprising thousands of individual stations in the context of the Webcaster Settlement Act agreement, the Settlement manifestly provides a reasonable basis for setting statutory terms and rates. Accordingly, the Parties ask that the Judges publish the Settlement for notice and comment, and in due course adopt the Settlement in its entirety as the statutory rates and terms for Broadcaster Webcasts and Broadcast Retransmissions for the period 2011-2015.

Respectfully submitted,

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June 1, 2009

EXHIBIT A – PROPOSED REGULATIONS

PART 380--RATES AND TERMS FOR BROADCASTERS MAKING CERTAIN ELIGIBLE TRANSMISSIONS OF SOUND RECORDINGS

Sec.

Authority: 17 U.S.C. 112(e), 114(f), 804(b)(3).

[Note: The section numbers used herein were employed for convenience of reference. The provisions hereof could be included in a separate subpart or otherwise be renumbered depending upon what other rates and terms also need to be included in Part 380 at the conclusion of the Proceeding.]

§ 380.1 General.

(a) Scope. This part 380 establishes rates and terms of royalty payments for the public performance of sound recordings in certain digital transmissions made by Broadcasters as set forth herein in accordance with the provisions of 17 U.S.C. 114, and the making of Ephemeral Recordings by Broadcasters as set forth herein in accordance with the provisions of 17 U.S.C. 112(e), during the period January 1, 2011, through December 31, 2015.

(b) Legal compliance. Broadcasters relying upon the statutory licenses set forth in 17 U.S.C. 112(e) and 114 shall comply with the requirements of those sections, the rates and terms of this part, and any other applicable regulations not inconsistent with the rates and terms set forth herein.

(c) Relationship to voluntary agreements. Notwithstanding the royalty rates and terms established in this part, the rates and terms of any license agreements entered into by Copyright Owners and digital audio services shall apply in lieu of the rates and terms of this part to transmission within the scope of such agreements.

§ 380.2 Definitions.

For purposes of this part, the following definitions shall apply:

(a) Aggregate Tuning Hours means the total hours of programming that the Broadcaster has transmitted during the relevant period to all listeners within the United

States from any channels and stations that provide audio programming consisting, in whole or in part, of Eligible Transmissions.

(b) Broadcaster means an entity that (i) has a substantial business owning and operating one or more terrestrial AM or FM radio stations that are licensed as such by the Federal Communications Commission; (ii) has obtained a compulsory license under 17 U.S.C. 112(e) and 114 and the implementing regulations therefor to make Eligible Transmissions and related ephemeral recordings; (iii) complies with all applicable provisions of Sections 112(e) and 114 and applicable regulations; and (iv) is not a noncommercial webcaster as defined in 17 U.S.C. § 114(f)(5)(E)(i).

(c) Broadcaster Webcasts mean eligible nonsubscription transmissions made by a Broadcaster over the internet that are not Broadcast Retransmissions.

(d) Broadcast Retransmissions mean eligible nonsubscription transmissions made by a Broadcaster over the internet that are retransmissions of terrestrial over-the-air broadcast programming transmitted by the Broadcaster through its AM or FM radio station, including ones with substitute advertisements or other programming occasionally substituted for programming for which requisite licenses or clearances to transmit over the internet have not been obtained. For the avoidance of doubt, a Broadcast Retransmission does not include programming that does not require a license under United States copyright law or that is transmitted on an internet-only side channel.

(e) Collective is the collection and distribution organization that is designated by the Copyright Royalty Judges. For the 2011-2015 license period, the Collective is SoundExchange, Inc.

(f) Copyright Owners are sound recording copyright owners who are entitled to royalty payments made under this part pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114(f).

(g) Eligible Transmission shall mean either a Broadcaster Webcast or a Broadcast Retransmission.

(h) Ephemeral Recording is a phonorecord created for the purpose of facilitating an Eligible Transmission of a public performance of a sound recording under a statutory license in accordance with 17 U.S.C. 114(f), and subject to the limitations specified in 17 U.S.C. 112(e).

(i) Performance is each instance in which any portion of a sound recording is publicly performed to a listener by means of a digital audio transmission (e.g., the delivery of any portion of a single track from a compact disc to one listener) but excluding the following:

(1) A performance of a sound recording that does not require a license (e.g., a sound recording that is not copyrighted);

(2) A performance of a sound recording for which the Broadcaster has previously obtained a license from the Copyright Owner of such sound recording; and

(3) An incidental performance that both:

(i) Makes no more than incidental use of sound recordings including, but not limited to, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events and

(ii) Other than ambient music that is background at a public event, does not contain an entire sound recording and does not feature a particular sound recording of more than thirty seconds (as in the case of a sound recording used as a theme song).

(j) Performers means the independent administrators identified in 17 U.S.C. 114(g)(2)(B) and (C) and the parties identified in 17 U.S.C. 114(g)(2)(D).

(k) Qualified Auditor is a Certified Public Accountant.

(l) Small Broadcaster is a Broadcaster that, for any of its channels and stations (determined as provided in § 380.3(c)) over which it transmits Broadcast Retransmissions, and for all of its channels and stations over which it transmits Broadcaster Webcasts in the aggregate, in any calendar year in which it is to be considered a Small Broadcaster, meets the following additional eligibility criteria: (i) during the prior year it made Eligible Transmissions totaling less than 27,777 Aggregate Tuning Hours; and (ii) during the applicable year it reasonably expects to make Eligible Transmissions totaling less than 27,777 Aggregate Tuning Hours; provided that, one time during the period 2011-2015, a Broadcaster that qualified as a Small Broadcaster under the foregoing definition as of January 31 of one year, elected Small Broadcaster status for that year, and unexpectedly made Eligible Transmissions on one or more channels or stations in excess of 27,777 aggregate tuning hours during that year, may choose to be treated as a Small Broadcaster during the following year notwithstanding clause (i) above if it implements measures reasonably calculated to ensure that that it will not make Eligible Transmissions exceeding 27,777 aggregate tuning hours during that following year. As to channels or stations over which a Broadcaster transmits Broadcast Retransmissions, the Broadcaster may elect Small Broadcaster status only with respect to any of its channels or stations that meet all of the foregoing criteria.

§ 380.3 Royalty fees for the public performance of sound recordings and for ephemeral recordings.

(a) Royalty Rates. Royalties for Eligible Transmissions made pursuant to 17 U.S.C. § 114, and the making of related ephemeral recordings pursuant to 17 U.S.C. § 112(e), shall, except as provided in § 380.4(g)(3), be payable on a per-performance basis, as follows:

Year	Rate per Performance
2011	$0.0017
2012	$0.0020
2013	$0.0022
2014	$0.0023
2015	$0.0025

(b) Ephemeral Royalty. The royalty payable under 17 U.S.C. 112(e) for any reproduction of a phonorecord made by a Broadcaster during this license period and used solely by the Broadcaster to facilitate transmissions for which it pays royalties as and when provided in this section is deemed to be included within such royalty payments and to equal the percentage of such royalty payments determined by the Copyright Royalty Judges for other webcasting, provided that such allocation shall not, by virtue of the parties' agreement to propose this § 380.3(b) to the Copyright Royalty Judges, be considered precedent in any judicial, administrative, or other proceeding.

(c) Minimum fee. Each Broadcaster will pay an annual, nonrefundable minimum fee of $500 for each of its individual channels, including each of its individual side channels, and each of its individual stations, through which (in each case) it makes Eligible Transmissions, for each calendar year or part of a calendar year during 2011-2015 during which the Broadcaster is a licensee pursuant to licenses under 17 U.S.C. 112(e) and 114, provided that a Broadcaster shall not be required to pay more than $50,000 in minimum fees in the aggregate (for 100 or more channels or stations). For the purpose of this part, each individual stream (e.g., HD radio side channels, different stations owned by a single licensee) will be treated separately and be subject to a separate minimum, except that identical streams for simulcast stations will be treated as a single stream if the streams are available at a single Uniform Resource Locator (URL) and performances from all such stations are aggregated for purposes of determining the number of payable performances hereunder. Upon payment of the minimum fee, the Broadcaster will receive a credit in the amount of the minimum fee against any additional royalties payable for the same calendar year for the same channel or station. In addition, an electing Small Broadcaster also shall pay a $100 annual fee (the "Proxy Fee") to the Collective for the reporting waiver discussed in § 380.4(g)(2).

§ 380.4 Terms for making payment of royalty fees and statements of account.

(a) Payment to the Collective. A Broadcaster shall make the royalty payments due under § 380.3 to the Collective.

(b) Designation of the Collective.

(1) Until such time as a new designation is made, SoundExchange, Inc., is designated as the Collective to receive statements of account and royalty payments from Broadcasters due under § 380.3 and to distribute such royalty payments to each Copyright Owner and Performer, or their designated agents, entitled to receive royalties under 17 U.S.C. 112(e) or 114(g).

(2) If SoundExchange, Inc. should dissolve or cease to be governed by a board consisting of equal numbers of representatives of Copyright Owners and Performers, then it shall be replaced by a successor Collective upon the fulfillment of the requirements set forth in paragraph (b)(2)(i) of this section.

(i) By a majority vote of the nine Copyright Owner representatives and the nine Performer representatives on the SoundExchange board as of the last day preceding the condition precedent in paragraph (b)(2) of this section, such representatives shall file a petition with the Copyright Royalty Board designating a successor to collect and distribute royalty payments to Copyright Owners and Performers entitled to receive royalties under 17 U.S.C. 112(e) or 114(g) that have themselves authorized such Collective.

(ii) The Copyright Royalty Judges shall publish in the Federal Register within 30 days of receipt of a petition filed under paragraph (b)(2)(i) of this section an order designating the Collective named in such petition.

(c) Monthly payments and reporting. Broadcasters must make monthly payments where required by § 380.3, and provide statements of account and reports of use, for each month on the 45th day following the month in which the Eligible Transmissions subject to the payments, statements of account, and reports of use were made. All monthly payments shall be rounded to the nearest cent.

(d) Minimum payments. A Broadcaster shall make any minimum payment due under § 380.3(b) by January 31 of the applicable calendar year, except that payment by a Broadcaster that was not making Eligible Transmissions or Ephemeral Recordings pursuant to the licenses in 17 U.S.C. 114 and/or 17 U.S.C. 112(e) as of said date but begins doing so thereafter shall be due by the 45th day after the end of the month in which the Broadcaster commences to do so.

(e) Late fees. A Broadcaster shall pay a late fee for each instance in which any payment, any statement of account or any report of use is not received by the Collective in compliance with applicable regulations by the due date. The amount of the late fee shall be 1.5% of a late payment, or 1.5% of the payment associated with a late statement of account or report of use, per month, or the highest lawful rate, whichever is lower. The late fee shall accrue from the due date of the payment, statement of account or report of use until a fully-compliant payment, statement of account or report of use is received by the Collective, provided that, in the case of a timely provided but noncompliant statement of account or report of use, the Collective has notified the Broadcaster within 90 days regarding any noncompliance that is reasonably evident to the Collective.

(f) Statements of account. Any payment due under § 380.3 shall be accompanied by a corresponding statement of account. A statement of account shall contain the following information:

(1) Such information as is necessary to calculate the accompanying royalty payment;

(2) The name, address, business title, telephone number, facsimile number (if any), electronic mail address (if any) and other contact information of the person to be contacted for information or questions concerning the content of the statement of account;

(3) The handwritten signature of:

(i) The owner of the Broadcaster or a duly authorized agent of the owner, if the Broadcaster is not a partnership or corporation;

(ii) A partner or delegee, if the Broadcaster is a partnership; or

(iii) An officer of the corporation, if the Broadcaster is a corporation.

(4) The printed or typewritten name of the person signing the statement of account;

(5) The date of signature;

(6) If the Broadcaster is a partnership or corporation, the title or official position held in the partnership or corporation by the person signing the statement of account;

(7) A certification of the capacity of the person signing; and

(8) A statement to the following effect:

> I, the undersigned owner or agent of the Broadcaster, or officer or partner, have examined this statement of account and hereby state that it is true, accurate, and complete to my knowledge after reasonable due diligence.

(g) Reporting by Broadcasters in General. (1) Broadcasters other than electing Small Broadcasters covered by subsection (g)(2) shall submit reports of use on a per-performance basis in compliance with the regulations set forth in 37 C.F.R. Part 370, except that the following provisions shall apply notwithstanding the provisions of such Part 370 from time to time in effect:

(i) Broadcasters may pay for, and report usage in, a percentage of their programming hours on an Aggregate Tuning Hour basis as provided in subsection (g)(3).

(ii) Broadcasters shall submit reports of use to the Collective on a monthly basis.

(iii) As provided in § 380.4(d), Broadcasters shall submit reports of use by no later than the 45th day following the last day of the month to which they pertain.

(iv) Except as provided in subsection (g)(3), Broadcasters shall submit reports of use to the Collective on a census reporting basis (i.e., reports of use shall include every sound recording performed in the relevant month and the number of performances thereof).

(v) Broadcasters shall either submit a separate report of use for each of their stations, or a collective report of use covering all of their stations but identifying usage on a station-by-station basis;

(vi) Broadcasters shall transmit each report of use in a file the name of which includes (i) the name of the Broadcaster, exactly as it appears on its notice of use, and (ii) if the report covers a single station only, the call letters of the station.

(vii) Broadcasters shall submit reports of use with headers, as presently described in 37 C.F.R. § 370.3(d)(7).

(viii) Broadcasters shall submit a separate statement of account corresponding to each of their reports of use, transmitted in a file the name of which includes (A) the name of the Broadcaster, exactly as it appears on its notice of use, and (B) if the statement covers a single station only, the call letters of the station.

(2) On a transitional basis for a limited time in light of the unique business and operational circumstances currently existing with respect to Small Broadcasters and with the expectation that Small Broadcasters will be required, effective January 1, 2016, to report their actual usage in compliance with then-applicable regulations. Small Broadcasters that have made an election pursuant to subsection (h) for the relevant year shall not be required to provide reports of their use of sound recordings for Eligible Transmissions and related Ephemeral Recordings. The immediately preceding sentence applies even if the Small Broadcaster actually makes Eligible Transmissions for the year exceeding 27,777 Aggregate Tuning Hours, so long as it qualified as a Small Broadcaster at the time of its election for that year. In addition to minimum royalties hereunder, electing Small Broadcasters will pay to the Collective a $100 Proxy Fee to defray costs associated with this reporting waiver, including development of proxy usage data.

(3) Broadcasters generally reporting pursuant to subsection (g)(1) may pay for, and report usage in, a percentage of their programming hours on an Aggregate Tuning Hours basis, if (a) census reporting is not reasonably practical for the programming during those hours, and (b) if the total number of hours on a single report of use, provided pursuant to subsection (g)(1), for which this type of reporting is used is below the maximum percentage set forth below for the relevant year:

Year	Maximum Percentage
2011	16%
2012	14%
2013	12%
2014	10%
2015	8%

To the extent that a Broadcaster chooses to report and pay for usage on an Aggregate Tuning Hours basis pursuant to this subsection, the Broadcaster shall (i) report and pay based on the assumption that the number of sound recordings performed during the relevant programming hours is 12 per hour; (ii) pay royalties (or recoup minimum fees) at the per-performance rates provided in § 380.3 on the basis of clause (i) above; (iii) include Aggregate Tuning Hours in reports of use; and (iv) include in reports of use complete playlist information for usage reported on the basis of Aggregate Tuning Hours.

(h) Election of Small Broadcaster Status. To be eligible for the reporting waiver for Small Broadcasters with respect to any particular channel in a given year, a Broadcaster must satisfy the definition set forth in § 380.2 and must submit to the Collective a completed and signed election form (available on the SoundExchange Web site at http://www.soundexchange.com) by no later than January 31 of the applicable year. Even if a Broadcaster has once elected to be treated as a Small Broadcaster, it must make a separate, timely election in each subsequent year in which it wishes to be treated as a Small Broadcaster.

(i) Distribution of royalties.

(1) The Collective shall promptly distribute royalties received from Broadcasters to Copyright Owners and Performers, or their designated agents, that are entitled to such royalties. The Collective shall only be responsible for making distributions to those Copyright Owners, Performers, or their designated agents who provide the Collective with such information as is necessary to identify and pay the correct recipient. The Collective shall distribute royalties on a basis that values all performances by a Broadcaster equally based upon the information provided under the report of use requirements for Broadcasters contained in § 370.3 and this part, except that in the case of electing Small Broadcasters, the Collective shall distribute royalties based on proxy usage data in accordance with a methodology adopted by the Collective's Board of Directors.

(2) If the Collective is unable to locate a Copyright Owner or Performer entitled to a distribution of royalties under paragraph (g)(1) of this section within 3 years from the date of payment by a Broadcaster, such distribution may first be applied to the costs directly attributable to the administration of that distribution. The foregoing shall apply notwithstanding the common law or statutes of any State.

(j) Retention of records. Books and records of a Broadcaster and of the Collective relating to payments of and distributions of royalties shall be kept for a period of not less than the prior 3 calendar years.

(k) Non-Waiver. The Collective's acceptance of an election, payment or reporting does not give or imply any acknowledgment that a transmitting entity qualifies as a Broadcaster or Small Broadcaster or is in compliance with the requirements of the statutory licenses under 17 U.S.C. 112(e) and 114, and shall not be used as evidence that it so qualifies or is in compliance. The Collective and Copyright Owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with all applicable requirements that are not inconsistent with these rates and terms.

§ 380.5 Confidential information.

(a) Definition. For purposes of this part, "Confidential Information" shall include the statements of account and any information contained therein, including the amount of royalty payments, and any information pertaining to the statements of account reasonably designated as confidential by the Broadcaster submitting the statement.

(b) Exclusion. Confidential Information shall not include documents or information that at the time of delivery to the Collective are public knowledge. The party claiming the benefit of this provision shall have the burden of proving that the disclosed information was public knowledge.

(c) Use of Confidential Information. In no event shall the Collective use any Confidential Information for any purpose other than royalty collection and distribution and activities related directly thereto.

(d) Disclosure of Confidential Information. Access to Confidential Information shall be limited to:

(1) Those employees, agents, attorneys, consultants and independent contractors of the Collective, subject to an appropriate confidentiality agreement, who are engaged in the collection and distribution of royalty payments hereunder and activities related thereto, for the purpose of performing such duties during the ordinary course of their work and who require access to the Confidential Information;

(2) An independent and Qualified Auditor, subject to an appropriate confidentiality agreement, who is authorized to act on behalf of the Collective with respect to verification of a Broadcaster's statement of account pursuant to § 380.6 or on behalf of a Copyright Owner or Performer with respect to the verification of royalty distributions pursuant to § 380.7;

(3) Copyright Owners and Performers, including their designated agents, whose works have been used under the statutory licenses set forth in 17 U.S.C. 112(e) and 114(f) by the Broadcaster whose Confidential Information is being supplied, subject to an appropriate confidentiality agreement, and including those employees, agents, attorneys, consultants and independent contractors of such Copyright Owners and Performers and their designated agents, subject to an appropriate confidentiality agreement, for the purpose of performing their duties during the ordinary course of their work and who require access to the Confidential Information; and

(4) In connection with future proceedings under 17 U.S.C. 112(e) and 114(f) before the Copyright Royalty Judges, and under an appropriate protective order, attorneys, consultants and other authorized agents of the parties to the proceedings or the courts.

(e) Safeguarding of Confidential Information. The Collective and any person identified in paragraph (d) of this section shall implement procedures to safeguard against unauthorized access to or dissemination of any Confidential Information using a reasonable standard of care, but no less than the same degree of security used to protect Confidential Information or similarly sensitive information belonging to the Collective or person.

§ 380.6 Verification of royalty payments.

(a) General. This section prescribes procedures by which the Collective may verify the royalty payments made by a Broadcaster.

(b) Frequency of verification. The Collective may conduct a single audit of a Broadcaster, upon reasonable notice and during reasonable business hours, during any given calendar year, for any or all of the prior 3 calendar years, but no calendar year shall be subject to audit more than once.

(c) Notice of intent to audit. The Collective must file with the Copyright Royalty Board a notice of intent to audit a particular Broadcaster, which shall, within 30 days of the filing of the notice, publish in the Federal Register a notice announcing such filing. The notification of intent to audit shall be served at the same time on the Broadcaster to be audited. Any such audit shall be conducted by an independent and Qualified Auditor identified in the notice, and shall be binding on all parties.

(d) Acquisition and retention of report. The Broadcaster shall use commercially reasonable efforts to obtain or to provide access to any relevant books and records maintained by third parties for the purpose of the audit. The Collective shall retain the report of the verification for a period of not less than 3 years.

(e) Acceptable verification procedure. An audit, including underlying paperwork, which was performed in the ordinary course of business according to generally accepted auditing standards by an independent and Qualified Auditor, shall serve as an acceptable verification procedure for all parties with respect to the information that is within the scope of the audit.

(f) Consultation. Before rendering a written report to the Collective, except where the auditor has a reasonable basis to suspect fraud and disclosure would, in the reasonable opinion of the auditor, prejudice the investigation of such suspected fraud, the auditor shall review the tentative written findings of the audit with the appropriate agent or employee of the Broadcaster being audited in order to remedy any factual errors and clarify any issues relating to the audit; Provided that an appropriate agent or employee of the Broadcaster reasonably cooperates with the auditor to remedy promptly any factual errors or clarify any issues raised by the audit.

(g) Costs of the verification procedure. The Collective shall pay the cost of the verification procedure, unless it is finally determined that there was an underpayment of 10% or more, in which case the Broadcaster shall, in addition to paying the amount of any underpayment, bear the reasonable costs of the verification procedure.

§ 380.7 Verification of royalty distributions.

(a) General. This section prescribes procedures by which any Copyright Owner or Performer may verify the royalty distributions made by the Collective; Provided, however, that nothing contained in this section shall apply to situations where a Copyright Owner or Performer and the Collective have agreed as to proper verification methods.

(b) Frequency of verification. A Copyright Owner or Performer may conduct a single audit of the Collective upon reasonable notice and during reasonable business hours, during any given calendar year, for any or all of the prior 3 calendar years, but no calendar year shall be subject to audit more than once.

(c) Notice of intent to audit. A Copyright Owner or Performer must file with the Copyright Royalty Board a notice of intent to audit the Collective, which shall, within 30 days of the filing of the notice, publish in the Federal Register a notice announcing such filing. The notification of intent to audit shall be served at the same time on the Collective. Any audit shall be conducted by an independent and Qualified Auditor identified in the notice, and shall be binding on all Copyright Owners and Performers.

(d) Acquisition and retention of report. The Collective shall use commercially reasonable efforts to obtain or to provide access to any relevant books and records maintained by third parties for the purpose of the audit. The Copyright Owner or Performer requesting the verification procedure shall retain the report of the verification for a period of not less than 3 years.

(e) Acceptable verification procedure. An audit, including underlying paperwork, which was performed in the ordinary course of business according to generally accepted auditing standards by an independent and Qualified Auditor, shall serve as an acceptable verification procedure for all parties with respect to the information that is within the scope of the audit.

(f) Consultation. Before rendering a written report to a Copyright Owner or Performer, except where the auditor has a reasonable basis to suspect fraud and disclosure would, in the reasonable opinion of the auditor, prejudice the investigation of such suspected fraud, the auditor shall review the tentative written findings of the audit with the appropriate agent or employee of the Collective in order to remedy any factual errors and clarify any issues relating to the audit;

Provided that the appropriate agent or employee of the Collective reasonably cooperates with the auditor to remedy promptly any factual errors or clarify any issues raised by the audit.

(g) Costs of the verification procedure. The Copyright Owner or Performer requesting the verification procedure shall pay the cost of the procedure, unless it is finally determined that there was an underpayment of 10% or more, in which case the Collective shall, in addition to paying the amount of any underpayment, bear the reasonable costs of the verification procedure.

§ 380.8 Unclaimed funds.

If the Collective is unable to identify or locate a Copyright Owner or Performer who is entitled to receive a royalty distribution under this part, the Collective shall retain the required payment in a segregated trust account for a period of 3 years from the date of distribution. No claim to such distribution shall be valid after the expiration of the 3-year period. After expiration of this period, the Collective may apply the unclaimed funds to offset any costs deductible under 17 U.S.C. 114(g)(3). The foregoing shall apply notwithstanding the common law or statutes of any State.

CERTIFICATE OF SERVICE

I, Albert Peterson, do hereby certify that copies of the foregoing filing were sent via overnight mail this 1st day of June, 2009 to the following:

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Albert Peterson

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, DC

In the Matter of: Digital Performance Right In Sound Recordings and Ephemeral Recordings	Docket No. 2009-1 CRB Webcasting III

NATIONAL ASSOCIATION OF BROADCASTERS' PETITION TO PARTICIPATE

Pursuant to 17 U.S.C. § 803(b)(1)(B) and 74 Fed. Reg. 318, the National Association of Broadcasters ("NAB") hereby petitions to participate in the above-captioned proceeding to adjust the rates and terms for 2011-2015 for eligible nonsubscription services to make certain public performances by digital audio transmission of sound recordings under 17 U.S.C. § 114(f)(2) and to make ephemeral recordings in furtherance of those performances under 17 U.S.C. § 112(e).

NAB is a nonprofit trade association that promotes and protects the public policy and business interests of local radio and television broadcasters throughout the United States. NAB advocates on the behalf of over 8,300 radio and television stations and has a direct and vital interest in this proceeding because many of its member companies make public performances of sound recordings by digital transmission and ephemeral recordings in furtherance thereof that will be subject to the rates and terms established in this proceeding.

The requisite $150 filing fee is enclosed herewith.

Respectfully submitted,

Suzanne Head
Associate General Counsel
National Association of Broadcasters
1771 N Street NW
Washington, DC 20036
Telephone: (202) 429-5430
Email: shead@nab.org

February 4, 2009

LIBRARY OF CONGRESS

Copyright Office

Notification of Agreements Under the Webcaster Settlement Act of 2009

AGENCY: Copyright Office, Library of Congress.

ACTION: Notice of agreements.

SUMMARY: The Copyright Office is publishing four agreements which set rates and terms for the reproduction and performance of sound recordings made by certain webcasters under two statutory licenses. Webcasters who meet the eligibility requirements may choose to operate under the statutory licenses in accordance with the rates and terms set forth in the agreements published herein rather than the rates and terms of any determination by the Copyright Royalty Judges.

FOR FURTHER INFORMATION CONTACT: Stephen Ruwe, Attorney Advisor, or Tanya M. Sandros, Deputy General Counsel, Copyright Office, GC/I&R, P.O. Box 70400, Washington, DC 20024. Telephone: (202) 707–8380. Telefax: (202) 707–8366. See the final paragraph of the **SUPPLEMENTARY INFORMATION** for information on where to direct questions regarding the rates and terms set forth in the agreement.

SUPPLEMENTARY INFORMATION: On June 30, 2009, President Obama signed into law the Webcaster Settlement Act of 2009 (''WSA''), Public Law 111–36, which amends section 114 of the Copyright Act, title 17 of the United States Code, as it relates to webcasters. Section 114(f)(5) as amended by the WSA allows SoundExchange, the Receiving Agent designated by the Librarian of Congress in his June 20, 2002, order for collecting royalty payments made by eligible nonsubscription transmission services under the section 112 and section 114 statutory licenses, *see* 67 FR 45239 (July 8, 2002), to enter into agreements on behalf of all copyright owners and performers to set rates, terms and conditions for webcasters operating under the section 112 and section 114 statutory licenses for a period of not more than 11 years beginning on January 1, 2005. The authority to enter into such settlement agreements expired at 11:59 p.m. Eastern time on July 30, 2009, the 30th day after the enactment of the WSA.

Unless otherwise agreed to by the parties, the rates and terms set forth in the agreement apply only to the time periods specified in the agreement and have no precedential value in any proceeding concerned with the setting of rates and terms for the public performance or reproduction in ephemeral phonorecords. To make this point clear, Congress included language expressly addressing the precedential value of agreements made under the WSA. Specifically, section 114(f)(5)(C), states that: ''Neither subparagraph (A) nor any provisions of any agreement entered into pursuant to subparagraph (A), including any rate structure, fees, terms, conditions, or notice and recordkeeping requirements set forth therein, shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral recordings or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice and recordkeeping requirements by the Copyright Royalty Judges under paragraph (4) or section 112(e)(4). It is the intent of Congress that any royalty rates, rate structure, definitions, terms, conditions, or notice and recordkeeping requirements, included in such agreements shall be considered as a compromise motivated by the unique business, economic and political circumstances of webcasters, copyright owners, and performers rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller, or otherwise meet the objectives set forth in section 801(b). This subparagraph shall not apply to the extent that the receiving agent and a webcaster that are party to an agreement entered into pursuant to subparagraph (A) expressly authorize the submission of the agreement in a proceeding under this subsection.'' 17 U.S.C. 114(f)(5)(C) (2009).[1]

On July 30, 2009, SoundExchange notified the Copyright Office that it had negotiated four separate agreements for the reproduction and performance of sound recordings by certain webcasters under the section 112 and section 114 statutory licenses. Thus, in accordance with the requirement set forth in section 114(f)(5)(B), the Copyright Office is publishing the submitted agreements, as Appendix A (Agreement with Sirius XM Radio Inc.); Appendix B (Agreement with College Broadcasters, Inc.); Appendix C (Agreement with the Corporation for Public Broadcasting); and Appendix D (Agreement with Northwestern College), thereby making the rates and terms in the agreements available to any webcasters meeting the respective eligibility conditions of the agreements as an alternative to the rates and terms of any determination by the Copyright Royalty Judges.

The Copyright Office has no responsibility for administering the rates and terms of the agreements beyond the publication of this notice. For this reason, questions regarding the rates and terms set forth in the agreements should be directed to SoundExchange (for contact information, *see http://www.soundexchange.com*).

Dated: August 5, 2009.

Marybeth Peters,

Register of Copyrights.

Note: The following Appendix Will Not Be Codified in the Code of Federal Regulations.

Appendix A—Agreed Rates and Terms for Webcasts by Commercial Webcasters

Article 1—Definitions

1.1 *General.* In general, words used in the rates and terms set forth herein (the ''Rates and Terms'') and defined in 17 U.S.C. 112(e) or 114 or 37 CFR Part 380 shall have the meanings specified in those provisions as in effect on the date hereof, with such exceptions or clarifications set forth in Section 1.2.

1.2 Additional Definitions

(a) ''Commercial Webcaster'' shall mean a webcaster as defined in 17 U.S.C. 114(f)(5)(E)(iii) that (i) has obtained a compulsory license under 17 U.S.C. 112(e) and 114 and the implementing regulations therefor to make Eligible Transmissions and related ephemeral recordings; (ii) complies with all applicable provisions of Sections 112(e) and 114 and applicable regulations; (iii) is not a Broadcaster (as defined in Section 1.2(a) of the agreement published in the **Federal Register** on March 3, 2009 at 74 FR 9299); (iv) is not a noncommercial webcaster as defined in 17 U.S.C. 114(f)(5)(E)(i); and (v) has not elected to be subject to any other rates and terms adopted pursuant to the Webcaster Settlement Act of 2008 or the Webcaster Settlement Act of 2009.

(b) ''*Eligible Transmission*'' shall mean an eligible nonsubscription transmission, or a transmission through a new subscription service, made by a Commercial Webcaster over the Internet, that is in full compliance with the eligibility and other requirements of Sections 112(e) and 114 of the Copyright Act and their implementing regulations, except as expressly modified in these Rates and Terms, and of a type otherwise subject to the payment of royalties under 37 CFR Part 380.

(c) ''*SoundExchange*'' shall mean SoundExchange, Inc. and shall include its successors and assigns.

Article 2—Agreement Pursuant to Webcaster Settlement Act of 2009

2.1 *Availability of Rates and Terms.* Pursuant to the Webcaster Settlement Act of

[1] Appendix A (Section 5.3) & Appendix B (Section 6.2) expressly authorize the submission of the relevant agreements in a proceeding under 17 U.S.C. 114(f).

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2009, and subject to the provisions set forth below, Commercial Webcasters may elect to be subject to these Rates and Terms in their entirety, with respect to such Commercial Webcasters' Eligible Transmissions and related ephemeral recordings, for all of the period beginning on January 1, 2009, and ending on December 31, 2015, in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, by complying with the procedure set forth in Section 2.2 hereof. Any person or entity that does not satisfy the eligibility criteria to be a Commercial Webcaster must comply with otherwise applicable rates and terms.

2.2 *Election Process in General.* To elect to be subject to these Rates and Terms, in lieu of any royalty rates and terms that otherwise might apply under 17 U.S.C. 112(e) and 114, for all of the period beginning on January 1, 2009, and ending on December 31, 2015, a Commercial Webcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by the later of (i) 15 days after publication of these Rates and Terms in the **Federal Register**; or (ii) in the case of a Commercial Webcaster that is not making Eligible Transmissions as of the publication of these Rates and Terms in the **Federal Register** but begins doing so at a later time, 30 days after the Commercial Webcaster begins making such Eligible Transmissions. Notwithstanding anything else in these Rates and Terms, a person or entity otherwise qualifying as a Commercial Webcaster that is participating in any way in any appeal of the Final Determination of the Copyright Royalty Judges concerning royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2006, through December 31, 2010 published in the **Federal Register** at 72 FR 24084 (May 1, 2007) (the ''Final Determination''), any proceedings on remand from such appeal, Docket No. 2009–1 CRB Webcasting III, as noticed in the **Federal Register** at 74 FR 318–19 (Jan. 5, 2009), or any other proceedings to determine royalty rates and terms for Eligible Transmissions (as defined in Section 1.2(b)) or related ephemeral phonorecords under Section 112(e) or 114 of the Copyright Act for all or any part of the period January 1, 2006, through December 31, 2015 shall not have the right to elect to be treated as a Commercial Webcaster or claim the benefit of these Rates and Terms, unless it withdraws from such proceedings prior to submitting to SoundExchange a completed and signed election form as contemplated by this Section 2.2.

2.3 *Representation of Compliance and Non-waiver.* By electing to operate pursuant to these Rates and Terms, an entity represents and warrants that it qualifies as a Commercial Webcaster. By accepting an election by a transmitting entity or payments or reporting made pursuant to these Rates and Terms, SoundExchange does not acknowledge that the transmitting entity qualifies as a Commercial Webcaster or that it has complied with the eligibility or other requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act (including these Rates and Terms). It is the responsibility of each transmitting entity to ensure that it is in full compliance with applicable requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act. SoundExchange is not in a position to, and does not, make determinations as to whether each of the many services that rely on the statutory licenses is eligible for statutory licensing or any particular royalty payment classification, nor does it continuously verify that such services are in full compliance with all applicable requirements. Accordingly, a Commercial Webcaster agrees that SoundExchange's acceptance of its election, payment or reporting does not give or imply any acknowledgment that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms) and shall not be used as evidence that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms). SoundExchange and copyright owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with all applicable requirements.

Article 3—Scope

3.1 *In General.* Commercial Webcasters that have made a timely election to be subject to these Rates and Terms as provided in Section 2.2 are entitled to publicly perform sound recordings within the scope of the statutory license provided by Section 114 by means of Eligible Transmissions, and to make related ephemeral recordings for use solely for purposes of such Eligible Transmissions within the scope of Section 112(e), in accordance with and subject to the limitations set forth in these Rates and Terms and in strict conformity with the provisions of 17 U.S.C. 112(e) and 114 and their implementing regulations, in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, for all of the period beginning on January 1, 2009, and ending on December 31, 2015.

3.2 *Applicability to All Eligible Services Operated by or for a Commercial Webcaster.* If a Commercial Webcaster has made a timely election to be subject to these Rates and Terms as provided in Section 2.2, these Rates and Terms shall apply to all Eligible Transmissions made by or for the Commercial Webcaster.

3.3 *No Implied Rights.* These Rates and Terms extend only to electing Commercial Webcasters and grant no rights, including by implication or estoppel, to any other person or except as specifically provided herein. Without limiting the generality of the foregoing, these Rates and Terms do not grant (i) any copyright ownership interest in any sound recording; (ii) any trademark or trade dress rights; (iii) any rights outside the United States (as defined in 17 U.S.C. 101); (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other person; or (v) any rights with respect to performances or reproductions outside the scope of these Rates and Terms or the statutory licenses under 17 U.S.C. 112(e) and 114.

Article 4—Royalties

4.1 *Minimum Fees.* Each Commercial Webcaster will pay an annual, nonrefundable minimum fee of $500 for each of its individual channels, including each of its individual side channels, and each of its individual stations, through which (in each case) it makes Eligible Transmissions, for each calendar year or part of a calendar year during 2009–2015 during which the Commercial Webcaster is a licensee pursuant to licenses under 17 U.S.C. 112(e) and 114, provided that a Commercial Webcaster shall not be required to pay more than $50,000 in minimum fees in the aggregate (for 100 or more channels or stations) in any one year. Upon payment of the minimum fee, the Commercial Webcaster will receive a credit in the amount of the minimum fee against any royalties payable for the same calendar year for the same channel or station.

4.2 *Royalty Rates.* Royalties for Eligible Transmissions made pursuant to 17 U.S.C. 114, and the making of related ephemeral recordings pursuant to 17 U.S.C. 112(e), shall be payable on a per-performance basis, as follows:

Year	Rate per performance
2009	$0.0016
2010	0.0017
2011	0.0018
2012	0.0020
2013	0.0021
2014	0.0022
2015	0.0024

4.3 *Ephemeral Royalty.* The royalty payable under 17 U.S.C. 112(e) for any ephemeral reproductions made by a Commercial Webcaster and covered hereby is deemed to be included within the royalty payments set forth above. SoundExchange may allocate payments hereunder between the statutory licenses under Sections 112(e) and 114 in the same manner as statutory webcasting royalties for the period 2011–2015.

4.4 *Payment.* Payments of all amounts specified in these Rates and Terms shall be made to SoundExchange. Minimum fees shall be paid by January 31 of each year. Once a Commercial Webcaster's royalty obligation under Section 4.2 with respect to a channel or station for a year exceeds the minimum fee it has paid for that channel or station and year, thereby recouping the credit provided by Section 4.1, the Commercial Webcaster shall make monthly payments at the per-performance rates provided in Section 4.2 beginning with the month in which the minimum fee first was recouped.

4.5 *Monthly Obligations.* Commercial Webcasters must make monthly payments where required by Section 4.4 and provide statements of account and reports of use, for each month on the 45th day following the end of the month in which the Eligible Transmissions subject to the payments, statements of account, and reports of use were made.

4.6 *Past Periods.* Notwithstanding Sections 4.4 and 4.5, a Commercial Webcaster's first monthly payment after

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electing to be subject to these Rates and Terms shall be adjusted to reflect any differences between (i) the amounts payable under these Rates and Terms for all of 2009 to the end of the month for which the payment is made and (ii) the Commercial Webcaster's previous payments for all of 2009 to the end of the month for which the payment is made. Late fees under 37 CFR 380.4(e) shall apply to any payment previously due and not made on time, or to any late payment hereunder.

Article 5—Additional Provisions

5.1 *Applicable Regulations.* To the extent not inconsistent with the Rates and Terms herein, all applicable regulations, including 37 CFR Parts 370 and 380, shall apply to activities subject to these Rates and Terms.

5.2 *Participation in Specified Proceedings.* A Commercial Webcaster that elects to be subject to these Rates and Terms agrees that it has elected to do so in lieu of any different statutory rates and terms that may otherwise apply during any part of the 2009–2015 period and in lieu of participating at any time in a proceeding to set rates and terms for Eligible Transmissions and related ephemeral recordings for any part of the 2006–2015 period. Thus, once a Commercial Webcaster has elected to be subject to these Rates and Terms, it shall not at any time participate as a party, intervenor, *amicus curiae* or otherwise, or give evidence or otherwise support or assist, in *Intercollegiate Broadcasting Sys.* v. *Copyright Royalty Board* (DC Circuit Docket Nos. 07–1123, 07–1168, 07–1172, 07–1173, 07–1174, 07–1177, 07–1178, 07–1179), any proceedings on remand from such appeal, *Digital Performance Right in Sound Recordings and Ephemeral Recordings* (Copyright Royalty Judges' Docket No. 2009–1 CRB Webcasting III), or any other proceedings to determine royalty rates and terms for Eligible Transmissions and reproduction of related ephemeral phonorecords under Section 112(e) or 114 of the Copyright Act for all or any part of the period 2006–2015, including any appeal of the foregoing or any proceedings on remand from such an appeal, unless subpoenaed on petition of a third party (without any action by a Commercial Webcaster to encourage or suggest such a subpoena or petition) and ordered to testify or provide documents in such proceeding.

5.3 *Use of Agreement in Future Proceedings.* Pursuant to 17 U.S.C. 114(f)(5)(C), submission of these Rates and Terms in a proceeding under 17 U.S.C. 114(f) is expressly authorized.

5.4 *Effect of Direct Licenses.* Any copyright owner may enter into a voluntary agreement with any Commercial Webcaster setting alternative rates and terms governing the Commercial Webcasters' transmission of copyrighted works owned by the copyright owner, and such voluntary agreement may be given effect in lieu of the Rates and Terms set forth herein.

Article 6—Miscellaneous

6.1 *Acknowledgement.* The parties acknowledge this agreement was entered into knowingly and willingly. The parties further acknowledge that any transmission made by a Commercial Webcaster in violation of these Rates and Terms or Section 112(e) or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms), outside the scope of these Rates and Terms or Section 112(e) or 114, or after the expiration or termination of these Rates and Terms shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106 and the remedies in 17 U.S.C. 501–506, and all limitations, exceptions and defenses available with respect thereto.

6.2 *Applicable Law and Venue.* These Rates and Terms shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with these Rates and Terms shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC. SoundExchange and Commercial Webcasters consent to the jurisdiction and venue of the foregoing court, waive any objection thereto on forum *non conveniens* or similar grounds, and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the person for which it is intended at its last known address (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

6.3 *Rights Cumulative.* The rights, remedies, limitations, and exceptions provided in these Rates and Terms and available under applicable law shall be cumulative and shall not preclude assertion by any party of any other rights, defenses, limitations, or exceptions or the seeking of any other remedies against another party hereto. These Rates and Terms shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations. No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. No single or partial exercise of any right, power or privilege granted under these Rates and Terms or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by any party of full performance by another party in any one or more instances shall be a waiver of the right to require full and complete performance of these Rates and Terms and of obligations under applicable law thereafter.

6.4 *Entire Agreement.* These Rates and Terms represent the entire and complete agreement between SoundExchange and a Commercial Webcaster with respect to their subject matter and supersede all prior and contemporaneous agreements and undertakings of SoundExchange and a Commercial Webcaster with respect to the subject matter hereof.

Appendix B—Agreed Rates and Terms for Noncommercial Educational Webcasters

Article 1—Definitions

1.1 *General.* In general, words used in the rates and terms set forth herein (the *''Rates and Terms''*) and defined in 17 U.S.C. 112(e) or 114 or 37 CFR Part 380 shall have the meanings specified in those provisions as in effect on the date hereof, with such exceptions or clarifications set forth in Section 1.2.

1.2 Additional Definitions

1.2.1 *''Noncommercial Educational Webcaster''* shall mean a Noncommercial Webcaster (as defined in 17 U.S.C. 114(f)(5)(E)(i)) that (i) has obtained a compulsory license under 17 U.S.C. 112(e) and 114 and the implementing regulations therefor to make Eligible Transmissions and related ephemeral recordings; (ii) complies with all applicable provisions of Sections 112(e) and 114 and applicable regulations; (iii) is directly operated by, or is affiliated with and officially sanctioned by, and the digital audio transmission operations of which are staffed substantially by students enrolled at, a domestically-accredited primary or secondary school, college, university or other post-secondary degree-granting educational institution, and (iv) is not a ''public broadcasting entity'' (as defined in 17 U.S.C. 118(g)) qualified to receive funding from the Corporation for Public Broadcasting pursuant to the criteria set forth in 47 U.S.C. 396.

1.2.2 *''Eligible Transmission''* shall mean an eligible nonsubscription transmission made by a Noncommercial Educational Webcaster over the Internet.

1.2.3 *''SoundExchange''* shall mean SoundExchange, Inc. and shall include its successors and assigns.

1.2.4 *''ATH'' or ''Aggregate Tuning Hours''* shall mean the total hours of programming that a Noncommercial Educational Webcaster has transmitted during the relevant period to all listeners within the United States over all channels and stations that provide audio programming consisting, in whole or in part, of Eligible Transmissions, including from any archived programs, less the actual running time of any sound recordings for which the Noncommercial Educational Webcaster has obtained direct licenses apart from 17 U.S.C. 114(d)(2) or which do not require a license under United States copyright law. By way of example, if a Noncommercial Educational Webcaster transmitted one hour of programming to 10 simultaneous listeners, the Noncommercial Educational Webcaster's Aggregate Tuning Hours would equal 10. If three minutes of that hour consisted of transmission of a directly licensed recording, the Noncommercial Educational Webcaster's Aggregate Tuning Hours would equal 9 hours and 30 minutes. As an additional example, if one listener listened to a Noncommercial Educational Webcaster for 10 hours (and none of the recordings transmitted during that time was directly licensed), the Noncommercial Educational Webcaster's Aggregate Tuning Hours would equal 10.

Article 2—Agreement Pursuant to Webcaster Settlement Act of 2009

2.1 *Availability of Rates and Terms.* Pursuant to the Webcaster Settlement Act of 2009, and subject to the provisions set forth below, Noncommercial Educational Webcasters may elect to be subject to the rates and terms set forth herein in their entirety, with respect to Eligible Transmissions and related ephemeral recordings, for all of any one or more calendar years during the period beginning on January 1, 2011, and ending on December 31, 2015 (the *''Term''*), in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, by complying with the procedure set forth in Section 2.2.1 hereof. In addition, Noncommercial Educational Webcasters may elect to be subject to the provisions of Article 5 only, for all of the period beginning on January 1, 2009, and ending on December 31, 2010 (the *''Special Reporting Term''*), in lieu of reporting under 37 CFR Part 370.3, by complying with the procedure set forth in Section 2.2.3 hereof. Any person or entity that does not satisfy the eligibility criteria to be a Noncommercial Educational Webcaster must comply with otherwise applicable rates and terms.

2.2 Election Process

2.2.1 *In General.* To elect to be subject to these Rates and Terms, in their entirety, in lieu of any royalty rates and terms that otherwise might apply under 17 U.S.C. 112(e) and 114, for any calendar year during the Term, a Noncommercial Educational Webcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by January 31st of each such calendar year or, in the case of a Noncommercial Educational Webcaster that has not made Eligible Transmissions as of January 31st of a calendar year within the Term but begins doing so at a later time that year and seeks to be subject to these Rates and Terms for that year, 45 days after the end of the month in which the Noncommercial Educational Webcaster begins making such Eligible Transmissions. Even if an entity has once elected to be treated as a Noncommercial Educational Webcaster, it must make a separate, timely election in each subsequent calendar year in which it wishes (and is eligible) to be treated as such. A Noncommercial Educational Webcaster may instead elect other available rates for which it is eligible. However, a Noncommercial Educational Webcaster may not elect different rates for a given calendar year after it has elected to be subject to these Rates and Terms or for any year in which it has already paid royalties.

2.2.2 *Contents of Election Form.* On its election form(s) pursuant to Section 2.2.1, the Noncommercial Educational Webcaster must, among other things, provide a certification, signed by an officer or another duly authorized faculty member or administrator of the institution with which the Noncommercial Educational Webcaster is affiliated, on a form provided by SoundExchange, that the Noncommercial Educational Webcaster (i) qualifies as a Noncommercial Educational Webcaster for the relevant year, and (ii) did not exceed 159,140 total ATH in any month of the prior year for which the Noncommercial Educational Webcaster did not submit a Statement of Account and pay required Usage Fees. At the same time the Noncommercial Educational Webcaster must identify all its stations making Eligible Transmissions. If, subsequent to making an election, there are changes in the Noncommercial Educational Webcaster's corporate name or stations making Eligible Transmissions, or other changes in its corporate structure that affect the application of these Rates and Terms, the Noncommercial Educational Webcaster shall promptly notify SoundExchange thereof. On its election form(s), the Noncommercial Educational Webcaster must, among other things, identify which of the reporting options set forth in Section 5.1 it elects for the relevant year (provided that it must be eligible for the option it elects).

2.2.3 *Election for Special Reporting Term.* A Noncommercial Educational Webcaster may elect to be subject to the provisions of Article 5 only, for all of the Special Reporting Term, in lieu of reporting under 37 CFR Part 370.3 as it may from time to time exist. To do so, the Noncommercial Educational Webcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*), which SoundExchange may combine with its form of Statement of Account. Such form must be submitted with timely payment of the Noncommercial Educational Webcaster's minimum fee for 2010 under 37 CFR 380.4(d) and the Proxy Fee described in Section 5.1.1 for both 2009 and 2010 if applicable. On any such election form, the Noncommercial Educational Webcaster must, among other things, provide (i) a certification, signed by an officer or another duly authorized faculty member or administrator of the institution with which the Noncommercial Educational Webcaster is affiliated, that the Noncommercial Educational Webcaster qualifies as a Noncommercial Educational Webcaster for the Special Reporting Term, and (ii) identification of all its stations making Eligible Transmissions and which of the reporting options set forth in Section 5.1 it elects for the Special Reporting Term (provided that it must be eligible for the option it elects for the entire Special Reporting Term).

2.2.4 *Participation in Specified Proceedings.* Notwithstanding anything else in these Rates and Terms, a person or entity otherwise qualifying as a Noncommercial Educational Webcaster that has participated or is participating in any way in any appeal of the Final Determination of the Copyright Royalty Judges concerning royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2006, through December 31, 2010 published in the **Federal Register** at 72 FR 24084 (May 1, 2007) (the ''Final Determination''), any proceedings on remand from such appeal, *Digital Performance Right in Sound Recordings and Ephemeral Recordings* (Copyright Royalty Judges' Docket No. 2009–1 CRB Webcasting III), *Digital Performance Right in Sound Recordings and Ephemeral Recordings for a New Subscription Service* (Copyright Royalty Judges' Docket No. 2009–2 CRB New Subscription II), or any other proceeding to determine royalty rates or terms under Sections 112(e) or 114 of the Copyright Act for all or any part of the period January 1, 2006, through December 31, 2015 (all of the foregoing, including appeals of the proceedings identified above, collectively *''Specified Proceedings''*) shall not have the right to elect to be treated as a Noncommercial Educational Webcaster or claim the benefit of these Rates and Terms, unless it withdraws from such proceeding(s) prior to submitting to SoundExchange a completed and signed election form as contemplated by Section 2.2.1 or 2.2.3, as applicable. In addition, once a Noncommercial Educational Webcaster has elected to be subject to these Rates and Terms, either for the Special Reporting Term or any part of the Term, it shall not at any time participate as a party, intervenor, *amicus curiae* or otherwise, or give evidence or otherwise support or assist, in any Specified Proceeding, unless subpoenaed on petition of a third party (without any action by a Noncommercial Educational Webcaster to encourage or suggest such a subpoena or petition) and ordered to testify or provide documents in such proceeding.

2.3 *Representation of Compliance and Non-Waiver.* By electing to operate pursuant to the Rates and Terms, either for the Special Reporting Term or any part of the Term, an entity represents and warrants that it qualifies as a Noncommercial Educational Webcaster and is eligible for the reporting option set forth in Section 5.1 that it elects. By accepting an election by a transmitting entity pursuant to these Rates and Terms or any payments or reporting made by a transmitting entity, SoundExchange does not acknowledge that the transmitting entity qualifies as a Noncommercial Educational Webcaster or for a particular reporting option or that it has complied with the eligibility or other requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act (including these Rates and Terms). It is the responsibility of each transmitting entity to ensure that it is eligible for the statutory licenses under Sections 112(e) and 114 of the Copyright Act and in full compliance with applicable requirements thereof. SoundExchange is not in a position to, and does not, make determinations as to whether each of the many services that rely on the statutory licenses is eligible for statutory licensing or any particular royalty payment classification, nor does it continuously verify that such services are in full compliance with all applicable requirements. Accordingly, a transmitting entity agrees that SoundExchange's acceptance of its election, payment or reporting does not give or imply any acknowledgment that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms) and shall not be used as evidence that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms). SoundExchange and copyright

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owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with all applicable requirements that are not inconsistent with these Rates and Terms.

Article 3—Scope

3.1 *In General.* Noncommercial Educational Webcasters that have made a timely election to be subject to these Rates and Terms as provided in Section 2.2.1 are entitled to publicly perform sound recordings within the scope of the statutory license provided by Section 114 by means of Eligible Transmissions, and to make related ephemeral recordings for use solely for purposes of such Eligible Transmissions within the scope of Section 112(e), in accordance with and subject to the limitations set forth in these Rates and Terms and in strict conformity with the provisions of 17 U.S.C. 112(e) and 114 and their implementing regulations (except as otherwise specifically provided herein), in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, for each calendar year within the Term that they have made a timely election to be subject to these Rates and Terms.

3.2 *Applicable to All Services Operated by or for a Noncommercial Educational Webcaster.* If a Noncommercial Educational Webcaster has made a timely election to be subject to these Rates and Terms as provided in Section 2.2.1, these Rates and Terms shall apply to all Eligible Transmissions made by or for the Noncommercial Educational Webcaster and related ephemeral recordings. For clarity, a Noncommercial Educational Webcaster may not rely upon these Rates and Terms for its Eligible Transmissions of one broadcast channel or station and upon different Section 112(e) and 114 rates and terms for its Eligible Transmissions of other broadcast channels or stations. However, a single educational institution may have more than one webcasting station making Eligible Transmissions. If so, each such station may determine individually whether it elects to be subject to these Rates and Terms as a Noncommercial Educational Webcaster. It is expressly contemplated that within a single educational institution, one or more Noncommercial Educational Webcasters and one or more public broadcasting entities (as defined in 17 U.S.C. 118(g)) may exist simultaneously, each paying under a different set of rates and terms.

3.3 *No Implied Rights.* These Rates and Terms extend only to electing Noncommercial Educational Webcasters and grant no rights, including by implication or estoppel, to any other person or entity, or except as specifically provided herein. Without limiting the generality of the foregoing, these Rates and Terms do not grant (i) any copyright ownership interest in any sound recording; (ii) any trademark or trade dress rights; (iii) any rights outside the United States (as defined in 17 U.S.C. 101); (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other person; or (v) any rights with respect to performances or reproductions outside the scope of these Rates and Terms or the statutory licenses under 17 U.S.C. 112(e) and 114.

Article 4—Royalties

4.1 *Minimum Fee.* Each Noncommercial Educational Webcaster shall pay an annual, nonrefundable minimum fee of $500 (the *''Minimum Fee''*) for each of its individual channels, including each of its individual side channels, and each of its individual stations, through which (in each case) it makes Eligible Transmissions, for each calendar year it elects to be subject to these Rates and Terms. For clarity, each individual stream (*e.g.*, HD radio side channels, different stations owned by a single licensee) will be treated separately and be subject to a separate minimum. In addition, a Noncommercial Educational Webcaster electing the reporting waiver described in Section 5.1.1 shall pay a $100 annual fee (the *''Proxy Fee''*) to SoundExchange.

4.2 *Additional Usage Fees.* If, in any month, a Noncommercial Educational Webcaster makes total transmissions in excess of 159,140 Aggregate Tuning Hours (*''ATH''*) on any individual channel or station, the Noncommercial Educational Webcaster shall pay additional usage fees (*''Usage Fees''*) for the Eligible Transmissions it makes on that channel or station after exceeding 159,140 total ATH at the following per-performance rates:

Year	Rate per performance
2011	$0.0017
2012	0.0020
2013	0.0022
2014	0.0023
2015	0.0025

For a Noncommercial Educational Webcaster unable to calculate actual total performances and not required to report ATH or actual total performances under Section 5.1.3, the Noncommercial Educational Webcaster may pay Usage Fees on an ATH basis, provided that the Noncommercial Educational Webcaster shall pay Usage Fees at the per-performance rates provided above in this Section 4.2 based on the assumption that the number of sound recordings performed is 12 per hour. SoundExchange may distribute royalties paid on the basis of ATH hereunder in accordance with its generally-applicable methodology for distributing royalties paid on such basis.

A Noncommercial Educational Webcaster offering more than one channel or station shall pay Usage Fees on a per channel or station basis.

4.3 *Ephemeral Royalty.* The royalty payable under 17 U.S.C. 112(e) for any ephemeral reproductions made by a Noncommercial Educational Webcaster and covered hereby is deemed to be included within the royalty payments set forth above. SoundExchange may allocate payments hereunder between the statutory licenses under Sections 112(e) and 114 in the same manner as statutory webcasting royalties for the period 2011–2015.

4.4 Statements of Account and Payment

4.4.1 *Minimum Fee.* Noncommercial Educational Webcasters shall submit the Minimum Fee, and Proxy Fee if applicable, accompanied by a statement of account in a form available on the SoundExchange Web site at *http://www.soundexchange.com* (*''Statement of Account''*) by the date specified in Section 2.2.1 for making the Noncommercial Educational Webcaster's election to be subject to these Rates and Terms for the applicable calendar year.

4.4.2 *Usage Fees.* Noncommercial Educational Webcasters required to pay Usage Fees shall submit a Minimum Fee and Statement of Account in accordance with Section 4.4.1, and in addition, a Statement of Account accompanying any Usage Fees owed pursuant to Section 4.2. Such a Statement of Account and accompanying Usage Fees shall be due 45 days after the end of the month in which the excess usage occurred.

4.4.3 *Identification of Statements of Account.* Noncommercial Educational Webcasters shall include on each of their Statements of Account (i) the name of the Noncommercial Educational Webcaster, exactly as it appears on its notice of use, and (ii) if the Statement of Account covers a single station only, the call letters or name of the station.

4.4.4 *Payment.* Payments of all amounts specified in these Rates and Terms shall be made to SoundExchange.

4.5 *Late Fees.* A Noncommercial Educational Webcaster shall pay a late fee for each instance in which any payment, any Statement of Account or any Report of Use (as defined in Section 5.1 below) is not received by SoundExchange in compliance with these Rates and Terms and applicable regulations by the due date. The amount of the late fee shall be 1.5% of the late payment, or 1.5% of the payment associated with a late Statement of Account or Report of Use, per month, compounded monthly, or the highest lawful rate, whichever is lower. The late fee shall accrue from the due date of the payment, Statement of Account or Report of Use until a fully compliant Payment, Statement of Account or Report of Use (as applicable) is received by SoundExchange, provided that, in the case of a timely provided but noncompliant Statement of Account or Report of Use, SoundExchange has notified the Noncommercial Educational Webcaster within 90 days regarding any noncompliance that is reasonably evident to SoundExchange.

Article 5—Reporting

5.1 *Provision of Reports of Use.* Noncommercial Educational Webcasters shall have the following three options, as applicable, with respect to provision of reports of use of sound recordings (*''Reports of Use''*):

5.1.1 *Reporting Waiver.* In light of the unique business and operational circumstances currently existing with respect to these services, a Noncommercial Educational Webcaster that did not exceed 55,000 total ATH for any individual channel or station for more than one calendar month in the immediately preceding calendar year and that does not expect to exceed 55,000 total ATH for any individual channel or station for any calendar month during the applicable calendar year may elect to pay a nonrefundable, annual Proxy Fee of $100 in

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lieu of providing Reports of Use for the calendar year. In addition, a Noncommercial Educational Webcaster that unexpectedly exceeded 55,000 total ATH on one or more channels or stations for more than one month during the immediately preceding calendar year may elect to pay the Proxy Fee and receive the reporting waiver described in this Section 5.1.1 during a calendar year, if it implements measures reasonably calculated to ensure that it will not make Eligible Transmissions exceeding 55,000 total ATH per month during that calendar year. SoundExchange shall distribute the aggregate royalties paid by electing Noncommercial Educational Webcasters based on proxy usage data in accordance with a methodology adopted by SoundExchange's Board of Directors. The Proxy Fee is intended to defray SoundExchange's costs associated with this reporting waiver, including development of proxy usage data. The Proxy Fee shall be paid by the date specified in Section 2.2.1 for making the Noncommercial Educational Webcaster's election to be subject to these Rates and Terms for the applicable calendar year (or in the case of the Special Reporting Term, by the date specified in Section 2.2.3) and shall be accompanied by a certification on a form provided by SoundExchange, signed by an officer or another duly authorized faculty member or administrator of the applicable educational institution, stating that the Noncommercial Educational Webcaster is eligible for the Proxy Fee option because of its past and expected future usage, and if applicable, measures to ensure that it will not make excess Eligible Transmissions in the future.

5.1.2 *Sample-Basis Reports.* A Noncommercial Educational Webcaster that did not exceed 159,140 total ATH for any individual channel or station for more than one calendar month in the immediately preceding calendar year and that does not expect to exceed 159,140 total ATH for any individual channel or station for any calendar month during the applicable calendar year may elect (as described in Section 2.2.2) to provide Reports of Use on a sample basis (two weeks per calendar quarter) in accordance with the regulations at 37 CFR 370.3 as they existed at January 1, 2009, except that notwithstanding 37 CFR 370.3(c)(2)(vi), such an electing Noncommercial Educational Webcaster shall not be required to include ATH or actual total performances and may in lieu thereof provide channel or station name and play frequency (*i.e.*, number of spins). Notwithstanding the foregoing, a Noncommercial Educational Webcaster that is able to report ATH or actual total performances is encouraged to do so. These Reports of Use shall be submitted to SoundExchange no later than January 31st of the year immediately following the year to which they pertain.

5.1.3 *Census-Basis Reports.* If any of the following three conditions is satisfied, a Noncommercial Webcaster must report pursuant to this Section 5.1.3: (i) The Noncommercial Educational Webcaster exceeded 159,140 total ATH for any individual channel or station for more than one calendar month in the immediately preceding calendar year, (ii) the Noncommercial Educational Webcaster expects to exceed 159,140 total ATH for any individual channel or station for any calendar month in the applicable calendar year, or (iii) the Noncommercial Educational Webcaster otherwise does not elect (as described in Section 2.2.2) to be subject to Section 5.1.1 or 5.1.2. A Noncommercial Educational Webcaster required to report pursuant to this Section 5.1.3 shall provide Reports of Use to SoundExchange quarterly on a census reporting basis (*i.e.*, Reports of Use shall include every sound recording performed in the relevant quarter), containing information otherwise complying with applicable regulations (but no less information than required by 37 CFR 370.3 as of January 1, 2009), except that notwithstanding 37 CFR 370.3(c)(2)(vi), such a Noncommercial Educational Webcaster shall not be required to include ATH or actual total performances, and may in lieu thereof provide channel or station name and play frequency (*i.e.*, number of spins), during the first calendar year it is required to report in accordance with this Section 5.1.3. For the avoidance of doubt, after a Noncommercial Educational Webcaster has been required to report in accordance with this Section 5.1.3 for a full calendar year, it must thereafter include ATH or actual total performances in its Reports of Use. All Reports of Use under this Section 5.1.3 shall be submitted to SoundExchange no later than the 45th day after the end of each calendar quarter.

5.2 *Delivery of Reports.* Reports of Use submitted by Noncommercial Educational Webcasters shall conform to the following additional requirements:

5.2.1 Noncommercial Educational Webcasters shall either submit a separate Report of Use for each of their stations, or a collective report of use covering all of their stations but identifying usage on a station-by-station basis.

5.2.2 Noncommercial Educational Webcasters shall transmit each Report of Use in a file the name of which includes (i) the name of the Noncommercial Educational Webcaster, exactly as it appears on its notice of use, and (ii) if the Report of Use covers a single station only, the call letters or name of the station.

5.2.3 Noncommercial Educational Webcasters shall submit reports of use with headers, as such headers are described in 37 CFR 370.3(d)(7).

5.3 *Server Logs.* To the extent not already required by the current regulations set forth in 37 CFR Part 380, as they existed on January 1, 2009, Noncommercial Educational Webcasters shall retain for a period of at least three full calendar years server logs sufficient to substantiate all information relevant to eligibility, rate calculation and reporting hereunder. To the extent that a third-party web hosting or service provider maintains equipment or software for a Noncommercial Educational Webcaster and/or such third party creates, maintains, or can reasonably create such server logs, the Noncommercial Educational Webcaster shall direct that such server logs be created and maintained by said third party for a period of at least three full calendar years and/or that such server logs be provided to, and maintained by, the Noncommercial Educational Webcaster.

Article 6—Additional Provisions

6.1 *Applicable Regulations.* To the extent not inconsistent with the Rates and Terms herein, all applicable regulations, including 37 CFR Parts 370 and 380, shall apply to activities subject to these Rates and Terms. Without limiting the foregoing, the provisions of applicable regulations for the retention of records and verification of statutory royalty payments (presently 37 CFR 380.4(h) and 380.6) shall apply hereunder. Noncommercial Educational Webcasters shall cooperate in good faith with any such verification, and the exercise by SoundExchange of any right with respect thereto shall not prejudice any other rights or remedies of SoundExchange or sound recording copyright owners.

6.2 *Use of Agreement in Future Proceedings.* Pursuant to 17 U.S.C. 114(f)(5)(C), submission of these Rates and Terms in a proceeding under 17 U.S.C. 114(f) by any participant in such proceeding is expressly authorized.

6.3 *Effect of Direct Licenses.* Any copyright owner may enter into a voluntary agreement with any Noncommercial Educational Webcaster setting alternative rates and terms governing the Noncommercial Educational Webcaster's transmission of copyrighted works owned by the copyright owner, and such voluntary agreement may be given effect in lieu of the Rates and Terms set forth herein.

6.4 *Default.* A Noncommercial Educational Webcaster shall comply with all the requirements of these Rates and Terms. If it fails to do so, SoundExchange may give written notice to the Noncommercial Educational Webcaster that, unless the breach is remedied within 30 days from the date of receipt of notice, the Noncommercial Educational Webcaster's authorization to make public performances and ephemeral reproductions under these Rates and Terms may be terminated by further written notice; provided, however, that such period shall be 60 (rather than 30) days in the case of any such notice sent by SoundExchange between May 15 and August 15 or between December 1 and January 30. No such cure period shall apply before termination in case of material noncompliance that has been repeated multiple times so as to constitute a pattern of noncompliance, provided that SoundExchange has given at least two notices of noncompliance. Any transmission made by a Noncommercial Educational Webcaster in violation of these Rates and Terms or Section 112(e) or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms), outside the scope of these Rates and Terms or Section 112(e) or 114, or after the expiration or termination of these Rates and Terms shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106 and the remedies in 17 U.S.C. 501–506, and all limitations, exceptions and defenses available with respect thereto.

Article 7—Miscellaneous

7.1 *Acknowledgement.* The parties acknowledge these Rates and Terms were entered into knowingly and willingly.

7.2 *Applicable Law and Venue.* These Rates and Terms shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with these Rates and Terms shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC. SoundExchange and each Noncommercial Educational Webcaster consent to the jurisdiction and venue of the foregoing court and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the person for which it is intended at its last known address (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

7.3 *Rights Cumulative.* The rights, remedies, limitations, and exceptions provided in these Rates and Terms and available under applicable law shall be cumulative and shall not preclude assertion by any party of any other rights, defenses, limitations, or exceptions or the seeking of any other remedies against another party hereto. These Rates and Terms shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. No single or partial exercise of any right, power or privilege granted under these Rates and Terms or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by any party of full performance by another party in any one or more instances shall be a waiver of the right to require full and complete performance of these Rates and Terms and of obligations under applicable law thereafter.

7.4 *Entire Agreement.* These Rates and Terms represent the entire and complete agreement between SoundExchange and any Noncommercial Educational Webcaster with respect to their subject matter and supersede all prior and contemporaneous agreements and undertakings of SoundExchange and a Noncommercial Educational Webcaster with respect to the subject matter hereof.

Appendix C—Agreement Concerning Rates and Terms for Public Radio

This Agreement Concerning Rates and Terms for Public Radio (''*Agreement''*), dated as of July 30, 2009 (''*Execution Date''*), is made by and between SoundExchange, Inc. (''*SoundExchange''*) and the Corporation for Public Broadcasting (''*CPB''*), on behalf of all Covered Entities (SoundExchange, and CPB each a ''*Party''* and, jointly, the ''*Parties''*). Capitalized terms used herein are defined in Article 1 below.

Whereas, SoundExchange is the ''receiving agent'' as defined in 17 U.S.C. 114(f)(5)(E)(ii) designated for collecting and distributing statutory royalties received from Covered Entities for their Web Site Performances;

Whereas, the Webcaster Settlement Act of 2009 (Pub. L. 111–36; to be codified at 17 U.S.C. 114(f)(5)) authorizes SoundExchange to enter into agreements for the reproduction and performance of Sound Recordings under Sections 112(e) and 114 of the Copyright Act that, once published in the **Federal Register**, shall be binding on all Copyright Owners and Performers, in lieu of any determination by the Copyright Royalty Judges;

Whereas, in view of the unique business, economic and political circumstances of CPB, Covered Entities, SoundExchange, Copyright Owners and Performers at the Execution Date, the Parties have agreed to the royalty rates and other consideration set forth herein for the period January 1, 2011 through December 31, 2015;

Now, Therefore, pursuant to 17 U.S.C. 114(f)(5), and in consideration of the mutual promises contained in this Agreement and for other good and valuable consideration, the adequacy and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

Article 1—Definitions

The following terms shall have the meanings set forth below:

1.1 ''*Agreement*'' shall have the meaning set forth in the preamble.

1.2 ''*ATH*'' or ''*Aggregate Tuning Hours*'' means the total hours of programming that Covered Entities have transmitted during the relevant period to all listeners within the United States from all Covered Entities that provide audio programming consisting, in whole or in part, of Web Site Performances, less the actual running time of any sound recordings for which the Covered Entity has obtained direct licenses apart from this Agreement. By way of example, if a Covered Entity transmitted one hour of programming to ten (10) simultaneous listeners, the Covered Entity's Aggregate Tuning Hours would equal ten (10). If three (3) minutes of that hour consisted of transmission of a directly licensed recording, the Covered Entity's Aggregate Tuning Hours would equal nine (9) hours and thirty (30) minutes. As an additional example, if one listener listened to a Covered Entity for ten (10) hours (and none of the recordings transmitted during that time was directly licensed), the Covered Entity's Aggregate Tuning Hours would equal 10.

1.3 ''*Authorized Web Site*'' means any Web Site operated by or on behalf of any Covered Entity that is accessed by Web Site Users through a Uniform Resource Locator (''*URL*'') owned by such Covered Entity and through which Web Site Performances are made by such Covered Entity.

1.4 ''*CPB*'' shall have the meaning set forth in the preamble.

1.5 ''*Collective*'' shall have the meaning set forth in 37 CFR 380.2(c).

1.6 ''*Copyright Owners*'' are Sound Recording copyright owners who are entitled to royalty payments made pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114(f).

1.7 ''*Covered Entities*'' means NPR, American Public Media, Public Radio International, and Public Radio Exchange, and, in calendar year 2011, up to four-hundred and ninety (490) Originating Public Radio Stations as named by CPB. CPB shall notify SoundExchange annually of the eligible Originating Public Radio Stations to be considered Covered Entities hereunder (subject to the numerical limitations set forth herein). The number of Originating Public Radio Stations considered to be Covered Entities is permitted to grow by no more than 10 Originating Public Radio Stations per year beginning in calendar year 2012, such that the total number of Covered Entities at the end of the Term will be less than or equal to 530. The Parties agree that the number of Originating Public Radio Stations licensed hereunder as Covered Entities shall not exceed the maximum number permitted for a given year without SoundExchange's express written approval, except that CPB shall have the option to increase the number of Originating Public Radio Stations that may be considered Covered Entities as provided in Section 4.4.

1.8 ''*Ephemeral Phonorecord*'' shall have the meaning set forth in Section 3.1(b).

1.9 ''*Execution Date*'' shall have the meaning set forth in the preamble.

1.10 ''*License Fee*'' shall have the meaning set forth in Section 4.1.

1.11 ''*Music ATH*'' means ATH of Web Site Performances of Sound Recordings of musical works.

1.12 ''*NPR*'' shall mean National Public Radio, with offices at 635 Massachusetts Avenue, NW., Washington, DC 20001.

1.13 ''*Originating Public Radio Stations*'' shall mean a noncommercial terrestrial radio broadcast station that (i) is licensed as such by the Federal Communications Commission; (ii) originates programming and is not solely a repeater station; (iii) is a member or affiliate of NPR, American Public Media, Public Radio International, or Public Radio Exchange, a member of the National Federation of Community Broadcasters, or another public radio station that is qualified to receive funding from the Corporation for Public Broadcasting pursuant to its criteria; (iv) qualifies as a ''noncommercial webcaster'' under 17 U.S.C. 114(f)(5)(E)(i); and (v) either (a) offers Web Site Performances only as part of the mission that entitles it to be exempt from taxation under section 501 of the Internal Revenue Code of 1986 (26 U.S.C. 501), or (b) in the case of a governmental entity (including a Native American Tribal governmental entity), is operated exclusively for public purposes.

1.14 ''*Party*'' shall have the meaning set forth in the preamble.

1.15 ''*Performers*'' means the independent administrators identified in 17 U.S.C. 114(g)(2)(B) and (C) and the individuals and entities identified in 17 U.S.C. 114(g)(2)(D).

1.16 ''*Person*'' means a natural person, a corporation, a limited liability company, a partnership, a trust, a joint venture, any governmental authority or any other entity or organization.

1.17 ''*Phonorecords*'' shall have the meaning set forth in 17 U.S.C. 101.

1.18 ''*Side Channel*'' means any Internet-only program available on an Authorized Web Site or an archived program on such Authorized Web Site that, in either case, conforms to all applicable requirements under 17 U.S.C. 114.

1.19 ''*SoundExchange*'' shall have the meaning set forth in the preamble and shall include any successors and assigns to the extent permitted by this Agreement.

1.20 ''*Sound Recording*'' shall have the meaning set forth in 17 U.S.C. 101.

1.21 ''*Term*'' shall have the meaning set forth in Section 7.1.

1.22 ''*Territory*'' means the United States, its territories, commonwealths and possessions.

1.23 ''*URL*'' shall have the meaning set forth in Section 1.3.

1.24 ''*Web Site*'' means a site located on the World Wide Web that can be located by a Web Site User through a principal URL.

1.25 ''*Web Site Performances*'' means all public performances by means of digital audio transmissions of Sound Recordings, including the transmission of any portion of any Sound Recording, made through an Authorized Web Site in accordance with all requirements of 17 U.S.C. 114, from servers used by a Covered Entity (*provided that* the Covered Entity controls the content of all materials transmitted by the server), or by a sublicensee authorized pursuant to Section 3.2, that consist of either (a) the retransmission of a Covered Entity's over-the-air terrestrial radio programming or (b) the digital transmission of nonsubscription Side Channels that are programmed and controlled by the Covered Entity. This term does not include digital audio transmissions made by any other means.

1.26 ''*Web Site Users*'' means all those who access or receive Web Site Performances or who access any Authorized Web Site.

Article 2—Agreement Pursuant to Webcaster Settlement Act of 2009

2.1 *General*. This Agreement is entered into pursuant to the Webcaster Settlement Act of 2009 (Pub. L. 111–36; to be codified at 17 U.S.C. 114(f)(5)).

2.2 *Eligibility Conditions.* The only webcasters (as defined in 17 U.S.C. 114(f)(5)(E)(iii)) eligible to avail themselves of the terms of this Agreement as contemplated by 17 U.S.C. 114(f)(5)(B) are the Covered Entities, as expressly set forth herein. The terms of this Agreement shall apply to the Covered Entities in lieu of other rates and terms applicable under 17 U.S.C. 112 and 114.

2.3 *Agreement Nonprecedential.* Consistent with 17 U.S.C. 114(f)(5)(C), this Agreement, including any rate structure, fees, terms, conditions, and notice and recordkeeping requirements set forth therein, is nonprecedential and shall not be introduced nor used by any Person, including the Parties and any Covered Entities, as evidence or otherwise taken into account in any administrative, judicial, or other proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges under 17 U.S.C. 114(f)(4) or 112(e)(4), or any administrative or judicial proceeding pertaining to rates, terms or reporting obligations for any yet-to-be-created right to collect royalties for the performance of Sound Recordings by any technology now or hereafter known. Any royalty rates, rate structure, definitions, terms, conditions and notice and recordkeeping requirements included in this Agreement shall be considered as a compromise motivated by the unique business, economic and political circumstances of webcasters, copyright owners, and performers, and the participation by NPR on behalf of itself and its member stations in *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, Docket No. 2009–1 CRB Webcasting III (the pending proceeding before the Copyright Royalty Judges to set statutory rates and terms for 2011–2015), rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller, or otherwise meet the objectives set forth in Section 801(b) of the Copyright Act.

2.4 *Reservation of Rights*. The Parties agree that the entering into of this Agreement shall be without prejudice to any of their respective positions in any proceeding with respect to the rates, terms or reporting obligations to be established for the making of Ephemeral Phonorecords or the digital audio transmission of Sound Recordings after the Term of this Agreement on or by Covered Entities under 17 U.S.C. 112 and 114 and their implementing regulations. The Parties further acknowledge and agree that the entering of this Agreement, the performance of its terms, and the acceptance of any payments and reporting by SoundExchange (i) do not express or imply any acknowledgement that CPB, Covered Entities, or any other persons are eligible for the statutory license of 17 U.S.C. 112 and 114, and (ii) shall not be used as evidence that CPB, the Covered Entities, or any other persons are acting in compliance with the provisions of 17 U.S.C. 114(d)(2)(A) or (C) or any other applicable laws or regulations.

Article 3—Scope of Agreement

3.1 General

(a) *Public Performances*. In consideration for the payment of the License Fee by CPB, SoundExchange agrees that Covered Entities that publicly perform under Section 114 all or any portion of any Sound Recordings through an Authorized Web Site, within the Territory, by means of Web Site Performances, may do so in accordance with and subject to the limitations set forth in this Agreement; *provided that:* (i) Such transmissions are made in strict conformity with the provisions of 17 U.S.C. 114(d)(2)(A) and (C); and (ii) such Covered Entities comply with all of the terms and conditions of this Agreement and all applicable copyright laws. For clarity, there is no limit to the number of Web Site Performances that a Covered Entity may transmit during the Term under the provisions of this Section 3.1(a), if such Web Site Performances otherwise satisfy the requirements of this Agreement.

(b) *Ephemeral Phonorecords*. In consideration for the payment of the License Fee by CPB, SoundExchange agrees that Covered Entities that make and use solely for purposes of transmitting Web Site Performances as described in Section 3.1(a), within the Territory, Phonorecords of all or any portion of any Sound Recordings (''*Ephemeral Phonorecords*''), may do so in accordance with and subject to the limitations set forth in this Agreement; *provided that:* (i) Such Phonorecords are limited solely to those necessary to encode Sound Recordings in different formats and at different bit rates as necessary to facilitate Web Site Performances licensed hereunder; (ii) such Phonorecords are made in strict conformity with the provisions set forth in 17 U.S.C. 112(e)(1)(A)–(D); and (iii) the Covered Entities comply with 17 U.S.C. 112 (a) and (e) and all of the terms and conditions of this Agreement.

3.2 *Limited Right to Sublicense*. Rights under this Agreement are not sublicensable, except that a Covered Entity may employ the services of a third Person to provide the technical services and equipment necessary to deliver Web Site Performances on behalf of such Covered Entity pursuant to Section 3.1, but only through an Authorized Web Site. Any agreement between a Covered Entity and any third Person for such services shall (i) contain the substance of all terms and conditions of this Agreement and obligate such third Person to provide all such services in accordance with all applicable terms and conditions of this Agreement, including, without limitation, Articles 3, 5 and 6; (ii) specify that such third Person shall have no right to make Web Site Performances or any other performances or Phonorecords on its own behalf or on behalf of any Person or entity other than a Covered Entity through the Covered Entity's Authorized Web Site by virtue of this Agreement, including in the case of Phonorecords, pre-encoding or otherwise establishing a library of Sound Recordings that it offers to a Covered Entity or others for purposes of making performances, but instead must obtain all necessary licenses from SoundExchange, the copyright owner or another duly authorized Person, as the case may be; (iii) specify that such third Person shall have no right to grant any further sublicenses; and (iv) provide that SoundExchange is an intended third-party beneficiary of all such obligations with the right to enforce a breach thereof against such third party.

3.3 Limitations

(a) *Reproduction of Sound Recordings*. Except as provided in Section 3.2, nothing in this Agreement grants Covered Entities, or authorizes Covered Entities to grant to any other Person (including, without limitation, any Web Site User, any operator of another Web Site or any authorized sublicensee), the right to reproduce by any means, method or process whatsoever, now known or hereafter developed, any Sound Recordings, including, but not limited to, transferring or

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downloading any such Sound Recordings to a computer hard drive, or otherwise copying the Sound Recording onto any other storage medium.

(b) *No Right of Public Performance*. Except as provided in Section 3.2, nothing in this Agreement authorizes Covered Entities to grant to any Person the right to perform publicly, by means of digital transmission or otherwise, any Sound Recordings.

(c) *No Implied Rights*. The rights granted in this Agreement extend only to Covered Entities and grant no rights, including by implication or estoppel, to any other Person, except as expressly provided in Section 3.2. Without limiting the generality of the foregoing, this Agreement does not grant to Covered Entities (i) any copyright ownership interest in any Sound Recording; (ii) any trademark or trade dress rights; (iii) any rights outside the Territory; (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other Person; or (v) any rights outside the scope of a statutory license under 17 U.S.C. 112(e) and 114.

(d) *Territory*. The rights granted in this Agreement shall be limited to the Territory.

(e) *No Syndication Rights*. Nothing in this Agreement authorizes any Web Site Performances to be accessed by Web Site Users through any Web Site other than an Authorized Web Site.

3.4 *Effect of Non-Performance by any Covered Entity*. In the event that any Covered Entity breaches or otherwise fails to perform any of the material terms of this Agreement it is required to perform (including any obligations applicable under Section 112 or 114), or otherwise materially violates the terms of this Agreement or Section 112 or 114 or their implementing regulations, the remedies of SoundExchange shall be specific to that Covered Entity only, and shall include, without limitation, (i) termination of that Covered Entity's rights hereunder upon written notice to CPB, and (ii) the rights of SoundExchange and Copyright owners under applicable law. SoundExchange's remedies for such a breach or failure by an individual Covered Entity shall not include termination of this Agreement in its entirety or termination of the rights of other Covered Entities, except that if CPB breaches or otherwise fails to perform any of the material terms of this Agreement, or such a breach or failure by a Covered Entity results from CPB's inducement, and CPB does not cure such breach or failure within thirty (30) days after receiving notice thereof from SoundExchange, then SoundExchange may terminate this Agreement in its entirety, and a prorated portion of the License Fee for the remainder Term shall, after deduction of any damages payable to SoundExchange by virtue of the breach or failure, be credited to statutory royalty obligations of Covered Entities to SoundExchange for the Term as specified by CPB.

Article 4—Consideration

4.1 *License Fee*. The total license fee for all Web Site Performances and Ephemeral Phonorecords made during the Term shall be two million four hundred thousand dollars ($2,400,000) (the ''*License Fee*''), unless additional payments are required as described in Section 4.3 or 4.4. CPB shall pay such amount to SoundExchange in five equal installments of four hundred eighty thousand dollars ($480,000) each, which shall be due December 31, 2010 and annually thereafter through December 31, 2014.

4.2 *Calculation of License Fee*. The Parties acknowledge that the License Fee includes: (i) an annual minimum fee of five hundred dollars ($500) for each Covered Entity for each year during the Term; (ii) additional usage fees calculated at a royalty rate equal to one third the royalty rate applicable to commercial broadcasters under the Webcaster Settlement Act of 2008 (*see* 74 FR 9299 (March 3, 2009)); and (iii) a discount that reflects the administrative convenience to SoundExchange of receiving annual lump sum payments that cover a large number of separate entities, as well as the protection from bad debt that arises from being paid in advance.

4.3 Total Music ATH True-Up

(a) If the total Music ATH for all Covered Entities, in the aggregate for any calendar year during the period 2011–2015, as reported or estimated in accordance with Attachment 1, is greater than the Music ATH cap for the year specified in the table below, CPB shall make an additional payment to SoundExchange for all such Music ATH in excess of such Music ATH cap for all Covered Entities in the aggregate on the basis of the per performance rate for the year specified in the table below, which shall be applied to excess Music ATH by assuming twelve (12) performances for each hour of excess Music ATH:

Year	Music ATH cap	Per performance rate
2011	279,500,000	$0.00057
2012	280,897,500	0.00067
2013	282,301,988	0.00073
2014	283,713,497	0.00077
2015	285,132,065	0.00083

(b) Payments under Section 4.3(a) shall be due no later than March 1 of the year following the year to which they pertain. SoundExchange may distribute royalties paid under Section 4.3(a) in accordance with its generally-applicable methodology for distributing royalties paid on the basis of ATH.

(c) Notwithstanding the foregoing provisions of this Section 4.3, CPB shall not be required to make payments under this Section 4.3 exceeding four hundred eighty thousand dollars ($480,000) in the aggregate during the Term. Because the limitation stated in the immediately preceding sentence is to be applied in the aggregate over the Term, CPB shall make all payments otherwise due under this Section 4.3 for excess Music ATH until such time as such payments, if any, for the Term reach four hundred eighty thousand dollars ($480,000) in the aggregate, and thereafter CPB shall owe no further payments under Section 4.3(a) regardless of the amount of excess Music ATH.

4.4 *Station Growth True-Up:* If the total number of Originating Public Radio Stations that wish to make Web Site Performances in any calendar year exceeds the number of such Originating Public Radio Stations considered Covered Entities in the relevant year, and the excess Originating Public Radio Stations do not wish to pay royalties for such Web Site Performances apart from this Agreement, CPB may elect by written notice to SoundExchange to increase the number of Originating Public Radio Stations considered Covered Entities in the relevant year effective as of the date of the notice. To the extent of any such elections, CPB shall make an additional payment to SoundExchange for each calendar year or part thereof it elects to have an additional Originating Public Radio Station considered a Covered Entity, in the amount of five hundred dollars ($500) per Originating Public Radio Station per year. Such payment shall accompany the notice electing to have an additional Originating Public Radio Station considered a Covered Entity.

4.5 *Late Fee*. The Parties hereby agree to the terms set forth in 37 CFR 380.4(e) as if that section (and the applicable definitions provided in 37 CFR 380.2) were set forth herein.

4.6. Payments to Third Persons

(a) SoundExchange and CPB agree that, except as provided in Section 4.6(b), all obligations of, *inter alia*, clearance, payment or attribution to third Persons, including, by way of example and not limitation, music publishers and performing rights organizations (PROs) for use of the musical compositions embodied in Sound Recordings, shall be solely the responsibility of CPB and the Covered Entities.

(b) SoundExchange and CPB agree that all obligations of distribution of the License Fee to Copyright Owners and Performers in accordance with 37 CFR 380.4(g) shall be solely the responsibility of SoundExchange. In making such distribution, SoundExchange has discretion to allocate the License Fee between Section 112 and 114 in the same manner as the majority of other webcasting royalties.

Article 5—Reporting, Auditing and Confidentiality

5.1 *Reporting*. CPB and Covered Entities shall submit reports of use and other information concerning Web Site Performances as set forth in Attachments 1 and 2.

5.2 *Verification of Information*. The Parties hereby agree to the terms set forth in 37 CFR 380.4(h) and 380.6 as if those sections (and the applicable definitions provided in 37 CFR 380.2) were set forth herein. The exercise by SoundExchange of any right under this Section 5.2 shall not prejudice any other rights or remedies of SoundExchange.

5.3 *Confidentiality*. The Parties hereby agree to the terms set forth in 37 CFR 380.5 as if that section (and the applicable definitions provided in 37 CFR 380.2) were set forth herein, except that:

(a) The following shall be added to the end of the first sentence of § 380.5(b): ''or documents or information that become publicly known through no fault of

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SoundExchange or are known by SoundExchange when disclosed by CPB'';

(b) the following shall be added at the end of § 380.5(c): ''and enforcement of the terms of this Agreement''; and

(c) the following shall be added at the end of § 380.5(d)(4): ''subject to the provisions of Section 2.3 of this Agreement''.

Article 6—Non-Participation in Further Proceedings

CPB and any Covered Entity making Web Site Transmissions in reliance on this Agreement shall not directly or indirectly participate as a party, *amicus curiae* or otherwise, or in any manner give evidence or otherwise support or assist, in any further proceedings to determine royalty rates and terms for digital audio transmission or the reproduction of Ephemeral Phonorecords under Section 112 or 114 of the Copyright Act for all or any part of the Term, including *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, Docket No. 2009–1 CRB Webcasting III, any appeal of the determination in such case, any proceedings on remand from such an appeal, or any other related proceedings, unless subpoenaed on petition of a third party (without any action by CPB or a Covered Entity to encourage such a petition) and ordered to testify in such proceeding. Notwithstanding anything to the contrary herein, any entity that is eligible to be treated as a ''Covered Entity'' but that that does not elect to be treated as a Covered Entity may elect to participate in such proceedings.

Article 7—Term and Termination

7.1 *Term.* The term of this Agreement commences as of January 1, 2011, and ends as of December 31, 2015 (''*Term*''). Through August 27, 2009, CPB shall have the right to rescind this Agreement in its entirety by notifying SoundExchange in writing that it wishes to exercise such right; provided however, that CPB may only exercise such right in the event that the Board of Directors of CPB fails to approve CPB's entering into the Agreement. As conditions precedent to reliance on the terms of this Agreement by any Covered Entity, (a) CPB must pay the License Fee as and when specified in Section 4.1, and (b) NPR must withdraw from participation in the proceeding before the Copyright Royalty Judges entitled *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, Docket No. 2009–1 CRB Webcasting III (*see* 74 FR 318 (Jan. 5, 2009)) by no later than September 3, 2009 (which NPR has agreed to do if CPB does not exercise its right of rescission).

7.2 *Mutual Termination.* This Agreement may be terminated in writing upon mutual agreement of the Parties.

7.3 Consequences of Termination

(a) *Survival of Provisions.* In the event of the expiration or termination of this Agreement for any reason, the terms of this Agreement shall immediately become null and void, and cannot be relied upon for making any further Web Site Performances or Ephemeral Phonorecords, except that (i) Articles 6 and 8 and Sections 2.3, 2.4, 3.3, 5.2, 5.3 and 7.3 shall remain in full force and effect; and (ii) Article 4 and Section 5.1 shall remain in effect after the expiration or termination of this Agreement to the extent obligations under Article 4 or Section 5.1 accrued prior to any such termination or expiration.

(b) *Applicability of Copyright Law.* Any Web Site Performances made by a Covered Entity or other Originating Public Radio Station in violation of the terms of this Agreement or Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with this Agreement), outside the scope of this Agreement, or after the expiration or termination of this Agreement for any reason shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106(6), the remedies in 17 U.S.C. 501 *et seq.*, the provisions of 17 U.S.C. 112(e) and 114, and their implementing regulations unless the Parties have entered into a new agreement for such Web Site Performances.

Article 8—Miscellaneous

8.1 *Applicable Law and Venue.* This Agreement shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising directly or indirectly from or in connection with this Agreement shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC, or if it does not have subject matter jurisdiction, other courts located in the District of Columbia. The Parties and Covered Entities, to the extent permitted under their State or Tribal law, consent to the jurisdiction and venue of the foregoing court and consent that any process or notice of motion or other application to said court or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the Person for which it is intended at its address set forth in this Agreement (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

8.2 *Rights Cumulative.* The remedies provided in this Agreement and available under applicable law shall be cumulative and shall not preclude assertion by any Party of any other rights or the seeking of any other remedies against the other Party hereto. This Agreement shall not constitute a waiver of any violation of Section 112 or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with this Agreement). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. Neither this Agreement nor any such failure or delay shall give rise to any defense in the nature of laches or estoppel. No single or partial exercise of any right, power or privilege granted under this Agreement or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by either Party of full performance by the other Party in any one or more instances shall be a waiver of the right to require full and complete performance of this Agreement and of obligations under applicable law thereafter or of the right to exercise the remedies of SoundExchange under Section 3.4.

8.3 *Severability.* Whenever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be prohibited by or invalid under applicable law, such provisions shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

8.4 *Amendment.* This Agreement may be modified or amended only by a writing signed by the Parties.

8.5 *Entire Agreement.* This Agreement expresses the entire understanding of the Parties and supersedes all prior and contemporaneous agreements and undertakings of the Parties with respect to the subject matter hereof.

8.6 *Headings.* The titles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

In Witness Whereof, the Parties hereto have executed this Agreement as of the date first above written.

Attachment 1—Reporting

1. *Definitions.* The following terms shall have the meaning set forth below for purposes of this Attachment 1. All other capitalized terms shall have the meaning set forth in Article 1 of the Agreement.

(a) ''*Content Logs''* shall have the meaning set forth in Section 3(a)(ii) of this Attachment 1.

(b) ''*Major Format Group''* shall mean each of the following format descriptions characterizing the programming offered by various Covered Entities: (i) Classical; (ii) jazz; (iii) music mix; (iv) news and information; (v) news/classical; (vi) news/jazz; (vii) news/music mix; and (viii) adult album alternative. A Covered Entity's Major Format Group is determined based on the format description best describing the programming of the principal broadcast service offered by the Covered Entity and will include all channels streamed.

(c) ''*Reporting Data''* shall mean, for each Sound Recording for which Reporting Data is to be provided, (1) the relevant Covered Entity (including call sign and community of license of any terrestrial broadcast station and any Side Channel(s)); (2) the title of the song or track performed; (3) the featured recording artist, group, or orchestra; (4) the title of the commercially available album or other product on which the Sound Recording is found; (5) the marketing label of the commercially available album or other product on which the sound recording is found; and (6) play frequency.

2. *General.* All data required to be provided hereunder shall be provided to SoundExchange electronically in the manner provided in 37 CFR 370.3(d), except to the extent the parties agree otherwise. CPB shall consult with SoundExchange in advance

concerning the content and format of all data to be provided hereunder, and shall provide data that is accurate, to the best of CPB's and the relevant Covered Entity's knowledge, information and belief. The methods used to make estimates, predictions and projections of data shall be subject to SoundExchange's prior written approval, which shall not be unreasonably withheld.

3. *Data Collection and Reporting.* CPB shall provide data regarding Web Site Performances during the Term to SoundExchange, and Covered Entities shall provide such data to CPB, consistent with the following terms:

(a) *ATH and Content Logs.* For each calendar quarter during the Term:

(i) *Music ATH Reporting.* CPB shall provide reports (the ''ATH Reports'') of Music ATH by all Covered Entities. Such ATH reports shall be accompanied by the Content Logs described in Section 3(a)(ii) for the periods described therein for all Covered Entities. All ATH Reports and Content Logs for a quarter shall be provided by CPB together in one single batch, but all data shall be broken out by Covered Entity and identify each Covered Entity's Major Format Group. The ATH Reports shall be in a form similar to CPB's Streaming Census Report dated October 18, 2007, except as otherwise provided in this Section 3(a)(i).

(ii) *Reporting Period and Data.* The information about Music ATH referenced in Section 3(a)(i) shall be collected from Covered Entities for two 7-consecutive-day reporting periods per quarter. The ATH Reports shall be provided within thirty (30) days of the end of each calendar quarter. During these reporting periods, Covered Entities shall prepare logs containing Reporting Data for all their Web Site Performances (''*Content Logs''*). These Content Logs shall be compared with server-based logs of Music ATH throughout the reporting period before the ATH Report is submitted to SoundExchange.

(iii) *Additional Data Reporting.* Each quarter, CPB shall, for Covered Entities representing the highest 30% of reported Music ATH, provide SoundExchange Reporting Data collected continuously during each 24 hour period for the majority of their Web Site Performances, along with the Covered Entity's Music ATH, for the relevant quarter. If during any calendar quarter of the Term, additional Covered Entities, in the ordinary course of business, collect Reporting Data continuously during each 24 hour period for the majority of their Web Site Performances, CPB shall provide SoundExchange such data, along with each such Covered Entity's Music ATH, for the relevant quarter.

(b) *ATH and Format Surveys.* CPB shall semiannually survey all Covered Entities to ascertain the number, format and Music ATH of all channels (including but not limited to Side Channels) over which such Covered Entities make Web Site Performances. CPB shall provide the results of such survey to SoundExchange within sixty (60) days after the end of the semiannual period to which it pertains.

(c) *Consolidated Reporting.* Each quarter, CPB shall provide the information required by this Section 3 in one delivery to SoundExchange, with a list of all Covered Entities indicating whether any are not reporting for such quarter.

(d) *Timing.* Except as otherwise provided above, all information required to be provided to SoundExchange under this Section 3 shall be provided as soon as practicable, and in any event by no later than sixty (60) days after the end of the quarter to which it pertains. Such data shall be provided in a format consistent with Attachment 2.

Attachment 2—Reporting Format

1. *Format for Reporting Data.* All Reporting Data provided under Attachment 1, Section 3(a)(ii) shall be delivered to SoundExchange in accordance with the following format:

Column 1 Station or Side Channel
Column 2 Sound Recording Title
Column 3 Featured Artist, Group or Orchestra
Column 4 Album
Column 5 Marketing Label
Column 6 Play Frequency

2. *Format for Music ATH.* All Music ATH reporting by Covered Entities under Attachment 1 shall be delivered to SoundExchange in accordance with the following format:

Column 1 Station or Side Channel
Column 2 Major Format Group
Column 3 ATH
Column 4 Reporting Period

3. *Major Format Groups.* All requirements to provide ''Major Format Group'' as that term is defined in Attachment 1, Section 1(b), shall correspond with one of the following:

Major Format Groups
Classical
Jazz
Music Mix
News and Information
News/Classical
News/Jazz
News/Music Mix
Adult Album Alternative

Appendix D—Agreed Rates and Terms for Noncommercial Webcasters

Article 1—Definitions

1.1 *General.* In general, words used in the rates and terms set forth herein (the ''Rates and Terms'') and defined in 17 U.S.C. 112(e) or 114 or 37 CFR Part 380 shall have the meanings specified in those provisions as in effect on the date hereof, with such exceptions or clarifications set forth in Section 1.2.

1.2 Additional Definitions

(a) ''*Aggregate Tuning Hour'' or ''ATH''* shall have the same meaning as set forth in the applicable regulations at 37 CFR 380.2(a) as it existed on July 30, 2009.

(b) ''*Broadcast Retransmissions''* shall mean Eligible Transmissions that are retransmissions of terrestrial over-the-air broadcast programming transmitted by the Noncommercial Webcaster through its AM or FM radio station, including ones with substitute advertisements or other programming occasionally substituted for programming for which requisite licenses or clearances to transmit over the Internet have not been obtained. For the avoidance of doubt, a Broadcast Retransmission does not include programming transmitted on an Internet-only side channel.

(c) ''*Eligible Transmission''* shall mean an eligible nonsubscription transmission made by a Noncommercial Webcaster over the Internet.

(d) ''*Noncommercial Microcaster''* shall mean a Noncommercial Webcaster that for any of its channels or stations over which it transmits Broadcast Retransmissions, and for all of its channels and stations over which it transmits other Eligible Transmissions in the aggregate, in any calendar year in which it is to be considered a Noncommercial Microcaster, meets the following additional eligibility criteria: (i) During the prior year did not make eligible nonsubscription transmissions exceeding 44,000 aggregate tuning hours; and (ii) during the applicable year reasonably does not expect to make eligible nonsubscription transmissions exceeding 44,000 aggregate tuning hours; provided that, one time during the period 2006–2015, a Noncommercial Webcaster that qualified as a Noncommercial Microcaster under the foregoing definition as of January 31 of one year, elected Noncommercial Microcaster status for that year, and unexpectedly made Eligible Transmissions on one or more channels or stations in excess of 44,000 aggregate tuning hours during that year, may choose to be treated as a Noncommercial Microcaster during the following year notwithstanding clause (i) above if it implements measures reasonably calculated to ensure that it will not make Eligible Transmissions exceeding 44,000 aggregate tuning hours during that following year. Without limitation, as to channels or stations over which a Noncommercial Webcaster transmits Broadcast Retransmissions, the Noncommercial Webcaster may elect Noncommercial Microcaster status only with respect to its channels or stations that meet both of the foregoing criteria.

(e) ''*Noncommercial Webcaster''* shall mean a noncommercial webcaster as defined in 17 U.S.C. 114(f)(5)(E)(i). A Noncommercial Webcaster that owns or operates multiple terrestrial AM or FM radio stations may elect to treat each such terrestrial AM or FM radio station as a separate Noncommercial Webcaster.

(f) ''*SoundExchange''* shall mean SoundExchange, Inc. and shall include its successors and assigns.

Article 2—Agreement Pursuant to Webcaster Settlement Act of 2009

2.1 *Availability of Rates and Terms.* Pursuant to the Webcaster Settlement Act of 2009, and subject to the provisions set forth below, a Noncommercial Webcaster may elect to be subject to the rates and terms set forth herein (the ''Rates and Terms'') in their entirety, with respect to such Noncommercial Webcaster's Eligible Transmissions and related ephemeral recordings, for any calendar year that it qualifies as a Noncommercial Webcaster during the period beginning on January 1, 2006, and ending on December 31, 2015, in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, by complying with the procedure set forth in Section 2.2 hereof. Any person or entity that does not satisfy the eligibility criteria to be a Noncommercial Webcaster and make a timely election pursuant to Section 2.2 must comply with otherwise applicable rates and terms.

2.2 *Election Process in General.* A Noncommercial Webcaster that wishes to elect to be subject to these Rates and Terms, in lieu of any royalty rates and terms that otherwise might apply under 17 U.S.C. 112(e) and 114, for any calendar year that it qualifies as a Noncommercial Webcaster during the period beginning on January 1, 2006, and ending on December 31, 2015, shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by no later than January 31 of the applicable year, except that election forms for 2006–2009 shall be due by no later than September 15, 2009. Notwithstanding the immediately preceding sentence, if a Noncommercial Webcaster has not previously made digital audio transmissions of sound recordings under the section 114 statutory license, the Noncommercial Webcaster may make its election by no later than 30 days after the Noncommercial Webcaster begins making such transmissions under the section 114 statutory license. On any such election form, the Noncommercial Webcaster must, among other things, certify that it qualifies as a Noncommercial Webcaster, and SoundExchange shall require only such information on that form as is reasonably necessary to determine the Noncommercial Webcaster's election. If a Noncommercial Webcaster has elected to be treated as a Noncommercial Webcaster in any calendar year, that election shall apply to subsequent calendar years unless the Noncommercial Webcaster notifies SoundExchange by January 31 of the relevant year that it is revoking that election in favor of otherwise applicable rates. Notwithstanding anything else in these Rates and Terms, a person or entity otherwise qualifying as a Noncommercial Webcaster that has participated in any way in the appeal of the Final Determination of the Copyright Royalty Judges concerning royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2006, through December 31, 2010 published in the **Federal Register** at 72 FR 24084 (May 1, 2007) (the ''Final Determination''), any proceedings before the Copyright Royalty Judges on remand from such appeal, or any proceeding before the Copyright Royalty Judges to determine royalty rates and terms under Sections 112(e) and 114 of the Copyright Act for the period January 1, 2011, through December 31, 2015 (including Docket No. 2009–1 CRB Webcasting III and Docket No. 2009–2 CRB New Subscription II, as noticed in the **Federal Register** at 74 FR 318–20 (Jan. 5, 2009)) shall not have the right to elect to be treated as a Noncommercial Webcaster or claim the benefit of these Rates and Terms, unless, prior to submitting to SoundExchange a completed and signed election form as contemplated by this Section 2.2, it withdraws from (a) any such proceedings before the Copyright Royalty Judges and (b) the appeal of the Final Determination if the U.S. Court of Appeals of the DC Circuit still retains jurisdiction over that appeal at the time such election is made.

2.3 *Election of Noncommercial Microcaster Status.* A Noncommercial Webcaster that elects to be subject to these Rates and Terms and qualifies as a Noncommercial Microcaster may elect to be treated as a Noncommercial Microcaster for any one or more calendar years that it qualifies as a Noncommercial Microcaster. To do so, the Noncommercial Webcaster shall submit to SoundExchange a completed and signed election form (available on the SoundExchange Web site at *http://www.soundexchange.com*) by no later than January 31 of the applicable year, except that election forms for 2006–2009 shall be due by no later than September 15, 2009. Notwithstanding the immediately preceding sentence, if a Noncommercial Webcaster has not previously made digital audio transmissions of sound recordings under the section 114 statutory license, the Noncommercial Webcaster may make its election to be treated as a Noncommercial Microcaster by no later than 30 days after the Noncommercial Webcaster begins making such transmissions under the section 114 statutory license. On any such election form, the Noncommercial Webcaster must, among other things, certify that it qualifies as a Noncommercial Microcaster; provide information about its prior year aggregate tuning hours and the genres of music it uses; and use commercially reasonable efforts to provide such other information as may be reasonably requested by SoundExchange for use in creating a royalty distribution proxy. Even if a Noncommercial Webcaster has once elected to be treated as a Noncommercial Microcaster, it must make a separate, timely election in each subsequent year in which it wishes to be treated as a Noncommercial Microcaster.

2.4 *Representation of Compliance and Non-waiver.* By accepting an election by a transmitting entity or payments or reporting made pursuant to these Rates and Terms, SoundExchange does not acknowledge that the transmitting entity qualifies as a Noncommercial Webcaster or Noncommercial Microcaster or that it has complied with the eligibility or other requirements of the statutory licenses under Sections 112(e) and 114 of the Copyright Act (including these Rates and Terms). SoundExchange is not in a position to, and does not, make determinations as to whether each of the many services that rely on the statutory licenses is eligible for statutory licensing or any particular royalty payment classification, nor does it continuously verify that such services are in full compliance with all applicable requirements. Accordingly, a transmitting entity agrees that SoundExchange's acceptance of its election, payment or reporting does not give or imply any acknowledgment that it is in compliance with the requirements of the statutory licenses (including these Rates and Terms). SoundExchange and copyright owners reserve all their rights to take enforcement action against a transmitting entity that is not in compliance with those requirements.

Article 3—Scope

3.1 *In General.* In consideration for the payment of royalties pursuant to Article 4 and such other consideration specified herein, Noncommercial Webcasters that have made a timely election to be subject to these Rates and Terms as provided in Section 2.2 are entitled to publicly perform sound recordings within the scope of the statutory license provided by Section 114 by means of Eligible Transmissions, and to make related ephemeral recordings for use solely for purposes of such Eligible Transmissions within the scope of Section 112(e), in accordance with and subject to the limitations set forth in these Rates and Terms and with the provisions of 17 U.S.C. 112(e) and 114 and their implementing regulations (except as otherwise specifically provided herein), in lieu of other rates and terms from time to time applicable under 17 U.S.C. 112(e) and 114, for any calendar year that they qualify as a Noncommercial Webcaster, and have made such an election, during the period beginning on January 1, 2006, and ending on December 31, 2015.

3.2 *Applicability to All Eligible Services Operated by or for a Noncommercial Webcaster.* If a Noncommercial Webcaster has made a timely election to be subject to these Rates and Terms as provided in Section 2.2, these Rates and Terms shall apply to all Eligible Transmissions made by or for the Noncommercial Webcaster that qualify as Performances under 37 CFR 380.2(i), and related ephemeral recordings. For the avoidance of doubt, a Noncommercial Webcaster may not rely upon these Rates and Terms for its Eligible Transmissions of one broadcast channel or station and upon different Section 114 rates and terms for its Eligible Transmissions of other broadcast channels or stations.

3.3 *No Implied Rights.* These Rates and Terms extend only to electing Noncommercial Webcasters and grant no rights, including by implication or estoppel, to any other person or except as specifically provided herein. Without limiting the generality of the foregoing, these Rates and Terms do not grant (i) any copyright ownership interest in any sound recording; (ii) any trademark or trade dress rights; (iii) any rights outside the United States (as defined in 17 U.S.C. 101); (iv) any rights of publicity or rights to any endorsement by SoundExchange or any other person; or (v) any rights with respect to performances or reproductions outside the scope of these Rates and Terms or the statutory licenses under 17 U.S.C. 112(e) and 114.

Article 4—Royalties

4.1 *Minimum Fees.* Each Noncommercial Webcaster shall pay SoundExchange an annual, nonrefundable minimum fee of $500 for each of its individual channels or stations over which it makes Eligible Transmissions, including each of its individual side channels and each of its individual Broadcast Retransmission stations, for each calendar year or part of a calendar year during 2006–2015 during which the Noncommercial

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Webcaster is a licensee pursuant to licenses under 17 U.S.C. 112(e) and 114. Upon payment of the minimum fee, the Noncommercial Webcaster will receive a credit in the amount of the minimum fee against any royalties payable hereunder for the same calendar year for the same channel or station. In addition, an electing Noncommercial Microcaster also shall pay a $100 annual fee (the ''Proxy Fee'') to SoundExchange for the reporting waiver discussed in Section 5.1. Minimum fees and, where applicable, the Proxy Fee shall be paid by January 31 of each year.

4.2 Royalty Rates

(a) The nonrefundable minimum fee payable under Section 4.1 shall constitute full payment for Eligible Transmissions totaling not more than 159,140 aggregate tuning hours per month on the relevant channel or station. If, in any month, a Noncommercial Webcaster makes Eligible Transmissions on a channel or station in excess of 159,140 aggregate tuning hours, the Noncommercial Webcaster shall pay SoundExchange additional royalties for those Eligible Transmissions in excess of 159,140 aggregate tuning hours at the following rates, subject to an election as provided in Section 4.3:

(i) 2006–2010:

(a) $0.0002176 per performance; or

(b) $0.00251 per ATH, except in the case of channels or stations where substantially all of the programming is reasonably classified as news, talk, sports or business programming, in which case the royalty rate shall be $.0002 (.02¢) per aggregate tuning hour;

(ii) 2011–2015:

Year	Per performance rate
2011	$0.00057
2012	0.00067
2013	0.00073
2014	0.00077
2015	0.00083

(b) For a transitional period, to enable Noncommercial Webcasters to implement systems that enable payment on a per performance basis, for years 2011–2013, the Noncommercial Webcaster may pay for those Eligible Transmissions in excess of 159,140 aggregate tuning hours on an ATH basis, assuming 12 performances per hour, except in the case of channels or stations where substantially all of the programming is reasonably classified as news, talk, sports or business programming, in which case the Noncommercial Webcaster may assume one performance per hour, and calculate its payment based on the per performance rates in Section 4.2(a) above. In addition, in years 2014–2015, for a Noncommercial Webcaster unable to calculate actual total performances and not required to report ATH or actual total performances under Section 5.3, the Noncommercial Webcaster may pay for those Eligible Transmissions in excess of 159,140 aggregate tuning hours on an ATH basis using the estimates set forth in this provision and calculating its payment based on the per performance rates in Section 4.2(a) above. SoundExchange may distribute royalties paid on the basis of ATH hereunder in accordance with its generally applicable methodology for distributing royalties paid on such basis.

(c) For the avoidance of doubt, a Noncommercial Webcaster shall calculate its aggregate tuning hours of Eligible Transmissions on each channel or station each month and shall pay any additional royalties owed for such month as provided above in this Section 4.2, but the Noncommercial Webcaster shall not owe any additional royalties for any subsequent months until such time as the Noncommercial Webcaster again exceeds the 159,140 aggregate tuning hour threshold on any channel or station during a given month.

4.3 *Election of Per Performance or Aggregate Tuning Hour Rate.* A Noncommercial Webcaster must consistently pay any additional royalties hereunder based on either the per performance royalties or the aggregate tuning hour royalties set forth in Section 4.2 for all of its channels and stations within any calendar year. The first time each year a Noncommercial Webcaster is required to pay additional royalties under Section 4.2, the Noncommercial Webcaster shall elect to pay all of its additional royalties under Section 4.2 for all of its channels and stations during the remainder of the year based on either the per performance royalties or the aggregate tuning hour royalties set forth in Section 4.2. Thus, for example, a Noncommercial Webcaster may not in one month when its Eligible Transmissions exceed 159,140 aggregate tuning hours calculate its additional royalties based on the per performance royalty and in another month calculate its additional royalties based on the aggregate tuning hour royalty.

4.4 *Ephemeral Royalty.* The royalty payable under 17 U.S.C. 112(e) for any ephemeral reproductions made by a Noncommercial Webcaster and covered hereby is deemed to be included within the royalty payments set forth above. SoundExchange may allocate payments hereunder between the statutory licenses under Sections 112(e) and 114 in the same manner as statutory webcasting royalties for the period 2011–2015.

4.5 *Statements of Account.* A Noncommercial Webcaster shall submit to SoundExchange a monthly statement of account identifying its aggregate tuning hours of Eligible Transmissions for the month, regardless of whether the Noncommercial Webcaster is obligated to pay additional royalties under Section 4.2. Statements of Account, together with any payments required by Section 4.2, shall be due by the 45th day after the end of each month. Each statement of account shall identify (i) the name of the Noncommercial Webcaster, exactly as it appears on its notice of use, and (ii) if the statement covers a single AM or FM radio station only, the call letters of the station.

4.6 *Past Periods.* Notwithstanding anything else in this Agreement, to the extent that a Noncommercial Webcaster that elects to be subject to these Rates and Terms has not paid royalties for all or any part of the period beginning on January 1, 2006, and ending on July 31, 2009, any amounts payable under these Rates and Terms for Eligible Transmissions during such period for which payment has not previously been made shall be paid by no later than September 15, 2009, and for purposes of Section 4.7, any such outstanding payments shall be considered due no earlier than July 30, 2009. If a Noncommercial Webcaster has paid royalties to SoundExchange under the 17 U.S.C. 112(e) and 114 statutory licenses that exceed the amount due under these Rates and Terms, SoundExchange shall credit the amount of such overpayment against anticipated future royalties owed by that Noncommercial Webcaster under these Rates and Terms. If the Noncommercial Webcaster reasonably anticipates that it will not incur royalty payment obligations under these Rates and Terms that exceed the amount of such overpayment on or before December 31, 2010, SoundExchange shall return any excess amounts previously paid by that Noncommercial Webcaster.

4.7 *Late Fees.* A Noncommercial Webcaster shall pay a late fee for each instance in which any payment, any Statement of Account or any report of use is not received by SoundExchange in compliance with these Rates and Terms and applicable regulations by the due date. The amount of the late fee shall be 1.5% of the late payment, or 1.5% of the payment associated with a late Statement of Account or report of use, per month, compounded monthly, or the highest lawful rate, whichever is lower. The late fee shall accrue from the due date of the payment, statement of account or report of use until a fully-compliant payment, statement of account or report of use is received by SoundExchange, provided that, in the case of a timely provided but noncompliant statement of account or report of use, SoundExchange has notified the Noncommercial Webcaster within 90 days regarding any noncompliance that is reasonably evident to SoundExchange.

Article 5—Reporting

5.1 *In General.* On an experimental basis, for purposes of these Rates and Terms only, and in light of the unique business and operational circumstances currently existing with respect to these Noncommercial Webcasters, these Rates and Terms require less than census reporting in certain circumstances and require full census reporting in other circumstances. SoundExchange hopes that offering graduated reporting options to electing Noncommercial Webcasters will promote compliance with statutory license obligations and thereby increase the pool of royalties available to be distributed to copyright owners and performers.

5.2 *Noncommercial Microcasters.* Electing Noncommercial Microcasters shall not be required to provide reports of their use of sound recordings for Eligible Transmissions and related ephemeral recordings. The immediately preceding sentence applies even if the Noncommercial Microcaster actually makes Eligible Transmissions for the year exceeding 44,000 aggregate tuning hours, so long as it qualified

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as a Noncommercial Microcaster at the time of its election for that year. Instead, SoundExchange shall distribute the aggregate royalties paid by electing Noncommercial Microcasters based on proxy usage data in accordance with a methodology adopted by SoundExchange's Board of Directors. In addition to minimum royalties hereunder, electing Noncommercial Microcasters shall pay to SoundExchange a $100 Proxy Fee to defray costs associated with this reporting waiver, including development of proxy usage data. SoundExchange hopes that selection of a proxy believed by SoundExchange to represent fairly the playlists of the smallest webcasters will allow payment to more copyright owners and performers than would be possible with any other reasonably available option. If it is practicable for a Noncommercial Webcaster to report its usage pursuant to Section 5.4, it may wish not to elect Noncommercial Microcaster status.

5.3 *Census Reporting for Services Paying Usage-Based Additional Royalties for 2011–2015.* Beginning in 2011, a Noncommercial Webcaster must report its usage as provided in this Section 5.3 in the year following any year in which its average monthly Eligible Transmissions exceeds 159,140 aggregate tuning hours (i) on any channel or station over which it transmits Broadcast Retransmissions, or (ii) for all of its channels and stations over which it transmits other Eligible Transmissions in the aggregate. Such Noncommercial Webcasters shall submit reports of use in full compliance with then-applicable regulations (presently 37 CFR 370.3), except that notwithstanding the provisions of applicable regulations from time to time in effect, Noncommercial Webcasters shall submit reports of use on a census reporting basis (*i.e.,* reports of use shall include every sound recording performed in the relevant quarter and the number of plays thereof) and may report on an aggregate tuning hour basis as set forth in 5.4(a) below, and the provisions of Section 5.5 shall apply. Such reports must be submitted for any such channel or station over which it transmits Broadcast Retransmissions, and for all of its channels and stations over which it transmits other Eligible Transmissions in the aggregate, if the same had average monthly Eligible Transmissions exceeding 159,140 aggregate tuning hours. For the avoidance of doubt, if a Noncommercial Webcaster providing reports on a census basis pursuant to this provision does not make average monthly Eligible Transmissions exceeding 159,140 aggregate tuning hours on a channel or station for which it is submitting census reports pursuant to this section in a given calendar year, the Noncommercial Webcaster is entitled to revert to providing reports on a sample basis in accordance with Section 5.4(b) (*i.e.,* two weeks per calendar quarter) beginning in the following calendar year.

5.4 *Other Reporting by Noncommercial Webcasters.* A Noncommercial Webcaster that is not a Noncommercial Microcaster and is not required to report its usage under Section 5.3 must report its usage as provided in this Section 5.4. Such Noncommercial Webcasters shall submit reports of use in compliance with then-applicable regulations (presently 37 CFR 370.3), except that notwithstanding the provisions of applicable regulations from time to time in effect:

(a) Such Noncommercial Webcasters may report on an aggregate tuning hour basis (*i.e.,* reporting their total ATH on a channel, program or station) in lieu of providing actual total performances.

(b) Such Noncommercial Webcasters may report on a sample basis as presently provided in 37 CFR 370.3(c)(3) (*i.e.,* reporting their usage for two weeks per calendar quarter).

(c) The provisions of Section 5.5 shall apply.

5.5 *Detailed Requirements for Reports of Use.* Notwithstanding the provisions of applicable regulations from time to time in effect, the following provisions shall apply to all reports of use required hereunder:

(a) Noncommercial Webcasters shall submit reports of use to SoundExchange on a quarterly basis.

(b) Noncommercial Webcasters shall submit reports of use by no later than the 45th day following the last day of the quarter to which they pertain.

(c) Noncommercial Webcasters that are broadcasters transmitting Broadcast Retransmissions shall either submit a separate report of use for each of their stations transmitting Broadcast Retransmissions, or a collective report of use covering all of their stations but identifying usage on a station-by-station basis.

(d) Noncommercial Webcasters shall transmit each report of use in a file the name of which includes (i) the name of the Noncommercial Webcaster, exactly as it appears on its notice of use, and (ii) if the report covers a single AM or FM radio station only, the call letters of the station.

Article 6—Additional Provisions

6.1 *Applicable Regulations.* To the extent not inconsistent with the terms herein, use of sound recordings by Noncommercial Webcasters shall be governed by, and Noncommercial Webcasters shall comply with, applicable regulations, including 37 CFR Parts 370 and 380. Without limiting the foregoing, the provisions of applicable regulations for the retention of records and verification of statutory royalty payments (presently 37 CFR 380.4(h) and 380.6) shall apply hereunder. Noncommercial Webcasters shall cooperate in good faith with any such verification, and the exercise by SoundExchange of any right with respect thereto shall not prejudice any other rights or remedies of SoundExchange or sound recording copyright owners.

6.2 *Participation in Proceedings.* A Noncommercial Webcaster that elects to be subject to these Rates and Terms agrees that it has elected to do so in lieu of any different statutory rates and terms that may otherwise apply during any part of the 2006–2015 period and in lieu of participating at any time in a proceeding to set rates and terms for any part of the 2006–2015 period. Thus, once a Noncommercial Webcaster has elected to be subject to these Rates and Terms, it shall not at any time directly or indirectly participate as a party, intervenor, *amicus curiae* or otherwise, or in any manner give evidence or otherwise support or assist except pursuant to a subpoena or other formal discovery request, in any further proceedings to determine royalty rates and terms for reproduction of ephemeral phonorecords or digital audio transmission under Section 112(e) or 114 of the Copyright Act for all or any part of the period 2006–2015, including any appeal of the Final Determination, any proceedings on remand from such an appeal, any proceeding before the Copyright Royalty Judges to determine royalty rates and terms applicable to the statutory licenses under Sections 112(e) and 114 of the Copyright Act for the period 2011–2015, any appeal of such proceeding, or any other related proceedings.

6.3 *Use of Agreement in Future Proceedings.* Noncommercial Webcasters and SoundExchange agree that neither the Webcaster Settlement Act nor any provisions of these Rates and Terms shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges. These Rates and Terms shall be considered as a compromise motivated by the unique business, economic and political circumstances of Noncommercial Webcasters, copyright owners and performers rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller. No person or entity may, in any way, seek to use in any way these Rates and Terms in any such proceeding.

6.4 *Effect of Direct Licenses.* Any copyright owner may enter into a voluntary agreement with any Noncommercial Webcaster setting alternative rates and terms governing the Noncommercial Webcasters' transmission of copyrighted works owned by the copyright owner, and such voluntary agreement may be given effect in lieu of the Rates and Terms set forth herein.

6.5 *Default.* A Noncommercial Webcaster shall comply with all the requirements of these Rates and Terms. If it fails to comply in all material respects with the requirements of these Rates and Terms, SoundExchange may give written notice to the Noncommercial Webcaster that, unless the breach is remedied within 30 days from the date of receipt of notice, the Noncommercial Webcaster's authorization to make public performances and ephemeral reproductions under these Rates and Terms may be terminated upon further written notice. No such cure period shall apply before termination in case of material noncompliance that has been repeated multiple times so as to constitute a pattern of noncompliance, provided that SoundExchange has given repeated notices of noncompliance. Any transmission made by a Noncommercial Webcaster outside the scope of Section 112(e) or 114 or these Rates and Terms, or after the expiration or termination of these Rates and Terms shall be fully subject to, among other things, the copyright owners' rights under 17 U.S.C. 106 and the remedies in 17 U.S.C. 501–506, and all limitations, exceptions and defenses available with respect thereto.

Article 7—Miscellaneous

7.1 *Applicable Law.* These Rates and Terms shall be governed by, and construed in accordance with, the laws of the District of Columbia (without giving effect to conflicts of law principles thereof). All actions or proceedings arising under these Rates and Terms shall be litigated only in the United States District Court for the District of Columbia located in Washington, DC, or if it does not have subject matter jurisdiction, in other courts located in Washington, DC. SoundExchange and Noncommercial Webcasters consent to the jurisdiction and venue of the foregoing courts and consent that any process or notice of motion or other application to said courts or a judge thereof may be served inside or outside the District of Columbia by registered mail, return receipt requested, directed to the person for which it is intended at its last known address (and service so made shall be deemed complete five (5) days after the same has been posted as aforesaid) or by personal service or in such other manner as may be permissible under the rules of that court.

7.2 *Rights Cumulative.* The remedies provided in these Rates and Terms and available under applicable law shall be cumulative and shall not preclude assertion by any party of any other rights or the seeking of any other remedies against another party hereto. These Rates and Terms shall not constitute a waiver of any violation of Section 112(e) or 114 or their implementing regulations (except to the extent such implementing regulations are inconsistent with these Rates and Terms). No failure to exercise and no delay in exercising any right, power or privilege shall operate as a waiver of such right, power or privilege. Neither these Rates and Terms nor any such failure or delay shall give rise to any defense in the nature of laches or estoppel. No single or partial exercise of any right, power or privilege granted under these Rates and Terms or available under applicable law shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. No waiver by any party of full performance by another party in any one or more instances shall be a waiver of the right to require full and complete performance of these Rates and Terms and of obligations under applicable law thereafter.

7.3 *Entire Agreement.* These Rates and Terms represent the entire and complete agreement between SoundExchange and a Noncommercial Webcaster with respect to their subject matter and supersede all prior and contemporaneous agreements and undertakings of SoundExchange and a Noncommercial Webcaster with respect to the subject matter hereof.

[FR Doc. E9–19299 Filed 8–11–09; 8:45 am]

BILLING CODE 1410–30–P

NATIONAL SCIENCE FOUNDATION

Agency Information Collection Activities: Comment Request

AGENCY: National Science Foundation.

ACTION: Submission for OMB Review; Comment Request.

SUMMARY: The National Science Foundation (NSF) has submitted the following information collection requirement to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. This is the second notice for public comment; the first was published in the **Federal Register** at 74 FR 12153, and no substantial comments were received. NSF is forwarding the proposed renewal submission to the Office of Management and Budget (OMB) for clearance simultaneously with the publication of this second notice. The full submission may be found at: *http://www.reginfo.gov/public/do/PRAMain*. Comments regarding (a) whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; or (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology should be addressed to: Office of Information and Regulatory Affairs of OMB, *Attention:* Desk Officer for National Science Foundation, 725 17th Street, NW., Room 10235, Washington, DC 20503, and to Suzanne Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 295, Arlington, Virginia 22230 or send e-mail to *splimpto@nsf.gov*. Comments regarding these information collections are best assured of having their full effect if received within 30 days of this notification. Copies of the submission(s) may be obtained by calling 703–292–7556.

FOR FURTHER INFORMATION CONTACT: Written comments regarding the information collection and requests for copies of the proposed information collection request should be addressed to Suzanne Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Blvd., Rm. 295, Arlington, VA, 22230, or by e-mail to *splimpto@nsf.gov*.

NSF may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

SUPPLEMENTARY INFORMATION: *Title of Collection:* Research in Disabilities Education Program On-Line Project Data Management System.

OMB Control No.: 3145–0164.

Abstract

The National Science Foundation (NSF) requests a reinstatement of the information collection for the Program for Persons with Disabilities, now called the Research in Disabilities Education (RDE) program. This on-line, annual data collection will describe and track the impact of RDE program funding on Nation's science, technology, engineering and mathematics (STEM) education and STEM workforce.

NSF funds grants, contracts, and cooperative agreements to colleges, universities, and other eligible institutions, and provides graduate research fellowships to individuals in all parts of the United States and internationally. The Directorate for Education and Human Resources (EHR), a unit within NSF, promotes rigor and vitality within the Nation's STEM education enterprise to further the development of the 21st century's STEM workforce and public scientific literacy. EHR does this through diverse projects and programs that support research, extension, outreach, and hands-on activities serving STEM learning and research at all institutional (*e.g.* pre-school through postdoctoral) levels in formal and informal settings; and individuals of all ages (birth and beyond). The RDE program focuses specifically on broadening the participation and achievement of people with disabilities in all fields of STEM education and associated professional careers. The RDE program has been funding this objective since 1994 under the prior name Program for Persons with Disabilities. Particular emphasis is placed on contributing to the knowledge base by addressing disability related differences in secondary and post-secondary STEM learning and in the educational, social and pre-professional experiences that influence student interest, academic performance, retention in STEM degree programs,

SX EX. 055-15-RP

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

TESTIMONY OF

JONATHAN BENDER

Chief Operating Officer, SoundExchange, Inc.

PUBLIC VERSION

Witness for SoundExchange, Inc.

I. **Introduction**

I am the Chief Operating Officer of SoundExchange, Inc. ("SoundExchange"), a position I've held since September 2011. I detailed my professional experience and background in my written direct testimony addressing a variety of administrative and operational issues related to the statutory license.

In this testimony, I will again address administrative and operational issues, including responding directly to proposals raised by other participants. To do this, I have reviewed all of the services' written direct testimony that addresses proposed changes to the terms that govern the statutory license. This included the testimony of Pandora witness Michael Herring ("Herring WDT"), NAB witnesses Steven Newberry ("Newberry WDT") and Jean-Francois Gadoury ("Gadoury WDT"), NRBNMLC witnesses Gene Henes ("Henes WDT") and Joseph Emert ("Emert WDT"), and AccuRadio witness Kurt Hanson ("Hanson WDT"). I have also reviewed the Proposed Rates and Terms that were submitted by Pandora, iHeartMedia, NAB, and NRBNMLC.

Before addressing these issues, let me first note that SoundExchange should be designated the collective for the rate period at issue in this proceeding. In reviewing the proposals of the other participants, I was pleased to see that none of them appear to disagree with this or suggest that the Judges designate any other institution to serve that important role. Thus, as I discuss the effect of the services' proposals on SoundExchange's operations, it is noteworthy that SoundExchange has been and is likely to be the party charged with the day to day collection of royalties and administration of the statutory license.

In this testimony, I will address three sets of issues:

First, I will respond to and comment on many of the services' proposed changes to the rates and terms of the statutory license. Those proposals, several of which are entirely unsupported by testimony, threaten to interfere with the efficient and orderly administration of the statutory license. Many of the proposals touch upon issues that the Judges are already considering in the pending Notice and Recordkeeping proceeding, Docket No. 14-CRB-0005 RM, and, where appropriate, I will refer to SoundExchange's comments in that proceeding as well.

Second, I will respond to a number of misguided comments directed at SoundExchange's settlement with College Broadcasters, Inc. ("CBI"), which is currently pending before the Judges.

Finally, I will briefly conclude by providing information about the royalties collected by SoundExchange and earned by Doria Roberts, a recording artist whom I understand is providing testimony in this proceeding. Ms. Roberts has asked that I provide the Judges with information regarding her webcasting royalties. According to SoundExchange's records, over the last decade, Ms. Roberts has earned a total of [redacted] in webcasting royalties based upon approximately [redacted] performances of her recordings.

II. <u>**Response to the Services' Proposed Terms for the Statutory License**</u>

There is a lot of value in maintaining consistency in terms across categories of licensees. As I explained in my direct case testimony, consistent terms aid SoundExchange's administration of the license and make licensees' compliance with the terms more efficient and straightforward. A deviation from the tried and true terms is only appropriate where the proponent of the change can articulate "the need for and the benefits of [the] variance." 73 Fed. Reg. 4099 (Jan. 24, 2008).

None of the services' proposed amendments fall into this category. The services' proposals instead seem to be based on unsupported speculation and fail to appreciate the practical and administrative difficulties SoundExchange faces in the successful and efficient administration of the statutory license. I'll now explain, based on my knowledge of the day-to-day administration of the license, why each of the services' proposed changes are misguided, and why I find their testimony in support of these changes unpersuasive – to the extent such testimony even exists.

A. Late Fees - § 380.4(e)

Pandora proposes that a "single late fee of 1.5% per month . . . be due in the event both a payment and the statement of account are received by the Collective after the due date." (*See* Pandora Proposed Terms, at 5.)[1] In support of this change, Michael Herring testifies that "duplicative payments . . . are unnecessary, and would be unreasonable and usurious." (Herring WDT, at ¶ 37.)

What Mr. Herring fails to address is that payments and statements of account serve distinct functions and create distinct administrative costs. Because of this, when both the payment and the statement of account are submitted late, SoundExchange incurs additional administrative costs. It's only fair that the service be accountable for these costs if it creates them. Mr. Herring likewise underestimates the crucial importance of late fees to SoundExchange's ability to timely and efficiently distribute royalty payments. If a separate fee were not assessed for untimely statements of account, services would have no incentive to submit their accounting statements in a timely manner. This would be a problem. When either a payment or a statement of account is untimely, SoundExchange's ability to efficiently distribute royalties is impaired. As the Judges recognized in both Web II and SDARS I, the "timely submission of a statement of account is critical to the quick and efficient distribution of

[1] NAB and NRBNMLC propose a similar modification, but they offer no testimony to justify their proposal. (*See* NAB Proposed Terms at 5; NRBNMLC Proposed Terms at 5.)

royalties." 72 Fed. Reg. 24107 (May 1, 2007); 73 Fed. Reg. 4100 (Jan. 24, 2008). The Judges were right. Without both the payment and statement of account in hand, SoundExchange cannot pay artists and copyright owners. A separate 1.5% late fee for untimely statements of account to promote compliance therefore remains critically important.[2]

iHeartMedia, NAB, and NRBNMCLC propose a different amendment to the late fee provision. They each propose that the current 1.5% monthly late fee be changed to the underpayment penalty set forth in 26 U.S.C. § 6621 (an annual rate equal to the federal short-term rate, plus three percentage points, or plus five percentage points where the late payment exceeds $100,000). Of course, Section 6621 by its terms is inapplicable here, because that provision relates to interest on underpayments of taxes. Notably, none of these services offer any explanation as to why this change is necessary or appropriate. It's not. The tax underpayment penalty in 26 U.S.C. § 6621 does not create a sufficient incentive to serve the purpose identified by the Judges of meaningfully encouraging timely submission of payments and statements of account. Moreover, in the direct case Professor Lys demonstrated that market agreements consistently contain a 1.5% monthly late fee term. (*See* Lys WDT, at ¶ 39.) The statutory license should not deviate from this market norm.

B. <u>Corrections to Statements of Account - § 380.4(f)(8)</u>

[2] Of course, the Judges have held that only a single late fee should be payable when a payment and statement of account are submitted together, but late. 73 Fed. Reg. 4100. SoundExchange is not proposing any change in that principle. However, the Judges have been correct in their prior determinations that "if the payment and the statement are submitted separately and both are late," the delinquent service should "pay a 1.5% late fee for the late payment and an additional 1.5% late fee for the untimely statement." *Id*.

Pandora also proposes that services be permitted to make "good faith revisions or adjustments to its Statements of Account." (*See* Pandora Proposed Terms, at 5.) Mr. Herring suggests that after-the-fact corrections should be permitted to ensure that liabilities are properly calculated and that SoundExchange's members are properly paid. (Herring WDT, at ¶ 37.)

However, allowing licensees a second (or third or fourth) chance to submit their statements of account imposes significant operational burdens, particularly if the effect of a submission is to reduce the amount of the relevant royalty payment. While SoundExchange can always allocate an additional payment (with additional effort), there is no assurance that overpayments can be recovered once they are distributed to artists and copyright owners. Once a payment, statement of account, and report of use are submitted, the royalties are processed; SX begins making electronic distributions within 45 days; and most of the money is out the door within 90 days. It is operationally difficult for SoundExchange to claw back royalties that have already been distributed to artists and copyright owners, and in some cases it may simply be impossible. In short, for the reasons SoundExchange recently articulated in its comments in the notice and recordkeeping proceeding, which are attached as Exhibit 1, corrections to the statement of account are disruptive to the orderly and efficient flow of royalties. (*See* Exhibit 1, SX Reply Comments of SoundExchange, Docket No. 14-CRB-0005 (RM), at 61-63 (Sept. 5, 2014) ("SX Reply Comments").) To fully understand why Pandora's proposed amendment to § 380.4(f)(8) is administratively impractical, I direct the Judges to the SX Reply Comments.

SoundExchange has proposed that the current 45-day payment deadline be amended to require payments on or before the 30th day after the end of each month. *See* 37 C.F.R. § 380.4(c). In my direct testimony I explained that a 30-day deadline is more consistent with SoundExchange's norm of monthly distributions and would allow SoundExchange to distribute royalties in a more timely fashion. (*See* Bender Written Direct Testimony ("Bender WDT"), at 20-21.) Thirty days would give the services more than enough time to submit accurate accounting statements. However, in the event the Judges do not adopt SoundExchange's proposed modification of the payment deadline (and the services maintain 45 days to submit their statements of account), permitting corrections would be even more unnecessary – and it would discourage services from engaging in careful accounting in the first instance.

C. Overpayments

Similarly, iHeartMedia proposes several amendments that would allow licensees to recover overpayments, whether they are detected in an audit or detected by the licensee within three years of submitting payment. (*See* iHeartMedia Proposed Terms, at 6-7.) iHeartMedia offers no testimony in support of its proposed overpayment amendments. In any event, iHeartMedia's proposal is operationally impractical. As explained above, and as set forth in SoundExchange's comments in the notice and recordkeeping proceeding, royalties are mostly distributed within 45-90 days of SoundExchange's receipt of payment, and there is no assurance that overpayments can be recovered once they are distributed to artists and copyright owners. (*See* Exhibit 1, SX Reply Comments, at 61-63.) To permit licensees to deduct previous overpayments, and interest on overpayments, from current royalties owed to different artists and copyright owners years later would be fundamentally unfair – and inaccurate.

D. Reporting Requirements

On behalf of AccuRadio, Kurt Hanson testifies that census reporting requirements are unnecessary and proposes that SoundExchange rely on sample data instead. (*See* Hanson WDT, at ¶ 73.) Such a change would be counter to SoundExchange's mission to ensure integrity in the process of collecting and distributing royalties. SoundExchange endeavors to make sure that artists and copyright owners are paid accurately for the use of their content. Because playlists can vary significantly from service to service and month to month, census reporting is critical to SoundExchange's ability to effectively carry out this goal. Deviating from the norm of census reporting is only appropriate in exceptional circumstances. I agree with the Judges' observation that "[t]he failure to report the full actual number of performances of a sound recording is at odds with the purpose of the recordkeeping requirement to the extent that, as a result, many sound recordings are under-compensated or not compensated at all from the section 114 and 112 royalties." Notice and Recordkeeping, 73 Fed. Reg. at 79728-29 (Dec. 30, 2008). Here, Mr. Hanson's speculative testimony does nothing to demonstrate that sample data can reasonably approximate the accuracy of census reporting. His proposal should not be embraced.

E. Minimum Fees

Mr. Hanson also proposes that the annual minimum fee be no more than $100 for "nascent webcasters." (Hanson WDT, at ¶ 72.) He provides no empirical basis as to why he deems a mere $100 annual minimum appropriate. (*Id.)* Among other things, the minimum fee is intended to ensure that all licensees make a meaningful contribution to the costs associated with administering the statutory license. 72 Fed. Reg. at 24096 (May 1, 2007). As I testified in the direct case, SoundExchange's administrative expenses in 2013 were approximately $1,900 per channel/station. (*See* Bender WDT, at 18.) The costs to administer a statutory license for nascent webcasters are no lower than the costs attendant with administering the statutory license for other webcasters. Indeed our costs would probably tend to be higher, because of the (i) need to set up a new licensee account, (ii) the staff attention sometimes required to familiarize new licensees with operating procedures under the statutory licenses, and (iii) the likelihood that a newer, smaller licensee would provide relatively poor-quality usage data. In light of these costs, a $100 annual minimum fee would be unreasonable.

F. Notice and Cure

Three of the services – iHeartMedia, NAB, and NRBNMLC – propose to add a provision that would require SoundExchange to provide licensees notice of their breaches of the terms of the statutory license and an opportunity to cure the breach, apparently without penalty. (*See* iHeartMedia Proposed Terms, at 7; NAB Proposed Terms, at 10; and NRBNMLC, at 10.) They do not, however, offer testimony to support this proposal. First, by far the most common way SoundExchange "asserts" a breach against a license is to contact the licensee informally to inquire about an issue. It would be strange indeed if we could not call or email a licensee concerning a perceived issue without first notifying the licensee by certified mail. Moreover, a notice and cure provision as a precondition to more formal action would be inappropriate and unnecessary. SoundExchange does not certify licensees' compliance with the terms of the statutory license. Nor should SoundExchange be expected to do so. The obligation to ensure compliance with the terms of the statutory license rests on the licensees.

G. Payment Notifications and Receipts

NRBNMLC proposes that regulations be added that require SoundExchange to (i) send email reminders at least one month before the annual minimum payment fee is due, and (ii) send email acknowledgements within one business day of receiving payment. (*See* NRBNMLC Proposed Terms, at 4.) To this first point, SoundExchange already sends annual reminders to all services that pay the minimum fee so long as the service has provided us with accurate contact information. There is no need to add a regulation compelling SoundExchange to do something that we already do as a matter of course.

NRBNMLC's second proposal is not as simple as NRBNMLC suggests. As SoundExchange has explained in its comments in the notice and recordkeeping proceeding with respect to receipts for reports of use, acknowledgement emails can raise of host of administrative challenges. (*See* Exhibit 1, SX Reply Comments, at 90-91.) In any event, SoundExchange anticipates that it will soon launch an online payment portal. We hope licensees will submit their payments through this portal, and we will encourage them to do so. If they do, the portal will acknowledge confirmation. For those who opt to submit their payments via an alternative method, the administrative costs attendant with sending receipts are too significant to justify, especially given that the obligation to ensure timely payment rests on the licensee, not SoundExchange.

H. Definition of ATH

NRBNMLC proposes that the definition of ATH be amended to exclude "any discrete programming segments and any half hours of programming that do not include any Performance." NRBNMLC Proposed Terms at 1.[3] The ATH cap was established by the Judges to demarcate the boundary between the noncommercial webcasting market and the commercial webcasting market. *See* 72 Fed. Reg. 24097 (May 1, 2007). The Judges set the cap based on the average ATH of NPR stations under the current ATH definition. *See id.* at 24099-100. Had the Judges set the cap based on NRBNMLC's definition, the cap would be an entirely different number. To change the definition at this juncture would unjustifiably unmoor the ATH cap from

[3] NAB offers the same ATH definition to accompany its proposed $500 flat rate for "Small Streaming Stations" with less than 876,000 annual ATH, a rate proposal that amounts to a discount of more than $20,000 from the prevailing statutory rate. *See* NAB Proposed Terms at 1. It is my understanding that Professor Lys explains why a rate discount for commercial broadcasters is inappropriate in his expert report. (*See* Lys WRT, at ¶¶ 213-223.)

its original justification and give non-commercial services significant additional value for the same minimum $500 minimum fee.

I. Minimum Fee ATH Threshold for Noncommercial Services

Similarly, there's no sound basis for NRBNMLC's proposal to increase the ATH threshold that determines noncommercial services' eligibility for the minimum fee. (*See* NRBNMLC Proposed Terms, at 3.) Increasing the ATH cap without simultaneously increasing the annual minimum fee amounts to a rate discount. Currently, virtually all noncommercial services pay only a flat $500 fee that defrays only a portion of SoundExchange's $1,900/station administrative costs. To further enlarge the subsidy to noncommercial services is unreasonable and unjustified.

NRBNMLC's witnesses speculate that an increase in the ATH threshold is necessary to make the cap consistent with typical noncommercial stations' current listening levels. (*See* Emert WDT, at ¶ 39; Henes WDT, at ¶ 29.) In its comments regarding SoundExchange's settlement with CBI, NRBNMLC notes that SoundExchange CEO Michael Huppe testified in the direct case that "the online radio audience has more than doubled . . . over the past 7 years." (NRBNMLC Comment, at 7 (quoting Huppe WDT, at ¶ 13).) But growth in the online radio audience isn't the relevant metric for setting the ATH threshold. The ATH cap is tied to the size of noncommercial services specifically, and our data shows that since 2011 more than 97% of noncommercial services have maintained audiences below the current ATH cap. (*See* Bender WDT, at 14.) NRBNMLC's own witnesses confirm that their audiences are in no danger of exceeding the cap. According to Mr. Emert, NewLife FM's average simultaneous listenership is

10, and it maxes out at 100, a number far below the current 218 listener threshold.[4] (*See* Emert WDT, at ¶ 29.) Similarly, The Praise Network's largest radio group averages only 20 simultaneous listeners. (*See* Henes WDT, at ¶ 14.) Based on these numbers, there is no reason to adjust the 159,140 ATH threshold.

NRBNMLC has also proposed a novel tiered, flat payment structure for performances above the ATH threshold. I understand that Professor Lys's rebuttal report indicates that applying this rate structure to performances beyond the boundary at which commercial and noncommercial services converge could have a distortive economic effect on the webcasting market. (*See* Lys WRT, at ¶¶ 255-258.) I note here only that NRBNMLC's proposed rate structure does not appear in any marketplace agreement of which I am aware. By contrast, past settlements with noncommercial services, including SoundExchange's recent settlement with CBI, are consistent with the current rate structure.

J. Definition of "Performance" - § 380.2

The regulations currently define royalty-bearing performances as all "instance[s] in which any portion of a sound recording is publicly performed to a listener by means of a digital audio transmission . . ." 37 C.F.R. § 380.2. The definition provides for only three narrow exceptions: (1) performances of sound recordings that do not require a license; (2) performances of sound recordings for which the service already has a license; and (3) "incidental" performances. *Id.* NAB proposes two additional exclusions:

1) performances that are "15 seconds or less in duration"; and
2) "second connection[s] to the same sound recording from someone from the same IP address."

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[4] 218 average simultaneous listeners * 24 hours * 30.417 days/month = 159,140 ATH per month.

(*See* NAB's Proposed Rates and Terms, at 3.)[5] Both of these proposals significantly narrow the definition of "performance." These are inappropriate and unnecessary changes.

To support NAB's proposed exclusion of performances of 15 seconds or less, Steven Newberry testifies that "it doesn't make sense to charge a fee for a song the listener demonstrates by his or her actions that he or she doesn't want to hear." (Newberry WDT, at ¶ 34.) It certainly "makes sense" to me. From my perspective, it is a matter of basic fairness that owners be compensated anytime their music is used by a service to further its business. If services want to minimize their financial obligation for short performances, they should not allow their listeners to "skip" songs. If they instead opt to give their listeners the flexibility to skip songs, it would not be fair for them to escape the financial consequences of that business choice. In addition, I understand that Professor Rubinfeld's proposed rates were calculated based on the assumption that all performances – as currently defined – would be royalty-bearing. (*See* Rubinfeld WDT, at ¶¶ 212-217.) While I don't think NAB's testimony adequately explains why a change to the long-standing, established definition of "performance" is necessary, if the definition were to be narrowed, SoundExchange's rate proposal would have to be adjusted upward to account for this change.

NAB's second proposed change to the performance definition is also misguided. NAB offers testimony by Jean-Francois Gadoury of Triton Digital explaining that media players can sometimes connect to a stream twice, and that such re-connections could be erroneously counted as a second performance. (*See* Gadoury WDT, at ¶¶ 2-12.) NAB's proposal to exclude "second

[5] NAB proposes that a distinct set of terms be applied to broadcasters. SoundExchange opposes any such segmentation of the statutory license's rates or terms for the reasons explained in Professor Rubinfeld's testimony. It is worth noting that NAB models its proposed terms on the terms voluntarily negotiated by SoundExchange and NAB as part of their 2009 WSA settlement, not the terms that were established by the CRB.

connection[s] to the same sound recording from someone from the same IP address" appears to be aimed at addressing this issue. This is a solution in search of a problem. The current "performance" definition is already limited to transmissions "to a listener." 37 C.F.R. § 380.2. Accordingly, any re-connection made by the same listener's device due to a technical glitch would not be a second performance under the current regulations. Instead of solving a problem, NAB's proposed amendment would create one. Based on my conversations with individuals in SoundExchange's IT department, it is my understanding that more than one user could be using the same IP address if they connect to the internet from the same location, like a workplace. As a result, a "second connection to the same sound recording from someone from the same IP address" could be a performance to a second distinct listener. I see no reason to exclude such performances from the regulation's definition.

Pandora proposes its own alterations to the performance definition. (*See* Pandora Proposed Terms, at 3.) Mr. Herring testifies that the definition "should make clear that only those transmissions to users in the United States are properly compensable under the Section 112 and 114 licenses." (Herring WDT, at ¶ 37.) Given that there is nothing to suggest that the established definition is not working, the insertion of a geographical limitation is unnecessary. Moreover, to the extent that a licensee's activities in the U.S. implicate U.S. copyright rights, it should pay for the exercise of those rights regardless where its users are located. In addition, it is my understanding that geo-location technology is susceptible to inaccuracies. Pandora's proposed definition also unjustifiably strikes the parenthetical from the definition that explains that "the delivery of any portion of a single track from a compact disc to one listener" is one example of a "digital audio transmission." (*See* Pandora Proposed Terms, at 3.) This parenthetical should not be removed. It offers an important clarification in the classical music context: each movement of a symphony is a distinct sound recording.

K. Definition of "Broadcast Retransmission" in § 380.11

Both iHeartMedia and NAB propose modifying the simulcast definition in the regulations that apply to broadcasters. (*See* iHeartMedia Proposed Terms, at 3 and NAB Proposed Terms, at 2.) I first want to reemphasize that broadcaster-specific regulations are unnecessary because it is SoundExchange's view that the same statutory license rates and terms should apply to all commercial webcasters. Accordingly, the regulations to be determined by the Judges do not need to specifically define simulcasts.

However, if simulcasts were to be defined in the regulations, neither iHeartMedia nor NAB offer a reasonable definition. The fundamentals of both services' proposals are the same. They seek to define simulcasts broadly to include programming in which up to 49% of the original broadcast programming has been replaced with other content. Broadening the definition in this way stretches the concept of a simulcast well beyond its true meaning and invites gamesmanship. Programming is either simulcast with a station's terrestrial over-the-air radio signal, or it is not, and simulcasts should be defined for purposes of the statutory license in a way that is consistent with this common-sense definition. At the point that 49% of the programming is no longer a simulcast of broadcast programming, any possible justification for treating the programming differently from other internet webcasting would cease to exist.

L. Sound Recording Performance Complement

iHeartMedia proposes adding language that would relax the sound recording performance complement. (*See* iHeartMedia Proposed Terms, at 2-3, 3-5.)[6] It looks to me like this proposal attempts to alter the scope of the statutory license. I'm not a lawyer, but I expect that SoundExchange will take the position that such changes are inconsistent with the relevant statutory provisions and cannot be made in the context of this rate-setting proceeding.

III. NAB's Other Proposed Terms

In the course of reviewing each of the services' proposed terms, it appears that NAB and NRBNMLC have included several proposed modifications to the current regulations that they neither mentioned in their testimony nor identified through a redline or otherwise highlighted in their Proposed Rates and Terms submissions. Without evidentiary support, the proposed changes should all be rejected out of hand, but I will also briefly address some of the changes I have identified to date that raise concerns. This is not to say that there are not other embedded, material changes in their rate proposals or proposed regulations (and the Judges should reject those as well), but it is certainly the case, in my view, that these proposals raise significant operational, administrative, and other concerns that I wanted to bring to the attention of the Judges for their consideration.

1. NAB offers an exceedingly broad definition of "Broadcaster" in its proposed § 380.11 that reaches not only broadcasters, but also any entities affiliated with broadcasters. (*See* NAB Proposed Terms, at 2.) Again, given that all commercial webcasters should be subject to the same rates and terms, a "broadcaster" definition is unnecessary. But if

[6] I will also briefly note that iHeartMedia's introductory statement relating to regarding *WTFD 105.1FM v. SoundExchange, Inc.*, No. 5:14-cv-00015-MFU-JCH has been rendered moot in light of that case's recent dismissal. (*See* iHeartMedia Proposed Terms, at 2.)

broadcasters were to be given their own rate category or terms, the broadcaster category would have to be carefully drawn to ensure that non-broadcasters could not strategically devise a means by which to opt in to the broadcaster rates. For example, it has been reported that Pandora bought radio station KXMZ-FM in Rapid City, South Dakota to lower its ASCAP royalties.[7] Non-broadcast webcasters should not be invited to do the same here. NAB's definition is far too broad.

2. NAB seeks to amend § 380.12 so that a minimum fee would only be due for each of a broadcaster's AM/FM radio stations, rather than for each of its individual channels. *See* NAB Proposed Terms at 4. This change would put the minimum fee dramatically out of proportion to SoundExchange's administrative costs given that SoundExchange averages costs of $11,778 per licensee. (*See* Bender WDT, at 17.) To allow broadcasters to operate multiple channels without any financial repercussions would also invite gamesmanship. Plus, the regulations already cap the total amount of minimum fees that any single broadcaster has to pay.

3. NAB adds a provision that would excuse broadcasters from reporting information about performances contained in programming provided by third parties and allow them to make "good faith estimate[s]" instead. (*See* NAB Proposed Rates and Terms, at 4.) Third-party programming can often constitute a substantial portion of broadcasters' programming. The only way to ensure that artists and owners are properly compensated

[7] *See* Glenn Peoples, Pandora Buys Terrestrial Radio Station in South Dakota, Aims for Lower ASCAP Royalties, Billboard (June 11, 2013), *available at* http://www.billboard.com/biz/articles/news/radio/1566479/pandora-buys-terrestrial-radio-station-in-south-dakota-aims-for.

is to require broadcasters to obtain the requisite reporting information from their third-party providers. (*See* Exhibit 1, SX Reply Comments, at 85-87.)

4. As in the notice and recordkeeping proceeding, NAB requests waiving the reporting requirements for small broadcasters. (*See* NAB Proposed Terms, at 6.) SoundExchange's opposition to a continued waiver for small broadcasters is set forth in our comments in that proceeding. (*See* Exhibit 1, SX Reply Comments, at 87-88.) NRBNMLC likewise requests an exemption. (*See* NRBNMLC Proposed Terms, at 6.) Its request cannot be countenanced because it fails to tie eligibility for the exemption to usage, and instead inappropriately proposes a broad exemption for all noncommercial services.
5. NAB and NRBNMLC both add language that would require audits to be "completed within 6 months of the date of the notification of intent to audit is serviced" on the licensee. (*See* NAB and NRBNMLC Proposed Terms, at 8-9.) Completion of an audit requires mutual cooperation and the provision of data by the licensee. These proposed amendments fail to account for the fact that the completion of an audit is just as dependent on the licensee as it is on the auditor, if not more so.
6. Finally, both NAB and NRBNMLC seek to amend the unclaimed funds provision to require that SoundExchange "use its best efforts to identify and locate copyright owners and featured artists in order to distribute royalties payable to them." (NAB Proposed Terms, at 9.) This is an unnecessary change—the existing standard is working. SoundExchange pays out hundreds of millions in statutory royalties each year; it has

demonstrated that it is capable of ensuring that performers and owners get paid.[8] (*See* Bender WDT, at 5.) Properly understood, at any given time SoundExchange's reported balance contains only a small portion of unclaimed royalties. By and large, the balance consists of money that is simply working its way through the payment and distribution pipeline in the ordinary course.

IV. **Settlement with College Broadcasters, Inc.**

As I reported in my direct testimony, SoundExchange has also reached a settlement with College Broadcasters, Inc. ("CBI"). Since that time, SoundExchange and CBI have filed a Joint Motion to Adopt Partial Settlement and comments in support of the settlement. Because the settlement is currently still pending before the Judges, I would like to take this opportunity to address some of the comments that were filed by third parties, including IBS and its member stations, WHRB, and NRBNMLC.

IBS's comments in opposition to the settlement are misguided. First, IBS's suggestion that CBI represents only a "minority of college broadcasters" appears wrong, or at least misleading. More than 500 stations have embraced the current noncommercial educational webcaster rates. (*See* Bender WDT Figure 2.) Second, in arguing that the CBI rates are not "proportional," IBS misstates the terms of the CBI and CPB settlements and improperly relies on a non-precedential agreement.

In its comments, WHRB points to two purported "drafting anomalies." In fact, they are no such thing. Its complaints about § 380.23(f)(4), for example, fail to understand that the

[8] NAB's amended provision also unjustifiably changes the amount of time that SoundExchange must keep the unclaimed funds from three years to five years. This change would interfere with SoundExchange's goal to efficiently distribute money to artists and copyright owners. Moreover, a three-year span is consistent with the Copyright Act's three-year statute of limitations. *See* 17 U.S.C. § 507(b).

amendments to the provision liberalize the current language and make compliance substantially easier, not more difficult. WHRB also complains that an ATH-based estimate of performances could be inaccurate. But licensees would not be required to use the ATH assumption to calculate their performances. Nothing constrains them from opting to account for their performances on a per-performance basis instead.

NRBNMLC offers comments on the settlement, not to voice opposition, but to make several points about the rates and terms it has proposed in this proceeding, including the ATH definition, the ATH threshold, and exemptions from reporting requirements. Because I have already discussed these proposed terms above, I will not address them again here. In any event, NRBNMLC comments provide no reason for the Judges to reject the CBI settlement.

V. <u>**Royalties for Featured Artist: Doria Roberts**</u>

Finally, I understand that recording artist Doria Roberts will be providing testimony in this proceeding. At her request, I have consulted her SoundExchange records to confirm her royalties. These records show that in the more than ten years between April 2004 and December 2014, Ms. Roberts earned a total of [redacted] in artist performance royalties, [redacted] in rights owner performance royalties, and [redacted] in rights owner ephemeral royalties. Those [redacted] in royalties are based upon a total of [redacted] performances. Of these performances, [redacted] were on Pandora.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: Feb 22, 2015

Jonathan Bender

Exhibits Sponsored By Jonathan Bender

Exhibit No.	Sponsored By	Description
SX EX. 056 - RP	Jonathan Bender	Ex. 1 - SoundExchange Notice and Recordkeeping Reply Comments

Before the
United States Copyright Royalty Judges
Library of Congress

In the Matter of: Notice and Recordkeeping for Use of Sound Recordings under Statutory License	Docket No. 14-CRB-0005 (RM)

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September 5, 2014

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Library of Congress

In the Matter of: Notice and Recordkeeping for Use of Sound Recordings under Statutory License	Docket No. 14-CRB-0005 (RM)

REPLY COMMENTS OF SOUNDEXCHANGE, INC.

SoundExchange, Inc. ("SoundExchange") is pleased to provide these Reply Comments in response to the Copyright Royalty Judges' Notice of Proposed Rulemaking ("NPRM") concerning notice and recordkeeping issues under the statutory licenses provided by Sections 112 and 114 of the Copyright Act. *See Notice and Recordkeeping for Use of Sound Recordings Under Statutory License*, 79 Fed. Reg. 25,038 (May 2, 2014).

I. Introduction

SoundExchange appreciates the Judges' attention to the issues raised in this proceeding. While notice and recordkeeping issues are highly technical, and have often been controversial, the Section 112/114 statutory license system depends upon having a coherent notice and recordkeeping system that results in timely delivery by licensees of useful data that accurately represents their usage of sound recordings. The Judges have time and again determined that SoundExchange should distribute statutory royalties to artists and copyright owners "based upon the information provided under the reports of use requirements." 37 C.F.R. § 380.4(g)(1); *accord* 37 C.F.R. §§ 380.13(i)(1), 380.23(h)(1), 382.4(d)(1), 382. 13(f)(1), 384.4(g). Thus, it is only when the "reports of use requirements" yield useful usage data that SoundExchange can best carry out the royalty distribution function that the Judges have entrusted to it.

In considering possible adjustments to the notice and recordkeeping requirements, the Judges should keep in mind the purpose of the statutory licenses and the role of reporting within the statutory license system. The statutory licenses do not exist for the benefit of artists and copyright owners. The statutory licenses are a deviation from the usual exclusive rights under copyright, and prevent artists and copyright owners from commercializing their works through the usual free market negotiations. Instead, the statutory licenses were intended "to create fair and efficient licensing mechanisms." H.R. Conf. Rep. 105-796, at 79-80 (1998). That is, relative to the usual requirement to obtain licenses on a negotiated basis, the statutory licenses provide licensees the significant benefit of being able to obtain the right to use all commercial recordings through a single process under terms (including, for this purpose, reporting provisions) determined by the Judges.

When the Section 114 license was first enacted, it assumed that licensees would account directly to the copyright owners of the works they used, just as would be the case under voluntary licenses. *See, e.g.,* Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, 109 Stat. 336, 342-43 (providing in Section 114(g)(2) that copyright owners would perform the function of allocating royalties to artists that SoundExchange now performs). However, services wanted a more convenient arrangement. To simplify the process of accounting for their usage "the Services urged the Office to designate a single Collective." *Notice and Recordkeeping for Digital Subscription Transmissions*, 63 Fed. Reg. 34,289, 34,293 (June 24, 1998). SoundExchange itself, and the current procedures for paying royalties and accounting through SoundExchange, are the result of those services' calls to make administration of the statutory licenses easier for them.

Under any license – voluntary or statutory – the licensee must inform the licensor about the use that the licensee makes of works subject to the license. This is because, as a general matter, only the licensee knows what it is doing in its service. Indeed, in voluntary licenses negotiated between digital music services and record companies, services are typically required to engage in more extensive reporting than that required by the notice and recordkeeping regulations. The technical details of such reporting, such as the specific data fields that must be provided and the delivery format, are routinely negotiated by the staff of licensors and licensees. With a voluntary arrangement, a licensor is generally able to process reports provided by services in a straightforward manner, because it receives copious, relatively high-quality data that it matches against only its own repertoire to account to its artists.

By contrast, the Judges and Congress have tasked SoundExchange with a daunting data processing challenge. Under the statutory licensing system, licensees have the privilege of using any commercial sound recording ever distributed. Thus, reports of use ("ROUs") identify a much broader range of recordings than would be covered under any voluntary license. And while SoundExchange expects to have good information concerning approximately 14 million known recordings when it completes its next database update this month, no matter how good that information is, only the licensee can tell SoundExchange which of those recordings it used, and how it used them. ROUs are the vehicle for licensees to provide that essential information. Matching the usage reported on ROUs to the repertoire known to SoundExchange (or, in some cases, using the reported usage to discover new repertoire previously unknown to SoundExchange) is the critical step that makes allocation of royalties to artists and copyright owners possible.

Unfortunately, ROUs are currently a weak link in the statutory royalty distribution chain. To be sure, some large commercial music services provide usage data of very high quality – such high quality that for some services, more than 99% (and sometimes very nearly 100%) of their lines of reported usage data can be automatically matched by SoundExchange to known repertoire. Not surprisingly, those services did not file initial comments this proceeding. Those services have made it a priority to try to report their usage properly and accurately, and recognize that SoundExchange's Petition sought relatively modest adjustments to the overall reporting regime.[1]

The problem is that the number of services providing high-quality data is small. Many other services report poor quality data, when they report data at all, and the broadcasters that have been so outspoken in this proceeding are among them. This is a much bigger problem than NAB/RMLC suggest in their comments. NAB/RMLC Comments, at 2, 17, 64. For 2013, approximately two-thirds of licensees required to deliver ROUs still have failed to deliver one or more required reports, and about one quarter of such licensees have not delivered any such reports at all. In 2013, lateness in delivering ROUs affected approximately $203 million in royalties (about 31% of statutory royalties), and ROUs that SoundExchange received late were, on average, delivered about 90 days late. For a small percentage of usage, ROUs are never received at all.

Even when licensees submit their ROUs, hopefully on time, the problems do not end there. Out of all of the useable ROUs received last year, an average of about 29% of the lines of

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[1] *See* Notice and recordkeeping for use of Sound Recordings Under Statutory License, 74 Fed. Reg. 52,418, 52,420 (Oct. 13, 2009) ("the fact that many of the largest commercial Webcasters and other intensive users such as satellite radio have not filed comments in this proceeding clearly indicates an absence of controversy among more intensive users").

data ingested by SoundExchange could not be matched automatically to known repertoire, with the vast majority of the issues due to data quality problems.[2] Those lines of data correspond to about 23% of all statutory royalties received last year. Only by investing substantial resources in painstaking efforts to clean up licensee-provided data has SoundExchange been able to obtain and process data sufficient to distribute with reasonable accuracy and deliver royalty payments for all but a very small percentage of those payments. Notwithstanding that effort, the delay means that tens of millions of dollars of statutory royalties are held up for months, and in some cases years, in the process. SoundExchange, along with the artists and copyright owners it represents, believe that it is not good enough.

The proposals that SoundExchange made in its Petition were intended to represent relatively modest adjustments in the overall reporting regime to address specific observed problems and clean up a few historic anomalies. The 274 pages of comments filed by NAB/RMLC[3] vigorously oppose almost every proposal that SoundExchange made, and the 22 other comments filed by broadcasters and broadcaster groups likewise oppose many of SoundExchange's proposals. Broadcasters, however, accounted for almost 17% of total webcasting royalty collections in 2013 (almost 11% of total statutory royalties), and represent a

[2] New repertoire that is reported without an ISRC is not matched automatically. However, given that some services regularly maintain a match rate greater than 99%, SoundExchange believes that such new repertoire typically accounts for about 1% of the lines of data in ROUs.

[3] Parts of the comments filed by NAB/RMLC are styled as "declarations" by certain individuals. However, this is an "informal rulemaking" as that term is understood in administrative law, and accordingly, the NPRM solicited "comments." 79 Fed. Reg. at 25,038. Because this is not a "formal rulemaking," styling comments as "declarations" is unnecessary and confers upon those comments no special status. *Compare* 5 U.S.C. § 553 *with* 5 U.S.C. §§ 556 & 557. The Judges' rule at 37 C.F.R. § 350.4(e) also indicates that "[s]ubmissions signed by an attorney for a party need not be verified or accompanied by an affidavit." Accordingly, SoundExchange has not styled any part of its comments as a declaration. Counsel for SoundExchange have, however, made a sufficient inquiry to make the certification contemplated by Section 350.4(e).

disproportionate share of the few percent of statutory royalties that ultimately cannot be allocated based on usage. The thrust of the lengthy and numerous broadcaster comments is that they should not have to do the things that other licensees are already doing to provide the sort of high-quality data that enables timely and efficient distribution of royalties to artists and copyright owners. Instead, those broadcasters propose less comprehensive reporting of fewer data elements, and no meaningful consequences for non-reporting. That is not reasonable.

The Judges have consistently recognized that licensees' providing reasonable notice of the recordings they use is essential to the statutory license scheme. As the Judges have observed time and time again, "[b]efore [SoundExchange] can make a royalty payment to an individual copyright owner, they must know the use the eligible digital audio service has made of the sound recording." *Notice and Recordkeeping for Use of Sound Recordings Under Statutory License*, 73 Fed. Reg. 79,727, 79,727-28 (Dec. 30, 2008). Before responsibility for notice and recordkeeping regulations was transferred to the Judges, the Copyright Office observed that inadequate record keeping by licensees is simply "unacceptable." *Notice and Recordkeeping for Use of Sound Recordings Under Statutory License*, 69 Fed. Reg. 11,515, 11,516 (March 11, 2004). Then, just as here, the Office was confronted by embellished protests that, for some services, requiring accurate recordkeeping and notice would be "too great a burden." *Id.* at 15,521. The Office rejected those claims, however, explaining that even if some services were not presently capable of reporting data, they could reasonably be expected to make themselves capable:

> Transmitting a sound recording to the public is not something that accidentally or unknowingly happens. It takes a significant amount of decision making and action to select and compile sound recordings, and a significant amount of technical expertise to make the transmissions. It is not unreasonable to require those engaged in such a sophisticated activity to collect and report a limited amount of data regarding others' property which they are using for their benefit. While making and reporting a record of use is

> undoubtedly an additional cost of transmitting sound recordings to the public, it is not an unreasonable one.

Id. at 15,521 n.12. Almost 20 years after the enactment of the Section 114 license, and more than 15 years after its extension to webcasting, now is the time for broadcasters finally to do the things necessary to enable accurate and timely distribution of the statutory royalties they pay.

With that background, we turn to the specific issues raised in the NPRM and initial comments. Part II addresses the Joint Petition. Part III addresses the issues raised in SoundExchange's Petition. Part IV addresses new issues raised in the initial comments.

II. Joint Petition

The NPRM proposes modifying the definition of Minimum Fee Broadcaster in Section 370.4(b) to extend the sample-based reporting provisions in Section 370.4(d)(3)(ii) to a broader set of webcasters. 79 Fed. Reg. at 25,039-40. As SoundExchange explained in its initial comments, SoundExchange does not oppose that change, although it suggested some technical corrections and a more accurate term to refer to the expanded group of services. SoundExchange Comments, at 2-3 & n.2.

In their initial comments, noncommercial educational webcasters ("NEWs") ask for something much broader – incorporating in the notice and recordkeeping regulations their preferred parts of the terms in Section 380.23, which were the result of a settlement of the *Webcasting III* proceeding between SoundExchange and CBI. Specifically, the NEWs would like to include in the notice and recordkeeping regulations the outright reporting waiver and play frequency reporting provisions of Section 380.23(g), but not the late fee for ROUs provided in Section 380.23(e) or the server log retention provisions of Section 380.23(i). *E.g.*, CBI Comments, at 3-4, 6-8; KBHU Comments, at 1. NEWs should not be given their requested special exemption in these regulations; their concerns are addressed directly in the terms to which CBI agreed.

There are just over 500 NEWs. Because they overwhelmingly pay only the minimum fee, NEWs in the aggregate pay only about $250,000 in annual royalties, or about 0.04% of 2013 total statutory royalty collections. In contrast to the other categories of broadcasters, the NEWs are largely amateur operations, and have a mission of educating their staff rather than necessarily reaching a large audience. The 20 initial comments in this proceeding from NEWs and representatives thereof – more than two thirds of the initial comments in this proceeding – say that NEWs have had difficulty reporting, and indicate that NEWs care very much about not having to provide reports of their actual usage. In fact, about 97% of NEWs have elected the reporting waiver of Section 380.23(g)(1). Before the reporting waiver, many NEWs either did not report at all, or did so poorly, requiring a disproportionate investment of SoundExchange resources to utilize the data they provided.[4] Moreover, while some NEWs pride themselves on the breadth of their playlists,[5] reporting their usage on a two-weeks-per-quarter sample basis does not allow distribution of royalties on a basis that takes into account the vast majority of such usage. While the provisions in Section 380.23 are less than ideal, and should not in any way be viewed as a model for handling pools of royalties paid by professional operations, they

[4] Other compliance issues with NEWs continue even with the waiver. For example, despite professing to rely on the statutory licenses, commenters KBHU, KNHC, WSLX and WSOU do not appear to have filed NOUs. *See* http://copyright.gov/licensing/114.pdf. And two of them (KBHU and WSLX) do not seem to have paid statutory royalties or otherwise interacted with SoundExchange in recent years. Despite professing or suggesting that they report usage on a sample basis, SoundExchange's records indicate that commenters Lasell College Radio and WGSU have purported to rely on the reporting waiver and have not actually provided ROUs in recent years.

[5] *E.g.*, WJCU Comments, at 4 ("WJCU Radio and many other NEWS offer highly diverse programming, meaning that tens of thousands of unique sound recordings may be broadcast in a single year in contrast to several hundred at a typical commercial music operation").

may well represent the best solution available at this time to the problem of distributing NEW royalties on a fair and cost-effective basis.

However, it is not fair for the NEWs to pick and choose their favorites from among the provisions of Section 380.23 that were negotiated by CBI and that have been in place for several years. SoundExchange hopes that it will be possible to reach an agreement to settle the *Webcasting IV* proceeding as to NEWs on a basis that would generally extend the relevant provisions of Section 380.23 and thereby moot the issues raised in the Joint Petition through 2020. If that happens, there would be no reason for the Judges to adopt the proposals in the NPRM based on the Joint Petition, and the Judges could revisit the question of reporting by NEWs based on a fresh record in five years. Otherwise, the Judges should either adopt the equivalent of all the relevant provisions of Section 380.23, by adopting SoundExchange's proposed late fee for ROUs (see Part III.E.2 of these comments) and proposed recordkeeping provisions (see Part III.G of these comments), or adopt only the changes to the definition of Minimum Fee Broadcaster proposed in the NPRM.

III. SoundExchange Petition

In this part of these comments, we review comprehensively all of the proposals raised in SoundExchange's Petition based on the initial comments concerning them. While we discuss these proposals separately, we cannot emphasize enough that each proposal should be understood in the overall context of the statutory license system, and that the various parts of the notice and recordkeeping regulations need to work together to yield accurate and timely usage information that can be matched to payments and known repertoire if artists and copyright owners are to be paid the royalties they are due. SoundExchange has proposed a package of changes designed to both require delivery of data that will permit automated matching of reported usage in a higher proportion of cases and provide meaningful incentives to comply with reporting requirements (as well as to adjust various details of the regulations). Broadcasters have suggested diluting the data delivery requirements and weakening the incentives to comply. The Judges should adopt SoundExchange's proposals, subject to the handful of modifications suggested herein in response to the comments of others.

A. ROU and SOA Consolidation, Matching and Identification

1. Consolidation and Matching

SoundExchange proposed a commonsense package of changes to the notice and recordkeeping regulations to enable SoundExchange more efficiently and effectively to match reported usage to royalty payments.[6] In particular, SoundExchange proposed that usage be reported at the enterprise level if feasible, and that in any case there be a one-to-one relationship between the scope of usage reported in an ROU and statement of account ("SOA") unless SoundExchange and the licensee agree otherwise. SoundExchange also proposed clarifying that licensees providing services in multiple rate classes must provide separate ROUs for each different type of service. Petition, at 6-8. Relatedly, SoundExchange proposed that services use

[6] The initial comments in this proceeding illustrate the kinds of problems these proposals are intended to address. For example, Sandab Communications II, L.P. does business as Cape Cod Broadcasting and owns radio stations WQRC, WKPE, WFCC and WOCN. NAB/RMLC Comments, Exhibit H ¶¶ 1-2. It has filed separate notices of use identifying itself as Sandab Communications d.b.a. the various stations. http://copyright.gov/licensing/114.pdf. If it provided a payment or statement of account in the name of Cape Cod Broadcasting, it would not be immediately evident that it relates to Sandab Communications, or which station(s) were intended to be covered. Similarly, KSSU is the name of a NEW service provided by Associated Students, Inc. at California State University, Sacramento. KSSU Comments, at 1. Associated Students filed its notice of use under that name, http://www.copyright.gov/licensing/114.pdf, but commented in this proceeding under the name KSSU. If SoundExchange received payments or ROUs under the names KSSU or California State University, Sacramento, it would not be obvious that they should be assigned to the account of Associated Students.

consistent naming on their SOAs and ROUs, as well as account numbers when assigned by SoundExchange. Petition, at 8-10. These proposals were relatively noncontroversial.

Based on NPR's unique circumstances, NPR took exception to SoundExchange's proposal to favor consolidation of reporting at the enterprise level and require a one-to-one relationship between ROUs and SOAs. NPR Comments, at 10. Because of NPR's unique organizational structure and funding model, SoundExchange has had agreements with the Corporation for Public Broadcasting ("CPB") providing unique reporting arrangements for NPR stations. SoundExchange shares NPR's expectation that it will again be possible to reach agreement with CPB and/or NPR concerning its unique reporting arrangement. *See* NPR Comments, at 1. SoundExchange's proposal in this proceeding specifically contemplates and enables such flexibility, by (1) providing for consolidation to the enterprise level only "if feasible" (proposed Section 370.4(d)(1)); (2) contemplating agreements for other than a one-to-one relationship between ROUs and SOAs (*id.*); and (3) generally authorizing SoundExchange to agree with licensees concerning alternative reporting arrangements (proposed Section 370.5(g)). In view of these provisions, it is neither necessary nor appropriate for the Judges to write NPR's current reporting arrangement into generally-applicable regulations or water down the reporting requirements for all licensees to encompass NPR's unique organizational and funding structure.[7]

NAB/RMLC generally accepted this group of SoundExchange proposals, although they took exception to some of the details. NAB/RMLC do not oppose a requirement that there be a one-to-one relationship between usage reported in an ROU and SOA, so long as there are no adverse consequences for failing to do so. NAB/RMLC Comments, at 69. In other words,

[7] *See* 74 Fed. Reg. at 52,419 ("We have no intention of codifying these negotiated variances in the future unless and until they come into such standardized use as to effectively supersede the existing regulations.").

NAB/RMLC appears to take the position that the Judges are welcome to adopt this requirement, provided that broadcasters are free to ignore it with impunity. Because NAB/RMLC refer to "discrepancies" in "performance counts," *id*, perhaps they just did not understand the proposal. As proposed Section 370.4(d)(1) states, the proposed new requirement is that the ROU and SOA match in the sense of covering the same service offerings, channels or stations. So understood, there is no reason broadcasters need extraordinary relief from this provision. In contrast to immaterial errors in a name (see below), which could occasionally happen inadvertently and would have no consequence for processing of royalty payments, determining consolidation of SOAs and ROUs is a conscious corporate policy decision concerning the design of a business process that must be repeated month after month. Deviations from such a policy and processes should not happen inadvertently. Furthermore, having multiple SOAs associated with one ROU or multiple ROUs associated with one SOA has real operational consequences for SoundExchange. *See* Petition, at 6-7. SoundExchange's proposal provides licensees significant discretion in determining how they wish to consolidate their reporting. To enable that, we ask only that broadcasters consolidate their stations' usage the same way for purposes of both the ROU and SOA. NAB/RMLC do not seem to dispute that it is reasonable to expect licensees to figure out business processes to do that. Once they do that, it is reasonable to expect that licensees will follow their own business processes. NAB/RMLC have not provided any explanation that would justify making this requirement purely hortatory, so the Judges should adopt the proposed requirement.

NAB/RMLC also do not object to the principle that licensees that provide services in multiple rate classes should provide separate ROUs for each different type of service, "provided that submission of separate reports actually is necessary for SoundExchange to allocate and distribute royalties." NAB/RMLC Comments, at 70. As a practical matter, SoundExchange does need separate ROUs, and licensees provide them today. Although NAB/RMLC argue that separate ROUs should not be required when a licensee has services subject to multiple rate classes and those services have identical playlists, that argument is not persuasive. There are only a handful of licensees that provide multiple services subject to different rate structures.[8] Those licensees would not typically have exactly the same channel lineup and playlists on the different services. Even if such licensees were to have identical playlists, they may have different reporting requirements, and they are virtually certain to have different usage (total performances or aggregate tuning hours) for each different service in a given month. Even in the most fanciful hypothetical in which the same ROU might satisfy applicable requirements for two services, it would not be – and no provider has suggested that it would be – burdensome to submit two copies of the same ROU. The Judges should thus adopt SoundExchange's proposal without NAB/RMLC's unnecessary proviso.

NAB/RMLC also do not oppose the requirement that licensees use consistent names across their SOAs and ROUs, so long as inconsequential errors such as the omission of "Inc." from a company name do not have adverse consequences for licensees. NAB/RMLC Comments, at 69. The purpose of SoundExchange's proposal concerning use of consistent names is to avoid SoundExchange's receiving ROUs and SOAs with different names that have no clear connection. It is not SoundExchange's purpose or intent to inflict penalties on a

[8] NAB/RMLC's comments do not justify their proposed proviso based on any identified problem for a broadcaster. Instead their proviso is grounded in what seems to be a description of Sirius XM's business. *See* NAB Comments, at 70 (referring to the licensee providing a business establishment service or an SDARS, two services that Sirius XM provides, and only Sirius XM provides an SDARS). However, Sirius XM did not take exception to the separate ROU requirement in its initial comments.

licensee that uses consistent naming but makes an immaterial error when doing so. The concerns of NAB/RMLC in this regard seem fully addressed by SoundExchange's discussion of inconsequential good-faith omissions or errors in the context of the late fees provision (*see* Part III.E.2).

NAB/RMLC do not oppose SoundExchange's proposal to assign licensees account numbers, so long as those account numbers are provided at the enterprise level. NAB/RMLC Comments, at 68. SoundExchange would expect to assign account numbers at the enterprise level if the licensee consolidates its payments, SOAs and ROUs at the enterprise level, which SoundExchange has proposed as the preferred option. If a licensee elects not to consolidate its reporting to the enterprise level, SoundExchange would expect to assign separate sub-account numbers to distinguish the different reporting groups within the licensee's enterprise.[9] However, assignment of account numbers in such a situation is a small operational detail likely to affect very few licensees. It need not and should not be addressed in regulations; SoundExchange is prepared to work flexibly with licensees in such cases.

MRI does not take exception to SoundExchange's proposals, but proposes in addition that when an agent like MRI submits SOAs or ROUs, that the SOAs and ROUs identify the agent. MRI Comments, at 3-4. If MRI submits any SOAs or ROUs on behalf of licensees, it is welcome and encouraged to add its name to the documents it submits. At this time, however, it does not seem necessary to require that by regulation.

[9] It is not apparent that NAB/RMLC disagree with this proposed treatment of licensees that do not consolidate their payment and reporting to the enterprise level. Their real concern seems to be that a licensee should not have to manage 500 individual-station accounts if it does not want to. NAB/RMLC Comments, at 68-69. SoundExchange also would much prefer to deal with licensees at the enterprise level than the individual station level.

2. ROU Headers and Category Codes

SoundExchange proposed modifying the file header specification at 37 C.F.R. § 370.4(e)(7) and requiring use of headers in ROUs. Petition, at 10-12. Inclusion of headers in ROUs would unambiguously identify the ROUs and their providers in a manner that cannot be separated from the ROU and reduce the effort required of SoundExchange and/or the licensee when a licensee submits an ROU with the columns out of order. Implementing use of headers would be trivial from an information technology perspective. Licensees preparing their ROUs with spreadsheet software could include their header information in the template they use. For others, the header information could readily be pasted into the ROU text file before transmission if not automatically generated by the system producing the ROU.

Only NAB/RMLC take significant exception to the use of headers. NAB/RMLC Comments, at 72-76. NAB/RMLC devote most of their discussion of headers to reciting their view of the history of previous notice and recordkeeping proceedings relative to the use of headers in ROUs. However, this history is irrelevant to the question presently before the Judges, which is how reasonably to provide for notice of use of recordings under the statutory license now and for the future. SoundExchange's experience over the last decade convinces it that use of headers would materially improve processing of ROUs.

It is only toward the end of NAB/RMLC's discussion of headers that NAB/RMLC engage substantively with the current operational implications of SoundExchange's proposal. In essence, they make four arguments against use of headers, but each fails.

- NAB/RMLC argue that some of the proposed header information is currently required to be provided outside the ROU itself, in a separate email or cover letter (37 C.F.R. § 370.4(e)(3)(ii) and (iii)). This is true, but one of the operational problems that SoundExchange is trying to solve is that, despite this requirement, licensees often do not provide this information outside the ROU. It seems more likely that licensees will provide this information if the templates and systems used to generate ROUs contain the header information (or a placeholder therefor) than if the staff responsible for reporting must remember to include this information in a separate email or cover letter. Furthermore, providing this information internal to the ROU makes it inseparable from the ROU. Just as the Judges' rules of procedure require that filings with the Judges have captions on the filings themselves, to ensure that they can be readily associated with the proper docket (*see* 37 C.F.R. § 350.3), the notice and recordkeeping regulations should require ROUs themselves to be identified. To avoid any duplication of effort, SoundExchange proposes eliminating the requirement to provide this information external to the ROU.

- NAB/RMLC argue that some radio stations do not use headers now, and it would be burdensome for them to do so in the future because some of the proposed header data changes from reporting period to reporting period. In fact, at least one major broadcaster licensee uses full headers now, and the examples cited to illustrate burden strain credulity. As described above, basic identification of the licensee and ROU, including a row count, is information licensees are already required to provide. Providing that information internal to the ROU rather than in an email or cover letter would not require more effort, and seems likely to require less effort. The checksum would need to be computed based on the data reported each month, but addition is a simple arithmetic function easily performed by a spreadsheet or other computer software.[10]

- NAB/RMLC argue that audience measurement type, column headers and file parameters such as number of rows and checksum should be self-evident. But they are wrong as a factual matter. Audience measurement, whether performances or aggregate tuning hours, is just a number. And the ordering of data in an ROU is not as self-evident as NAB/RMLC imagine. Licensees pick and choose among data fields to include in their ROUs (either because the regulations provide options or because they have decided to do so anyway), and SoundExchange regularly receives reports with the columns out of order.[11] Having licensees tell SoundExchange what data they have included and how they have arranged it would be preferable to risking that SoundExchange will interpret their reported data improperly. Indeed, even if they do not use full headers, a number of licensees include in their ROUs a single-row

[10] The suggestion that licensees might not be able to transmit a file with 17 blank rows, NAB/RMLC Comments, at 76, is just silly. First, the whole point of the header is for it not to be blank. Second, a carriage return is a perfectly valid character in a text file.

[11] A recent ROU provided for Cape Cod Broadcasting, the subject of Exhibit H to the NAB/RMLC Comments, illustrates the kinds of issues that are presented in the messy real world of day-to-day operations. That ROU includes a row of column headers (though not other lines of the header contemplated by the regulations). The columns identified by Sandab include all the data elements contemplated by Section 370.4(d)(2), including alternatives, in the order provided therein, except that channel or program name appears between marketing label and actual total performances, rather than between aggregate tuning hours and play frequency. In the rows that follow, sound recording title information is included in the featured artist column; featured artist names are included in the sound recording title column; and neither ISRCs nor album titles and marketing labels are provided. While this ROU demonstrates that requiring headers is not a panacea when licensees do not match their data to the headers they have voluntarily provided, the larger lesson is that this proceeding is not an academic exercise in which it can be assumed that ROUs are provided in the idealized manner presented by NAB/RMLC.

header consisting of column identifiers.[12] The purpose of the number of rows and checksum is to allow SoundExchange to know when it has received all the data the licensee intended to report. Absent this information, SoundExchange would not know if it had received only an incomplete report.

- NAB/RMLC argue that requiring headers would allow SoundExchange to seek late fees for inadvertent minor errors. As explained in Part III.E.2, it is not SoundExchange's purpose or desire to seek late fees for inconsequential good-faith omissions or errors.

NPR's comments concerning headers primarily trumpet that its uniquely-customized reporting arrangement addresses some of the same issues as SoundExchange's proposal in this proceeding. NPR Comments, at 11. NPR's comments, however, have no bearing on the generally-applicable requirements for licensees that report different data in different formats and do not have its unique organizational structure and reporting arrangements. NPR also cautions that implementing SoundExchange's proposals would require time for NPR stations. However, they have time, because NPR's reporting format is governed by a special agreement through 2015 (and may well be after 2015).

CBI finds the inclusion of the checksum in the header confusing and inapplicable to its members. CBI Comments, at 8. CBI is right that the inclusion of the checksum is inapplicable to its members, because only a handful of NEWs actually report usage currently, and we expect that to continue, as described in Part II. In the case of the handful of NEWs that do report, and that report play frequency rather than performances or aggregate tuning hours, play frequency is

[12] *See* NAB/RMLC Comments, at Exhibit D ¶ 6 (Beasley includes "identification of the reported data fields"). SoundExchange has observed such headers in the ROUs of other commenting broadcasters as well.

the column that would be totaled to derive the checksum. That column easily could be totaled with the spreadsheet software referred to in the various NEW comments.

None of the comments filed by others appears to address the subject of category codes. As described in SoundExchange's Petition (at 14-15), if the Judges make the changes described above concerning consolidation of ROUs, matching ROUs to SOAs, and use of account numbers, SoundExchange believes that the concept of category codes can be dropped from the notice and recordkeeping regulations. If the Judges do not make those changes, category codes would continue to play a useful role in royalty distribution, and the Judges should provide a mechanism to ensure that the category code list is always up to date. Petition, at 14-15.

3. Direct Delivery of Notices of Use

SoundExchange proposed requiring licensees to send copies of their notices of use ("NOUs") to SoundExchange when they file them in the Copyright Office. Petition, at 12-14. This proposal responds to a very basic problem. NOUs contain information useful for the orderly flow of reporting and royalties. That is why the Judges and the Office before them have always required licenses to file NOUs. However, there is little point in collecting the information sought in NOUs if that information is unavailable to the people who need to use it – and principally that is SoundExchange.

The Office has generally been helpful in providing NOUs to SoundExchange. It sends batches of NOUs to SoundExchange once per month by email once it has received a check for the proper filing fee, the check has cleared, and the Office has resolved any issues with the filing. However, these deliveries are sometimes delayed when (1) waiting for a check to clear causes delivery of an NOU to slip into the next month, (2) the Office has had issues (such as a payment problem) that cause delivery of an NOU to slip for a month or more, or (3) staff turnover or other issues in the Licensing Division have caused it to miss deliveries. As a result, SoundExchange has sometimes been able to access NOUs only after repeated requests or months of delay. From time to time, SoundExchange has discussed with Copyright Office staff whether SoundExchange could pull new NOUs more frequently itself, but that has not been practicable, primarily due to the way NOUs are filed in the Licensing Division.

If the Judges wish to have a system in which royalties are promptly and properly processed, that system should not depend upon a flow of NOU information that is slow and has at times been incomplete and irregular. SoundExchange is open to fixing that problem by means other than what it proposed. However, if the Judges choose not to address that problem, they should understand that they are choosing to implement an unreliable system that risks delaying the orderly flow of reporting and royalties.

Against that backdrop, NAB/RMLC oppose direct delivery of NOUs, but do not have any useful suggestions to address the underlying problem. NAB/RMLC Comments, at 80-82. First, NAB/RMLC suggest that SoundExchange's request should be denied unless SoundExchange undertakes to make NOUs available to the public. MRI makes a similar suggestion. MRI Comments, at 4. However, this is a solution in search of a problem. We are not aware of demand for NOUs by anyone other than SoundExchange, and whatever public demand for NOUs there might be is served by the Licensing Division. It makes no sense to impose an unnecessary and duplicative public records function on SoundExchange as a condition to addressing the genuine problem of getting NOUs to SoundExchange in the first place.

Then, NAB/RMLC question SoundExchange's need for the information contained in the NOUs on the theory that similar information is supposed to be contained in ROUs. However, NOUs have always done more than formalize a license's choice to rely on the statutory licenses.

NOUs alert SoundExchange to expect reporting and payments from a new licensee; allow it to set up a new licensee account; and provide a way for SoundExchange to contact the licensee to explain the requirements of the statutory license and how to submit payments, SOAs and ROUs, and to follow up if reporting and payment are not forthcoming, or are not clearly identified when received. While NAB/RMLC do not propose eliminating NOUs, they are essentially arguing against the principal purpose of NOUs. If the Judges wish to implement a reliable system for the orderly processing of reporting and royalties, they should not relegate NOUs to the files of the Licensing Division while leaving SoundExchange to guess that an ROU that cannot readily be matched to a known licensee is an ROU from a new licensee.

NAB/RMLC suggest that if SoundExchange wants NOUs it should go to the Copyright Office to get them. However, as explained above, the problem is not SoundExchange's ability to communicate with the Office or its willingness to visit the Office if necessary, but establishing a reliable and timely flow of data from the Office.[13]

Finally, NAB/RMLC reiterate their refrain that any requirement is an excuse for SoundExchange to seek late fees for inadvertent minor errors. However, this proposal concerns delivery of NOUs, not ROUs, and so would not be reached by SoundExchange's proposed late fee provision. This purported concern is simply out of place.

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[13] WKNC similarly points out that a list of licensees that have filed NOUs is available on the Copyright Office website at http://www.copyright.gov/licensing/114.pdf, and suggests that the Office could provide updates to SoundExchange by means of an RSS feed. WKNC Comments, at 2. However, that list has not always been updated regularly; is in alphabetical order so new entries are not evident; and does not include most of the information contained in the NOUs, particularly the licensee's contact information. Receiving NOUs from the Office in real time by some kind of automated process would be welcome, but it is not in SoundExchange's power to make that happen.

The template comments filed by the various NEW commenters say that they "feel" direct delivery of NOUs is unnecessary and likely to be overlooked. *See, e.g.*, KBCU- Comments, at 2; WSDP Comments, at 2. It may well feel unnecessary for them to provide the information contained in NOUs – they, after all, are not in a position where they have to figure out how to properly account for royalties they receive from payors they have never heard of. It must be remembered that filing an NOU is, for most services, a one-time event. While a few commenting NEWs do not appear ever to have filed an NOU, most of the NEWs expressing concerns about this requirement will probably never file an NOU again. When webcasters do file an NOU, an appropriate instruction on the NOU form and/or the licensee section of SoundExchange's website indicating that a copy should be sent to SoundExchange should be sufficient to allay any concerns about overlooking the requirement.[14]

B. Flexibility in Reporting Format

1. Certification/Signature Requirements

SoundExchange proposed an amendment to Section 370.4(d)(4) to allow an ROU certification to accompany (rather than necessarily being included in) the ROU. SoundExchange also asks the Judges to eliminate the requirements in 37 C.F.R. § 380.13(f)(3) and § 380.23(f)(4) that SOAs bear a handwritten signature.[15] Petition, at 15-17; SoundExchange Comments, at 5. NAB/RMLC support SoundExchange's proposal. NAB/RMLC Comments, at 68.

[14] The template educational webcaster comments also indicate that online submission of NOUs with a credit card payment would solve a "problem" for them. It is not clear what this problem is for an educational webcaster that has already filed its NOU. However, the Office's choices about how to receive NOUs and the applicable filing fees do not seem relevant to the issue of how to reliably get NOUs from the Office to SoundExchange.

[15] The handwritten signature requirements in 37 C.F.R. § 380.4(f)(3) and 384.4(f)(3) have been eliminated since the filing of the Petition. 79 Fed. Reg. 23,102, 23,129 (Apr. 25, 2014) (amending 37 C.F.R. § 380.4(f)(3)); 78 Fed. Reg. 66,276, 66,278 (Nov. 5, 2013) (amending 37 C.F.R. § 384.4(f)(3)).

CBI supports this proposal, but only if a typed signature is a sufficient electronic signature. CBI Comments, at 9. Similarly, SCAD Radio expresses concern about this proposal based on a lack of understanding of how to use an electronic signature. SCAD Radio Comments, at 2. However, SoundExchange's proposal would not require any licensee to use an electronic signature. While SoundExchange hopes that licensees will find it convenient to sign and submit their SOAs electronically, licensees that do not wish to do so could continue to provide SOAs that have a handwritten signature as they have been required to do all along. Moreover, a typed signature may well constitute a legally sufficient electronic signature.[16] In any event, SoundExchange would provide appropriate instructions for electronically signing and delivering SOAs when it makes that functionality available. The proposed change simply removes an unnecessary impediment to use of electronic signatures where desired. It need not be feared by NEWs.

2. Character Encoding

SoundExchange proposed modernizing the character encoding requirements in the notice and recordkeeping regulations to provide more options for reporting and to facilitate more accurate distributions of royalties.[17] In particular, SoundExchange proposed (1) allowing licensees to choose an appropriate encoding format, with a preference for the UTF-8 encoding

[16] *See* 15 U.S.C. § 7006 (defining an "electronic signature" as "an electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record").

[17] Character encoding is the manner in which letters, numbers, punctuation marks and the like are represented as 1s and 0s for purposes of processing by a computer. There are many different systems for character encoding. ASCII is probably the most limited, because it is capable of representing only 128 characters: the letters A-Z and a-z, the numbers 0-9, and some basic punctuation marks and control codes. The UTF-8 format allows encoding of more than an additional million characters, including non-Roman alphabets and diacritical marks, and so can support every system of writing in a way that ASCII just does not. Petition, at 17-18.

format if feasible, and (2) requiring licensees to identify the character encoding format they choose to use in the ROU header. Petition, at 17-18.

SoundExchange's analysis indicates that licensees – including broadcasters – regularly provide ROUs encoded in non-ASCII formats, including UTF-8. In connection with the preparation of these Reply Comments, SoundExchange examined ROUs from a selection of 30 webcasters consisting mostly of broadcasters, and found that only 20 of the ROUs were readable in ASCII format.[18] That is not surprising, because character encoding is not something that ordinary computer users focus on, and the long-term trend has been for systems increasingly to default to non-ASCII character encoding formats. SoundExchange can process an ROU using almost any character encoding format, but strongly prefers that licensees use UTF-8 because it can encode any character, including characters from non-English languages that commonly appear in track and album titles and artist names. SoundExchange has recently implemented functionality in its system for ingesting ROUs that automatically tries to identify the character encoding format for each ROU so that it can be read without error. That functionality makes the licensee's identification of the character encoding format it used (item 2 above) less important than it was at the time SoundExchange filed the Petition, although the identification is still desirable to avoid errors and to account for situations in which a licensee chooses a more obscure format.

NAB/RMLC does not object to permitting use of the UTF-8 encoding format, but opposes SoundExchange's proposed preference for that format. NAB/RMLC Comments, at 83-84. NAB/RMLC's opposition to SoundExchange's preference for UTF-8 is puzzling, both

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[18] Some of those may have been written in non-ASCII formats, but were nonetheless readable as ASCII files because they used a format backward compatible with ASCII and did not use non-Roman characters.

because choosing among character encoding formats is not typically difficult and because the essence of SoundExchange's proposal is that licensees should be able to choose the character encoding format they use. The purpose of the preference for UTF-8 is simply to steer licensees that can readily choose among character encoding formats toward a format that supports every system of writing, rather than one that is only capable of representing the Roman alphabet. SoundExchange doubts that broadcasters are as committed to ASCII as NAB/RMLC's comments indicate, because, for example, it appears to SoundExchange that Clear Channel, CBS and Univision use UTF-8;[19] Cox uses ISO 8859-1;[20] and Entercom uses Windows-1252. However, if there are broadcasters using ASCII (or some other format) that would need to make a material effort or incur a material expense to change, SoundExchange's proposal is designed to allow them to continue in their present course of conduct. No broadcaster should feel that an option is being "suddenly pulled out from under them" by SoundExchange's proposal.

Various individual webcaster commenters seem similarly confused by SoundExchange's proposal. WSOU agrees with SoundExchange concerning the limitations of ASCII, but expresses concerns about its not knowing the technical specifications of UTF-8 before finding comfort in the flexibility provided by SoundExchange's proposal. WSOU comments, at 4. Its final point is the right one. If WSOU submitted ROUs, it would likely be easy for it to choose to do so in UTF-8 format without understanding the technical details of how UTF-8 is implemented. But if not, it could choose an alternative format. The Blast FM characterizes the change to UTF-8 as a "hassle," The Blast FM Comments, at 1, but likewise would not need to

[19] Univision's choice of UTF-8 is appropriate given the use of diacritical marks in the Spanish language, which is used to identify much of the repertoire Univision uses.

[20] While Cox "identified a need to continue to use ASCII" to assure compatibility with the systems it uses to generate ROUs, NAB/RMLC Comments, at Exhibit C ¶ 8, it appears to SoundExchange that those systems are not actually generating ROUs in ASCII format.

change if that is really the case. KUIW opposes SoundExchange's proposal, but because it "may not have the students to do any kind of input." KUIW Comments, at 2. However, if KUIW were required to provide ROUs, the character encoding format for its ROU output file would have nothing to do with the amount of data entry involved. By contrast, Lasell College Radio and WJCU seem to understand SoundExchange's proposal, and so support it. Lasell College Radio Comments, at 2; WJCU Comments, at 2.

CBI argues that NEWs should be able to use their choice of character encoding format, but should not be required to tell SoundExchange which format they used. CBI Comments, at 9. This point is largely academic, because almost no NEWs provide ROUs now, and we expect that to continue, as described in Part II. Moreover, to the extent NEWs prepare their ROUs using Excel software and SoundExchange's template, that template will be configured to make it easy for licensees to use Excel to generate a UTF-8 output file (assuming the Judges adopt SoundExchange's character encoding proposal).

3. XML File Format

SoundExchange proposes to make XML (Extensible Markup Language) a permissible (not mandatory) alternative file format for delivery of ROUs. Petition, at 19. Most of the comments do not address this proposal. The discussion of this proposal in the NAB/RMLC Comments is confusing because it is combined with its discussion of the character encoding format. NAB/RMLC comments, at 83-84. The encoding of characters and the formatting of files are distinct concepts.[21] However, because NAB/RMLC say use of XML should be optional,

[21] A file is a collection of characters that are encoded in some format. The selection of a character encoding format and the selection of the format for the file in which the encoded characters will be delivered are separate and independent choices.

and that is exactly what SoundExchange proposes (*see* proposed Section 370.4(e)(2)), it appears that NAB/RMLC support SoundExchange's proposal in this regard.

C. Facilitating Unambiguous Identification of Recordings

1. ISRC, Album Title and Label

Under current regulations, PSS are required to include in their ROUs, among other information, the album title, the marketing label, and the International Standard Recording Code ("ISRC"), "where available and feasible." 37 C.F.R. § 370.3(d)(5), (6), (8). Other types of services may report either the ISRC or the album title and marketing label. Overwhelmingly they choose album title and marketing label, or do not report any of the three. Of the three, ISRC is the one data element with the most power to identify recordings accurately and unambiguously.[22] SoundExchange proposed that the PSS requirement be extended to the other types of services. Petition, at 21-23.

SoundExchange's proposal to require ISRCs "where available and feasible" reflects the simple fact, which the Judges have recognized, that "[b]efore [SoundExchange] can make a

[22] For example, the artist Sam Smith has released at least six different recordings of his popular song "Stay with Me":

Artist	Track	ISRC
Mary J. Blige | Sam Smith	Stay With Me [Darkchild Version]	GBUM71402190
Sam Smith	Stay With Me	GBUM71308833
Sam Smith	Stay With Me [Darkchild Version]	GBUM71401356
Sam Smith	Stay With Me [Live]	GBUM71402928
Sam Smith	Stay With Me [Shy FX Remix]	GBUM71401439
Sam Smith	Stay With Me [Wilfred Giroux Remix]	GBUM71401440

If a licensee reported to SoundExchange only that it used the recording "Stay with Me" by Sam Smith, the licensee might have used any of Sam Smith's six recordings of the song. Identifying the recording as from the album *In the Lonely Hour* would likely point to his main studio recording of the song, although his duet with Mary J. Blige was included as a bonus track on at least one version of that album. His other recordings of the song appear to have been distributed as digital singles and an EP, but not on an album. Under these circumstances, a licensee's reporting of the ISRC of the specific recording it used would unambiguously identify that recording in a way that reporting of artist name, track title and album title would not.

royalty payment to an individual copyright owner, [it] must know the use the eligible digital audio service has made of the sound recording." 73 Fed. Reg. at 79,727-28. When SoundExchange receives from a licensee in an ROU a line of usage data that cannot be matched to a known recording and/or payees with reasonable confidence, either because the data provided is incomplete or because the data, although complete, could describe any of several known recordings with different payees, SoundExchange has no means of knowing which recording the service actually used, and hence who should be paid for the use.

As described in Part I, an average of 29% of the lines of data in the ROUs ingested by SoundExchange last year could not be matched automatically to known repertoire, resulting in delays in distributing about 23% of statutory royalty payments. This indicates an extremely high level of missing or erroneous data for many services, given that for some services, fewer than 1% of lines of reported usage data could not be matched automatically. Many licensees have an average match rate under 50%. This is a particularly high number when one understands that SoundExchange's systems have long been designed to "learn" from the manual matching that SoundExchange does. That is, if a particular line of data reported by a licensee cannot be matched automatically, and SoundExchange then determines through a manual process that it likely was intended to identify recording *X*, SoundExchange's systems will thereafter automatically match that licensee's reporting of the same identifying information to recording *X*. To have 29% of lines not match automatically despite this feature of SoundExchange's systems requires a large and steady stream of new ambiguities and errors.

This low match rate reflects a mix of causes that are difficult to separate and quantify. To some extent, the set of data elements currently required by the ROU regulations is not sufficient to identify recordings unambiguously even when the required information is reported completely, accurately and unambiguously. To an even greater extent, licensees fail to report the currently-required data elements completely, accurately and unambiguously. There are tens of millions of commercial recordings, and SoundExchange maintains over 90,000 artist accounts and about 30,000 copyright owner accounts. With numbers like that, there are a lot of names that sound a lot alike, particularly when abbreviated. For example, the label name "Boss" is reported for many tracks. However, Boss, Boss Productions, Boss Records and Boss Sounds are different copyright owner royalty recipients represented in SoundExchange's repertoire database. SoundExchange has also received reports of a Boss Entertainment, and other record labels have Boss in their names (*e.g.*, Big Boss Records). It appears that licensees sometimes use the single word "Boss" to identify at least several of these different entities.

In each case, the answer to these problems is the same. Generally reporting more data elements, even if some specific items are sometimes missing, inaccurate, indecipherable or ambiguous, will both tend to increase SoundExchange's automatic match rate and facilitate manual matching. Ten years ago, when it settled on the data elements presently required in ROUs, the Copyright Office "emphasized that they represent the minimum requirements," and that it was "*highly likely* that additional requirements will be set forth after the Office has determined the effectiveness of these interim rules." 69 Fed. Reg. at 11,518 (emphasis added).[23]

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[23] Given that the current requirements have always been viewed as the minimum necessary to enable proper payment of artists and copyright owners, the Judges should reject NAB/RMLC's suggestion to require reporting of only title and artist information, thereby reducing SoundExchange's match rate further. NAB/RMLC Comments at 23-35. Even NAB/RMLC concede that title and artist would enable unique identification of the actual recordings used only about 90% of the time. NAB/RMLC Comments, at 33. Moreover, the source on which they rely explains that 90% applies only to contemporary music, and that the number is 70-80% for older music. NAB/RMLC Comments, at Exhibit F ¶ 16. The statutory license system must pay artists and copyright owners a higher percentage of the time. Given the problems described above that

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Now that the volume of statutory royalty payments and reported usage has increased significantly, and is increasing rapidly, the Judges should elevate ISRC data beyond its status as an alternative reporting option in the "minimum requirements," to seek ROU data that would allow more rapid and accurate distribution. More frequent reporting of ISRCs is the one single thing that is most likely to increase matching, and hence proper payment of artists and copyright owners entitled to royalties. The time has come for other services to report ISRC when available and feasible, in the same manner the PSS have since 1998 and is common in direct license relationships.

Other commenters were deeply divided concerning this proposal. A2IM strongly supported it. Sirius XM, MRI, and apparently the many webcasters that didn't file initial comments in this proceeding accepted it. Broadcasters and their representatives opposed it.

a. Comments Accepting SoundExchange's Proposal

A2IM strongly supported SoundExchange's proposal. It explained that independent record companies release and own "the largest group of sound recordings," and often release recordings by artists that are less famous and less identified with specific labels than in the case of major label recordings. A2IM Comments, at 2. It advocated reporting of ISRC where available and feasible as the best solution for improving accuracy of royalty distributions to independent labels and their artists. *Id.* at 3.

Sirius XM accepted SoundExchange's proposal on the understanding that these data elements only would have to be provided when available. Sirius XM Comments, at 2. MRI indicated that it is "well aware" of the data matching issues that motivated SoundExchange's

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on average only yield a 71% initial match rate under the current regulations, delivery of fewer data elements would certainly drive that rate down significantly.

proposal, and cited various reasons for these problems. It suggested minor clarifications addressing the availability of these data elements. MRI Comments, at 4-5.

As SoundExchange emphasized in its initial comments, Sound Exchange has proposed the same standard that has been applicable to PSS for over 15 years, which requires services to provide an ISRC only when the ISRC is available and it is feasible for the licensee to provide it. SoundExchange Comments, at 6-7. Thus, SoundExchange agrees with the principle expressed by Sirius XM and MRI that licensees should not be required to provide any data element that does not exist for a particular recording. SoundExchange agrees with Sirius XM (but not MRI) that it is not necessary to add any additional language to the proposed regulations to achieve that result. For as long as there have been notice and recordkeeping regulations, there have been instances of the types cited by Sirius XM and MRI in which particular data elements do not exist for particular recordings. However, SoundExchange is not aware of anyone previously suggesting that the Judges' rules might require a service to provide information that does not exist, nor is it aware of any disputes in that regard. While SoundExchange is not opposed in principle to clarifying that proposition, it would have to be done with some care to avoid creating unwanted implications that the Judges previously or in other respects did require delivery of information that does not exist for particular recordings. This simply seems unnecessary.[24]

[24] Sirius XM did not advocate, but said it "would support" a requirement that SoundExchange make ISRCs available in a format convenient for each licensee. Sirius XM Comments, at 2. Since nobody has proposed such a thing, it is not necessary to say more. However, SoundExchange *is* exploring ways to make ISRCs more available to licensees, if the necessary investment of artist and copyright owner resources is justified by a greater promise that licensees might use them in reporting. Because Sirius XM's suggestion contemplates significant technical interaction between individual licensees and SoundExchange, that suggestion is more properly left for exploration on a voluntary basis between SoundExchange and services that have the capability and interest to pursue it.

b. Comments Opposing SoundExchange's Proposal

Broadcasters and their representatives vigorously opposed SoundExchange's proposal, and NAB/RMLC suggest that the Judges take a large step in the opposite direction by requiring reporting that is less comprehensive.[25] NAB/RMLC Comments, at 20-23, 46-48, 50-54. NAB/RMLC offer four reasons in support of their objection, all of which are unavailing.

First, they contend that ISRCs are not available. NAB/RMLC Comments at 36-39. The thrust of NAB/RMLC's argument is that "many sound recordings have no ISRC assigned."[26] NAB/RMLC Comments at 36. They assert that many "sound recordings made before 1989 often have no ISRC" and "many smaller independent labels and self-published artists do not obtain them." NAB/RMLC Comments at 36-37.

NAB/RMLC vastly overstate the degree to which sound recordings in commercial use have not been assigned ISRCs. While some record companies were slower than others to adopt the ISRC standard, and it may have been true a decade ago that many record companies did not assign ISRCs to their recordings, a very high proportion of commercial recordings have an ISRC assigned to them today, whether or not they were first released after adoption of the ISRC standard. As a label executive explained during a recent music licensing roundtable conducted by the Copyright Office, "on the label side we have been working with ISRC for about 20 years,

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[25] The new exemptions from reporting that NAB/RMLC propose are addressed in Parts IV.B-.D. To the extent that NAB/RMLC argue that it is too burdensome for them to figure out what album a recording came from, we note that statutory licensees are required by 17 U.S.C. § 114(d)(2)(C)(ix) to identify the album title to the listening audience as a condition of the statutory licenses.

[26] As part of this section of their comments, NAB/RMLC also suggest that where ISRCs are assigned, services do not necessarily have ready access to them. We address that as part of NAB/RMLC's second argument.

and I think we are pretty good about ISRCs assigned to all the products."[27] Apple – by far the dominant provider of digital music downloads in the U.S. – now requires that all sound recordings available in the iTunes store and its related services have an ISRC assigned to them.[28] That is a powerful incentive for a record company or distributor to assign ISRCs to its recordings, and iTunes offers a catalog of over 26 million recordings.[29] SoundExchange expects that with its next database update this month it will have ISRCs for about 14 million recordings.

Nonetheless, NAB/RMLC try to sow doubt about the availability of ISRCs by addressing at length the supposed state of ISRC use by independent artists. E.g., NAB/RMLC Comments, at 36 & Exhibit L. However, this has little or nothing to do with the actual operational concerns of broadcasters. In a more candid part of NAB/RMLC's comments they explain that broadcasters are "likely to play more 'mainstream' music, with playlists that are necessarily more limited than those of large multi-channel webcasters like Pandora." NAB/RMLC Comments, at 52. NAB/RMLC's professed concern for the unavailability of ISRCs for music by independent artists is just misdirection.[30] In fact, ISRCs are readily available for the vast majority of commercial recordings, and as described below, SoundExchange intends to facilitate their availability further.

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[27] Transcript of New York Roundtable in Copyright Office Docket No. Docket No. 2014-03, at 334 (June 23, 2014) (statement of Andrea Finkelstein, Sony Music Entertainment).

[28] *iTunes Music Provider: Frequently Asked Questions*, https://www.apple.com/itunes/working-itunes/sell-content/music-faq.html.

[29] http://www.apple.com/pr/library/2013/12/16BEYONC-Shatters-iTunes-Store-Records-With-Over-828-773-Albums-Sold-in-Just-Three-Days.html?sr=hotnews.rss

[30] NAB/RMLC also suggest that assignment of ISRCs is prohibitively expensive. NAB/RMLC Comments, at 36, Exhibit K ¶ 6. However, this is simply wrong as applied to anyone in the business of creating and marketing recordings. For a one-time (not annual) $80 registration fee, a label (including an artist) can receive a registration code enabling it to assign up to 100,000 ISRCs per year. https://www.usisrc.org/faqs/registration_fees.html. And a long list of approved ISRC Managers can provide individual ISRCs for artists or labels who do not wish to manage their own ISRC assignment. https://www.usisrc.org/managers/index.html.

Moreover, NAB/RMLC's argument that ISRCs are not available is also beside the point. As explained above, SoundExchange has proposed that services only be required to provide an ISRC when an ISRC is *available* and it would be *feasible* to provide it – as has been the case with the PSS for over 15 years. If a particular sound recording has no ISRC, the ISRC obviously would not be "available," and there would be no expectation that the service would provide one.

Second, NAB/RMLC argue that it would not be economically reasonable for broadcasters to try to associate ISRCs with the recordings they use, and *SoundExchange* should "associate ISRCs with other sound recording identifying information" instead.[31] To the extent this argument is about who has "the burden" of "looking up" ISRCs, it demonstrates a fundamental misunderstanding of the role of ROUs and of the problem that SoundExchange seeks to solve through the provision of ISRCs in ROUs. The purpose of ROUs is *not* to help SoundExchange learn the ISRCs of sound recordings that licenses report having used. Instead, the purpose is for SoundExchange to obtain from licensees accurate and unambiguous identification of the specific recordings that the licensee has used.

The identity of the specific recording that a licensee has used is not information "that SoundExchange already has collected." NAB/RMLC Comments, at 41. That is information that the licensee creates anew each month, and that is known to SoundExchange only when the licensee provides it to SoundExchange. The purpose of the notice and recordkeeping regulations is to prescribe how the licensee will communicate that information. *See* 17 U.S.C. § 114(f)(4)(A). ISRCs and other sound recording identification elements in ROUs are the way in

[31] NAB Comments at 39-41, Exhibit C ¶ 5 (suggesting that SoundExchange should match broadcaster-provided title and artist information to ISRCs), Exhibit F ¶ 17 (same).

which the licensee describes to SoundExchange the recordings it has used, and including ISRCs in ROUs would identify the recordings used with greater precision.

Embedded within NAB/RMLC's economic reasonableness argument is a question of how licensees feasibly acquire and report ISRCs. As a practical, operational matter, there are a variety of sources from which ISRCs are available. NAB/RMLC make much of various examples of promotional CDs with minimal identifying information and no perceptible ISRCs. *See* NAB/RMLC Comments, at 38. However, NAB/RMLC's own comments suggest that most broadcasters get most of their music from services such as PlayMPE, an online resource that typically provides a variety of associated metadata, including ISRC.[32] More generally, and as explained in the Petition, larger services that receive electronic copies of recordings from record companies and digital distribution companies should typically receive ISRCs as part of the accompanying metadata. To the extent services obtain recordings from commercial products, the ISRC generally should be encoded thereon, and when present, easily can be extracted with widely-available software tools. Petition, at 22-23. When a licensee does not have immediate access to ISRCs by one of those means, good ISRC databases are available on the internet.[33]

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[32] NAB/RMLC Comments, at Exhibit B ¶ 6-7 (Salem gets "the vast majority" of its new music from PlayMPE); NAB/RMLC Comments, at Exhibit E ¶ 5-6 (West Virginia Radio receives most of its music from music service providers, particularly Play MPE); NAB/RMLC Comments, at Exhibit G ¶ 6-7, 11 (referring to WDAC acquisition of recordings from PlayMPE, and implying that ISRC is often available for recordings obtained through PlayMPE); NAB/RMLC Comments, at Exhibit H ¶ 2 (Cape Cod Broadcasting obtains non-classical recordings mostly from PlayMPE and another service).

[33] For example, the U.K. society PPL provides a repertoire database with ISRCs at http://repsearch.ppluk.com/ARSWeb/appmanager/ARS/main and the French Société Civile des Producteurs Phonographiques provides a repertoire database with ISRCs at http://www.scpp.fr/SCPP/Accueil/REPERTOIRE/Catalogue/Choix_catalogue/BasePhonogrammes/tabid/81/language/en-US/Default.aspx. While operated by foreign societies, sound recording repertoire is highly internationalized, so these databases tend to have the ISRCs of recordings popular in the U.S. The thirteen year old SoundExchange testimony on
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The real issue here does not seem to be any shortage of ways for licensees easily to obtain ISRCs, but rather that many broadcasters have chosen not to store in their internal databases ISRCs that are available to them.[34]

SoundExchange anticipates that it will be able to provide ISRCs to interested services, either by offering them an ISRC search capability for recordings in its repertoire database or supplying them ISRCs that are missing from their ROUs (when the recordings can be identified in SoundExchange's repertoire database with reasonable confidence from other available information including the album title and marketing label name).[35] Of course licensees will still need to identify the particular recordings they use in their services. However, this will provide yet another means for any licensee readily to obtain ISRCs for recordings in its library.

As a result of the foregoing, SoundExchange believes that it generally should be feasible for licensees to acquire ISRCs and include them in their reports of use. However, if not, its

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which NAB/RMLC relied for the proposition that ISRC information is not publicly available is simply out of date. *See* NAB/RMLC Comments, at 39.

[34] *See, e.g.,* NAB/RMLC Comments, at Exhibit B ¶ 7 (available data needs to be copied to another database); NAB/RMLC Comments, at Exhibit E ¶ 10 (West Virginia Radio's database has not been configured to store ISRC); NAB/RMLC Comments, at Exhibit H ¶ 6 (Cape Cod Broadcasting does not capture related metadata). In arguing that ISRCs are unavailable, NAB/RMLC rely heavily on a statement provided by Rusty Hodge of SomaFM.com. NAB/RMLC Comments, at 36-39. However, what Mr. Hodge says is that SomaFM has not "stored" ISRCs for most of the recordings in its database. NAB/RMLC Comments, Exhibit K ¶ 5. Mr. Hodge adds that ISRCs can be lost in file conversion. *Id.* ¶ 7. That is to say, services do not retain ISRCs that are provided to them.

[35] Like Sirius XM, NAB/RMLC allude to the possibility of SoundExchange "decid[ing] someday to make its database available for services to use" or even "the Judges mandat[ing] such disclosure." NAB/RMLC Comments, at 41. While SoundExchange intends to make its repertoire database information (including ISRCs) available to services, a *requirement* that SoundExchange make its database available would be inappropriate. As RMLC's counsel Mr. Greenstein explained when he was representing SoundExchange last time such a suggestion was made, "[t]he CRB lacks the authority to expropriate SoundExchange's database for the benefit of licensees." Reply Comments of SoundExchange, Inc. in Copyright Office Docket No. RM 2005-2, at 25 (Sept. 16, 2005).

proposal is designed to provide flexibility in this regard. SoundExchange has only proposed that licensees be required to provide an ISRC when the ISRC is *available* and it is *feasible* for the licensee to provide it. This limitation has been part of the reporting regulations for the PSS for 15 years. Our understanding is that when the Judges required the PSS to provide ISRCs only when feasible, the Judges meant to indicate that licensees would not need to do that which is commercially impracticable. That language seems entirely sufficient to address the issues of "small services with few staff and limited resources" as to which NAB/RMLC profess concern. NAB/RMLC Comments, at 40.[36]

Third, NAB/RMLC contend that it would be unreasonable to expect licensees to provide ISRCs because SoundExchange and the RIAA "strongly opposed" mandating the provision of ISRCs in a separate Copyright Office proceeding that relates to an entirely different issue. NAB Comments at 41-42. The Judges should not be persuaded by their attempt to take prior comments made by SoundExchange and the RIAA out of their context.

The statements referred to were made in response to a Notice of Inquiry in which the Copyright Office sought advice on how to reengineer its platform for recording documents related to copyrighted works. *See Strategic Plan for Recordation of Documents,* 79 Fed. Reg. 2696 (Jan. 15, 2014).[37] The Office sought comments on, among other things, "whether it should adopt incentives or requirements with respect to the provision of standard identifiers" and

[36] The cumulative comments provided by NEWs say that they are "very relieved" by the qualifier "if feasible." *E.g.*, KNHC Comments, at 2. CBI asserts that ISRC reporting by NEWs "is rarely feasible." CBI Comments, at 9. While few NEWs actually report usage at all, they are correct that SoundExchange's proposal would not require them to report by ISRC when that is not feasible. NPR also objects to this proposal. NPR Comments, at 12-13. However, given its special reporting arrangement, this proposal would not apply to NPR until 2016, and reporting arrangements for the period after 2015 likely will be a matter of discussion between the parties.

[37] *Available at* http://copyright.gov/fedreg/2014/79fr2696.pdf.

whether such provision "would aid in uniquely identifying affected works and in linking Copyright Office Catalog information about works to other sources of information about such works." *Id.* at 2699. SoundExchange took the position that "the Copyright Office *should* facilitate the collection of industry-standard unique identifiers, such as ISRCs." Comments of SoundExchange, Inc., in Copyright Office Docket No. 2014-1, at 4 (Mar. 15, 2014) (emphasis added).[38] SoundExchange added:

> ISRCs have become the standard within the recording industry to identify tracks. Record labels use ISRCs to identify their recordings and incorporate them into the metadata of their recordings that they provide to their digital partners. As examples, Apple's iTunes store requires an ISRC for each sound recording in order to make that recording available for sale to the public, and SoundExchange collects ISRCs from sound recording copyright owners in order to identify accurately their recordings for the purposes of distributing streaming royalties properly. Likewise, digital music services frequently report ISRC information to sound recording copyright owners when they report their usage under direct licenses in order to identify the sound recordings they have streamed.

Id. SoundExchange further explained that, although the Copyright Office should seek to collect ISRCs at recordation, it would be unworkable to make collection of ISRCs *mandatory* for the purpose of recordation because a single copyrighted work subject to recordation may have multiple sound recordings, each with a unique ISRC. *Id.* at 4-5 & n.3. The RIAA offered similar observations. *See* Comments of the Recording Industry Association of America, Inc. in Copyright Office Docket No. 2014-1, at 10 (Mar. 14, 2014) (encouraging the use of identifiers, such as ISRCs, "on a voluntary basis," but explaining that it would be unworkable to require

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[38] *Available at* http://www.copyright.gov/docs/recordation/comments/79fr2696/SoundExchange.pdf.

them for recordation because "[e]ach individual version of the recording has a unique ISRC number").[39]

SoundExchange's and RIAA's comments that provision of ISRCs should not be a requirement for the recordation of copyrighted works were directed to unique issues relating to the statutory registration and recordation functions of the Copyright Office, and plainly do not reflect any lack of support for ISRCs by SoundExchange and RIAA. Nothing in these comments suggests that services should not use ISRCs to identify the tracks they report as used. Indeed, the feature of ISRCs that made their mandatory reporting unworkable for copyright recordation purposes – *i.e.* that ISRCs uniquely identify different versions of sound recordings, not copyrighted works – illustrates the reason that ISRCs would be useful here.

Finally, NAB/RMLC contend that providing ISRCs is not necessary, and would actually increase reporting errors. NAB/RMLC Comments, at 42-44. NAB/RMLC are correct that some recordings can be identified unambiguously with less information than others. However, as described above, the reporting that SoundExchange currently receives does not allow automatic matching of about 29% of reported lines of data (corresponding to about 23% of royalties). To the extent that SoundExchange received ISRCs, it would be able to match these lines, increasing the accuracy and speed with which these royalties can be paid to the proper artist and copyright owner.

NAB/RMLC's suggestion that inclusion of ISRCs in ROUs would increase reporting errors is disconnected from operational reality. SoundExchange receives a large amount of poor quality data, including from broadcasters. While ISRCs likely would be misreported occasionally, just like other identifiers, providing an additional data point – particularly one with

[39] *Available at* http://copyright.gov/docs/recordation/comments/79fr2696/RIAA.pdf.

the identifying power of ISRC – would certainly tend to increase matching rather than decrease it.

2. Classical Music

Reporting of usage of classical music has been a persistent problem, because a high proportion of usage is of recordings of a relatively small number of musical compositions, and services often have not provided data sufficient to identify which recording of a composition they used. To improve SoundExchange's ability to match reported usage of classical music to specific recordings and payees, SoundExchange proposed that services be required to identify the featured artist and the recording title with greater particularity than is clear from the current regulations. Petition, at 21, 23-24.

Sirius XM recognizes the difficulties presented by identification of classical recordings and so accepts SoundExchange's proposal with clarifications. It also suggests that the effective date of this requirement be delayed by 12-18 months.[40] Sirius XM Comments, at 2-3. It is not apparent to SoundExchange that Sirius XM's clarifications are necessary:

- Sirius XM suggests that the six fields of data sought by SoundExchange (three relating to identification of each of the featured artist and the recording title) should be required "only where available to the licensee." Sirius XM Comments, at 2. In Section 370.4(d)(2)(ix) of the proposed regulations attached to the Petition and NPRM, SoundExchange suggested qualifying all of these except the composer name and overall title of the work with the words "if any" or "if applicable," and it is not apparent how a service could use a classical recording under the statutory licenses

[40] Similarly, NPR indicates that "changing the field formats of reports of use is technology feasible, [but] it would take a substantial amount of time for NPR/DS to incorporate the changes into the current reporting system." NPR Comments, at 13.

without knowing the composer and work title.[41] To the extent that might be possible in some obscure set of circumstances, any concerns about penalties for failing to provide this information seem fully addressed by SoundExchange's discussion of inconsequential good-faith omissions or errors in the context of the late fees provision (*see* Part III.E.2).

- Sirius XM also said that it is "not clear from the Notice whether the new information is intended to be placed in the existing 'featured artist' and 'title' fields, or comprise new fields in the Reports of Use." Sirius XM Comments, at 3. In formulating its proposal, SoundExchange attempted to be as clear as possible that "these are new, separate fields for classical reporting," *id.*, by specifying in Section 370.4(d)(2)(ii) and (iii) of the proposed regulations that there is an exception to the requirement to provide featured artist and sound recording title "in the case of a classical recording," and including the new data elements as a separate item in Section 370.4(d)(2)(ix), reportable only "[i]n the case of a classical recording." While it seems unnecessary, SoundExchange has no objection to making that point even clearer.

SoundExchange also has no objection to providing a reasonable period for implementation of this requirement, and suggests that January 1, 2016 might be a reasonable and easily-administrable effective date for the requirement to provide expanded identification of classical recordings.

The broadcaster commenters take a very different approach from Sirius XM. NAB/RMLC call SoundExchange's proposal "[u]nnecessary and [u]nreasonable." NAB/RMLC

[41] Among other things, it is not apparent how a statutory licensee could comply with the requirement of 17 U.S.C. § 114(d)(2)(C)(ix) to identify the sound recording and album title to the listening audience without knowing this information.

Comments, at 44-46.[42] For its opposition, NAB/RMLC rely primarily on information provided by Cape Cod Broadcasting. NAB/RMLC Comments, at 45 and Exhibit H. However, Cape Cod Broadcasting illustrates the kinds of problems SoundExchange is attempting to address by its proposal. As Mr. Bone explains, Cape Code Broadcasting uses a radio automation system that has been customized by a software developer to meet its specific requirements, and Cape Cod Broadcasting has chosen to configure that customized system to store only work title and composer information. NAB/RMLC Comments, at Exhibit H ¶ 7. This phenomenon is illustrated in Exhibit H-1 to the NAB/RMLC Comments, which shows an example of a work identified in that system only as "Five Hungarian Dances" by Brahms.

As a result of Cape Cod's decision to configure its customized radio automation system to store only limited data, and its sloppy and inconsistent practices for capturing even that, a recent ROU provided for Cape Cod Broadcasting includes:

- In the featured artist column, generally names of musical works, or sometimes component parts or collections thereof (*e.g.*, "Allegro from Cello Sonata in g," "2 Gigues from Pieces de Clavecin," "Classic Cluster#5 (Sat,Bee,Br)");
- In the sound recording title column, generally names of composers, usually just the last name, and sometimes abbreviations of names, groups of composers or other

[42] Some of the comments provided by NEWs also "object" to SoundExchange's proposal. *E.g.*, KBCU Comments, at 3; *see also* CBI Comments, at 10. Some of the NEW commenters object to this proposal even though their comments suggest that they do not actually have "DJs at this time interested in playing classical music." *E.g.*, KSSU Comments, at 4; SCAD Atlanta Comments, at 3; SCAD Radio Comments, at 3. Because the NEWs generally do not seem to use classical music, and they do not report their actual usage when they do, their objections are entitled to no weight. Similarly, NPR calls some aspects of this proposal "unworkable" for its stations. NPR Comments, at 13. However, given NPR's special reporting arrangement, this proposal, if adopted, would not apply to NPR until at least 2016, and any implementation issues at that time likely would be worked out in discussions between the parties.

information (*e.g.*, "BACH," "SANZ, TARREGA, ALBENIZ," "TCHAIK,RACH,TCHAIK," "PUCCINI (Fine day,Belovdad,NessDr");[43] and

- No sound recording identifying information, such as featured artist, ISRC, album title or marketing label.

As the foregoing makes clear, all that Cape Cod Broadcasting has attempted to do is identify musical works, rather than specific recordings of those works, and in many cases it has not even done a very good job of identifying the musical works. This is contrary to the Copyright Office's clear instructions when it adopted the relevant regulations. 69 Fed. Reg. at 11,523-24. It should be apparent that such an ROU is useless for purposes of identifying the recordings actually used by Cape Cod Broadcasting and distributing royalties to artists and copyright owners.

An example illustrates the point. Antonio Vivaldi's *The Four Seasons* is one of the most popular pieces in the classical music repertoire. In just the single ROU described above, it appears that Cape Cod Broadcasting tried to report the use of six different recordings of movements from *The Four Seasons*, for which it identified the featured artist in a manner such as "Vl. conc. in F, Autumn R. 293 P. 257" or "Vl. conc. in g, Summer" (in each case the sound recording title is given as "VIVALDI," and no other identifying information is provided). This can in no sense be said to provide meaningful notice of use of specific sound recordings. See 17 U.S.C. § 114(f)(4)(A). This is also a significant problem. SoundExchange currently holds close to $700,000 in royalties that it cannot distribute because licensees have identified only the

[43] On some lines of the ROU, the fields are reversed or otherwise combined, so the featured artist column includes composers or groups of composers and sometimes the names of works as well, and the sound recording title column includes names of musical works or components or collections thereof.

composer and title of a musical work and not the specific sound recording used. SoundExchange has reached out to Cape Cod Broadcasting concerning ROU compliance on various occasions, including at least twice in roughly the last year concerning data reporting issues leading to extremely low match rates. However, those outreach efforts obviously have not led to a significant improvement in Cape Cod Broadcasting's reporting.

Even in the case of classical music reporting by a service that tries to comply with the applicable regulations, unambiguous identification of classical recordings presents special challenges. This is because the most popular classical musical works – the ones that are used most often by statutory licensees – have been recorded many times, often by performers known for their expertise with certain composers and works, and those recordings are often released and re-released by a small set of labels emphasizing classical music. And classical albums often are titled with the name of the musical work. For example, SoundExchange has database entries for about 500 different recordings of *The Four Seasons* that have been identified as used under the statutory licenses. The Decca label alone has released recordings of *The Four Seasons* by at least six different featured artist combinations.[44] One of the ensembles with a recording of *The Four Seasons* distributed by Decca is I Musici de Roma, an Italian chamber orchestra particularly known for its performances of works by Vivaldi. (There is also a separate ensemble called I Musici de Montreal.) Its recording of *The Four Seasons* distributed by Decca was originally recorded for and released on the Philips label (a corporate affiliate). I Musici de Roma

[44] (1) Janine Jansen; (2) I Musici/Federico Agostini; (3) Neville Marriner/Alan Loveday/Academy of St. Martin in the Fields; (4) Werner Krotzinger/Karl Munchinger/Stuttgart Chamber Orchestra; (5) The Academy of Ancient Music/Christopher Hogwood; and (6) Leopold Stokowski/New Philharmonia Orchestra.

has released a total of at least six different recordings of *The Four Seasons* on the Philips label,[45] and at least another two different recordings of *The Four Seasons* on other labels.[46] Philips has released at least nine other recordings of *The Four Seasons* as well, one of those featuring Felix Ayo, a violin soloist who also performed on two of Philips' I Musici releases of *The Four Seasons*[47] and has released other recordings of the work as well.

Against this backdrop, identifying a use of *The Four Seasons* by title and artist as NAB/RMLC proposes, NAB/RMLC Comments, at 33, 46, does not unambiguously identify a specific recording. If a use was identified by title and artist only as *The Four Seasons*/I Musici, the recording actually used could be any of at least eight different recordings by I Musici de Roma. If a use was identified only as *The Four Seasons*/Ayo, the recording likewise could be any of a number of different recordings. Adding the album title and label as contemplated by the current regulations does not substantially narrow the range of ambiguity when the album title is reported as *The Four Seasons* and the label is Philips.

As Sirius XM recognized, SoundExchange's proposed additional data fields for classical recordings are designed to provide the additional information necessary to allow proper payment. Three of these fields – composer, title of overall work, and title of movement or other constituent part of the work – are necessary to identify the relevant constituent musical work with precision.

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[45] (1) I Musici/Felix Ayo; (2) I Musici/Felix Ayo (again, in a different performance); (3) I Musici/Roberto Michelucci; (4) I Musici/Pina Carmirelli; (5) I Musici/Federico Agostini; (6) I Musici/Mariana Sirbu.

[46] (1) I Musici/Antonio Anselmi, on the Dynamic label; (2) I Musici/Francesco Renato, on the Fratelli Fabbri Editori label.

[47] (1) Felix Ayo/Vittorio Negri/Berlin Chamber Orchestra; (2) Arthur Grumiaux/Arpad Gerecz/Les Solistes Romands; (3) Henryk Szeryng/English Chamber Orchestra; (4) Viktoria Mullova/Claudio Abbado/Chamber Orchestra of Europe; (5) Thomas Wilbrandt/Christopher Warren-Green/Philharmonia Orchestra; (6) Jan Tomasow/Antonio Janigro/I Solisti Di Zagreb; (7) Gheorghe Zamfir; (8) Berdien Stenberg; (9) Raymond Fol Big Band.

While NAB/RMLC object to (and even ridicule) these requirements, this is, as described above, information that Cape Cod Broadcasting currently reports when it identifies *Spring* as having the sound recording title "Vivaldi" (the composer) and the featured artist "Vl. conc. in E, Spring R. 269 P. 241" (the overall work and part). Thus, for these three items, SoundExchange is not asking for an "incredible amount of information," NAB/RMLC Comments, at Exhibit H ¶ 8, but just proposing a format for reporting of information that Cape Cod Broadcasting tracks and reports currently.

As to the other three fields – ensemble, conductor and soloist(s) – the foregoing examples show that it is necessary to identify the combination of featured artists involved in this way to identify unambiguously the particular recording used. Reporting this information will require Cape Cod Broadcasting to do additional work, but reporting the data currently required by the regulations would require Cape Cod Broadcasting to do all or most of that work. The problem here is that for at least a decade Cape Cod Broadcasting has chosen not to store or provide any featured artist identifying information at all. It is time that it start to do so, and as it starts to do so, it should collect and report featured artist information in a way that will unambiguously identify the classical tracks it uses.

D. Reporting Non-Payable Tracks

Some licensees may not be required to make payments to SoundExchange for all the sound recordings they use in their services. For example, in the *SDARS II* proceeding, the Judges determined that use of certain categories of recordings would not be compensable under the royalty structure adopted in that proceeding, and provided for a corresponding adjustment of the payment amount owed by the service. *Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services*, 78 Fed. Reg. 23,054, 23,072-73 (Apr. 17, 2013); 37 C.F.R. § 382.12(d), (e). The SDARS rate regulations contain specific provisions requiring identification of tracks for which a service claims a royalty exclusion. 37 C.F.R. § 382.12(h). In this proceeding, SoundExchange proposed language for Section 370.4(d)(2) operationalizing that requirement and extending it to other types of services. Petition, at 24-26. Sirius XM agrees that for services that pay royalties on a percentage of revenue basis, "this is necessary information," although it observes that this requirement should not extend to material such as voice breaks that may be logged in playlists. For services paying royalties on a per-performance basis, however, it asserts that "this is none of SoundExchange's business." Sirius XM Comments, at 3. NAB/RMLC likewise oppose this proposal. NAB/RMLC Comments, at 48-50. Various NEWs "strongly object" to this proposal, although it would not have any effect on them. *E.g.*, KBCU Comments, at 3; *see also* CBI Comments, at 10-11. MRI proposes procedures for addressing disputes if SoundExchange's proposal is adopted. MRI Comments, at 5.

Relatively few licensees have the financial incentive and purported wherewithal to administer licensing at the individual recording level so as to rely on the statutory licenses for some of their usage and direct licenses for other usage, or to exclude from their royalty payments use of particular tracks for which a license may not be required. For the NEWs and the vast majority of other licensees that do not rely on direct licenses or take royalty deductions for pre-1972 recordings or other tracks, SoundExchange's proposal would have no impact whatsoever. They would not be required to make exclusions that they have never made before and have no business reason of their own to make (*e.g.*, because they pay only the minimum fee). Instead, they would continue to report the same scope of usage they currently report (if any), and would flag none of the reported tracks as excluded.

For the relatively small set of usage-intensive licensees with the financial incentive and purported wherewithal to take royalty deductions at the individual track level, the reporting sought by SoundExchange is critical. The Judges adopted the current SDARS reporting requirement because in *SDARS II*, "[d]espite the Judges' requests," even a large, sophisticated service like Sirius XM was "incapable of providing the Judges with accurate data as to the identity and volume of" the recordings exempt from statutory licensing. As a result, the Judges found that "[r]easonable accuracy and transparency are required" to provide confidence that the appropriate payment is made. 78 Fed. Reg. at 23,073. If Sirius XM could not produce an accurate assessment of royalty deductions for use on its SDARS service in response to multiple specific requests from the Judges in the middle of a litigation with millions of dollars at stake, there is no reason to believe that the same systems and staff would do a better job of accounting for use on its webcasting service, or that other webcasters with fewer resources and less motivation would do a better job. Thus, the problem that the Judges identified in *SDARS II* applies equally to all services, whether they pay royalties on a percentage of revenue or per-performance basis. Absent reporting of which tracks services believe to be non-payable, SoundExchange has no practical means of determining whether artists and copyright owners are being properly paid for usage that is payable.

None of the commenters dispute the basic proposition that transparency is necessary to enable SoundExchange to ensure that it is receiving the proper compensation in the face of an inability of the part of services to distinguish accurately between payable and non-payable tracks. Rather, commenters have raised two arguments that challenge whether the Judges have the statutory authority to require reporting of non-payable tracks, neither of which is persuasive.

First, NAB/RMLC argue that their services should not be required to disclose tracks that they believe to be non-payable because the Copyright Act provides for "reasonable notice of the use of their sound recordings under" the statutory licenses, 17 U.S.C. §§ 112(e)(4), 114(f)(4)(A), and does not specifically "require[] reporting of sound recordings not subject to the statutory licenses." NAB/RMLC Comments, at 48-49. This observation is not responsive. Sections 112 and 114 do not identify any of the specific data items that licensees are required to report in ROUs. It is up to the Judges to determine what reporting is necessary to provide "reasonable notice" of services' use of sound recordings. As long as there is little reason to believe that services are capable of accurately distinguishing between those performances that are subject to the statutory license and those that are not, the only way to provide reasonable notice of use of sound recordings under the statutory license is to require services that rely on the statutory licenses for some of their usage, but not all, transparently to disclose what recordings they think they are using outside the statutory license.

Second, Sirius XM and NAB/RMLC contend that they should not be required to report tracks that they believe are non-payable because SoundExchange "has no statutory authority to collect and distribute royalties for sound recordings not subject to the statutory licenses." NAB/RMLC Comments at 49; Sirius XM Comments at 3 (arguing that SoundExchange's "statutory mandate is to collect royalties for performances made under the statutory license"). This too is beside the point. SoundExchange does not seek in these proposed regulations to collect or distribute royalties for non-payable tracks. The issue is that reporting of tracks asserted to be non-payable is essential to accurate collection of royalties for those sound recordings that are payable.

As noted above, Sirius XM has pointed out that, although reporting of directly licensed and pre-1972 tracks is necessary in some circumstances, SoundExchange's proposed regulations could be read to require services to report the transmission of "every voice break, interstitial, introduction, and the like." Sirius XM Comments at 3. Similarly, NAB/RMLC point out that that the current language of Section 370.4(d)(2) arguably requires that result. NAB/RMLC Comments, at 54-55. SoundExchange agrees that licensees should not report these sorts of incidental transmissions, and it is a problem when they do. To clarify that incidental transmissions should not be reported, SoundExchange proposes in Exhibit A revised language for Section 370.4(d)(2) that implements its proposal while also clarifying that incidental transmissions should not be reported.

MRI suggests that if the Judges adopt SoundExchange's proposal, SoundExchange should be required to return an electronic file identifying any disputed tracks. MRI Comments, at 5. If the Judges adopt SoundExchange's proposal, SoundExchange would certainly want and expect to implement business processes for communicating to licensees questions about deductions the licensees have taken. However, it is premature to know exactly what those processes would be, and hence to prescribe them by regulation. SoundExchange would not necessarily know about direct licenses that a licensee may be relying on. Accordingly, SoundExchange would need to use information reported by licensees pursuant to its proposal to investigate possible reporting issues. SoundExchange believes that the nature of its response to perceived under-reporting is a question that it should be left to address in the first instance as an operational matter. If there are subsequent issues, the Judges could consider the matter on a more informed basis at a later time.

E. Late or Never-Delivered ROUs

1. Proxy Distribution

SoundExchange proposes that the Judges grant it standing authorization to make proxy distributions when its board determines that it has done what is practicable to try to secure missing ROUs from a service and further efforts to seek missing ROUs are not warranted. Petition, at 27-29. In general, proxy distribution is not a desirable substitute for having actual usage data on which to base distributions to artists and copyright owners. However, in limited circumstances it has proven to be a satisfactory means of distributing small pools of royalties that cannot reasonably be distributed based on actual usage data.[48] SoundExchange's proxy proposal seems widely supported, although the Judges and various commenters raise questions concerning details of its implementation.

As an initial matter, because some commenters seem confused, it should be understood what is – and what is not – contemplated by SoundExchange's proposal. SoundExchange's proxy proposal addresses cases in which it has not received a useable ROU, and after taking reasonable actions to try to secure the missing ROU, SoundExchange determines that further efforts to seek the missing ROU are not warranted. As described in the Petition, experience shows that SoundExchange's efforts to coax recalcitrant licensees to provide ROUs over a period of years reduce the pool of royalties being held pending receipt of ROUs to a small sliver of the overall royalty pool. SoundExchange's proposal is not intended to address the ordinary case in which it receives an ROU that can be ingested into its royalty system but some lines of reported data do not match known repertoire. In such cases, SoundExchange pays the proper payees for

[48] SoundExchange's Petition stated that it had about $13.1 million in royalties for the 2010-2012 period that are undistributable due to missing or unusable ROUs (about 1.2% of total royalties for that period). Petition, at 28. That number has since fallen to about $9 million.

the matched usage, and attempts manually to identify, and if necessary, research the unmatched usage. If it is ultimately impossible for SoundExchange to identify some of the recordings used (and hence their artists and copyright owners) with reasonable confidence, SoundExchange handles the royalties associated with that usage in accordance with applicable regulations concerning the disposition of royalties payable to unidentified copyright owners and performers. *E.g.*, 37 C.F.R. § 380.8.[49]

NAB/RMLC and NPR support SoundExchange's proxy distribution proposal, although a little too enthusiastically. NAB/RMLC Comments, at 63-65; NPR Comments, at 9.[50] As SoundExchange cautioned in its Petition, there is a risk that licensees that face no compulsion to deliver ROUs, and that understand that their payments will eventually be distributed by proxy, will be even less motivated to deliver ROUs than they are today. Petition, at 29. The various broadcaster comments in this proceeding make clear that broadcasters would prefer not to do any reporting at all. The possibility of proxy distribution when licensees fail to report should not be allowed to become an excuse for non-reporting by licensees. Thus, if the Judges implement SoundExchange's proxy proposal, they should also implement a late fee to motivate reporting.

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[49] While the economic effects of that treatment are analogous to a proxy distribution, in that a reduction of SoundExchange's expenses for a year results in an increase in payments to everyone receiving royalties for that year, the processes are distinct. For clarity, when the A2IM comments refer to the desirability of using ISRCs to avoid use of a proxy process, it is referring to the unidentified payees process, and not to SoundExchange's proxy proposal. *See* A2IM Comments, at 3.

[50] For clarification, when the NPR Comments mention current proxy distribution of CPB payments, they are describing an analogous process of distributing royalties based on less than comprehensive data. That process is a function of the unique reporting arrangements in place for NPR, and is distinct from SoundExchange's proposal here. However, we agree with the thrust of NPR's comments that SoundExchange's proposal is conceptually similar to other situations in which royalties are distributed based on less than comprehensive data, and hence does not need to be subject to a higher level of oversight than other analogous situations.

Sirius XM and MRI recognize that use of a proxy may be necessary in some circumstances, but propose various procedural requirements. Sirius XM Comments, at 3-4; MRI Comments, at 6. Their suggestions are unnecessary and inappropriate.

First, they suggest notice to the service and an opportunity for the service to cure its reporting deficiencies. However, such notice and cure is assumed by SoundExchange's proposal, because the proposal becomes operative only after SoundExchange determines that it has done what is reasonable to seek the missing ROUs. In fact, SoundExchange's license management system will soon allow it to automate the sending of reminder notices to licensees that fail to provide required ROUs. As a result, licensees should expect even more persistent reminders from SoundExchange than when follow-up was a more manual process. Accordingly, providing licensees one last chance to produce an ROU that is years late would simply serve to delay distribution of royalties that should finally be placed into the hands of artists and copyright owners.

Next, Sirius XM and MRI express concerns about the distributive effects of different proxy distribution methodologies and propose a notice and comment process to address such methodologies. SoundExchange agrees that proxies are imperfect. That is why SoundExchange views proxy distribution as a last resort. But the procedures Sirius XM and MRI propose are unnecessary, and not desired by their supposed beneficiaries. Sirius XM and MRI have no stake whatsoever in the methodology used for a proxy distribution. The procedures they suggest could be justified as an expenditure of artists' and copyright owners' money only if those procedures would be welcomed and appreciated by artists and copyright owners. Notably, the artists and copyright owners who would be entitled to comment on the details of particular distribution methodologies under the Sirius XM/MRI proposals have not commented in this proceeding concerning SoundExchange's suggestion that such details be left to SoundExchange's board. Instead, A2IM – the representative of the constituency for which Sirius XM and MRI express the most concern – is satisfied that it has a voice on the SoundExchange board. A2IM Comments, at 2. Artists and copyright owners understand that SoundExchange's board represents its constituents, and they are content to leave the technical details of how a proxy distribution would be implemented to SoundExchange. The Judges should not require SoundExchange to delay payments to artists and copyright owners – and spend their money – implementing a notice and comment process desired only by commenters with no interest in the matter.[51]

Finally, MRI confusingly argues that SoundExchange should not be able to agree with its members to discriminate against non-members. This concern makes no sense, but other regulations already prohibit SoundExchange from discriminating against non-members. *E.g.*, 37 C.F.R. § 380.4(g).

2. Late Fees

Because late submission of ROUs is a significant problem that delays distribution of millions of dollars of statutory royalties each year, and SoundExchange's proxy distribution proposal, while necessary, might provide licensees an excuse never to provide ROUs, SoundExchange proposed establishing a late fee for ROUs. Petition, at 29-30. The late fee provision it suggested including in Section 370.6(a) was patterned on the ones currently

[51] It also should be noted that, contrary to Sirius XM's and MRI's expressed concerns about SoundExchange favoring more popular repertoire at the expense of less repertoire, the Annual/License Type methodology used for the 2004-2009 distribution, which SoundExchange has said it would expect to be its default methodology, tends to be over-distributive. That is, the Annual/License Type methodology results in distribution of some royalties to everyone whose recordings were used by any other service of the same type, even though many of the less popular of those recordings were probably not used by the specific services whose royalties are being distributed by proxy.

contained in Sections 380.13(e) and 380.23(e) of the Judges regulations' by virtue of settlements with broadcaster groups. SoundExchange believes that this proposal is vitally important, because, as this proceeding has illustrated, some services have not made reporting a priority, and a late fee is the most practicable method of focusing their attention on the need to do better.

Sirius XM does not oppose SoundExchange's proposal, but suggests that (1) there should be no "stacking" of late fees when a service delivers a payment, SOA and ROU late, but on the same day; (2) no late fee should be payable for "inconsequential good-faith omissions or errors"; and (3) SoundExchange should be encouraged to work with services to identify and correct errors. Sirius XM Comments, at 4-5. SoundExchange does not disagree with Sirius XM's suggestions, although it is not clear to us that those suggestions require any changes in the proposed regulatory language:

- Sirius XM cites the Judges' *SDARS I* rate determination as holding that the current late fee provision for SOAs does not contemplate "stacking" of late fees when the payment and SOA are delivered late, but on the same day. Sirius XM Comments, at 4; *Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services*, 73 Fed. Reg. 4080, 4100 (Jan. 24, 2008). SoundExchange did not intend to achieve a different result when it proposed the late fee for ROUs. The Judges did not see fit to address the subject of stacking specifically in the regulatory language providing late fees for SOAs. As to stacking, the regulatory language SoundExchange proposed to implement the late fee for ROUs does not seem meaningfully different from the language the Judges used to implement the late fee for SOAs. Accordingly it is not evident that stacking needs to be addressed in regulatory language here, although the treatment of stacking is a matter that could be clarified in regulatory language if the Judges thought it necessary to do so in this context.

- Sirius XM cites the Judges' past determinations that no late fee should be payable for "inconsequential good-faith omissions or errors" in a SOA and suggests that the same principle should apply to ROUs. Sirius XM Comments, at 4; 73 Fed. Reg. at 4100; *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 72 Fed. Reg. 24,084, 24,108 (May 1, 2007). While SoundExchange patterned its ROU late fee proposal most directly on the Sections 380.13(e) and 380.23(e), rather than the somewhat different language of Sections 380.4(e) and 382.13(d) addressed by the Judges' prior determinations, SoundExchange did not expect or intend to collect late fees for inconsequential good-faith omissions or errors in ROUs. As this proceeding has illustrated, SoundExchange routinely receives a high volume of bad data in ROUs – particularly from broadcasters. However, under the ROU late fee provisions of Sections 380.13(e) and 380.23(e) that are applicable to broadcasters, SoundExchange has not sought to collect late fees for "inconsequential good-faith omissions or errors," and would not expect to do so if its proposal were adopted. While the Judges did not see fit to clarify in the regulatory language of Sections 380.4(e) and 382.13(d) that late fees are not payable where a licensee made only "inconsequential good-faith omissions or errors," the Judges could clarify that in proposed Section 370.6(a) if they deem it necessary and appropriate to do so.
- SoundExchange is strongly motivated to – and does – work with services to identify and correct errors where useful, without a regulatory provision requiring it to do so. As described elsewhere in these Reply Comments, bad data reported by licensees has

significant costs for SoundExchange and materially delays distribution of a significant amount of royalties. SoundExchange is well-motivated to reduce those costs and delays when it reasonably can, because the artists and copyright owners that control SoundExchange want their royalties quickly and with the minimum necessary expense deductions. However, this is not a subject that lends itself to regulation, for a couple reasons. First, not all licensees or reporting problems are situated similarly, so a one-size-fits-all approach does not make sense. A level of interaction between SoundExchange and a licensee that might be warranted for a high-paying licensee that has reporting issues that can be corrected by interaction and wishes to take steps to correct those issues may not be warranted for a licensee paying only a small amount of royalties or having different issues or less willingness to correct them. Second, facilitating future automatic processing of ROUs with errors does not necessarily require interaction between SoundExchange and the licensee. As described in Part III.C.1 of these Reply Comments, SoundExchange's systems have long been designed to learn from its previous manual efforts to match a licensee's reported usage to known repertoire. Regulations should not require efforts to address matters that SoundExchange has already addressed through the programming of its systems.

Broadcasters have quite a different perspective on SoundExchange's proposed late fee. NAB/RMLC accuse SoundExchange of seeking to "punish services who have trouble preparing their ROUs and submitting them on time," and oppose SoundExchange's proposal on the grounds that it is not necessary to compensate SoundExchange for the lost time value of money and that the Judges have previously declined to adopt this proposal. NAB/RMLC Comments, at

55-58. While almost no NEWs provide ROUs, NEWs say they are "uncomfortable" with the late fee provision because it might be invoked in the case of "one line of data with missing information or a typo." *E.g.*, KBCU Comments, at 3.[52] CBI echoes its members' comments. CBI Comments, at 11.

The broadcasters' vigorous opposition to SoundExchange's late fee proposal is remarkable, because that proposal was patterned on the late fee provisions of Sections 380.13(e) and 380.23(e) of the Judges regulations, which were negotiated and agreed to by NAB and CBI as part of settlements of the *Webcasting III* proceeding.[53] Despite their professed alarm over making these provisions permanent, the broadcasters do *not* say – nor could they – that SoundExchange has been "harsh" or "unreasonable" or sought to "punish" services in its administration of the current provisions. SoundExchange has been entirely reasonable and judicious in its administration of the current provisions, and would do likewise if the Judges adopt its proposal. To the extent there is any legitimate concern that SoundExchange might seek to apply the late fee provision unreasonably, those concerns are fully addressed by the discussion of immaterial errors above.

As described in Part I, slow and poor quality reporting of usage by licensees remains a problem even after a decade of experience with the notice and recordkeeping regulations, and SoundExchange's efforts to engage with licensees to obtain ROUs and improve their reporting.

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[52] WSOU proposes that late fees be capped at $100. WSOU Comments, at 4. While that might seem like a lot of money to WSOU, it would easily be ignored by a more usage-intensive service.

[53] NAB/RMLC suggest that SoundExchange coerced the broadcasting industry into accepting this provision. NAB/RMLC Comments, at 58 n.16. That suggestion is unfounded. The broadcasting industry is much bigger and more powerful than SoundExchange, and had the option of participating in a proceeding before the Judges if it was not satisfied with its settlement options.

In 2013, lateness in delivering ROUs affected approximately $203 million in royalties (about 31% of statutory royalties), and ROUs that SoundExchange received late were, on average, delivered about 90 days late. Under the quarterly distribution schedule SoundExchange used in 2013, such lateness delayed distribution to artists and copyright owners of about $19 million in royalties (and delayed the distribution of those royalties by at least a quarter). In 2014, SoundExchange has been providing monthly royalty distributions to artists and copyright owners that receive electronic payments and have royalties due of at least $250.[54] Under this schedule, similar lateness will cause delay in distribution of a much larger amount of royalties. Once a useable ROU is received, poor quality data initially delay the distribution of approximately 23% of the royalties associated with ingested ROUs paid to SoundExchange – or about $150 million in royalties for 2013.

While SoundExchange is eventually able to obtain and process data sufficient to distribute with reasonable accuracy all but a few percent of statutory royalty payments, distribution of tens of millions of dollars of royalties is held up for months or years in the process. SoundExchange believes that the possibility of late fees under the provisions that have been applicable to broadcasters for the last several years has been somewhat effective in encouraging broadcasters to provide ROUs on a timely basis. But despite their vigorous opposition to extending those provisions, they are not the only licensees that are late in reporting. The Judges should make the late fee for broadcasters a permanent feature of the reporting regime and extend it to other types of licensees.

[54] NAB/RMLC's statement that SoundExchange makes distributions only quarterly is outdated. *See* NAB/RMLC Comments, at 62.

3. Accelerated Delivery of ROUs

To help speed the flow of royalties to artists and copyright owners, SoundExchange proposed shortening the time for providing ROUs, making it 30 days following the end of the relevant reporting period. Petition, at 30-31. Almost all commenters opposed this proposal. *E.g.*, NAB/RMLC Comments, at 61-63; Sirius XM Comments, at 5; MRI Comments, at 6; NPR Comments, at 12.[55]

SoundExchange continues to believe that its proposal has merit. Under the monthly royalty distribution schedule SoundExchange implemented this year, the current 45-day reporting cycle for licensees means that even when licensees report quality data on time, distributions to artists and copyright owners are delayed by a month relative to what would be possible with a 30-day reporting cycle for licensees.

However, if the Judges decide not to adopt this proposal, SoundExchange would propose in the alternative linking the time for provision of ROUs to the time for providing payments and SOAs for the relevant type of service. Proposed regulatory language implementing this alternative proposal is attached as Exhibit B. This change would allow the Judges to consider in rate proceedings, based on the specific circumstances of the particular type of service involved, whether it would be practicable to shorten both the payment and reporting cycle, creating a future mechanism to accelerate the flow of royalties to artists and copyright owners in specific cases where the Judges consider that reasonable.

[55] CBI and various NEWs objected to this proposed change. *E.g.*, CBI Comments, at 11; KBCU Comments, at 4. Because almost no NEWs report usage at all, their views concerning how long they might need to report are entitled to no weight.

F. Correction of ROUs and SOAs

SoundExchange occasionally receives from licensees at their own initiative corrected ROUs and SOAs once it has already processed the licensee's ROUs and SOAs for the relevant period and distributed the relevant royalties. Fortunately, such occurrences are relatively uncommon. However, once SoundExchange has allocated the payment on a SOA to usage on an ROU, such corrections are very disruptive to the flow of royalties through SoundExchange. Moreover, while SoundExchange can always allocate an additional payment, downward adjustments may not be recoverable (or take a long time to recover) from some royalty recipients. To provide a clear process for correcting ROUs and SOAs, SoundExchange proposed a new Section 370.7 that would (1) bar licensees from claiming credit for a downward adjustment in royalty allocations after the date that is 90 days after submission of the original ROU or SOA; and (2) permit SoundExchange to allocate any adjustment to the usage reported on the service's next ROU, rather than the ROU for the period being adjusted. Petition, at 31-32.

We did not see that any commenter took exception to SoundExchange's proposal to allow it to allocate adjustments to future usage, which would be computationally and logistically simpler for SoundExchange than adjusting past royalty statements. The Judges should adopt that proposal in any event.

Sirius XM agreed that some deadline for adjustments is appropriate, although it suggested that six or nine months would be more appropriate than three. It also observed that "it should be clear that that this regulation does not impact the separate audit provision," and suggested that the deadline apply to claims by SoundExchange for upward adjustment. Sirius XM Comments, at 6. As to the first of Sirius XM's points, the later the deadline for claiming downward adjustments, the more potential there is for disruption to the orderly flow of royalties and an inability for SoundExchange to recover royalties that have been distributed. While six months may not seem like all that long, it is long enough that SoundExchange will generally have distributed the vast majority of the relevant payment, and that current playlists will be very different. Receiving restated SOAs and ROUs claiming a downward adjustment within 90 days would be far less disruptive.

SoundExchange agrees with Sirius XM's observation that proposed Section 370.7 should not affect the audit process. Section 370.7 was intended to address the specific issue of licensees' self-reporting of corrections to ROUs and SOAs, and was not intended to address the entirely separate audit process. SoundExchange would have no objection to clarifying that point if the Judges were inclined to do so.

However, because Section 370.7 was not intended to affect the audit process, it is not apparent to SoundExchange that Sirius XM's other suggestion – a reciprocal deadline for claims by SoundExchange for upward adjustment – makes sense. While reciprocity in the adjustment deadline may have some superficial appeal, it must be remembered that the statutory licenses do not provide for reciprocity of information until there is an audit. Before that, all SoundExchange knows about a licensee's usage and royalty obligation is what the licensee has told SoundExchange. Thus, the audit process is the typical vehicle for SoundExchange to make claims for underpayment. Moreover, failing to pay statutory royalties when relying on the statutory licenses constitutes copyright infringement. *See* 17 U.S.C. § 114(f)(4)(B). The Judges could not negate that result by anything they might do in the notice and recordkeeping regulations.

NAB/RMLC oppose SoundExchange's proposed deadline for licensee self-correction of ROUs and SOAs. NAB/RMLC Comments, at 59-60. In part their opposition is based on

SoundExchange's audit right. *Id.* at 60. As described above, SoundExchange did not intend to preclude licensees from raising, as part of the resolution of an audit, errors tending to reduce their royalty obligations. Thus, as a practical matter, the audit clarification suggested by Sirius XM probably address most of NAB/RMLC's real concern.

NAB/RMLC are also just wrong that SoundExchange can – forever – recover past overpayments by withholding future royalty distributions. *Id.* While NAB/RMLC are correct that SoundExchange has reserved the right to recoup overpayments from artists and copyright owners, that does not mean that it is always possible to do so, or to do so quickly. The music business is hits driven, and tastes change quickly. Recordings also change ownership from time to time, and an overpayment to a former owner of a recording cannot be recovered from the current owner. Thus, the longer the time that elapses before an adjustment, the more complicated it is to recover an overpayment, and the less likely it is that SoundExchange will be able to fully recover money that has already been distributed.

It adds insult to injury to suggest that SoundExchange should pay licensees interest on overpayments when SoundExchange has distributed the money to artists and copyright owners, may not be able to recover the overpayments from them, and will have to expend significant effort to process an adjustment. SoundExchange is not a bank. Licensees should pay their royalties accurately, and not view depositing money with SoundExchange as a possible investment option.

NAB/RMLC can't seriously suggest that ROUs and SOAs should perpetually be subject to adjustment. There should be some reasonable deadline for SoundExchange's processing of claimed overpayments. SoundExchange believes that a three month deadline would be appropriate.

G. Recordkeeping

Section 114(f)(4)(A) requires that the Judge adopt regulations pursuant to which records of use of sound recordings "shall be kept and made available by entities performing sound recordings." This recordkeeping obligation is distinct from the "requirements by which copyright owners may receive reasonable notice of the use of their sound recordings." ROUs serve the purpose of providing notice of use.[56] Currently, what is required in the way of recordkeeping for usage is simply that licensees retain copies of their ROUs for three years. 37 C.F.R. §§ 370.3(h), 370.4(d)(6). Because this arrangement does not provide artists and copyright owners any assurance that they will be able to look behind a licensee's ROUs to assess their accuracy in an audit, SoundExchange proposed in Section 370.4(d)(5) that services be required to retain and provide access to unsummarized source records of usage in electronic form, such as server logs or other native data, rather than simply the ROUs that are supposed to be derived therefrom. Petition, at 32-34.

SoundExchange believes that both Section 114(f)(4)(A) and sound policy require the Judges to adopt a more robust recordkeeping requirement. When SoundExchange's auditors have been able to access underlying source records, SoundExchange frequently has found underpayment and underreporting. These practices can have significant economic consequences. In one case, non-reporting of transmissions of 30 seconds or less has been estimated to have led to a 10-20% underpayment. In another case, SoundExchange's auditor found a 16%

[56] 63 Fed. Reg. at 34,295 ("[b]ecause section 114(f)(2) mandates requirements by which 'copyright owners' may receive reasonable notice of the use of their recordings, provision must be made for individual copyright owners to have access to the Reports of Use"), 34,296 (in Section 201.36(a) describing report of use regulations as "prescrib[ing] rules under which Services shall serve copyright owners with notice of use of their sound recordings"); NAB/RMLC Comments, at 13.

underpayment based on non-reporting of transmissions of 60 seconds or less and of recordings that listeners joined in progress. In such an environment, requiring licensees to retain only their self-serving ROUs, and not the documentation from which those ROUs were derived, does not assure copyright owners of access to genuine "records of . . . use" as contemplated by Section 114(f)(4)(A). This is why voluntary licenses commonly require licensees to retain supporting records, not just copies of the reporting that they provide to their licensors. In the same manner, the Judges should not design a reporting system that provides no meaningful check on licensees that might not be sufficiently motivated to ensure the accuracy of their payments.

Because nobody likes to be the subject of a meaningful audit, commercial licensees and their service provider opposed SoundExchange's proposal. NAB/RMLC Comments, at 65-67; Sirius XM Comments, at 6; Triton Comments, at 6-9.

NAB/RMLC principally argue that this proposal should be rejected because the Judges rejected a proposal for server log retention that was "just litigated" in the *Webcasting III* rate proceeding. NAB/RMLC Comments, at 65. First, SoundExchange's proposal here is different from the one it made in *Webcasting III.* In *Webcasting III*, SoundExchange's proposal was for the retention of "original server logs sufficient to substantiate all rate calculation and reporting." Second Revised Proposed Rates and Terms of SoundExchange, Inc. in Docket No. 2009-1 CRB Webcasting III, at 15 (July 23, 2010). Here, SoundExchange's proposed regulatory language provides "server logs" as an example of permissible record retention, but is intentionally more flexible, allowing licensees to retain "unsummarized source records of usage underlying the Report of Use" that might be appropriate to the circumstances. The point is that licensees use some kind of underlying records to generate their ROUs. Whatever those records are, licensees should be required to retain evidence of the decisions the licensees made in determining what usage to report to SoundExchange.

Second, the decisional standards applicable to rate cases are different from the requirements of this rulemaking proceeding. In *Webcasting III*, the question was whether SoundExchange's proposed server log retention term "would have been negotiated in the marketplace between a willing buyer and a willing seller." 17 U.S.C. § 114(f)(2)(B). Based on the record of that proceeding, the Judges found that SoundExchange "failed to meet its evidentiary burden." *Determination of Royalty Rates for Digital Performance Right in Sound Recordings and Ephemeral Recordings*, 79 Fed. Reg. 23,102, 23,125 (Apr. 25, 2014). Here, the question is whether SoundExchange's current proposal is appropriate or even necessary to assure copyright owners of access to records of use as contemplated by Section 114(f)(4)(A). The Judges' *Webcasting III* decision does not speak to that question.

Finally, it is misleading to refer to Webcasting III as "just litigated." While the Judges' most recent Webcasting III decision was published in the *Federal Register* only a few months ago, direct cases in that proceeding were filed in 2009, and the evidentiary record was closed in 2010. Five years after SoundExchange first made its *Webcasting III* server log retention proposal, the Judges should indeed consider SoundExchange's current proposal based on current facts.

Turning to the merits, NAB/RMLC argue that retaining source records of usage would be unduly burdensome. Referring to the need to "[r]etain[] logs of every user connection for three years across multiple stations," the suggestion is that such records would be of such vast size that licensees could not possibly be expected to retain that much data. They challenge

SoundExchange to quantify the burden that it would place on them, while making no effort to do so themselves. NAB/RMLC Comments, at 65.

Of course, broadcasters are uniquely positioned to know how large their unsummarized source records of usage are, and what it might cost them to store those records within their current information technology environments. That they made no effort to quantify these circumstances is a sign that the burden of such storage is really not all that substantial in today's world of "big data" and cloud storage. While the size of such records would obviously depend on the nature of the records and the specific data elements the licensee chooses to include in them, the extent of usage of a particular licensee's service, and the licensee's technological approach to storing the records, the information available to SoundExchange suggests that such records are not at all large by current standards. "Organizations are inundated with data – terabytes and petabytes of it."[57] By contrast, an average webcaster's usage data is relatively compact.

The ROUs SoundExchange receives vary in size between 1 kilobyte and 270 megabytes. Based on the sizes of detailed monthly log files it has examined for SoundExchange and other clients, SoundExchange's audit firm has estimated that detailed webcaster server log files for statutory licensees would likely vary in size within the large range of half a gigabyte to possibly over 65 gigabytes per month, with the latter representing the logs of an extremely usage-intensive commercial webcaster whose logs contain significant sound recording metadata. Thus, the high end of that range represents approximately the largest source records that one

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[57] SAS, Big Data Meets Big Data Analytics, http://www.sas.com/content/dam/SAS/en_us/doc/whitepaper1/big-data-meets-big-data-analytics-105777.pdf, at 1; *see also* What is Big Data, http://www.ibm.com/big-data/us/en/ ("Big data is being generated by everything around us at all times. Every digital process and social media exchange produces it. Systems, sensors and mobile devices transmit it.").

realistically might expect to exist. For all licensees, the actual log file size depends on the log file structure and the licensee's archiving practices. For example, log files are much smaller when the licensee links to sound recording metadata stored externally to the log rather than repeating that metadata within the log. While these factors make it difficult to generalize about the size of log files or other source records, SoundExchange understands that even large broadcaster licensees may well have log files that are smaller than five gigabytes per month.

At five gigabytes per month, three years of source records would constitute 180 gigabytes of data, which would fit comfortably on the hard drive of any relatively recent computer. To the extent that a licensee might wish to make special storage arrangements, a three terabyte hard drive is available for $110 or less,[58] and three years of such records would use up only 6% of the space on the drive. Google also offers long-term cloud storage for 2¢ per gigabyte per month.[59] Thus, three years of such records could be stored in the cloud for $3.60 per month. Even at the high end of SoundExchange's audit firm's estimate (which likely would apply only to an extremely usage-intensive commercial webcaster paying many millions of dollars in statutory royalties), and without any efforts to store the data more efficiently, 36 months of records at 65 gigabytes per month would equal less than 2.5 terabytes of data, which would still leave room on that $110 three terabyte hard drive, or cost less than $50 per month to store in the cloud. In the current environment, file size and storage cost just are not reasons that licensees should be allowed to discard their detailed usage data before the end of the audit period.

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[58] *E.g.*, http://www.amazon.com/Seagate-Expansion-Desktop-External-STBV3000100/dp/B00834SJU8/ (as of Sept. 3, 2014 quoting a price of $109.99 for a Seagate 3TB external hard drive).

[59] https://developers.google.com/storage/pricing#storage-pricing.

NAB/RMLC argue that source records, and particularly server logs, might be confusing. NAB/RMLC Comments, at 66. Triton similarly argues that raw data can be misinterpreted, and specifically argues that some short connections may not constitute payable performances. Triton Comments, at 7. However, these suggestions illustrate precisely why SoundExchange should have access to source records underlying ROUs. Preparing ROUs is not a purely mechanical task. Licensees and their contractors like Triton make decisions about what uses they will report and pay for, and which they will *not* report and pay for. In essence, NAB/RMLC and Triton argue that licensees' decisions should conclusively be considered proper, and SoundExchange should have no practical ability to look behind and question those decisions. This is just to say that they would prefer not to be audited. It is not a reason for the Judges to deny SoundExchange access to genuine records of use as contemplated by Section 114(f)(4)(A).

Finally, NAB/RMLC argue that third parties may control server logs, and that the terms in Section 380.15(d) already address access to such records. NAB/RMLC Comments, at 66-67. SoundExchange's proposal specifically addresses access to third-party records, in a way that is compatible with, but not superseded by, Section 380.15(d). Specifically, SoundExchange proposes that "[i]f the Service uses a third-party contractor to make transmissions and it is not practicable for the Service to obtain and retain unsummarized source records of usage underlying the Report of Use, the Service shall keep and retain the original data concerning usage that is provided by the contractor to the Service." Petition, at 56. It appears that broadcasters "are willing to make available to SoundExchange in connection with an audit these relevant records." NAB/RMLC Comments, at 67. Beasley indicates that it already keeps these records for three years. NAB/RMLC Comments, at Exhibit D ¶ 15. For this reason, Triton's expressed concerns about data duplication and storage are simply irrelevant. *See* Triton Comments, at 6.

Sirius XM takes a different approach, arguing that SoundExchange's proposal would transform its audits into "technical audits," and asserting that the Judges rejected the concept of technical audits in the *Webcasting II* rate proceeding. Sirius XM Comments, at 6. However, the portion of the Judges' decision they cite concerned auditor qualifications. 72 Fed. Reg. at 24,109. This decision has no bearing on SoundExchange's current proposal. Notably, Sirius XM has nothing to say about data volumes or data storage costs.

When a service's royalty payments depend on its usage of sound recordings, it obviously would prefer not to have SoundExchange second-guess its decisions about how it has computed its payments. However, that is precisely why the Judges have consistently authorized SoundExchange to verify licensees' royalty payments on behalf of artists and copyright owners. *E.g.*, 37 C.F.R. § 380.6. The Judges' should not make auditing an illusory process, and should instead adopt SoundExchange's source record retention proposal.

H. Proposals SoundExchange Characterizes as Housekeeping

1. Quattro Pro Template

SoundExchange proposed deleting the requirement in 37 C.F.R. § 370.4(e)(2) that it provide a template ROU in Quattro Pro format. Petition, at 34. The idea to have a Quattro Pro template was originally the Copyright Office's. *Notice and Recordkeeping for Use of Sound Recordings Under Statutory License*, 70 Fed. Reg. 21,704, 21,706 (Apr. 27, 2005). It is not evident to SoundExchange that any licensee was ever interested in the availability of such a template or ever used Quattro Pro to prepare its ROUs. Whether or not such interest might once have existed, the comments in this proceeding do not indicate any demand for a Quattro Pro template today. Moreover, there is no need for a Quattro Pro template today. Quattro Pro does not appear to be available as a standalone product today. Its successor product WordPerfect

Office is capable of reading files in Microsoft Excel format.[60] As a result, if any licensee wished to compile an ROU using WordPerfect Office, it could load SoundExchange's Excel template into WordPerfect Office and do so.

Unaware of any interest in Quattro Pro or WordPerfect Office, NAB/RMLC and various NEWs suggest that SoundExchange should be required to provide templates in Google Sheets or other formats. *E.g.*, NAB/RMLC Comments, at 71; KBCU Comments, at 2. As an initial matter, these suggestions should be discounted because nothing in the record suggests that calls for other templates have any basis in actual reporting operations, as opposed to mere speculation about how ROUs might be prepared. Licensees today could use any spreadsheet software they want to prepare ROUs,[61] yet SoundExchange has seen no indication that licensees are actually preparing ROUs using any spreadsheet software other than Excel. In contrast to other portions of the NAB/RMLC Comments that cite the circumstances of particular broadcasters, the NAB/RMLC Comments contain no indication whatsoever that there is any actual operational demand for a template in any format other than Excel. The NEWs' boilerplate requests for a Google Sheets template also do not clearly reflect any real operational need, since most of the requests come from licensees that do not (and as discussed in Part II, we assume will not) report at all. SoundExchange should not be required to spend the money of artists and copyright owners indulging fanciful ideas that have no basis in real reporting operations.

These requests also reflect a misunderstanding of the role of the template in the generation of reports of use. Consistent with the Copyright Office's original description, 70 Fed.

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[60] WordPerfect Office X7 Quick Reference Card: Working with Microsoft Office Files, *available at* http://www.corel.com/static/landing_pages/16900020/WPO_2.pdf.

[61] Section 370.4(e)(2) is a requirement for SoundExchange to provide a template, not a requirement for licenses to use particular spreadsheet software – or spreadsheet software at all – to prepare their reports of use.

Reg. at 21,706, the template is a spreadsheet data file that provides a structure for licensees to input the usage data required by the regulations. Today's spreadsheet software commonly reads data files in formats other than their own proprietary format, and it is particularly common for other brands of spreadsheet software to read Excel files. Thus, for example, and just like WordPerfect Office, Google Sheets reads files in Excel format.[62] In fact, a user need only drag and drop SoundExchange's Excel template into Google's spreadsheet interface to work with that template using Google Sheets. There just is no reason for SoundExchange to make available templates in formats other than Excel.[63]

2. Inspection of ROUs

Section 370.5(d) requires SoundExchange to make ROUs available for inspection by copyright owners at SoundExchange's office, and requires SoundExchange to try to locate copyright owners to enable such inspection. In SoundExchange's petition, it proposed that the Judges amend this provision to (1) conform it to current law by recognizing that SoundExchange should permit inspection of ROUs by featured artists as well,[64] and (2) conform it to longstanding practice by recognizing that copyright owner inspection of ROUs has never been an operationally-significant aspect of the statutory licenses. *See* Petition at 34-36; NPRM at 25,044.

[62] Overview of Google Sheets, https://support.google.com/docs/answer/140784?hl=en&ref_topic=20322 ("Here's what you can do with Google Sheets: Import and convert Excel, .csv, .txt and .ods formatted data to a Google spreadsheet").

[63] CBI and various NEWs express the view that SoundExchange should update its template based on the outcome of this proceeding. *E.g.*, CBI Comments, at 8; KBHU Comments, at 2. SoundExchange will of course do that.

[64] Since this provision was originally crafted by the Office, the Small Webcaster Settlement Act, Pub. L. No. 107-321, 116 Stat. 2780 § 5(c) (2002), amended Section 114(g)(2) to provide for direct payment to artists by SoundExchange.

a. Inspection by Artists

As to the first of SoundExchange's proposed amendments, NAB/RMLC contend that "it is not for the Judges to provide" artists with access to ROUs because ROUs are "highly confidential," and Section 114(f)(4)(A) empowers the Judges to provide notice of use only to "copyright owners." NAB/RMLC Comments, at 82.

This argument, however, is based on a misunderstanding of Section 114(f)(4)(A). That provision requires the Judges to "establish requirements by which copyright owners may receive reasonable notice of the use of their sound recordings." Congress has explained that a purpose of such notice requirements is "to insure payment to the proper parties." H.R. Rep. No. 108-408, at 42 (2004). Toward that end, the Judges have prescribed the regulations that are the subject of this proceeding, which among other things require licensees to provide ROUs to SoundExchange. Those ROUs fulfill the notice function contemplated by Section 114(f)(4)(A) and allow SoundExchange to pay the copyright owners *and artists* that Section 114(g)(2) and the Judges' regulations require SoundExchange to pay.

It is an entirely separate question whether SoundExchange must treat ROUs or the information contained therein as confidential, or on the other hand whether SoundExchange should be permitted or required to provide access to the ROUs it has received by persons who have a business interest under the statute in knowing their contents. NAB/RMLC's argument is based on an implicit, faulty premise that Section 114 somehow makes ROUs confidential except as to copyright owners. However, nothing in the language of Section 114(f)(4)(A) mandates that any of the information disclosed as part of the notice mechanism adopted by the Judges must be kept confidential. Nor does it even suggest that, in implementing a mechanism for providing reasonable notice to copyright owners, featured artists may not have access to the information that is disclosed to SoundExchange in ROUs. Thus, at the very least, Section 114(f)(4)(A) leaves it to the Judges' discretion to determine who should be able to access the ROUs that the Judges require licensees to provide to carry out the statutory notice function.

The recent determination of the Register of Copyrights in the context of *Phonorecords II* makes clear that Section 114(f)(4)(A) should not be read to incorporate an implicit assumption of confidentiality. There, in response to a referral from the Judges, the Register concluded that the almost identically-worded notice provision of Section 115 did not authorize the Judges to require that copyright owners keep confidential information reported by licensees pursuant to that provision. *See Scope of the Copyright Royalty Judges Authority to Adopt Confidentiality Requirements upon Copyright Owners within a Voluntarily Negotiated License Agreement*, 78 Fed. Reg. 47,421, 47,423 (Aug. 5, 2013) (rejecting the argument that "the CRJs' notice and recordkeeping authority authorizes the imposition of obligations on the copyright owners who are subject to the section 115 license"); *see also Adjustment of Determination of Compulsory License Rates for Mechanical and Digital Phonorecords*, 78 Fed. Reg. 67,938, 67,941 (Nov. 13, 2013) ("*Phonorecords II*") (declining to adopt proposed confidentiality provisions based on the Register's determination). If the notice language of Section 115 does not authorize the Judges to adopt a confidentiality provision for the accountings provided thereunder, essentially the same language in Section 114 cannot implicitly require confidentiality for the recipients of ROUs thereunder.[65]

[65] Despite the Register's decision in *Phonorecords II*, SoundExchange has not sought in this proceeding to challenge the Judges' prior confidentiality provision in Section 370.5(e). SoundExchange has sought only a much more limited amendment that would expressly require it to permit inspection of ROUs by artists.

Finally, ROUs are not nearly as sensitive as NAB/RMLC suggest. Most of the information contained in ROUs is just *not* confidential. The names of services, artists, sound recordings, albums, and labels could hardly be more public. Even the playlists of services can't be said to be confidential in any traditional sense of that word. When a broadcaster or other licensee transmits a *public* performance of a recording, it by definition makes its use of that recording nonconfidential. *See, e.g.,* 17 U.S.C. § 114(d)(2)(C)(ix) (requiring licensees to display to a public audience of listeners much of the identifying information contained in ROUs). SoundExchange recognizes that licensees would prefer not to have their competitors obtain easy access to comprehensive and detailed information about their playlists and the frequency of their use of particular recordings. However, SoundExchange has not proposed opening its doors to *licensees* to inspect each others' ROUs. It has only proposed permitting *featured artists* to access ROUs at SoundExchange's office *pursuant to agreements restricting the artists' use of the ROUs*.

Ever since the amendment of Section 114(g)(2) to provide for direct payment of featured artists by SoundExchange, artists have had a very direct interest in the contents of ROUs that rooted in Section 114 itself. The Judges should not allow NAB/RMLC's false assumption of an implied confidentiality restriction to override artists' direct statutory interest in the contents of ROUs.

MRI, by contrast, agrees with SoundExchange that artists should be able to inspect ROUs, but takes an opposite tack from NAB/RMLC by suggesting that SoundExchange be required to send copies or provide online access to ROUs to artists and copyright owners. MRI Comments, at 7. As an initial matter, artists and copyright owners have not asked to see unprocessed ROUs in the ordinary course. This is a transparent effort by MRI to require

SoundExchange to spend the money of artists and copyright owners to build and operate an infrastructure to deliver ROUs to create some kind of a business opportunity for MRI. Moreover, while SoundExchange is not overly impressed with NAB/RMLC's claims that ROUs are "highly confidential," SoundExchange is sympathetic to the view that comprehensive and detailed information about playlists and play frequency does not need to be in general circulation. Within the music industry, it is not customary for artists and record companies to have access to detailed information about usage of the works of other artists and record companies, so MRI's suggestion that complete, unprocessed ROUs be sent in the ordinary course to potentially everyone in the music industry would be a radical departure from current practice that might raise competitive concerns for artists and copyright owners as well as services.

b. Locating Copyright Owners to Enable Inspection of ROUs

NAB/RMLC alone take exception to SoundExchange's proposed deletion of the requirement that it try to locate copyright owners to encourage them to come by its reading room to inspect ROUs. NAB/RMLC Comments, at 91-93. NAB/RMLC's lack of any interest in this matter, while no artist or copyright owner has expressed any concern whatsoever about this housekeeping change, would be a sufficient reason for the Judges to ignore NAB/RMLC's purported concerns. NAB/RMLC's professed interest in payment of artists and copyright owners is also ironic given their efforts with respect to almost every other issue presented in this proceeding to weaken requirements for reporting of the data that SoundExchange needs to be able to identify and pay artists and copyright owners.

If the Judges are interested in considering NAB/RMLC's position on its merits despite NAB/RMLC's not having any reason to care about SoundExchange's relationship with artists and copyright owners, the Judges should understand that NAB/RMLC's argument bears little relationship to the provision at issue or even the subject matter of this proceeding. NAB/RMLC acknowledge that the premise of the current provision – making available unprocessed ROUs in the ordinary course – "does not make sense." NAB/RMLC Comments, at 92. Yet NAB/RMLC oppose deletion of a provision that "does not make sense" because of an expressed concern about SoundExchange's efforts to locate *for payment purposes* both copyright owners *and artists* – when the current provision does not speak to payment or mention artists, and NAB/RMLC has opposed SoundExchange's efforts to add a reference to artists to the first part of the relevant paragraph (as discussed above). In the end, NAB/RMLC advocate a completely different provision than the one SoundExchange proposed deleting, and one that goes well beyond "requirements by which copyright owners may receive reasonable notice of the use of their sound recordings." 17 U.S.C. § 114(f)(4)(A).

As SoundExchange explained in its initial comments, it has made significant and ongoing efforts throughout its history to locate for payment purposes both copyright owners and artists. SoundExchange Comments, at 15. Those efforts will continue unabated without NAB/RMLC's proposed new provision just as they have in the absence of that provision in the past. SoundExchange's proposal to delete a provision that "does not make sense" was always a "housekeeping" proposal. The Judges should treat it as such.

3. Redundant Confidentiality Provisions

SoundExchange proposed deleting the redundant confidentiality provisions in Sections 370.3(g) and 370.4(d)(5). Petition, at 36-37. We did not see that any other commenter addressed that proposal. The Judges should make that housekeeping change.

4. Clarification of New Subscription Services and Definition of Aggregate Tuning Hours

SoundExchange proposed clarifying in current Section 370.4(d)(2)(vii) (Section 370.4(d)(2)(viii) as numbered in the proposed regulations included in the Petition and NPRM) that the reference therein to new subscription services was intended to allow cable music services paying royalties under 37 C.F.R. Part 383 on a percentage of revenue basis, but not new subscription services providing subscription webcasting and paying royalties pursuant to 37 C.F.R. Part 380 Subpart A on a per-performance basis, to report usage on an aggregate tuning hour ("ATH") rather than actual total performance ("ATP") basis, because the former face "technological impediments to measuring actual listenership." 73 Fed. Reg. at 79,729. SoundExchange proposed related conforming changes in the definition of aggregate tuning hours in Section 370.4(b)(1). Petition, at 37-38.

SoundExchange did not see that any commenter questioned SoundExchange's interpretation of what was originally intended in Section 370.4(d)(2)(vii). Sirius XM proposed an unrelated change to that provision (*see* Part IV.G). NAB/RMLC opposed SoundExchange's proposal, but not specifically because of its proposed change in the treatment of new subscription services. Instead, NAB/RMLC's opposition was based on misplaced concerns about ATH reporting enabled by Part 380, and because they advocate leaving to rate proceedings the question whether particular categories of services should be permitted to report on an ATH basis rather than an ATP basis (anticipating that they will argue in *Webcasting IV* that broadcasters should be able to do so). NAB/RMLC Comments, at 76-80.

NAB/RMLC's opposition to this proposal is much ado about nothing. The Copyright Act could hardly be clearer that the Judges are empowered to adopt notice and recordkeeping provisions in rate proceedings: "Among other terms adopted in a determination, the Copyright

Royalty Judges may specify notice and recordkeeping requirements of users of the copyrights at issue that apply in lieu of those that would otherwise apply under regulations." 17 U.S.C. § 803(c)(3). SoundExchange recognizes that, pursuant to that provision, there are certain categories of services that are permitted by provisions in Part 380 to report on an ATH basis. Because Section 803(c)(3) specifies that notice and recordkeeping requirements adopted in rate proceedings "apply in lieu" of the regulations in Part 370, SoundExchange assumed that the relevant provisions of Part 380 would continue to supersede the limitations in Part 370 as they have done in the past, so services permitted by provisions in Part 380 to report on an ATH basis would continue to be able to do so notwithstanding anything in Part 370. Thus, by operation of Section 803(c)(3), SoundExchange's proposal is entirely consistent with the result for which NAB/RMLC advocates, and Section 803(c)(3) makes NAB/RMLC's proposals entirely unnecessary.

In the course of advocating for what Section 803(c)(3) plainly allows, NAB/RMLC suggest defining the term ATH in Section 370.4(b)(1) without reference to specific types of services. SoundExchange followed the Judges' lead in identifying various categories of service in the definition of ATH, and SoundExchange does not think that removing the references to service types is necessary to achieve the result that NAB/RMLC want. However, SoundExchange agrees with NAB/RMLC that the concept of ATH is not inherently limited to certain kinds of services, so it is not necessary to state redundantly in the definition of ATH what services are eligible to report on an ATH basis. Because it would be consistent with good regulatory draftsmanship to simplify the ATH definition, SoundExchange has included a proposed simplified definition of ATH in Exhibit C.

Moreover, while SoundExchange questions whether the ATP and/or ATH reporting provisions should, uniquely among the provisions in Part 370, direct casual readers to the applicable terms for superseding provisions, SoundExchange is not opposed to including somewhere in Part 370 an indication that reporting on a different basis might be permissible under applicable terms. However, SoundExchange believes that the specific regulatory language NAB/RMLC propose at page 79 of their comments is not as clear as it should be about where the reader should look to find different reporting provisions, and improperly assumes that such other provisions necessarily would track the ATH reporting provisions here. In case the Judges are inclined to adopt language along the lines proposed by NAB/RMLC, SoundExchange has included clearer alternative language in Exhibit C.

SoundExchange disagrees with NAB/RMLC's suggestion that broadcasters should be permitted to report usage on an ATH basis rather than an ATP basis when the royalties broadcasters pay are calculated on a per-performance basis. See NAB/RMLC Comments, at 77-78. However, because NAB/RMLC do not suggest any change in the notice and recordkeeping regulations that would presently allow such reporting in any new situation, no detailed response is required at this time.

5. Miscellaneous

a. SoundExchange Annual Report

SoundExchange proposed specifying in regulations that its annual report required by Section 370.5(c) should be posted by September 30. As explained in the Petition and in SoundExchange's initial comments, SoundExchange proposed the September 30 date to allow it sufficient time to receive (and hence quantify) its royalty collections for a calendar year, close its books on the year, and complete its annual audit, rather than rushing to release an annual report based on incomplete and unaudited numbers by March 31, as has been the case based on a preference previously expressed by the Judges. Petition, at 38-39; SoundExchange Comments, at 17. Only NAB/RMLC seem to have addressed this proposal.

NAB/RMLC argue that SoundExchange should be required to provide an annual report within 90 days after the close of the year, and also propose amendments that would require SoundExchange to provide "more comprehensive and detailed information" in its annual reports and provides a laundry list of information it would like to see in those reports. NAB/RMLC Comments, at 84-89.

As an initial matter, the Judges' authority relative to the issue of an annual report by SoundExchange is very limited, and to the extent such authority exists, NAB/RMLC are not parties in interest. Section 114(f)(4)(A) empowers the Judges to "establish requirements by which copyright owners may receive reasonable notice of the use of their sound recordings under this section, and under which records of such use shall be kept and made available by entities performing sound recordings." 17 U.S.C. § 114(f)(4)(A). SoundExchange plays a part in providing copyright owners notice of the use, and an annual report of some kind can perhaps be justified if integral to that function. However, Section 114(f)(4)(A) is not an invitation to the Judges to impose on SoundExchange the kinds of extensive recordkeeping and reporting provisions contemplated by NAB/RMLC. Under Section 114(f)(4)(A), recordkeeping and reporting is for "entities performing sound recordings."[66]

The Copyright Office recognized the limits of notice and recordkeeping authority when it originally adopted the annual report provision. That provision was adopted as part of the original

[66] *See* 78 Fed. Reg. 47,421, 47,423 (Aug. 5, 2013) (nearly identical language in Section 115 authorizes Judges "to issue notice and recordkeeping requirements under which records of such use shall be kept and made available *by licensees*" (emphasis original)).

Section 114 notice and recordkeeping regulations. 63 Fed. Reg. at 34,297. When the Office adopted it, the Office explained this provision as part of its discussion of how copyright owners would receive notice of use from the collective that copyright owners had only just agreed to establish, and that would eventually become SoundExchange. *Id.* at 34,294. The idea was, evidently, to provide copyright owners certain basic information concerning the operation of the yet-to-be-formed collective so that they could understand how it would provide them payments and usage information. That limited function probably represents a valid exercise of notice and recordkeeping authority, but makes clear that the only legally-relevant beneficiaries of the annual report are those who are entitled to notice of use, not licensees.

Turning to the specifics of NAB/RMLC's arguments and proposals, SoundExchange has seen no indication that artists and copyright owners are clamoring for an early look at incomplete and unaudited financial statistics. NAB/RMLC's analogy to the timing of reporting by publicly-traded companies is simply inapt. Companies that sell products and services recognize revenue pursuant to complicated accounting rules, but the upshot of those rules is that on January 1, companies can determine from information in their possession, such as signed contracts, shipment records, timecards and invoices, what revenue they can recognize for the year ended December 31. SoundExchange is not so lucky. It can only estimate its royalty collections for a year until licensees actually pay and provide statements of account allowing SoundExchange to associate a payment with the relevant year. As a result, it is only late in the first quarter of each year that SoundExchange can reasonably determine its royalty collections for the previous year, and SoundExchange's annual audit typically is not complete until June of the following year. Thus, providing an annual report with audited numbers is not feasible until the third quarter. Given the limited role of the annual report, the lack of demand for it, and SoundExchange's desire to provide the report required by regulations in the form of a more typical corporate annual report, SoundExchange proposes making the deadline the end of the third quarter.

Finally, as to NAB/RMLC's proposal that SoundExchange report a laundry list of information, the discussion above makes clear that all or most of this information is well outside the scope of the Judges' notice and recordkeeping authority, because it does not have anything to do with providing notice of use to copyright owners. To be sure, SoundExchange has provided and will continue to provide appropriate information about its operations to its artist and copyright owner constituents. Moreover, as a tax exempt organization, SoundExchange is separately required to file an annual information return on IRS Form 990 that identifies various financial information similar to that suggested by NAB/RMLC. Even if the Judges had authority to require SoundExchange to report the kinds of information sought by NAB/RMLC as a notice and recordkeeping regulation, the Judges should not require SoundExchange to spend the money of artists and copyright owners preparing additional elaborate disclosure documents that NAB/RMLC seek simply to get a leg up in discovery for rate proceedings.

b. SoundExchange Address, Etc.

The "Miscellaneous" section of the NPRM grouped together a handful of other proposals, including removing an incorrect address for SoundExchange, using consistent references to defined terms and the statutory licenses, and eliminating the definition of a term that is not used. Petition, at 38-40. We did not see that any commenter other than NAB/RMLC addressed these proposals. NAB/RMLC did not oppose these changes, but they suggested that SoundExchange be required to publish its address on the homepage (in contrast to some other page) of its website. NAB/RMLC Comments, at 71-72. It happens that SoundExchange's address *is* on the homepage of its website at http://www.soundexchange.com/. However, it does not seem necessary for the Judges in their notice and recordkeeping regulations to micromanage the location of contact information on SoundExchange's website.

IV. Additional Issues

In their comments, NAB/RMLC and Sirius XM propose a number of additional changes to the notice and recordkeeping regulations that were not contemplated by the NPRM. The Judges should decline to address these proposals in this proceeding for the reasons the Judges, in their 2009 notice and recordkeeping proceeding, declined to consider "additional proposals [that] went beyond the scope of the Judges' specific inquiry." *See Notice and Recordkeeping for Use of Sound Recordings Under Statutory License*, 74 Fed. Reg. 52,418, 52,422 (Oct. 13. 2009). There, the Judges explained that proposals raised for the first time in comments were not "ripe for determination," were "insufficiently developed," and "merit more detailed consideration" than would have been afforded if they were considered in that posture. *Id.* at 52,422. The Judges thus considered new proposals only insofar as they amounted to clarifications or a technical change (such as a change in address or typographical correction). *Id.* at 52,423. In fact, the adoption of proposals that go beyond the scope of the Judges' NPRM could amount to a serious procedural violation. *See, e.g., Home Box Office, Inc. v. F.C.C.*, 567 F.2d 9, 35 (D.C. Cir. 1977).

To the extent that the Judges may be interested in addressing some of the new proposals made in the initial comments, SoundExchange addresses them briefly below.

A. Systematic Adjustment Process

Sirius XM and its contractor MRI vaguely suggest that SoundExchange be required to implement some kind of an automated, systematic adjustment process with licensees. Sirius XM Comments, at 1, 5; MRI Comments, at 2-3.

While SoundExchange is not opposed to exploring such a process with individual licensees where that makes sense, such a process does not lend itself to treatment in regulations. This proceeding illustrates that the approximately 2,500 statutory licensees vary widely in their size, usage, technical sophistication and information technology infrastructures. While Sirius XM professes to want sophisticated technical interaction with SoundExchange, most commenters in this proceeding claim to have difficulty using spreadsheet software to generate even the most basic ROUs. *E.g.*, KNHC Comments, at 2 (licensee "is capable of providing" ROUs in Google spreadsheet and Excel formats, but "would be hard pressed to use any others"). Even NAB/RMLC lament the variety and primitive state of their members' systems. NAB/RMLC Comments, at 10-11. This is why it has been controversial to specify requirements for ROUs, even though delivery of such reports is, as an information technology matter, a very basic function. Specifying procedures for an automated two-way flow of information would be much more complicated, because it appears that Sirius XM and MRI contemplate intricate technical interactions across a wide range of parameters, which would require a high degree of interoperability between the relevant systems. Such interoperability would have to be worked out licensee-by-licensee, which would be quite resource-intensive and time-consuming. Companies sometimes work out such procedures when it makes sense, but it would not make sense to impose on SoundExchange a mandate to implement such interactions with all licensees when only Sirius XM seems interested.

B. Third-Party Programming

NAB/RMLC propose that broadcasters not be required to report usage of recordings in third-party programming. NAB/RMLC Comments, at 46-48. The Copyright Office rejected just such a proposal a decade ago, finding "no authority in the statute to create such exemptions" and that such exemptions are not compatible with the statutorily-required reasonable notice of use. 69 Fed. Reg. at 11,521 & n.12.

In the decade since, the case for rejecting this proposal has only become stronger. While this proposal might seem from NAB/RMLC's comments to be a minor point, it appears to SoundExchange as an exception that could swallow the census reporting rule. Network and other third-party programming is a substantial part of the programming used by some broadcasters, and is becoming more so as the radio industry moves toward a model in which less and less content is locally produced.[67] NAB/RMLC's comments illustrate the point. On WDAC, syndicated programming spans about 160 hours of each week, leaving only about an hour a day of original programming. Sixty percent of this third-party programming is music. NAB/RMLC Comments, at 47. Under NAB/RMLC's proposal, WDAC would be excused from providing usage data for all, or almost all, of its music programming, and NAB/RMLC's proposal does not indicate how artists and copyright owners would be paid for WDAC's usage of their works.

NAB/RMLC's proposal also obscures an important issue in use of third-party programming. Broadcasters generally pay royalties on a per-performance basis. 37 C.F.R. § 380.12(a). Counting performances requires knowing how many sound recordings are played to

[67] E.g., Edison Research, What Nationalization Will Mean to American Radio, http://www.edisonresearch.com/what-nationalization-will-mean-to-american-radio/ (Mar. 13, 2014) (describing Clear Channel and Cumulus efforts to nationalize programming across station groups); Clear Channel CEO Bob Pittman Defends Corporate Radio at CRS, http://www.allaccess.com/net-news/archive/story/102686/clear-channel-ceo-bob-pittman-defends-corporate-ra (Feb. 22, 2012) (describing Clear Channel defense against critics who bemoan loss of local talent due to use of network programming); Clear Channel's Programming Purge, http://radioinsight.com/blog/headlines/54030/clear-channels-programming-purge/ (Oct. 26, 2011) (describing restructuring and layoffs as network programming is used on more stations).

how many listeners. *See* 37 C.F.R. § 380.11 (definition of Performance). If broadcasters "receive little, if any, information from the programming providers regarding the recordings included in that programming (either the identifying information for the recordings or when they are played)," NAB/RMLC Comments, at 46, it is not apparent how broadcasters could calculate their royalty payments accurately. The only way artists and record companies can be assured of being paid properly is if broadcasters are motivated to seek necessary reporting information from their program providers. The Judges should not at this time carve out a new reporting exception for third-party programming.

C. Small Broadcaster Waiver

NAB/RMLC propose exempting small broadcasters from reporting requirements by making the provisions of Section 380.13(g)(2) permanent and extending them to a broader set of broadcasters. NAB/RMLC Comments, at 50-52. To put this proposal in context, there are about 300 small broadcasters as defined in Section 380.11, which collectively paid about $150,000 in royalties for 2013.

While this proposal is superficially similar to the reporting waiver for NEWs discussed in Part II, small broadcasters are situated very differently from NEWs. In contrast to NEWs, small broadcasters are commercial operations with professional staff that have made a business decision to engage in webcasting. Rather than having a mission to educate their staff, small broadcasters are out to grow their audience. The Judges have recognized that such commercial services are situated differently than NEWs:

> in the commercial case, broadcasters who do not adapt in the long run will fail as commercial entities to achieve the critical mass necessary to justify their presence on the Web. Therefore, they ultimately have a strong financial incentive to become more than very low intensity users, adapt their technology, ultimately achieve

> the same capabilities as their competitors on the Web and, in the process, attain comparable capabilities for full census reporting.

74 Fed. Reg. at 52,420. To a similar effect, the Copyright Office has explained:

> It has been asserted by some services throughout this docket that for some services any reporting of information regarding performances will be too great a burden. While this assertion, if true, might result in certain services ceasing operation under the statutory licenses, it is not a valid reason to eliminate reporting altogether.

69 Fed. Reg. at 11,521.

SoundExchange agrees that if commercial broadcasters choose to make webcasting a business, they should, like other commercial webcasters, be prepared to do the things that are necessary to ensure that artists and copyright owners are properly paid when their works are used. That is why Section 380.13(g)(2) specifically provides that the reporting waiver provided therein was made available "[o]n a transitional basis for a limited time . . . with the expectation that Small Broadcasters will be required, effective January 1, 2016, to report their actual usage in compliance with then-applicable regulations." 37 C.F.R. § 380.13(g)(2). Small broadcasters have now had almost five years to figure out how to provide proper reporting for their usage of copyrighted recordings. The waiver that was specifically agreed upon as a transitional arrangement should not be made permanent or be extended to other services that have previously been required to provide proper reporting.

D. Sample Reporting

NAB/RMLC also propose that broadcasters that find census reporting too difficult should be permitted to report usage for "no more than two weeks per calendar quarter." NAB/RMLC Comments, at 52-54. In effect, they ask the Judges to reverse their 2009 decision that census reporting should be the norm for all licensees except certain minimum fee broadcasters. See 74 Fed. Reg. at 52,419-22.

While NAB/RMLC assert that such sampling is "a widely used, well-respected, and accurate means of gauging music use," NAB/RMLC Comments, at 53, SoundExchange is aware of no empirical basis to believe that such a sample is statistically accurate. Intuition suggests that such a sample would not be statistically accurate. Radio playlists vary from week to week as new recordings are released and older recordings drop out of rotation. Basing royalty distributions on reporting of usage for just two of the thirteen weeks in a quarter would overweight usage of the recordings that happen to be popular in those weeks and underweight usage of recordings that are popular in other weeks. While different broadcasters' reporting usage for different weeks might tend to mitigate those effects, that cannot be assumed.

It is true that ASCAP and BMI have used such sampling as part of their distribution methodology. However, we understand that BMI has more recently based its distributions primarily on census data obtained from a monitoring service,[68] and ASCAP's continued reliance on a two-week sample has engendered some controversy in the Copyright Office's ongoing music licensing study.[69]

In the end, NAB/RMLC provide no substantial reason for the Judges to reverse their 2009 decision that census reporting should be the norm.

E. Certification under Penalty of Perjury

NAB/RMLC propose that the Judges delete the requirement in Section 370.4 that licensees certify ROUs under penalty of perjury. NAB/RMLC Comments, at 68.

[68] BMI Links With Monitoring Services, http://www.billboard.com/biz/articles/news/1438516/bmi-links-with-monitoring-services (May 4, 2004).

[69] E.g., Comments of Geo Music Group in Copyright Office Docket No. 2014-03, at 12, 18.

SoundExchange urges the Judges not to consider this proposal, as it goes beyond the scope of the NPRM. The NPRM simply proposed allowing ROU certifications external to the ROU. SoundExchange also asked the Judges to eliminate the requirements in 37 C.F.R. § 380.13(f)(3) and § 380.23(f)(4) that SOAs bear a handwritten signature. These proposals have gone unopposed and, as NAB/RMLC themselves recognize, would benefit broadcasters. NAB/RMLC Comments, at 68. These proposals do not open the door to this other, unrelated and more significant change, for which NAB/RMLC have not developed a factual record.

To the extent the Judges do consider NAB/RMLC's new proposal, it should be rejected. The requirement that licensees certify ROUs under penalty of perjury has existed since the Copyright Office promulgated its first notice and recordkeeping rules in 1998. 63 Fed. Reg. at 34,295. In adopting that certification, the Office specifically considered the argument NAB/RMLC makes here – that a mere statement of accuracy would be sufficient. *Id.* at 34,291. The Office concluded, however, that "[r]eports of Use must be accompanied by a statement by a Service representative, signed under penalty of perjury." *Id.* at 34,295. SoundExchange believes that this certification continues to serve an important role in communicating to licensees the gravity of reporting under a statutory license that operates on the honor system, and NAB/RMLC provide no facts to support their assertion that this requirement is all of a sudden too onerous today.

F. Confirmation of Receipt of ROUs

NAB/RMLC propose that SoundExchange be required to confirm receipt of ROUs within one business day by return email. NAB/RMLC Comments, at 90-91. While some form of acknowledgement may be practicable for some ROUs, NAB/RMLC's proposal is not as trivial as they imply. Licensees are permitted to deliver their ROUs by multiple means, including File

Transfer, email and CD-ROM. 37 C.F.R. § 370.4(e)(3). While most ROUs are delivered by email, the concept of "return email" makes no sense for other delivery means, and SoundExchange would not necessarily have a valid email address for a licensee when ROUs are delivered by other means.

Even for ROUs delivered by email, the only reason NAB/RMLC cite for their proposal is that WDAC reports having once had to resubmit an ROU assertedly provided previously, and EMF reports on "several occasions" having done the same. NAB/RMLC Comments at 90-91, Exhibit G ¶ 16, Exhibit J ¶ 9. This small inconvenience for a couple of broadcasters would not justify a new mandate in any case, and SoundExchange has recently made improvements to its ROU tracking systems that should alleviate such issues in the future.

G. ATH Reporting for Sirius XM

Sirius XM proposes eliminating the ATH reporting requirement for SDARS. Sirius XM Comments, at 6-7. SoundExchange does not question Sirius XM's assertion that its installed base of radios is unable to report back information concerning which channels subscribers are listening to. However, Sirius XM's inability to provide such information has significant consequences for the distribution of statutory royalties. When licensees report usage on an ATH basis, the reported ATH tells SoundExchange how to weight royalty allocations to each of the service's channels or stations based on listenership. Because Sirius XM's channels range from ones devoted to top hits to ones devoted to specialized genres like "'80s Hair Bands" and "Canadian Indie Music," its channels must vary enormously in listenership. However, in the absence of any listenership data, SoundExchange must distribute royalties equally among all the recordings used on each channel of the service. Thus, the play of a recording on the Canadian Indie Music channel generates the same royalty distribution as one on the Hits channel. Given the size of Sirius XM's royalty payments, treating all channels as having equal listenership, rather than weighting royalty distributions by channel listenership as reporting of ATH data would permit, has significant economic effects.

Accordingly, SoundExchange believes that Sirius XM should be required to provide ATH data if and when it becomes feasible for Sirius XM to do so, and in its absence, that Sirius XM should be required to provide other listenership information that could be used to weight royalty allocations (*e.g.*, survey data), if available. Sirius XM's proposal came too late in this proceeding to develop a proper record concerning what data Sirius XM reasonably might be able to provide that would allow a fair distribution of its statutory royalty payments in the absence of ATH data. Thus, SoundExchange believes it would be most appropriate to address that question in discussions between the parties or, if necessary, in a separate proceeding in which the Judges could make a decision based on a fully-developed record.

Conclusion

SoundExchange appreciates the opportunity to provide these Reply Comments and urges the Judges promptly to adopt revised notice and recordkeeping regulations consistent herewith.

September 5, 2014

Respectfully submitted,

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Of Counsel

Exhibit A

Reporting Non-Payable Tracks

As discussed in Part III.D, SoundExchange proposes the following revised language for Section 370.4(d)(2):

> *Content*. For a ~~nonsubscription transmission service, preexisting satellite digital audio radio service, new subscription service or business establishment service~~Nonsubscription Transmission Service, Preexisting Satellite Digital Audio Radio Service, New Subscription Service or Business Establishment Service that transmits sound recordings pursuant to the statutory license set forth in section 114~~(d)(2)~~ of title 17 of the United States Code, or the statutory license set forth in section 112(e) of title 17 of the United States Code, or both, each Report of Use shall contain the following information, in the following order, for each sound recording transmitted during the reporting periods identified in paragraph (d)(3) of this section, with the exception of incidental transmissions as described in paragraph (b)(3)(iii) of this section, whether or not the Service is paying statutory royalties for the particular sound recording:

Exhibit B

Delivery of ROUs

As discussed in Part III.E.3, if the Judges decide not to adopt that the ROU delivery proposal in the Petition, SoundExchange would propose the following revised language for Section 370.4(c):

> *Delivery*. Reports of Use shall be delivered to Collectives that are identified in the records of the Licensing Division of the Copyright Office as having been designated by determination of the Copyright Royalty Judges. Reports of Use shall be delivered on or before the ~~forty-fifth~~day that is the same number of days after the close of each reporting period identified in paragraph (d)(3) of this section as the period for making monthly payments for the relevant type of service.

Exhibit C
Definition and Reporting of Aggregate Tuning Hours

As discussed in Part III.H.4, SoundExchange proposes the following revised language for Section 370.4(b)(1):

> *Aggregate Tuning Hours* are the total hours of programming that a ~~nonsubscription transmission service, preexisting satellite digital audio radio service, new subscription service or business establishment service~~Service has transmitted during the reporting period identified in paragraph (d)(3) of this section to all listeners within the United States over the relevant channels or stations, and from any archived programs, ~~that provide audio programming consisting, in whole or in part, of eligible nonsubscription service, preexisting satellite digital audio radio service, new subscription service or business establishment service transmissions,~~ less the actual running time of any sound recordings for which the ~~service~~Service has obtained direct licenses apart from 17 U.S.C. 114~~(d)(2)~~ or which do not require a license under United States copyright law. For example, if a ~~nonsubscription transmission service~~Service transmitted one hour of programming to 10 simultaneous listeners, the ~~nonsubscription transmission service~~Service's Aggregate Tuning Hours would equal 10. If 3 minutes of that hour consisted of transmission of a directly licensed recording, the ~~nonsubscription transmission service~~Service's Aggregate Tuning Hours would equal 9 hours and 30 minutes. If one listener listened to the transmission of a ~~nonsubscription transmission service~~Service for 10 hours (and none of the recordings transmitted during that time was directly licensed), the ~~nonsubscription transmission service~~Service's Aggregate Tuning Hours would equal 10.

As also discussed in Part III.H.4, SoundExchange suggests that the following revised language for Section 370.4(d)(2)(vii) and (viii) (as numbered in the proposed regulations included in the Petition and NPRM) could be used to refer to alternative terms adopted in rate proceedings:

> (vii) For ~~a nonsubscription transmission service~~any Service except those ~~qualifying as minimum fee broadcasters~~identified in paragraph (d)(2)(viii) or permitted to report on an alternative basis pursuant to terms in subchapter E: The actual total ~~performances~~Performances of the sound recording during the reporting period~~.~~;
>
> (viii) For a ~~preexisting satellite digital audio radio service, a new subscription service, a business establishment service or a nonsubscription service qualifying as a minimum fee broadcaster~~Preexisting Satellite Digital Audio Radio Service, a service as defined in § 383.2(h), a Business Establishment Service or a Nonsubscription Service qualifying as a Minimum Fee Broadcaster:[70] The actual total ~~performances~~Performances of the sound recording during the reporting period or, alternatively, the . . . .

[70] SoundExchange separately noted that Minimum Fee Broadcasters would more accurately be called something like "Eligible Minimum Fee Webcaster." SoundExchange Comments, at 3 n.2.

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	)))))))))	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

TESTIMONY OF

DORIA ROBERTS

Independent Recording Artist, Hurricane Doria Records

Witness for SoundExchange, Inc.

I. **Introduction**

My name is Doria Roberts. I have been an independent musician by trade and choice for nearly 22 years. I have released seven albums on my own label, Hurricane Doria Records. I offer the following testimony in response to testimony offered by the digital services in this proceeding about the opportunities that their services provide to recording artists, the investments they have made in their services, and the risks and costs they face in operating their businesses, including the public testimony from Pandora Media, Inc.'s ("Pandora's") Co-Founder and Chief Strategy Officer, Tim Westergren, iHeartMedia's ("iHeart's") President of National Programming Platforms, Tom Poleman, iHeart's CEO, Bob Pittman, and others.

Before you read my testimony, I would like to direct you to the enclosed CD. Please watch the video of me performing my music so you can see what I do. Once you've done that, I want to tell you a little about myself and the journey that brought me to my life's work as an independent musician. I then want to tell you why this proceeding is so important to me, and to millions of other independent artists like me.

A. **My Story**

The story of how I came to be a musician is both familiar and unconventional. It is a story of perseverance, trial and error, sacrifice, passion and—often—joy. I did not begin my life as a musician by growing up in a home full of musical instruments or sitting by my grandpa's knee while he played the piano. I became a musician at the end of my senior year at the University of Pennsylvania, after an unlikely journey of discovery.

I was the first person to attend college in my family. Like most college students, I trundled through various majors. After a few attempts to engage in esoteric subjects that did not appeal to me, I landed (or so I thought) in the business buildings on campus. I liked that business disciplines gave me a practical foundation. I thought a business-focused education would allow me to be able to go back home as a success—a titan of industry that could lift up and support the community that supported me, maybe help another to get where I was standing.

A serendipitous talk given by a visiting world business leader set me off on another path that led me to my life's work: music. The speaker advised us to embrace and learn the culture of the people we planned to do business with. He believed that our most meaningful business education would come not in college, but in the real world. Studying another culture that I wanted to work with struck me as a radical and exciting idea. In the middle of my sophomore year, I declared a major in East Asian Studies with a concentration in Japanese Language, History and Culture. I decided I was going to be the first Black woman from Trenton, NJ USA to run a Japanese kaisha (corporation).

As I learned about Japanese culture, its aesthetic and spiritual principles moved me as much as the businessman's lecture had inspired me. My path was a study in opposites. While Sun Tzu's "The Art of War" was passed around amongst and worshipped by the more ambitious undergrads, I was learning about Shintoism, Japan's indigenous religion, that not so much dictates dogmatic instructions about how life is to be lived, but acts as a gentle but persistent reminder that there is sacred energy in every thing, inanimate or organic, and in everyone that is to be honored and cherished. In it, life was not about crushing your competitors and destroying only to rebuild in your likeness. It was instead about being mindful of the paths and the process you employ to make your way through life, to be a reflection of the world's innate and subtle beauty. Ironically, the study of the culture I wanted to work with because of its prowess, innovation and domination in certain industries prompted me to ask more profound questions about what I wanted to do in the world and, more importantly, who I wanted to *be* in the world.

It was a deceptively simple question I put to myself: What do you want to do with the rest of your life, starting now?

There a couple of facts about me you should know in order to understand how I got my answer. First, contrary to the requirements and demands of my profession, I am an introvert at heart. I grew up as an “other” in most of the communities I lived in. I was a poor black kid from the inner city going to predominately white and wealthy private schools on scholarship. I never fully embraced—or felt I was fully embraced by—either side. It was a type of spiritual segregation where I dutifully played the role of the quintessentially awkward oddball with glasses and braces, proper speech and cheap shoes. Because of this, I preferred the company of my books and drawings in my bedroom to play dates in the park. While this character trait formed a lifelong indelible love of reading and writing and while I eventually grew somewhat comfortable in my skin, it was, at the time, an incredibly isolating way to live and be.

Another thing about me: By the time I finished college, I spoke Japanese, Spanish, Korean and German fluently. Before that, I effortlessly picked up bits of Spanish and Korean in the bodegas around my neighborhood and marveled at the access it afforded me; an extra piece of candy for saying “Thank You” in the shopkeeper’s native tongue or a pack of my favorite gum for teaching a new English word to his *Abuela*, who clearly missed her homeland but fully embraced her new life in America. Second language acquisition is a strange and wonderful gift I have been given and it opened me up to a life of unlimited possibility and potential beyond the streets of my childhood or the rigid four walls of higher education with its own set of challenges. My thought was that I would travel the world one day and never meet a stranger along the way—nor would I be one. For the longest time, I actually harbored a recurring fantasy about helping a lost German tourist in Tokyo, translating between native speakers, like an ambassadorial superhero and conduit of cultures. “Doria the Decoder”

For me, music is similar. It is not just something I *play*. It is a language I *speak.* One that is universal, that breaks down the walls and preconceived notions we construct between and have of one another. I’ve never known anyone to argue with a song. Music was a conduit to the heart and soul of who I was and am as a person, the real me, the part of me that sometimes shied away from life and its paralyzing complexity. Music was and continues to be an instrument of self-integration, a way for me to communicate and connect not only with other people but with my own feelings, deepest desires and needs beyond the influence of society’s expectations of who I should be, what I should look like, how I should sound or what shoes I should be wearing.

Playing guitar, I learned, was a meditation practice employed by the most learned spiritual masters of another philosophy called Taoism. I had no formal training on any instruments so I gravitated towards the guitar for this reason. In between classes, before work, after work: my social life suddenly revolved around my rehearsals. I learned how to play by committing to practicing at least 8 hours a day, the length of a typical work day. My mantra, echoing the sentiments of the Shinto and Taoist philosophies was to be everywhere and not get in the way or, rather, do no harm. I started playing music not because I wanted to be famous, but I knew I could make a good living at it and, equally as important, a good *life* from it.

So, I employed the same work ethic to the business aspects of my newfound career and life’s work as I did in learning to play and write songs. I devoured and dogeared Donald Passman’s “Everything You Need To Know About the Music Business” and it became my bible. I followed musicians I admired around like a puppy and peppered them with questions: How do

I get started? How do I learn to play better, to play faster? How do I book shows? The answer was almost unanimously, "Play live whenever and wherever you can."

I worked on honing my craft by playing open mics at local coffee shops and bars, at a busy deli counter during lunch and, when those spaces weren't available, I set up shop on the nearest street corner or in the closest park and played for whoever would listen. Many of the fans I have today discovered me because they saw me play live. I recently performed my song "Perfect" at the wedding of two fans who were on a first date during a show in Berkeley, California 11 years ago. After busking on the streets, my first real gig was in front of 500 people during an event on my campus' quad. The organizer happened to be walking by my room while I was practicing my first original song "The Love and The Pain." From there, more paying gigs followed.

When I graduated from the confines of campus into the bustling city that surrounded it, I put into practice the business leader's advice about learning your craft in the real world. There I was with rent to pay, food to buy that didn't magically appear in a cafeteria, bills that were attached to utilities that kept me warm and my apartment well lit. Out of the gate I set up a "business plan" that would allow me to pursue my passion for music. I would get a day job like waitressing that wouldn't necessarily be engaging or satisfying work, but would pay my bills and afford me the flexibility I needed to play at night or take off when I needed to if I got a show out of town. I would have roommates even though I preferred to live alone. I would save up my gig money and use it to release a record within two years. I would then wait for the major labels to come running and pounding down my door because I would also be brilliant.

I make light of it now, but it was critically important for me to prove to myself and the world that it was possible for someone like me to make real and indelible contributions to the cultural fabric of American life. I was not a privileged kid who dabbled in folk songs as a hobby but inevitably had an alternative plan to “fall back on.” I was a working class person who decided to become an artist. I had made a choice, a very radical out of left field kind of choice for me that no one in my family had made before. So I had no choice when it came to it succeeding: It had to.

So I went about my days “doing the math” to make it work. I worked more shifts, I saw less of my friends, I squirreled away what I could from my gigs, and I finally put out my first CD just under the two-year mark, exactly as I had planned. And in another three years, after I put out another CD, I heard the first rumblings of major label interest. I was, it seemed, on a clear path to success.

But, in the end, I walked away from those offers and committed myself to the art and business of being independent. *Truly* independent. I had crunched the numbers and was confident that I could do it. Performing at Lilith Fair gave me instant, national press and would be instrumental in launching my touring career. It was the perfect springboard I needed, and I left my day job the morning after the last show on stage with Sarah McLachlan, the Indigo Girls, Sheryl Crow, and some of the biggest names in music. I’d also won a free website along with my slot so I would build that as my virtual promotional tool and they would come. I knew how to produce and sell CDs, and I was no longer a novice seeking advice regarding booking and promoting my shows. With a projected 20% annual growth in revenue, which included performance income, CD sales and other merchandise, and armed with a passionate focus and drive, I would redefine success on my own terms.

Almost immediately, I set out on the road. At first, it was just a couple of days here and there. Then those days turned into weeks and, eventually, those weeks accumulated into 10 months out of the year. I played whatever venues would have me at first, then worked my way into well known spaces and theaters across the country, opening for my heroes and eventually headlining in their place and getting to travel to Canada, Australia, Sweden, France and, finally, Japan with my guitar, songbooks and CDs in tow.

When it was time to put out another CD, I did the math and crunched the numbers once again to make it happen. Finding affordable studio time; finding a way to pay for the musicians, the photographer, the graphic designer, the printing and pressing costs, the food in the studio – as a full-time artist, this became my full-time obsession.

Once I became a full-time artist, my business plan changed slightly. Now, all the money I made, which had no "supplemental" income like my waitressing jobs, went back into my business: to all the bills, touring, promotion and creating new music and merchandise. But I still had to keep my overhead low. I didn't buy or lease new cars. I had and still have my '78 Volvo that I bought for $600 in 1996. I didn't buy new shoes or clothes. I lived in a small 425 sq. ft. apartment for 12 years. ***12 years***. That's how I did it – that's how I kept creating more music and kept working at the career I loved. It's not a sob story. It's not a mystery or a marketing ploy. I am a working-class artist. There is no rich-uncle-wizard-behind-the-curtain type situation in my case. This is how it goes when you make tough decisions to be true to your life and your life's work. I have no regrets.

Things began to change in 2008. The economy crashed and hit everyone hard. I don't think people think of artists being affected in a failing economy, but we were. Gas prices were sky high as were flights, so the expenses of traveling, which I did 80% of the year, exponentially went up. Venues started paying us less because fewer people were able to come out to the shows. Our audience was broke too. And, for the first time in all my touring history, my American dollars lost value going into Canada. It was sobering to say the least.

I had seen a slow but very deliberate decline in my music sales leading up to the economic crisis. Music sales for me were more than just supplemental income, they were nearly *half* of my income. Initially, I blamed and questioned myself. Was I not working hard enough? Was I not *good* enough anymore? What was wrong? So I temporarily stopped touring to assess the situation and come up with solutions. I found, ironically, that the only way to keep going was to not go anywhere.

Like clockwork, once or twice a week since I ceased touring full time in 2008, I get asked when I'm coming back to XYZ. And, like a broken record once or twice a week, I've had to say I can't afford it. I’ve had to explain time and again that not only have physical CD sales been down, but also the revenue I used to get from legal downloads has all but disappeared. Instead of getting weekly payments ranging between $200-$750 from my distributor, I started getting an average $11.36, once a ***month*** from **all streaming services *<u>combined</u>*.** Yes, $11.36/month is what I get from all of them. That is not a sustainable business model for a truly independent artist.

I spent my touring hiatus carefully building and maintaining a social media connection with my fan base and doing mostly one-offs in some of my bigger markets. In 2012, I decided it was time to do a full regional tour. And, while I am grateful to the people who came, I had miserable turnouts at most of the shows. In Buffalo, NY, where the temperature dropped to an unseasonable-even-for-Buffalo 30 degrees that night, I cleared $14 once the door was split with the venue. In Philadelphia, where I started my career, I lost upwards of $1,500-2,000 on *one* show because only 12 people showed up. It was the night of the Presidential debates, something I couldn’t have known when I booked the show months before. But I still had to pay the venue, their door person and sound person, pay my band, pay for their hotel room and mine for three nights so we wouldn't have to stay in more expensive NYC for our shows there. I paid for their flights (along with baggage handling fees for my cellist's cello), my low MPG rental SUV that could accommodate us and all of our equipment and luggage comfortably, highway and bridge tolls, gas and food for myself and the band (breakfast, lunch and dinner). The same pattern of financial loss repeated itself in Washington, DC, where the venue wouldn't even *allow* me to officially charge a door fee because they were showing the Vice Presidential debates in the room where I was performing following my show and where some people (my fans included) opted not to pay a door fee even as a requested donation.

B. **Why This Proceeding Matters**

This seems like an obvious statement, but it costs money to make music. It costs money to support the music you make through tours and promotion. For years, I could reliably support a CD “life cycle” sufficiently enough to allow me to record more CDs, and to perform live for my fans two to three times a year in some places. Fans would come to my shows, they and their friends would buy my CDs, and then I made another CD and went on another tour and so forth and so on. Simple stuff. Simple math. As a consequence of the decline, I play fewer shows today. I make less music than I would.

When Taylor Swift recently announced that she was removing her music from Spotify, I was surprised by the reaction accusing her of supposed “greed.” I assume the people who said that were annoyed because they see Taylor Swift as an artist who is already wealthy, and they object to her taking her music off of streaming services because she views them as devaluing her music or hurting an already healthy bottom line. My point is this: What about those artists who are not wealthy? Who live CD to CD, as I did, until it didn’t work any more? Are we “greedy” if we decide that we do not like the effect that the increasing ubiquity of the streaming model has on our incomes? I challenge those people to go to work for a year and give it their all – do a good job, maybe even a great job – and then accept half a year's pay or less in return. I challenge those people to then pay their bills, keep their financial commitments, and above all to keep their enthusiasm for their job. As an artist, my love for my work is essential to doing the job in the first place.

This is my reality and the reality of the many artists who create the music that you *care* about.

This is the reality for many of the artists who create the music that the services opposing SoundExchange in this proceeding depend on for their business.

It has been suggested to me that I "get a job," and I've had to explain time and time again that not only do I have a job, in fact, I have a career and a small business. I am not only part of our arts legacy, I am part of the great American legacy of entrepreneurship. I achieved my goal of being an albeit small but integral part in that cultural fabric I spoke of earlier. According to a June 2014 article in Forbes magazine, it is small and middle market businesses that are driving growth and creating jobs (and actual *things)* in our battered economy, not large ones that seemingly appear overnight whose "innovations" are to find increasingly pathologically efficient methods to exploit the hard work and intellectual property of others. In stark contrast and in answer to this, more and more small businesses are creating sustainable business models that are both making money and saving the world, adding a more durable thread to the fabric of our collective identity and well being, not absentmindedly unraveling it for their own gain.

What if Bob Dylan, Kurt Cobain, or Diana Ross; Prince or Aretha Franklin; Steve Jobs or Ben and/or Jerry had actually *listened* when someone (undoubtedly and repeatedly) said to them "Get a job"?

What happens to the landscape of American culture? What does your personal life look like? Where is the next Bruce Springsteen, Carole King, John Coltrane or Miles Davis coming from? How do we continue to encourage and foster the very American entrepreneurial spirit of the next creator of Apple or Starbucks, which were small struggling businesses at some point that are currently synonymous with and stewards of the very American value of bootstrapping perseverance?

We don't know who we're discouraging in this climate. Not really. We don't know what chain reaction we're creating (or breaking) when we devalue artists in the equation. Take Bessie Smith for example. She is credited for singlehandedly pulling Columbia Records out of bankruptcy with the release and huge success of her recording of "Down Hearted Blues" in 1923, along with other recordings. Columbia Records then went on to become one of the most powerful and influential record companies in American history giving us great recordings from the likes of Ray Charles, Janis Joplin, Thelonius Monk, Bruce Springsteen, Willie Nelson, John Legend, Lauryn Hill, Burt Bacharach, Da Brat, Pete Seeger, Public Enemy, Simon + Garfunkel, Wynton, Branford + Ellis Marsalis, Bob + Jakob Dylan, Johnny, June Carter + Roseanne Cash et cetera and so on. I won't belabor the point, but I could cherry-pick all day from that tree brimming full to bursting with quintessential American songwriters, GRAMMY winners, relative newcomers and legends, family legacies, progenitors of their sound, innovators of their genres, artists.

So, again, how do we encourage and foster *that* spirit and that *one artist* who could make a world of difference one day? These are serious considerations to make when you consider how music plays an integral and inseparable role in our lives, from the mundane to the momentous. How it can be both ubiquitous and precious. That is something to *protect*. That's something to *respect.*

In the process of registering with SoundExchange, I learned that there is money coming to me from the use of my music on services like those at issue here. Since 2004, I understand that performances of my music on such services have yielded approximately $470. I own my own masters, so that is the total for me as both artist and copyright owner. A total of $470 from approximately 570,000 performances of my music, nearly all of which was on Pandora. In stark contrast, I was able to make twice that amount by serenading my fans on Valentine's Day with one of their favorite songs of mine called "Perfect." In one day for eight hours, my performances earned me $975—or half my rent and my entire gas bill. In one day for 8 hours I connected with my fans in a real and meaningful way, listening to their love stories and, at one point, being part of the engagement surprise for one couple. Unfortunately, I can't do that every day, but it is a real world reminder of what music can mean for fans and what it can do for artists when the transaction reflects a fair exchange.

However you look at it, $470 is an obscenely paltry amount. Even combined with the $11.63 per week I get from other streaming services combined, it is simply not comparable to the money I used to earn that would allow me to create more CDs, to tour in support of those CDs, and to keep the next "life cycle" going. I believe that the ubiquity and ease of access to music like mine has made it harder (not easier) for me to persuade people to come out to my shows, to buy my CDs, to download my music on iTunes, and to support me in my career simply because the promotional dollars and self-generating financial cushion to do so is gone. When I first started out, my mantra was to be everywhere like the Shinto spirits but not get in the way. Or, better put, to do what I needed to do to get to where I was going but to do no harm getting there. Now, in a bizarre twist on my original mantra of being everywhere and not getting in the way, I am everywhere and "no one." The digital ubiquity of my music has all but erased me in the physical world in which I work to live.

In all of these experiences and anecdotes I've presented here, I've learned a few things. But the most important thing I learned is that simple solutions sometimes require difficult choices. The simple solution is for the Pandoras and iHearts of the world to pay fair rates to the artists that make their business possible. Additionally, they need to start contributing a stronger and more sustainable thread to this fabric and the cultural landscape that has been shaken to its core and rebuild the bedrock of small businesses and independent artists that has been weakened by their current practices. Most of all, they need to educate consumers on the *realities* of their business models, not feed them the conflated notion that more consumption equals more exposure for artists when that exposure is not generating viable income for the owners of these copyrights. Going forward, they simply need to be more self-aware as powerful, trendsetting corporations and more responsible stewards of our legacy as opposed to arresting the agency, autonomy and identity of the American artist as if that had no consequence or bearing on the future. So as you deliberate this matter, and you hear all sides present their cases, ask yourself: Where is the next Bruce Springsteen, Dave Matthews, or Bessie Smith coming from? I ask you to set rates that will adequately compensate and support those artists who are working in the streets, parks and stages big and small across the country, and who are contributing their recordings that keep webcasters' businesses running.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 2/23/15

Doria Roberts

Exhibits Sponsored By Doria Roberts

Exhibit No.	Sponsored By	Description
SX EX. 057 - RP	Doria Roberts	Ex. 1 – Doria Roberts Performance Video

SX EX. 057 -RP

Document Produced in Native Format

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV*)	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

CORRECTED WRITTEN REBUTTAL TESTIMONY OF

DANIEL L. RUBINFELD

Robert L. Bridges Professor of Law and Professor of Economics Emeritus at the University of California, Berkeley and Professor of Law at New York University

PUBLIC VERSION

Witness for SoundExchange, Inc.

Table of Contents

I. Overview

A. Assignment

1. I am Professor Daniel L. Rubinfeld. I previously submitted testimony for SoundExchange. My CV and a list of my prior testimony were attached to my prior report.

2. I have been asked to comment on the reports of Carl Shapiro (expert for Pandora), Michael Katz (expert for the NAB), and Daniel Fischel and Douglas Lichtman (experts for iHeartMedia). I have also reviewed the report of Stephen McBride on behalf of Pandora, the testimony of Steven W. Newberry on behalf of the NAB, and the testimony of David J. Frear on behalf of Sirius XM.

B. Summary of Opinions

3. In the direct case, the Services' benchmark analyses primarily rely on just two market agreements: (1) iHeartMedia-Warner, and (2) Pandora-Merlin. Neither is informative. These are atypical deals that were negotiated in the direct shadow of the statutory license, the "pureplay" rates, and this proceeding. Moreover, neither iHeartMedia's direct deal with Warner nor Pandora's direct deal with Merlin can be fairly compared to the statutory license. In both deals the Services exchange forms of consideration – [redacted] – that cannot be replicated across the entire recording industry. In my view, these agreements are inappropriate benchmarks for deriving an industry-wide statutory rate for the next webcasting term. They do not reflect the ideal of a "willing buyer/willing seller" agreement.

4. Not only did the Services err in their use of unrepresentative evidence as their primary benchmarks, but their experts' analyses of these deals are flawed. Both Professors Fischel/Lichtman and Professor Shapiro inadequately account for the full bundle of consideration that was exchanged and the extra-statutory features that were part of the deals they offer as benchmarks. Professors Fischel/Lichtman further distort the value of these deals by focusing only on "incremental" plays. They also make a number of errors in their analysis, including ignoring critical terms in the iHeartMedia-Warner agreement, which materially affect their calculated value of the agreement.

5. Professors Fischel/Lichtman's use and analysis of iHeartMedia's direct deals with various independent labels is similarly flawed. Given the unique bargaining dynamic that existed between iHeartMedia, a power buyer, and these small labels, the deals that were struck are not representative of what most willing buyers and willing sellers

would negotiate.[1] Moreover, Professors Fischel/Lichtman miscalculate the effective per-play rates contained in these agreements.

6. In sum, then, the Services rely on a grand total of just 29 market agreements (Pandora-Merlin, iHeartMedia-Warner, and iHeartMedia-Indies) concerning just 2 services – *their own*. This is not a sound basis by which to derive an industry-wide statutory rate. By contrast, I have looked at the market as a whole, consisting of more than 50 service/label pairs and dozens of licenses (many of which have several amendments) entered into over a four-year period.

7. The NAB does not identify any market benchmarks to corroborate its $0.0005 rate proposal.[2] Instead, Professor Katz relies on two inappropriate comparisons: the SDARS II regulatory decision and terrestrial radio. The first, SDARS II, is a regulatory proceeding, not a voluntary market agreement. And even if the SDARS rate were a willing buyer/willing seller (WBWS) rate, the satellite radio market would yield a different WBWS rate than the webcasting market. Professor Katz's second proposed benchmark is no better. Since Congress has chosen not to create a terrestrial performance right in sound recordings, there necessarily is no market for terrestrial licenses in them. Terrestrial radio has no relevance under the WBWS standard.

8. The Services' critique of the interactive benchmark is misplaced. As I explained in my direct report, interactive benchmarks provide the best available market evidence from which to determine the rate that most buyers and sellers would negotiate in the hypothetical non-interactive market, particularly in light of the increasing convergence and competition between interactive and statutory services. In addition, unlike the limited market evidence Pandora and iHeartMedia have put forward, the interactive space is a "thick market" offering a variety of executed deals. This abundance of market comparisons ensures that the benchmark rate is not skewed by atypical agreements executed under idiosyncratic circumstances, such as the agreements put forward by the Services. Moreover, interactive deals are voluntarily struck by willing parties that cannot resort to the statutory license. Accordingly, these agreements best reflect how negotiations would transpire in the hypothetical market at issue, where there is no statutory license scheme. Finally, the differences in the rights conferred by interactive licenses can be isolated and quantified. The criticisms of Professors Shapiro, Katz, and Fischel/Lichtman with respect to the interactive music space aside, I continue to believe that the use of an interactivity adjustment to the subscription rates of the on-demand services is appropriate.

9. Furthermore, the interactive services marketplace is competitive. Streaming revenue has grown increasingly important over time. Just as labels have always competed for

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[1] See Report of the Copyright Arbitration Royalty Panel (Web I) at 24-25; Web III Remand at 23108.

[2] To the extent that Professor Katz suggests a possible zero rate as appropriate, I find it difficult to imagine most rights holders that would willingly license all their content to webcasters for free.

other sources of revenue, they compete contractually for economic value offered by streaming services. Indeed, the negotiations between the labels and services have resulted in significant concessions by the labels. Moreover, competitive forces in the consumer market constrain the range of negotiated rates in the interactive space. Market evidence confirms that the record companies' deals with interactive music services do not approximate "monopoly rates," but instead are shaped by competitive factors.

10. Finally, the reasonableness of my benchmark analysis is confirmed by examination of additional market agreements. Several directly negotiated deals for non-interactive, ad-supported services contain rates that are in line with SoundExchange's proposal.

C. Organization of the Rebuttal Report

11. The report is organized as follows. In Section II, I offer a number of critiques of the Services' proposed benchmarks.

12. In Section III, I reiterate my belief that it is appropriate to rely on a benchmark that is derived from interactive streaming service contracts, and I respond to various critiques of those benchmark agreements set forth by the Services' experts. In this section, I note that the market for interactive streaming service agreements is competitive, I defend the use of an interactivity adjustment, I explain how my methodology accounts for deals involving the independent record labels, and I demonstrate that my rate proposal is corroborated by additional market benchmark evidence.

13. In Section IV, I respond to several additional issues raised by the Services. First, I explain why a unitary commercial rate is appropriate. Next, I emphasize that the Services' proposals dramatically depart from prevailing statutory rates, and I explain that the evidence the CRB relied on in prior proceedings was appropriate and informative. Finally, I note that my benchmark analysis fully accounts for the promotion/substitution and relative-contribution statutory factors.

14. In Section V, I describe updated performance data and new retail price offerings that have been introduced since my direct case submission.

II. Benchmarks Offered by the Services

15. The Services proffered a number of benchmarks in the direct case. In this section, I analyze these benchmarks and conclude that: (1) each benchmark fares poorly under the CRB's comparability test, and (2) the experts' analyses of these inappropriate benchmarks suffer from serious methodological flaws.

A. iHeartMedia-Warner

16. Professors Fischel/Lichtman chiefly derive their rate proposal from an analysis of iHeartMedia's October 1, 2013 agreement with Warner.[3] Because that deal was struck between a major label and a prominent webcaster, Professors Fischel/Lichtman conclude it is the "best available economic evidence" for determining the willing buyer/willing seller rate.[4] I strongly disagree. As I explained in my direct report, while the iHeartMedia-Warner deal is a comparable benchmark in some limited respects, it scores poorly on each of the CRB's comparability tests.[5]

17. As an initial matter, the agreement was negotiated in the direct shadow of the statutory license. Without the ability to withhold its content, Warner's negotiating position was fundamentally limited during the negotiation. The statutory shadow also caused the agreement's stated per-play rates to be anchored by the NAB and pureplay statutory rates. Furthermore, iHeartMedia is a power buyer, not a representative webcaster, and it offered a unique bundle of consideration that is not comparable to the benefits conferred to content owners under the statutory license.

18. In addition to disagreeing with Fischel/Lichtman's choice of primary benchmark, I find their analysis flawed in several respects: (1) they distort the nature of the deal by focusing on only one "bundle" of plays; (2) they inappropriately focus their analysis on one party's subjective expectations, rather than the actual performance of the deal; (3) the projections on which they rely are unreasonable and inconsistent with the terms of the contract; and (4) they fail to account for material consideration that Warner received under the deal.

1 -- Professors Fischel/Lichtman incorrectly use the incremental rate rather than the appropriate average payment in valuing the iHeartMedia-Warner agreement.

19. Professors Fischel/Lichtman argue that the "incremental" per performance rate – the average rate for the additional performances above and beyond those that iHeartMedia expected to play absent an agreement – is the relevant rate for the purposes of determining an average statutory per-play rate that should apply industry-wide.[6]

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[3] [redacted] Professors Fischel/Lichtman also consider a number of agreements between iHeartMedia and small independent labels, and also make reference to the recent agreement between Pandora and Merlin. See *In Re: Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings* (hereinafter "WEB IV"), Docket No. 14-CRB-0001-(2016-2020), "Amended Testimony Of Daniel R. Fischel & Douglas G. Lichtman (with Exhibits A-F and Appendices A-E)" (hereinafter, "Amended Fischel and Lichtman Report"), ¶¶ 26-27.

[4] Amended Fischel and Lichtman Report. p. 13. I note that Professors Fischel/Lichtman also rely on [redacted] it fails the willing buyer/willing seller test and is not appropriate as a potential benchmark.

[5] Corrected Testimony of Daniel L. Rubinfeld (hereinafter, "Rubinfeld Report"), ¶¶ 177-187.

[6] Amended Fischel and Lichtman Report, ¶¶ 19-20.

20. As I will explain in the paragraphs that follow, this analysis is fundamentally flawed: It views the relevant price as the incremental price of the additional units, rather than the average price over all units.

21. Specifically, Professors Fischel/Lichtman postulate the per-performance fee based on the following formula: $(a - b) / (c - d)$, where:

    a = Projected royalty payments to Warner under the agreement;
    b = Projected royalty payments to Warner absent the agreement;
    c = Projected Warner performances under the agreement; and
    d = Projected Warner performances absent the agreement.

22. In this formula $(a - b)$ reflects the "incremental" payments to Warner, i.e., the incremental payments made under the iHeartMedia-Warner agreement. Similarly, $(c - d)$ measures the incremental number of performances that are expected to be achieved under the agreement.[7] Professors Fischel/Lichtman argue that all of the elements of the deal except for the incremental rate represent what would have been paid had there been no agreement and the payment had been at the statutory rate.[8] They assume that incremental performances are "not directly influenced" by the statutory rate.[9] But this is incorrect. Moreover, it is methodologically incorrect to focus on incremental performances. The correct analysis would analyze the *average* value of the iHeartMedia-Warner agreement on a per-performance basis.

23. The Fischel-Lichtman disaggregation of the bundle of plays into two distinct bundles is analytically invalid as a valuation method. There is no bright line that distinguishes performances that were influenced by the statutory rate and performances that were not.[10] For example, Professors Fischel and Lichtman assume that but-for the agreement, Warner would have received [redacted][11] But it appears that Warner believed that but-for the agreement, [redacted]][12] The reality is that both licensor and

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[7] Amended Fischel and Lichtman Report, ¶¶ 45-50, Exhibit 9.

[8] Amended Fischel and Lichtman Report, ¶¶ 45-48. The marginal price is defined as the amount of money paid for each additional performance. (See, e.g., Amended Fischel and Lichtman Report, ¶ 86.) The incremental rate is the amount of revenue received under an agreement divided by the number of additional performances that the labels were expected to receive under the agreement (¶ 20).

[9] Amended Fischel and Lichtman Report, ¶ 49.

[10] Professors Fischel/Lichtman suggest that a downward adjustment to their calculation might be necessary to account for the impact of the regulatory structure. They claim that their calculated rate might overstate the actual willing buyer/willing seller rate because the economic theory regarding "price match guarantees" would have discouraged Warner from adopting a rate-lowering strategy to increase its market share. See, Amended Fischel and Lichtman Report ¶ 54. This theoretical possibility is just that – a theoretical possibility. In reality, the countervailing pressure that was exerted by the NAB and pureplay rates was likely more substantial.

[11] Amended Fischel and Lichtman Report, ¶ 42.

[12] SNDEX0177715 [redacted] I understand that the document [redacted]. Moreover, Warner's [redacted], as Professors Fischel/Lichtman mistakenly assume. *See* Wilcox WRT, ¶ 3, n.2.

licensee have recourse to the statutory rate. If there is a separate agreement, it is because both parties thought they stood to gain by entering into a negotiated deal rather than operating with the statutory rate. The negotiation is over the entire deal, not over a first and a separate second bundle.[13] I have seen no evidence that any rights holder accepted or would have accepted an incremental payment of $0.0005 per performance for *all* performances.

24. To see why this does not make sense, consider the following analogy. Suppose that a seller offers to a customer a "BOGO," i.e., a buy-one, get-one-free deal. If a customer responds by buying two of the products, the relevant price is not zero (the incremental price if the second is free). The appropriate price is the average price, i.e., 50%of the price of the first product. The reason, of course, is that you must buy the first product in order to get the second free unit. Thus, the price of the second unit cannot be considered in isolation from the price of the full bundle and/or the price of the first unit.

2 -- Professors Fischel/Lichtman inappropriately rely on projections associated with the iHeartMedia-Warner agreement rather than its performance.

25. To generate their statutory rate proposal, Professors Fischel/Lichtman rely heavily on [redacted] Specifically, they rely on the following projections:

- [redacted]
- [redacted]

26. In my view, reliance on one party's subjective expectations as to how the deal would perform is inappropriate. My analysis of the iHeartMedia-Warner agreement was instead based on actual performance, which I believe is the better approach.

27. The advantages of using actual performance data outweigh the disadvantages, whereas the opposite is true for the use of projections. The performance data reflect actual experiences in the marketplace. The most recent performance data is likely to be the best predictor of what will happen in the immediate future. I note, however,

[13] Even if the price of the second bundle is a discount off the price of the first bundle, that discounted rate is still influenced by the statutory rate.

[14] Amended Fischel and Lichtman Report, ¶¶ 31-55.

that a review of a longer period of performance data may offer additional value if the review reveals important trends in the industry.[15]

28. With respect to the iHeartMedia-Warner deal, [redacted] This makes actual performance especially important. Here, Warner obtained [redacted]

29. One concern with the use of performance data in this rate hearing is that recent performance has reflected, to some extent, the shadow of the existing statutory rate and other agreements negotiated in that shadow.[16] However, the same concern would apply to information describing the parties' expectations. I am aware of no methodology that completely avoids the effects of this shadow.

30. In some contexts the use of projections can be informative, as for example, when a public company (subject to SEC review) is putting forward a business model and one is relying on the parties' forecasts of expected merger outcomes made prior to reaching a merger agreement. However, in the case at hand, [redacted]

31. It is worth emphasizing that [redacted] projections do not reflect a mutual understanding of the value of the agreement; indeed, even if shared, the other side could have conflicting projections on the deal's worth. In particular, no party has an incentive to correct the other side's overly-optimistic projections. Thus, actual objective performance data best establishes the value of a deal.

32. Furthermore, in this case, even if the expectations [redacted] there is no reason to rely on the expectations of only one of the two parties.

3 -- The projections [redacted] cannot reasonably estimate the expectations of the performance of the iHeartMedia-Warner agreement.

33. [redacted]

[15] My textbook, *Econometric Models and Economic Forecasts* (4th Edition, 2000, joint with Robert Pindyck), contains many examples in which market "performance" data are used to generate forecasts.

[16] As I explained in my original report, to the extent that one is relying on interactive agreements, that shadow is likely to be small.

[redacted]

34. [redacted]

35. [redacted]

36. [redacted]

37. Professors Fischel/Lichtman state that this discrepancy is meant to adjust for [redacted] Fischel/Lichtman's more sizable discount is unreasonable. In any event, to be conservative in my analysis below, I will apply Fischel/Lichtman's questionable [redacted], but only to custom plays given that skips are not permitted on digital-only webcasts.

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[17] Amended Fischel and Lichtman Report, ¶¶ 42-53, Exhibit B.

[18] Amended Fischel and Lichtman Report, footnote 42.

[19] See the description in backup.

[20] See the [redacted]

[21] Amended Fischel and Lichtman Report, ¶ 35.

[22] Rubinfeld Report, ¶¶ 212-217, 233-234

38. [redacted]

39. [redacted]

40. [redacted]

41. [redacted]

42. [redacted]

43. As I have discussed, the "incremental" rate proposed by Professors Fischel/Lichtman is inappropriate as a rate to be applied to all plays in the market. Although I do not

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23 [redacted]

24 Professors Fischel/Lichtman round up to [redacted] in their Exhibit B.

25 See Rubinfeld Report, Appendix 1b, lines N and U. Note that these computations are based on performance data from October 2013 through May 2014, [redacted] Exhibit 19 shows monthly effective per-play rates for the period October 2013 through September 2014.

26 [redacted] IHM_EXP_0001171.

endorse their methodology, [redacted]

44. Professor Fischel/Lichtman's calculation of the "incremental" rate is based on an assumption that but-for the agreement, Warner would have a [redacted] share of plays at iHeartMedia, but Warner in fact had closer to an [redacted] prior to the agreement.[27] This erroneous assumption is crucial because Fischel/Lichtman compute the incremental compensation in the agreement by multiplying the but-for plays by the NAB rates, and then subtracting this total from the projected compensation under the agreement. All else equal, a smaller but-for share implies that the deal provides larger incremental compensation in comparison to the status quo.

45. It is noteworthy that a [redacted] If one also corrects the first two errors previously discussed (the base rate and the classification of plays), then the Fischel-Lichtman rate increases by a factor of approximately 2.6.

46. The first two pairs of bars in Exhibit 4 highlight the fallacy in the Fischel-Lichtman approach that makes it unusable as a guide for valuation or rate setting. The "incremental" calculations depend on each party's expectations of the but-for number of plays and the implied compensation, but the *average* per-play rate does not.

47. Compounding these errors further, the Fischel-Lichtman calculation of iHeartMedia's projected incremental performances in their Exhibit B misapplies the terms of the contract. [redacted] During the period of the agreement, Warner's actual share of simulcast performances has ranged

[27] See Wilcox WRT, ¶ 3, n.2.

[28] SNDEX0177717 [redacted]

[29] [redacted]

between [redacted]. If one were to use the actual share in place of the assumed [redacted] of simulcast, the projected simulcast per-play rate – determined by dividing the lump sum buyout by the number of simulcast plays – would significantly increase.

4 -- Professors Fischel/Lichtman inappropriately exclude [redacted].

48. Professors Fischel/Lichtman inappropriately exclude [redacted] as a source of value to Warner and other licensees. It is difficult to discern exactly why Professors Fischel/Lichtman chose to exclude [redacted]. If [redacted] was excluded simply because it is hard to value, I disagree. If [redacted] I also disagree.

49. A commitment or guarantee of this type has economic value. [redacted]

50. Above and beyond this [redacted]

51. It would be inappropriate to conclude that the [redacted]

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[30] [[redacted]

[31] SNDEX0177717 [redacted]

[32] [redacted]

[33] [redacted].

[redacted]

52. Professors Fischel/Lichtman allocate [redacted]

53. If one were to use all of the Fischel-Lichtman assumptions concerning the [redacted] this yields rates above my proposal. [redacted], the resulting rates are closer to my proposal than to theirs. (See Exhibit 5.)

5 -- Professors Fischel/Lichtman fail to adequately account for other sources of value to Warner.

54. I disagree with the argument that certain "non-pecuniary" items, such as [redacted] are not valuable. There is no sound basis for Fischel/Lichtman's assumption that these non-monetary terms have a net value of zero. [redacted]

6 -- The payments based on a [redacted]

55. Professors Fischel/Lichtman claim that the agreement gives iHeartMedia [redacted]

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[34] To the extent iHeartMedia is suggesting that [[redacted] This would suggest that my interactivity adjustment considerably overstates the value of interactivity, and that my interactive benchmark analysis is conservative.

[35] [redacted]. *See* SNDEX017718.

[36] Amended Fischel and Lichtman Report, ¶¶ 38-39.

[37] [redacted]

[redacted]

56. Professors Fischel/Lichtman's analysis understates the willing buyer/willing seller rate because it does not account for the value of [redacted]

57. Further, payment for a [redacted]

58. Obviously, this cannot be replicated for all companies; otherwise [redacted] As shown in Exhibit 6B, when the value of the agreement's [redacted] term is accounted for, the implied minimum per-play rate exceeds both current statutory rates as well as my proposed rates, by a substantial margin.

7 -- Professors Fischel /Lichtman err in not proposing a [redacted]

59. Finally, Professors Fischel/Lichtman's rate proposal does not take into account [redacted]

60. Professors Fischel/Lichtman suggest that [redacted]] in the iHeartMedia-Warner contract was inflated because of the existence of the statutory rate (*see* their footnote 26). My view is the opposite; if anything, the shadow of the statutory license can be expected to act as an anchor on the terms of any negotiated

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[38] [redacted] See Wilcox WRT, ¶ 3, n.2.

contracts. As I explained in my first report, for services that can use the statutory license, the statutory rate caps their willingness to pay since they can unilaterally choose to take a license or not. Since record companies cannot force anyone to take a license, the statutory rate does not limit their willingness to accept.

61. To sum up, the iHeartMedia-Warner agreement has limited probative value as a benchmark. It scores poorly on the CRB's comparability tests: (1) iHeartMedia had the option of electing the statutory rate; (2) the negotiated rates were influenced by this proceeding; (3) iHeartMedia is not a representative buyer; (4) the compensation in the agreement diverges in material ways from the structure of the statutory license; and (5) the terms of the agreement cannot be replicated across the industry.

B. Pandora-Merlin

1 -- The Pandora-Merlin agreement fails the Judges' comparability test and is an improper benchmark.

62. I turn now to the Pandora-Merlin agreement that was relied on as a benchmark by Professor Shapiro[39] (and also used by Professors Fischel/Lichtman to corroborate their proposed benchmark.)[40]

63. The Pandora-Merlin agreement was not available to me at the time of my initial report. Had it been available, I would have concluded that it is an improper benchmark.

64. Most fundamentally, the Pandora-Merlin agreement is an improper benchmark because it was directly influenced by the existing pureplay rates flowing from the Webcaster Settlement Act ("WSA") and this rate proceeding. Because Pandora had the option to elect the below-market pureplay rates (which are not precedential), Merlin had no ability to negotiate a market rate. [redacted] In light of these circumstances, the Pandora-Merlin agreement cannot reasonably be used as a representation of the deals that most labels would enter into with Pandora in the absence of the statutory license.[43]

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[39] WEB IV, Docket No. 14-CRB-0001, *Written Direct Testimony of Carl Shapiro, On behalf of Pandora Media, Inc*. (hereinafter "Shapiro Report"), Section 5.

[40] Amended Fischel and Lichtman Report, ¶ 82.

[41] [redacted]

[42] [redacted]

[43] Professor Shapiro is aware of this issue; he claims, unconvincingly that the pureplay rates did not artificially depress the negotiated rates. Shapiro Report, p. 36.

65. In addition, relying on a single license negotiated by a single service does not offer a reliable foundation for a statutory benchmark. This is especially the case with respect to the Pandora-Merlin agreement, given that it involved a uniquely situated buyer and seller. Overall, as shown in Exhibit 7, Merlin represents [redacted] of total performances on Pandora. This is hardly a representative benchmark. In contrast, my benchmark analysis incorporated information from agreements between all major directly licensed services and all major labels, covering more than 76% of performances on the benchmark services. In addition to analyzing the majors' agreements with these nearly 20 services, my analysis also explicitly adjusted the majors' terms to account for rates paid to independent labels.

66. While significant as a representative of independent recording companies, Merlin is not a major label. I find unconvincing Professor Shapiro's assertion that there is no meaningful difference for the major labels and the indie labels in the (i) marginal cost to the label and (ii) the service's elasticity of demand for the label's catalog.[44] Merlin's interests and incentives likely differ substantially from those of the major labels. To my knowledge, no major label has entered into a direct agreement with Pandora similar to the scope of its agreement with Merlin.

67. I do note, as illustrated in Exhibit 8A, that in its negotiations with Spotify, Merlin has [redacted] Unlike Professor Shapiro's reliance on one specific deal, my analysis of interactive agreements accounts for such differences because it relies on a wide variety of deals.

68. [redacted]

69. Just as Merlin is not representative of all labels, Pandora is not representative of all non-interactive webcasters. Because of Pandora's power position in the industry, for

[44] Shapiro Report, pp. 37-41.

[45] Shapiro Report, Table D.1, Table D.2, and Table D.3. Professor Shapiro reports [redacted]

[46] http://investor.pandora.com/phoenix.zhtml?c=227956&p=irol-newsArticle&ID=2015862, accessed February 16, 2015.

a non-major player such as Merlin, the opportunity to establish a "partnership" with Pandora would in and of itself have considerable value. [redacted]

70. [redacted]

71. [redacted]

72. [redacted]

73. To sum up, the Pandora-Merlin agreement is a wholly inappropriate benchmark. It fails each of the CRB's comparability tests: (1) Pandora had the option of electing the below-market pureplay rates; (2) the rates are directly tied to the pureplay rates (and were influenced by this proceeding); (3) the buyer and seller are unrepresentative; and (4) the agreement diverges in material ways from the statutory license.

2 -- Professor Shapiro's analysis of Pandora-Merlin is flawed.

74. As I have explained, I find the Pandora-Merlin deal to be uninformative as a benchmark for this proceeding. That said, if the deal were to be considered, to determine its true value, one would have to quantify and account for the full value of the consideration that Merlin received in the deal. Professor Shapiro has failed to appropriately do so.

75. [redacted]

[redacted]

[redacted]

[47] [redacted]

[48] *Id.*

[49] Shapiro Report, Appendix D-19.

[redacted]

76. [redacted]

77. Professor Shapiro's calculation is also flawed because it does not appropriately adjust the proposed royalty rates for the following provisions:

[redacted]

[redacted]

[50] Shapiro Appendix D-11.

[51] See Lexton WRT, ¶¶ 36-43.

[52] [redacted]

[53] [redacted]

[redacted]

[redacted]

[redacted]

3 -- The Fischel-Lichtman analysis of the Pandora-Merlin deal confirms the unreasonableness of their "incremental" rate approach.

78. Professors Fischel/Lichtman attempt to apply their "incremental" rate methodology to the same Pandora-Merlin deal that is analyzed by Professor Shapiro.

79. I have a number of substantial criticisms of Professor Shapiro's approach and conclusions. I note, however, that Professor Shapiro's estimates of the overall blended rates in the agreement [redacted] The Shapiro estimates for the blended per play rates in Q4 2014 through 2015 are [redacted].[57] The Fischel-Lichtman estimate of the "incremental" rate under the agreement is a range that is [redacted].[58] That the Fischel-Lichtman approach arrives at rates that are inconsistent with the value assigned by the actual parties to the deal highlights that their incremental methodology is fundamentally unsound.

[redacted]

[55] See also, Shapiro Report, ¶¶ 30-31.

[56] [[redacted]

[57] Shapiro Report, p. 32.

[58] Amended Fischel and Lichtman Report, pp. 39-40.

80. [redacted]

81. [redacted]

C. Services' Other Benchmarks

82. In addition to these two primary benchmarks, the Services point to other evidence to support their rate proposals, including: (1) iHeartMedia's direct deals with a number of independent labels, (2) the SDARS II regulatory proceeding, (3) terrestrial radio, and (4) a "thought experiment" relating to record industry revenues. Below I explain why each of these purported benchmarks are uninformative and inappropriate means by which to determine what most willing buyers and willing sellers would negotiate in the hypothetical target market.

1 -- The Fischel-Lichtman analysis of the iHeartMedia-Indie deals is flawed.

83. To corroborate their rate proposal, Professors Fischel/Lichtman point to agreements iHeartMedia has entered into with 27 independent record labels. Although they acknowledge that there are "several economic considerations that may explain why the independent labels would have agreed to lower royalty rates," they nonetheless contend that iHeartMedia's agreements with these 27 independent labels "provide an important benchmark, because they indicate what a substantial number of willing sellers in the industry would negotiate."[61] I disagree. The rates negotiated between iHeartMedia, a power buyer, and these 27 labels have very little probative value.

84. First, it is important to recognize that these 27 direct licensors "represent a sliver of the universe of rights holders for sound recordings."[62] In fact, iHeartMedia's own

[59] See also, Shapiro Report, ¶¶ 30-31.

[60] [[redacted]

[61] Amended Fischel and Lichtman Report ¶ 69.

[62] SDARS II at 23,061.

data [redacted]

85. Given their small size, these 27 independent licensors have unique incentives and business motivations that cannot be extrapolated to the entire industry. That a buyer of iHeartMedia's size and stature was on the other side of the negotiating table only amplifies the uniqueness of the deals.

86. Second, as with all of the other agreements proffered by the Services as benchmarks, iHeartMedia's Indie deals were negotiated in the direct shadow of the statutory license. This further diminishes their usefulness as benchmarks in this proceeding.

87. Each of the independent agreements upon which Professors Fischel/Lichtman rely contain similar core provisions:

[redacted]

[redacted]

[redacted]

88. [redacted]

89. Notwithstanding these disqualifying features of the deals, Professors Fischel/Lichtman offer them as evidence of what a willing buyer and willing seller would negotiate. They purport to calculate the per-play rate embodied in the deals by once again applying their "incremental" methodology. The methodology is misguided in this context.

90. First, rather than rely on actual documented projections that were shared between the parties (which, as I explained above, is itself problematic), Professors Fischel/Lichtman "make certain assumptions regarding what iHeartMedia projected at the time."[64] [[redacted]

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[63] See [[redacted]

[64] Amended Fischel and Lichtman Report, ¶ 63.

[redacted] Finally, once again, Professors Fischel/Lichtman disaggregate these unified deals into two distinct sets of performances and derive their effective rate from only the "incremental" plays.

91. This analysis distorts the actual nature of these agreements. [redacted] In sum, Professors Fischel/Lichtman's assumptions as to what [redacted] is irrelevant to the valuation of these deals.

92. The only way to reasonably calculate the effective per-play rates embodied in iHeartMedia's Indie deals is to look at the average rate on a per-performance basis. As shown in Exhibit 10, the deals carry an average effective per-play rate of [redacted] Finally, as shown above [redacted] would increase the average effective rate by 50%.

2 -- SDARS II is not an appropriate benchmark.

93. Professors Fischel/Lichtman, Shapiro, and Katz all point to the SDARS II regulatory decision as a benchmark that corroborates their individual proposals. In this section, I explain that this is not an appropriate benchmark for three reasons.

94. First, by definition, a rate handed down in a regulatory proceeding is not a voluntarily negotiated rate. There is no guarantee that a Judge-made decision will fairly resemble a voluntary license agreement that would have been reached between market participants.[67] It is therefore not the kind of market evidence that is informative for purposes of determining what willing buyers and willing sellers would negotiate.

95. Second, the statutory mandate in the SDARS standard creates economic imperatives which differ from the willing buyer/seller standard. The SDARS standard is "policy-driven, whereas the standard for setting rates for non-subscription services set forth in

[65] Unlike the iHeartMedia-Warner deal, [redacted]]

[66] Amended Fischel and Lichtman Report, ¶ 63.

[67] See 17 U.S.C. § 114(f)(2)(B).

§ 114(f)(2)(B) is *strictly fair market value*—willing buyer/willing seller."[68] The U.S. Copyright Office recently reaffirmed this fundamental distinction: "Satellite radio and 'pre-existing' subscription services (such as those provided through cable television) are able to benefit from the four-factor section 801(b)(1) test, which allows the CRB to ponder broader concerns than what negotiating parties might consider in the marketplace—for example, whether a contemplated rate will result in 'disruptive impact on the structure of the industries involved and on generally prevailing industry practices.' Many interpret the section 801(b)(1) language as enabling the rate-setting body to protect the vested interests of licensees by establishing rates lower than what would (at least theoretically) prevail in the free market. . . . For example, in 2008, in establishing rates for satellite radio services, the CRB found it 'appropriate to adopt a rate . . . that is lower than the upper boundary most strongly indicated by marketplace data,' stating that they did so 'in order to satisfy 801(b) policy considerations related to the minimization of disruption that are not adequately addressed by the benchmark market data alone.' In any event, there appears to be a shared perception among many industry participants — both those that chafe at the section 801(b)(1) standard and those that like it — that the standard yields lower rates."[69]

96. Professors Shapiro and Fischel/Lichtman's analyses of the SDARS II rate are flawed because they both fail to acknowledge that a policy-driven 801(b)(1) rate is inappropriate for deriving a "strictly fair market value" rate.[70]

97. In any event, even if the SDARS standard was comparable, the SDARS rate would nevertheless be an inapt reference point because the satellite radio market and the webcasting market are dissimilar in two crucial respects. First, the hypothetical willing buyer/willing seller negotiation in the satellite radio market would involve a monopsony buyer, Sirius XM. In the webcasting market, by contrast, there is not a "sole provider of [streaming] service[s]."[71] Instead, the market consists of many services of varying sizes that actively compete with one another. In the satellite market, therefore, Sirius XM would be in the position to "negotiate very different rates."[72]

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[68] See Web I at 45241 (emphasis added).

[69] "Copyright and the Music Marketplace: A Report of the Register of Copyrights," United States Copyright Office, February 2015.

[70] Professor Katz's analysis differs somewhat in that he uses the SDARS benchmark rate – before the Judges adjusted it to account for the 801(b) factors – as his starting point. (See Katz Report at ¶¶ 85, 86). Professor Katz claims that satellite radio and simulcast offer similar content and "copyrighted music is no more important to music-formatted simulcasters than to Sirius XM." (Katz Report, ¶ 5.) He therefore concludes that the "satellite rate" requires no adjustments. (Katz Report, ¶¶ 85-93.)

[71] SDARS II at 23,065.

[72] *Id.*

98. A second difference between satellite radio and webcasting relates to costs. In the recent SDARS II proceeding, Sirius XM relied on the testimony of Mel Karmazin, its Chief Executive Officer since 2004, which "describe[d] the ways in which Sirius XM's cost constraints – including having invented and continually invested in maintaining, upgrading and innovating its technological infrastructure and developing its unique and often exclusive content – vary widely from those of its new Internet-based competitors, which are not saddled with similar costs." ("Introductory Memorandum to the Written Direct Statement of Sirius XM Radio Inc.," SDARS II, p. 7). As the Judges observed in SDARS II, Sirius XM's "substantial financial outlays are unique to Sirius XM, which has developed a proprietary music distribution system, rather than use the existing internet framework," as webcasters have done.[73]

99. Taken together, these unique features of the satellite radio market make it an inappropriate comparison for this proceeding. The Services' reliance on the SDARS II regulatory decision to support their respective rate proposals is misplaced.

3 -- The Fischel -Lichtman "thought experiment" is neither realistic nor conservative.

100. To attempt to show that their $0.0005 rate proposal is reasonable, Professors Fischel/Lichtman report the results of a "thought experiment." Their thought experiment considers the hypothetical impact if all music consumption shifted to statutory streaming services.[74] They argue that their thought experiment demonstrates that statutory rates are high "relative to actual record industry revenues" because a royalty of only $0.0014 would be necessary to maintain industry revenues at their current levels in a world where labels rely entirely on statutory streaming services for revenue.[75]

101. However, the extreme assumptions that Professors Fischel/Lichtman analyze are neither realistic nor conservative. For example, while it is reasonable to postulate that webcasting revenue could exceed CD revenue by the end of the next rate period, it is not reasonable to presume that (performance) royalty-free terrestrial radio listening will migrate to royalty-bearing webcasting. Even if this shift did occur, the labels would not willingly accept $0 for plays that migrated from terrestrial radio, as the Fischel-Lichtman analysis implicitly suggests. If one assumes instead that radio listening habits remain unchanged, a very different picture emerges. See Exhibit 11. With the proposed rates advocated by Professors Fischel/Lichtman, the industry would recover only about 11% to 22% of its lost revenues.[76] Put another way,

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[73] *Id.* at 23,069.

[74] Amended Fischel and Lichtman Report, ¶¶ 121-128.

[75] Amended Fischel and Lichtman Report, ¶ 120.

[76] I calculate $0.0046 and $0.0023 for the 100% and 50% revenue reduction cases, respectively. Professors Fischel/Lichtman propose a rate of $0.0005. $0.0005 / $0.0046 = 11% and $0.0005 / $0.0023 = 22%.

Professors Fischel/Lichtman have understated the minimum rate needed to maintain industry revenues by a factor of 3 to almost 6.

4 -- Terrestrial radio is an inappropriate reference point.

102. Finally, testifying on behalf of the NAB, Professor Katz looks to terrestrial radio as a reference point for the lower bound of his rate proposal. Because labels do not receive any compensation for terrestrial broadcasts – and they in fact seek out terrestrial airplay – Professor Katz concludes that "the lower bound of the zone of reasonableness for a statutory rate for web simulcasting is near zero."[77]

103. I disagree. Terrestrial radio is not the right comparison. Terrestrial radio stations do not pay for the sound recordings they broadcast (although they do pay songwriters via ASCAP, BMI, and SESAC). This fact is a function of an anomaly in existing copyright law – it in no way reflects the value of sound recordings to terrestrial broadcasts. In other words, there is no market for sound recordings in the terrestrial radio space. It is therefore irrelevant to the benchmark analysis. Simulcasting and custom radio services compete directly with the wide range of interactive and non-interactive services that I have analyzed in my expert report. Those services represent the most relevant comparisons with respect to this rate-setting process.

104. To sum up, Professor Katz offers no sound basis for NAB's proposed $0.0005 rate. He does not identify any voluntarily negotiated market benchmarks that reflect this rate.

III. Response to Services' Critique of Interactive Benchmark

105. As I explained in detail in my original report, the interactive services agreements benchmark evidence is the best available market evidence for deriving a willing buyer/willing seller rate.

106. I explained, for example, that there has been increasing convergence between on-demand webcasting services and non-interactive services whose rates are at issue in this matter. Pandora and iHeartMedia appear to have the same view. Both publicly acknowledge that they compete with interactive services.[78] Moreover, in recently-

[77] Katz Report, p. 8.

[78] For example, in their most recent 10-K SEC filing (for the fiscal year ended December 31, 2014, available at http://investor.pandora.com/phoenix.zhtml?c=227956&p=IROL-sec&secCat01Enhanced.1_rs=11&secCat01Enhanced.1_rc=10, accessed February 19, 2015), Pandora stated (p. 9) that "We face competition from providers of interactive on-demand audio content and pre-recorded entertainment that allow listeners to select the audio content that they stream or purchase. This interactive on-demand content is accessible in automobiles and homes, using portable players, mobile phones and other wireless and consumer electronic devices. The audio entertainment marketplace continues to rapidly evolve, providing our listeners with a growing number of alternatives and new media platforms."

Similarly, iHeartMedia describes its competition in broad terms: "Our terrestrial radio broadcasting operations face increasing competition from alternative media platforms and technologies, such as broadband wireless, satellite produced evidence from Pandora and iHeartMedia, [redacted][80] Indeed, iHeartMedia internally observes [redacted]

107. My report also explained that the interactive benchmark is especially informative because there have been a wide range of deals negotiated between the parties in recent years. A "thick market" is the best starting point for a determination of appropriate statutory royalties.

108. Finally, on-demand, interactive services are not eligible for the statutory license. As a result, their direct agreements are the least influenced by the statutory shadow.[82]

109. I also note that valuing service contracts can be especially difficult when agreements provide labels with multiple sources of value, or when service operators have multiple service offerings. Rather than isolate particular elements while ignoring others, my analysis was mindful of the fact that agreements must be evaluated as a whole.[83] Given the difficulty in valuing individual contract elements, I took a conservative approach and only accounted for the subset of the consideration that was exchanged that could be reliably estimated. As a result, I conservatively did not value some elements of additional compensation to rights holders.

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radio, audio broadcasting by cable television systems and Internet-based audio music services, as well as consumer products, such as portable digital audio players and other mobile devices." See iHeartCommunications 10-K (for the fiscal year ended December 31, 2014), available at http://www.iheartmedia.com/Investors/Pages/default.aspx (accessed February 19, 2015).

[79] See, e.g., PAN_CRB_00025594 [redacted]

[80] See, e.g., PAN_CRB_00066277 [redacted]

[81] IHM_0052599 at 23 [redacted]

[82] Rubinfeld Report, ¶ 13.

[83] For example, an agreement may specify lower rates for an operator's free service offerings, subject to the understanding that the free service will be structured to motivate listeners to subscribe to a more-lucrative paid service.

110. In the remainder of this section I will further explain why my benchmark analysis is conservative, and I will demonstrate that the Services' critiques of the interactive benchmark are misplaced.

A. The Market for Interactive Service Agreements is Competitive

111. I have reviewed the testimony of Professor Katz and Professor Shapiro concerning the "willing-buyer/willing seller" requirement and their critique of the interactive agreement set of benchmarks as being the result of a market that is not "effectively" or "workably" competitive. Specifically, they argue that the catalogs of major labels are complements rather than substitutes for interactive streaming services, with the implication being that the rates in these agreements are above those which would exist in a competitive market.[84]

112. I understand that the "'willing seller/willing buyer' standard calls for rates that would have been set in a 'competitive marketplace."[85] In the *Web III* remand decision, the Judges stated that "[a]n oligopolistic marketplace rate that did approximate the monopoly rate *could* be inconsistent with the rate standard set forth in 17 U.S.C. 114(f)(2)(B) . . . . [T]his statutory section does not oblige the Judges to set rates by assuming a market that achieves 'metaphysical perfection and competitiveness. . . . Rather . . . the 'willing seller/willing buyer' standard calls for rates that would have been set in a 'competitive marketplace.' . . . Between the extremes of a market with 'metaphysically perfect competition' and a monopoly (or collusive oligopoly) market devoid of competition there exists '[in] the real world . . . a mind-boggling array of different markets,' . . . all of which possess varying characteristics of a 'competitive marketplace."[86] As the Judges summarized, the critical question is whether the "evidence demonstrates that sufficient competitive factors existed to permit" agreements "to serve as useful benchmarks, and does not demonstrate that the rates in the" agreements "approximated monopoly rates."[87]

113. Here, for a variety of reasons, my answer to that question is the affirmative. The economic terms of the interactive service benchmark agreements are the result of competitive forces. The analysis in my initial report and in this rebuttal report makes it clear that the rates in the interactive service market do not approximate "monopoly

[84] See, e.g., Katz Report, pp. 6-7; Shapiro Report, pp. 13-15.

[85] Web I, 67 FR at 45244-45.

[86] Web III Remand, 79 Fed. Reg. 23102, 2314 n.37 (April 25, 2014) (emphasis in original) (internal citations and quotation marks omitted).

[87] *Id*. Professors Shapiro and Katz also seem to agree that their proffered concepts of "workable" or "effective" competition do not require anything near "perfect" competition as that phrase is understood in economics, but that such concepts generally just require a degree of competition. (See Shapiro Report, p. 11 ("Workable competition does not require marginal cost pricing or anything approaching the textbook model of perfect competition."); Katz Report, p. 20 (noting that "theoretical conditions of *perfect* competition often are not satisfied in actual markets" and describing "workable" competition as markets that "are competitive, but not perfectly so")).

rates," but instead are consistent with a competitive (though not perfectly competitive) marketplace.

1 -- The fact that major labels' catalogs may be complements rather than substitutes is consistent with a competitive interactive service market.

114. Professors Shapiro and Katz argue that because the catalogs of major labels are complements rather than substitutes for interactive streaming services, the rates in these agreements are above those which would exist in a competitive market.[88] I agree that the catalogs of the major record companies might be more complementary than substitutable. But I disagree that the mere fact that the catalogs are either complements or "must-haves" means that the market is not competitive or that the majors extract supra-competitive contract terms. As explained below, there is clear evidence that the agreements between the record labels and the interactive services set forth terms that reflect competition in the market.

115. Complementarity does increase the value of having access to the repertoire of multiple major labels. I stress, however, that the complementary nature of the repertoires of the major labels should not be seen as evidence that the labels do not compete with one another when negotiating deals with the music services.

116. The labels are competing with each other for a contractual share of the economic value offered by music services. If one label can strike a particularly beneficial deal with a music service, other labels may find it more difficult to obtain their own beneficial deals. Complementarity and competition are distinct economic concepts that are not mutually interchangeable.

117. To illustrate, consider the demand of university libraries for academic journals. For major university libraries, many top-rated journals are must haves. At the same time, top journals in the same field are complementary – having access to all of the top field journals can be highly beneficial to the research efforts of faculty and students. However, from the perspective of the libraries, there is substantial competition among the journal providers for the libraries' limited budgetary dollars. When negotiating its pricing arrangement with one journal publisher, the library has the ability to bargain over (i) the number of journals to be purchased; and (ii) the ease of student and faculty access to journals (e.g., online capability). A particularly beneficial deal with one journal publisher will likely make the deal with other publishers less advantageous.[89]

118. Finally, the example of one sophisticated major streaming service, Amazon, launching an on-demand service without the catalogs of all major labels raises a

[88] See, e.g., Katz Report, p. 6-7; Shapiro Report, pp. 13-14.

[89] For a discussion of these issues, see "Academic Journal Pricing and the Demand of Libraries" (with Aviv Nevo and Mark McCabe), *American Economic Review*, Vol. 95, No. 2, May 2005, pp. 447-452.

question as to whether the catalogues of the majors are in fact must-haves for an interactive streaming service.[90]

2 -- The interactive services market is not collusive.

119. Neither Professor Shapiro nor Professor Katz has offered any evidence that the labels or services in the interactive market have engaged and/or are engaging in "collusion" with one another. I see no basis for concluding that the major recording companies have negotiated together as a monopoly. Nor is it reasonable to conclude that any one sound recording company is acting as a monopoly. To the contrary, evidence suggests that there is strong competition between labels and between services.[91]

120. If the major recording labels were truly negotiating together as a monopoly, then one would expect to observe all licensees paying a "monopoly price" for sound recordings. An analysis of the contracts shows the contrary. Spotify has negotiated rates which are [redacted]

121. And as discussed further below, I find it particularly noteworthy that Merlin, which represents labels that are not a "must have" to the same degree as the three major recording labels, given their substantially smaller catalogs and market shares, has negotiated [redacted]][92] This undermines the claim that the major labels were able to negotiate supra-competitive terms because of the complementary nature of their catalogs.

122. Neither Professor Shapiro nor Professor Katz has offered evidence of coordination between labels and services in negotiating agreements. To the contrary, the evidence shows the opposite. For example, Google's negotiations with Indies were reported to be particularly acrimonious and took months of additional negotiations after Google first announced its agreements with major record labels.[93]

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[90] Ed Christman, Amazon Launches Prime Music Streaming Service, Minus UMG (June 12, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6114217/amazon-launches-prime-music-streaming-service-minus-umg.

[91] Furthermore, in the its statement closing its investigation of the acquisition of EMI by UMG, the FTC noted that that it "did not find sufficient evidence to support the concern that Universal's acquisition of EMI would significantly increase the potential for coordination among recorded music companies" and emphasized "competitors' ability to monitor each other or respond to competitive activity." Statement of Bureau of Competition Director Richard A. Feinstein In the Matter of Vivendi, S.A. and EMI Recorded Music September 21, 2012.

[92] See Rubinfeld Report, ¶ 221.

[93] See, e.g., Andrew Flanagan, YouTube Re-Negotiating with Indies Following Outcry, Billboard (July 6, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6150292/youtube-re-negotiating-with-indies-following-outcry; Stuart Dredge, YouTube Subscription Music Licensing Strikes Wrong Notes with Indie Labels, The Guardian (May 22, 2014), http://www.theguardian.com/technology/2014/may/22/indie-labels-youtube-

Similarly, Amazon's on-demand music service launched with licenses to some but not all major labels' content, which also suggests that the majors' catalogs may not be "must haves" for all on-demand services.[94]

3 -- The music services' negotiations with the labels were consistent with competition.

123. I have reviewed negotiating documents and communications with respect to the interactive streaming service agreements. It is clear that there were prolonged negotiations and that the interactive streaming services demanded and in some cases obtained preferred terms.

124. The evidence I have seen makes it clear that it was not the case that the labels "exercise[d] such monopoly power as to establish them as price-makers" thereby "mak[ing] negotiations between the parties superfluous."[95]

125. To illustrate further,

a. [redacted]

b. [redacted]

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subscription-music; WIN YouTube Statement (June 18, 2014), http://winformusic.org/news/win-youtube-statement-june/.

[94] Ed Christman, Amazon Launches Prime Music Streaming Service, Minus UMG, Billboard (June 12, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6114217/amazon-launches-prime-music-streaming-service-minus-umg.

[95] Web III, 76 Fed. Reg. 13026.

[96] [redacted] See SNDEX0251181, SNDEX0251183, SNDEX0251185, SNDEX0251187, SNDEX0251197.

[97] See Harrison WRT, Ex.2.

[redacted]

c. Even before its launch in the United States, Spotify [redacted]] When Spotify and Warner resumed negotiations for the next term, [redacted] Similarly, in its negotiations with Beats Music, Warner [redacted]]

d. Smaller services [redacted]

e. Press accounts also characterize entities such as Google and Amazon as adopting "take-it-or-leave-it" positions when negotiating with recording labels.[104]

126. Although this negotiation evidence further demonstrates the competitiveness of the interactive streaming service market, the actual agreed-upon price in the agreements offers the most direct evidence for purposes of the willing buyer/willing seller test. For example, to obtain reliable estimates of each parties' "Willingness to Pay"[105] ("WTP") and "Willingness to Accept"[106] ("WTA") numbers, it is necessary

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[98] *Id.*

[99] See SNDEX0149151, SNDEX149036, SNDEX149048, SNDEX0149044.

[100] See SNDEX0148972.

[101] See Wilcox WRT, Ex. 8.

[102] See SNDEX0250671, SNDEX0250665.

[103] See, e.g., SNDEX0239817.

[104] See, e.g., Eamonn Forde, Is Amazon's Streaming Service Trying to Hardball Small Publishers?, Music Ally (April 7, 2014), http://musically.com/2014/04/07/is-amazons-streaming-service-trying-to-hardball-small-publishers/ (accessed February 17, 2015); Wallace E.J. Collins, YouTube's Ultimatum and the Economic Survival of Musicians, HypeBot, http://hypebot.com/hypebot/2014/06/youtubes-ultimatum-and-the-economic-survival-of-musicians.html (accessed February 17, 2015).

[105] The maximum amount a music service would be willing to pay to enter into an agreement.

[106] The minimum amount the record label would be willing to accept to enter into an agreement.

to understand the thinking of both parties that are engaged in the negotiation process. Here, although discovery in this matter may provide useful information with respect to the views of the record labels as to their WTA number, it is unlikely to be informative with respect to the interactive services' WTP number, as they are not parties to this proceeding and have not produced internal valuation or negotiation documents in this proceeding.

4 -- Indie labels with small catalogs have negotiated [redacted]

127. Another factor demonstrating competition in the interactive services market is that independent labels with substantially smaller catalogs than the majors have [redacted]

128. Merlin – which has less than [redacted] of the market and is not a "must have" to the same degree as the three major recording labels – [redacted]][107]

129. This undermines any claim that the major labels, because of the "must have" nature of their catalogs, were able to negotiate supra-competitive terms from interactive streaming services. If the major labels received supra-competitive pricing because of the must-have status that is created by their market shares, then one would not expect [redacted]

5 -- External forces constrain the range of prices for licensed content for interactive streaming services.

130. The focus by Professors Shapiro and Katz on the complementary nature of the catalogs of the major record labels for interactive streaming services also ignores strong external factors in the marketplace that constrain the range of prices negotiated and ultimately agreed upon between labels and interactive streaming services. These include: (i) the strongly competitive consumer market for interactive services; (ii) piracy; and (iii) the labels' desires to see interactive streaming services succeed in order to offset revenue decline from downloads and physical record sales.

i. Competitiveness of the consumer market

131. The competitiveness of the consumer market for interactive streaming services has a substantial impact on the royalty rates negotiated between labels and streaming services. The interactive streaming market has proven to be highly competitive over the years, with a number of new entrants – including Spotify, Google, Beats, and Apple – and a fall in retail prices for interactive streaming services. Indeed, interactive streaming service subscription prices have dramatically fallen over time, from an average of $13.50 per month at the time of Web III[108] to $9.99 – and in some

[107] See Rubinfeld Report, ¶ 221.

[108] See Web III Remand, 79 FR 23117, n.46.

cases, less – today.[109] For example, following its acquisition of Beats, Apple is reported to be introducing a new interactive music streaming service to be priced at $7.99 per month.[110] Similarly, Google is reportedly merging its Google Play premium on-demand service – currently priced at $9.99 per month – with its new premium ad-free YouTube service, and is reported to be pricing the combination at $7.99 per month.[111] Indeed, as I will show below, a number of services offer family or group plans, which if expressed as a price per-person, average around $6 per month.

132. These competitive forces in the downstream consumer market constrain the prices that music labels can charge for their content to interactive music services in the upstream royalty market. This is true for a number of reasons. First, competition among services tends to transfer economic rents to listeners. This limits the ability of rights holders to demand more compensation. Second, competition among services means that, at least over the long run, market prices will tend to reflect costs (in this case, royalties and operating costs, including a normal risk-adjusted return on capital). This implies that rights holders will have incentives to internalize the effects of their royalty rates on consumer demand. To illustrate, suppose that one of the labels were to demand terms that would force a music service to increase its subscriber price. If the consumer demand for the service were believed to be relatively elastic at this higher subscription price, the service would be expected to lose sales, which in turn would reduce the royalty payments that the label would receive. The label would then be motivated to reduce its proposed minimum per-play rate and likely to put forward a proposal for lesser terms.

133. A similar dynamic would arise with respect to ad-supported services as well, including Pandora and services such as YouTube. Industry observers note that paid services such as those offered by Spotify recognize that their paid services compete with their own as well as other service operators' free offerings. For example, one industry executive stated that "most consumers don't know the difference between Spotify and Pandora" and that personalized radio services may be "blinding" some consumers to the advantages of paid subscription services.[112]

134. Others have observed that interactive services' subscription prices compete with non-interactive services' subscription prices, noting that for "someone debating

[109] See, e.g., Exhibit 15.

[110] Mark Gurman, The Next Episode: Apple's Plans for Beats-Based Music Service Revealed (February 4, 2015), http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/.

[111] Mike Roe, YouTube Launches New Music Key Streaming Service as Artists Look to Pull Music (November 13, 2014), http://www.scpr.org/blogs/newmedia/2014/11/13/17559/youtube-launches-new-music-key-streaming-service-a/ (accessed February 17, 2015).

[112] Hannah Karp, Era of Free Digital Music Wanes, Wall Street Journal, http://www.wsj.com/articles/era-of-free-digital-music-wanes-1415839234 (accessed February 17, 2015). The causality works in the other direction as well. Other things equal, an increase in the royalty rate will lead to an increase in the minimum subscription price that services can charge in order to be profitable.

between a $5 per month Pandora One subscription and a $10 per month Spotify Premium subscription, the choice is pretty easy. . . .What's more, Spotify announced last month that it's offering 50% discounts for premium users' family members. In other words, only the first family member costs more than a Pandora One account."[113]

ii. Piracy

135. Thus, competition among services – including from free and statutory services – puts downward pressure on the prices that the interactive services can charge consumers for streaming services, which in turn affects the negotiated licensing rates for the content at issue. Piracy, which provides an alternative to legal streaming services, has a similar effect. Some listeners who would be willing to purchase content may alternatively resort to pirated materials. Because the price of content from the pirated sources is near zero, piracy puts a strong downward influence on the rates that interactive streaming services can charge for their services.

136. For example, Spotify CEO Daniel Ek recently stated that the "hardest thing about selling a music subscription is that most of our competition comes from the tons of free music available just about everywhere. . . . Here's the overwhelming, undeniable inescapable bottom line: the vast majority of music listening is unpaid. If we want to drive people to pay for music, we have to compete with free to get their attention in the first place."[114] It also has been reported that Spotify's new Family plan, in which each additional user costs only 50% more ($14.99 for two users per month, $19.99 for three, $24.99 for four, and $29.99 for all five users), is an attempt to persuade users to subscribe to Spotify who otherwise would turn to pirated, free content.[115]

iii. Labels want services to succeed.

137. An additional external force affecting negotiated rates is that any individual record label negotiating with a service has a desire to see that service succeed in order to offset revenue declines from downloads and physical record sales. If the catalog of every major label is a "must have" in the context of an interactive service, the service would need to license the content of each of the other major labels' catalogs as well. The record label would want the service to obtain a reasonable rate of return that allows it to continue to innovate and grow its services and listenership base. Professors Shapiro and Katz fail to point out that there is potential loss of revenue for any major label that is unable to negotiate a suitable arrangement with the service.

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[113] Adam Levy, Pandora Is Losing the Battle to Spotify, Motley Fool (November 17, 2014), http://www.fool.com/investing/general/2014/11/17/pandora-is-losing-the-battle-to-spotify.aspx (accessed February 17, 2015).

[114] Daniel Ek, I'm Spotify CEO Daniel Ek. And These Are the Facts, Digital Music News (November 11, 2014), http://www.digitalmusicnews.com/permalink/2014/11/11/im-spotify-ceo-daniel-ek-facts.

[115] Alex Zaharov-Reutt, Spotify Family Pricing Puts Cheapskate Pirates on the Spot (October 23, 2014), http://www.itwire.com/your-it-news/entertainment/65809-spotify-family-pricing-puts-cheapskate-pirates-on-the-spot.

6 -- The effective per play rates of interactive streaming services have been declining.

138. Furthermore, streaming services' royalty costs have not been increasing over time. Indeed, the effective per-play rate for all interactive streaming services has been *declining* over time. In the period since Spotify's 2011 entry into the U.S. market, effective per-play rates have trended downward (Exhibit 12A). This downward trend demonstrates that the record labels are not price-makers. It is worth noting that the effective percentage of revenue paid in royalties falls slightly as the total revenue (or content fees or label plays) of the service increases (Exhibit 12D).

139. Similarly, Spotify's initial agreements with UMG, Sony, and Warner had [redacted][116] Spotify's subsequent agreements with each company [[redacted][117] If the major record companies were "price makers," Spotify would not have been able to [redacted]].

7 -- Major labels' catalogs are "must haves" in the non-interactive space as well.

140. Professors Katz, Shapiro, and Fischel/Lichtman all argue that in hypothetical negotiations with labels, non-interactive services would have higher elasticities of demand for any given label's content, compared to interactive services, because non-interactive services can more easily steer listeners to particular sound recordings. From this theory each expert concludes that in a hypothetical negotiation in the absence of the statutory license, non-interactive services would be able to demand dramatically lower rates than interactive services.[118] This claim is overstated.

141. I acknowledge the limited ability of Pandora and other non-interactive services to steer. However, steering focuses on the ability to steer consumers toward or away from a percentage of the label's plays, and not toward or away from a label's entire repertoire. The license in question is a *blanket* license for *all content* for all labels. This blanket license would be the central focus of the hypothetical negotiation.

142. In other words, to the extent the major labels' catalogs are "must haves" in the interactive space, the same is true in the non-interactive space, as Pandora's own steering experiments establish. The steering experiments conducted by Pandora demonstrate that Pandora would find it difficult to succeed without the catalogs of each major. [redacted]

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[116] [redacted]

[117] [redacted]

[118] See, e.g., Shapiro Report, pp. 6-7; Katz Report, ¶ 53; Amended Fischel and Lichtman Report, ¶ 118.

[redacted]

143. [[redacted]

144. Dr. McBride argues that these are "small" effects, and that overall, "Pandora is able to steer both toward and away from music of the three investigated music groups with minimal or no effect on the Pandora listening experience."[120] I disagree. As shown in Exhibit 13, [redacted]

145. Exhibit 13A plots the weekly change in listenership for each of the steering away experiments.[121] [redacted] In other words, one would expect the effects of the steering in Pandora's experiment to grow over time as listeners began to observe that the steering was occurring. [123] A longer duration would be more reflective of what would happen in the marketplace, where the steering would likely be felt for far longer than 13 weeks.

146. For the same reason, the 13-week average is likely [redacted] that would result if steering were continued beyond the 13-week period reported by Dr. McBride. Therefore, if one were to estimate the dollar cost to Pandora it is conservative to assume to the average effect from the 13-week experiments would apply if steering were continued for one year or more. Under that assumption, starting from Pandora's most recently released quarterly information and

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[119] See McBride Report, Figure 2.

[120] McBride Report, ¶ 22.

[121] See PAN_CRB_00003949.

[122] [redacted]

[123] Dr. McBride's experiment was conducted for just 13 weeks.

extrapolating to a full year, the information in Dr. McBride's Table 1 implies that Pandora would be expected [redacted]

147. These estimates are quite conservative. For example, were one to estimate the yearly effect by using the [redacted]] during the 13-week period rather than the average, Pandora's estimated cost of steering away from UMG [redacted]

148. Note further that when Pandora steers *away* from one label (UMG, for example), it must be steering *towards* other labels by a corresponding amount. As Dr. McBride's Table 1 demonstrates[, [redacted]]

149. It is important to give note to the experiments that were apparently not performed (or reported). The McBride experiments steer away from *individual* majors. There are no reported experiments measuring the effects of steering away from all the majors simultaneously. If spins were steered away from all three majors at the same time, the results in Dr. McBride's Table 1 would tend to [redacted]

150. Dr. McBride likewise did not report the effects of 100% steering away from any major. From Pandora's own experiments it is evident that steering 100% away from a major label, i.e., not streaming the catalog of that label at all, would [[redacted]

[124] Consider the 'thought experiment' in which UMG is steered by -30% and Sony plus Warner (which together are roughly the size of UMG) are steered by +30%. Because the effects in McBride's Table 1 for steering away from UMG, for example, already include some steering toward Sony and Warner, it is not conservative to simply add the effects of steering away from UMG and towards Sony in the Exhibit (the Warner effect is not statistically significant) to conclude that the effects of these simultaneous steers would result in [[redacted]

151. Therefore, the sum of the three average 13-week effects for the 30% steering away for each of the three majors *individually* is likely a very conservative estimate of the effects on Pandora's profits of steering 30% away from all three *simultaneously* for a more extended period.

152. It is likewise not clear from Pandora's experiment whether listeners were aware of the steering. Assuming a lack of awareness, it is not surprising that listeners who had revealed a preference for Pandora in the first place would continue to follow Pandora when steered. That listeners were unaware of the experiment diminishes the significance of the results. In the actual marketplace, consumers would be deterred from listening to a service if they knew that certain desired content was being steered away from them. And if consumers knew that a streaming service lacked a major label's entire repertoire, this effect would be even more pronounced, and the impact on the service's business would likely be devastating.

153. To sum up, Pandora's own steering experiments demonstrate that the major label's repertoires are "must haves" for non-interactive services. As a result, in the hypothetical negotiation for a blanket license, a service's limited ability to steer would have little practical impact. Under the willing buyer/willing seller standard, which again involves a blanket license for *all* of a copyright owner's catalog (and not some or part of it), Universal, for example, could use as leverage its ability to withhold its entire catalog, which would leave Pandora in a similar bargaining situation as Spotify would be in the interactive space. In other words, the implicit threat to steer away from content of a major label would likely play only a modest role in any hypothetical negotiation.

154. Thus, the very bargaining dynamic that the Services challenge in the interactive context as leading to purportedly supra-competitive rates (which, as discussed above, I disagree with) would continue to exist in the non-interactive context in the hypothetical world of a willing buyer/willing seller, assuming no statutory license.

8 -- Steering is also relevant in the interactive space.

155. The ability of non-interactive services like Pandora to steer listeners to certain content is not unique to the non-interactive space. Interactive services also have the ability to steer listeners to featured playlists, in which the service itself would have the discretion to choose which labels' content to feature on such playlists. Indeed, the lean-back model is an increasingly important feature offering of interactive services.[125]

[125] See, e.g., Randall Roberts, Music Streaming Services Unleash a Torrent of Digital Playlists (April 1, 2014), http://www.latimes.com/entertainment/music/la-et-ms-music-streaming-20140803-column.html#page=1 (accessed February 17, 2015).

156. Thus, to the extent the ability of a service to steer is relevant to the competitiveness of the market, the same steering ability exists in the interactive streaming context.

9 -- The interactivity adjustment would account for any "supra-competitive" pricing in the interactive market.

157. Assuming solely for purposes of argument that the nominal rates in the interactive agreements were thought to be "supra-competitive," then the interactivity adjustment that I have applied to those rates to bring them to the non-interactive level would tend to remove the effects of any non-competitive forces which are unique to that space.

B. My Reliance on Rates Applicable to Paid Interactive Services Is Reasonable

158. Professors Fischel/Lichtman and Professor Katz argue that the use of the interactive benchmark is flawed in part because interactive and non-interactive services have different business models and this biases the projected rate upwards.[126] Professor Katz, for example, notes that subscription services have generated higher revenues per play than ad-supported services.[127] In essence, they argue that interactive and non-interactive services represent different commodities in the market place. For several reasons, I disagree with them.

159. It is correct that ad-based models are not currently as profitable for services as are subscription-based models. However, it does not follow that this creates bias in my analysis. To show bias in favor of the labels, one would have to show that using a similar methodological approach to analyze ad-based models would lead to a lower set of benchmark rates.

160. At the outset, the on-demand services that I have analyzed do not rely entirely on subscription revenues. To illustrate, some on-demand services have free ad-supported offerings which they use to motivate paid subscriptions. Spotify, Rdio and Slacker all have free ad-supported tiers (some with on-demand functionality, others "radio" services) to motivate paid subscriptions. Other on-demand services such as Rhapsody may offer free trials but do not have a free ad-supported tier. My existing analysis thus already incorporates the rates charged for these "free" service offerings.

161. Moreover, and as discussed in greater detail in Section E below, when one focuses solely on the rates applicable to free, ad-supported tiers offered by the Category A set of interactive services, some of which involve less functionality than full on-demand (comparable to customizable non-interactive services), those rates

[126] Amended Fischel and Lichtman Report, ¶¶ 88-90.

[127] Katz Report, ¶¶ 53-55.

[redacted], which would start at $.0025 in the year 2016.

162. For example, Beats offers a free ad-supported, non-interactive service called the "Sentence." Absent [redacted] the rates agreed to between Beats and Universal, Sony, Warner, as well as Merlin and the independent record company, Beggars Group, range from [redacted] in 2014.

163. Similarly, Spotify offers a free, ad-supported tier, which has more limited on-demand functionality for mobile (limited to "shuffling" particular albums, but not choosing the tracks of any particular song). The Shuffle functionality does not allow users to pick particular songs, but does allow them to hear a mix of an artist's album or the artist plus similar tracks; it also limits the number of skips to six per hour. The rates agreed to between Spotify and Universal, Sony, Warner, as well as Merlin for this limited-functionality Spotify free service are [redacted]

164. Separately, I have compared the average revenue per user ("ARPU") of interactive and non-interactive ad-supported services. Based on that analysis, I see no need to make further adjustments to the rates applicable to free ad-supported services offered by the Category A set of services.

165. The differences in ARPUs reflect not only the inherent value of ads per minute (e.g., on Spotify vs. Pandora), but also the frequency and obtrusiveness of the ads.[128] Furthermore, differences in these ARPUs will reflect differences in business models of the services and not differences that are solely reflective of an appropriate interactivity adjustment.

166. To make an apples-to-apples comparison, one would have to look at the price of an ad per person and then adjust the ARPUs by removing the differences that result purely from serving more ads (and/or more obtrusive ads). After this adjustment, if the ads for each service were inherently equally valuable (measured on a per-minute per-person basis), the appropriately adjusted implied "interactivity factor" using ARPUs would equal 1. If the ads were not equally valuable, the ratio of the adjusted ARPUs would be different from one. If it were possible to separate these elements, such a ratio could serve to form an interactivity adjustment.

[128] To illustrate, suppose one service adopted a business strategy of sacrificing ad revenue in the present in order to build and lock in their listener base, in order to enable "monetization" in the future. This service would emphasize free subscriptions and have relatively few and relatively unobtrusive ads. In contrast, another service could adopt a business model of using its free service to recruit new listeners, and then motivate new listeners to convert to its paid, ad-free service. Consequently, such a service would likely choose to present free service listeners with more obtrusive and more frequent ads. One would need to adjust the revenues from the two types of services to reflect these differences, if one wanted to have an apples-to-apples comparison.

167. Using a methodology that is analogous to the computations made with respect to paid services, Exhibit 14 computes an adjustment using the ARPU of ad-supported services.

168. Exhibit 14A shows the estimated ARPUs for Pandora and Spotify for their ad-supported services only. Exhibit 14B shows that the ratio of Spotify's ARPU to Pandora's for the period running from the third quarter of 2011 to the third quarter of 2014 is [redacted]. If one restricts attention to the period from the third quarter of 2013 to the second quarter of 2014 – the period used in the calculations leading to the rate proposal in my initial report – the ratio [redacted][129]

169. This analysis confirms that the interactive benchmark rates derived in my initial report are conservative. The interactivity factor of 2.0 was derived from the ratio of ad-free paid services' subscription prices (their ARPUs). This factor was then applied to the weighted average rates from the free and paid interactive service offerings. If one were to use this 2.0 factor to adjust rates from paid offerings only, and separately used [[redacted] to adjust rates from free offerings, the resulting weighted average benchmark rates would exceed the rates that I proposed.

C. My Reliance on Subscription Prices To Set the Interactivity Adjustment Is Reasonable

170. In my initial report, I computed an interactivity adjustment using the market subscription prices of paid interactive and non-interactive services. I continue to believe in the validity of an interactivity ratio computed using data from paid services.

171. I continue to believe that a comparison of subscription prices is appropriate. The comparison of subscription rates is an apples-to-apples comparison. Because paid services have zero ads, the ratio of prices (interactive/non-interactive) offers an appropriate basis upon which to measure the interactivity adjustment.

172. The data also reveal a strong correlation between services' consumer subscription prices and the licensing rates they pay to labels. All else equal, the interactivity adjustment sets statutory rates that represent the same fraction of subscription prices as paid by the on-demand services in Category A.[130] As shown in Exhibit 15, although various on-demand services are offered at a variety of prices in the marketplace, the royalties paid represent a nearly constant percentage of those service

[129] I note that these figures are based on U.S. performance data. The performance data Spotify reports to labels are likely to be more current and more accurate than information available on the Internet. Spotify's website states that its 2013 ARPU was $41 per user (http://www.spotifyartists.com/spotify-explained/, accessed January 31, 2015). In contrast, I estimate Spotify's ARPU to be about [redacted] using [redacted] of performance data. If one used the published $41 estimate (which might not have the same definition of "user," "revenue," or geography, and covers a different time period), one would obtain an estimate of 1.88 for the interactivity factor.

[130] For an overview, see Rubinfeld Report, ¶¶ 19 and 20.

offerings' revenues. Consistent with the 55% revenue share proposed in my initial report,[131] nearly all the percentages are in the [redacted] interval. As was shown in Exhibit 12D, differences in these percentages appear to be concentrated among the services with the smallest content fees.

173. Additionally, I have chosen to rely in part on the conjoint study of Professor McFadden, an approach that in this instance is highly reliable. As I described in my direct report,[132] the results of the conjoint study demonstrate that my interactivity adjustment was reasonable.[133]

174. Finally, this point is less important today than in prior webcaster proceedings, given that there has been convergence between interactive and non-interactive services.[134]

D. My Treatment of the Independent Record Labels is Appropriate

175. Professors Fischel/Lichtman[135] argue that prior interactive benchmark analyses were flawed because they did not account for the independent recording labels. That criticism is not apt with respect my analysis, which did include the Indies. To analyze this issue, I conservatively assumed that independent deals carry the same minimum per-play rates as those offered to majors, but without the "goodies" the majors would demand and expect – including equity stakes, advertising, minimum guarantees, or non-recoupable payments. In essence, the Indies were assumed to receive effective rates equal to the minimum per-play rates obtained by the majors. This is conservative because [redacted]], and (b) the Indies are likely to have a higher percentage of plays on interactive services.[136] I found that some Indies obtained lower royalties and some higher.[137]

176. iHeartMedia's direct licenses with 27 independent labels confirms that my treatment of Indies was appropriate. Exhibit 10 compared the terms of these licenses to the Warner agreement. The exhibit shows that my previous assumptions were reasonable. [redacted]

[131] Rubinfeld Report, ¶ 32.

[132] See Testimony of Daniel L. McFadden, ¶¶ 54-62.

[133] Rubinfeld Report, ¶¶ 171, 209-210.

[134] Rubinfeld Report, ¶¶ 52-63.

[135] Amended Fischel and Lichtman Report, ¶¶ 56-68 and 92.

[136] The independent recording labels represented approximately 24 percent of all streamed music on the interactive services I have examined. Rubinfeld Report ¶ 225.

[137] See Rubinfeld Report, ¶¶ 221-222.

[redacted]

E. Additional Market Evidence Corroborates SoundExchange's Proposal

177. As noted, Professors Shapiro, Katz, and Fischel/Lichtman have all criticized the prior use of licenses that include on-demand functionality, primarily because they are skeptical about whether one can properly adjust for the value of interactivity and more generally because they are critical of the use of on-demand subscription offerings as benchmarks. I have responded to these criticisms previously.

178. In the sections that follow, I will delve more deeply into several recent licensing agreements for non-interactive and/or ad-supported services showing that they corroborate the rates proposed by SoundExchange. The examples will further confirm my proposed interactivity adjustments because the range of rates for these offerings closely adheres to the rates determined by my analysis of the adjusted rates suggested by on-demand licenses as a whole. Finally, this licensing analysis responds directly to the benchmarks proposed by Pandora and iHeartMedia because it demonstrates that there are market rates negotiated for non-interactive plays that are substantially higher than the deals Pandora and iHeartMedia have presented.

1 -- Beats Music's "The Sentence" rates confirm my analysis.

179. Beats Music ("Beats") launched a music streaming subscription service in the U.S. on January 21st, 2014.[138] While Beats is principally a subscription offering, it announced at the time of launch that it would offer a free feature referred to as "The Sentence" with the expectation that it would encourage people to subscribe to the service.[139] "The Sentence" provided consumers the opportunity to enter a location, mood, setting, and genre and then listen to music curated by the service.[140] This type of mood-based curation is similar to other non-interactive customized services such as Songza.[141] For example the free version of "The Sentence" limits the number of skips a user can make.[142] As a result, the free version of "The Sentence" provides

[138] Beats Music is Here, (January 10, 2014), http://www.beatsbydre.com/on/demandware.store/Sites-beats-Site/en_US/NewsAndPressReleaseShowArticleContent?articleID=2014_PR_Beats_Music_Launch&fdid=company-news (accessed February 22, 2015); Miriam Coleman, Beats Music Launching Streaming Service January 21st, Rolling Stone (January 11, 2014), http://www.rollingstone.com/music/news/beats-music-launching-streaming-service-january-21st-20140111 (accessed February 22, 2015).

[139] Walt Mossberg, Beats Music Streams With a Human Touch (January 21, 2014), http://recode.net/2014/01/21/beats-music-streams-with-a-human-touch/ (accessed February 22, 2015).

[140] *Id.*

[141] Karis Hustad, Beats Music Streaming Hits a Surprise Speed Bump (January 24, 2014), http://www.csmonitor.com/Innovation/2014/0124/Beats-Music-streaming-hits-a-surprise-speed-bump (accessed February 22, 2015).

[142] Walt Mossberg, Beats Music Streams With a Human Touch (January 21, 2014), http://recode.net/2014/01/21/beats-music-streams-with-a-human-touch/ (accessed February 22, 2015).

directly comparable functionality to services that were utilizing the statutory webcasting license. The rates related to the Beats "The Sentence" offering therefore strongly corroborate the SoundExchange rate proposal.

180. [redacted]

181. [redacted] To the extent that Professors Katz, Shapiro, and Fischel/Lichtman criticize my analysis for relying on subscription plays, that criticism would not apply to the free offering of "The Sentence" feature.

182. "The Sentence" rates are also informative because they expressly contemplate [redacted]

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143 [redacted]

144 [redacted]

145 [redacted]

[redacted] Exhibit 16 shows the applicable per-play rates that Beats pays under its licenses with Universal, Sony, Warner, Merlin, and the Beggars Group.

183. Given that the statutory license does not [redacted]. Those rates are as follows:

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

184. Thus, [redacted], the rates agreed to between Beats and Universal, Sony, Warner, [[redacted] range from [redacted] per play in 2014. This is consistent with the rates proposed by SoundExchange, [[redacted]

185. These rates are less subject to the potential distorting effect of the shadow of the statutory license than the benchmarks proposed by Pandora and iHeartMedia. When a proposed benchmark license is directly impacted by the existence of the statutory license, this severely limits the value of that license as a comparable benchmark. That effect is likely most acute when the core service can opt to operate under the statutory license, as Pandora and iHeartMedia have done and continue to do. By contrast, the Beats "The Sentence" rates are more immune to the statutory shadow effect because these [redacted]

186. Finally, the Beats "The Sentence" rates offer a valuable comparable for additional reasons. The rates were all negotiated in early 2014, providing relatively recent evidence. The agreements I have analyzed include licenses with the three major record labels and independent record labels – including a prominent independent record group that negotiates many direct deals and also the independent rights collective (Merlin) that negotiated the license Pandora proposes for a benchmark.

187. Furthermore, Beats was a new entrant that had market clout because of its ties to the industry and its celebrity attention. Also, like many non-interactive services, Beats emphasizes curation as a means of providing provide a better listener experience. Finally, at its launch, Beats was seen as a competitive threat to Pandora.[146]

188. These Beats "The Sentence" rates are yet another reason to view the SoundExchange rate proposal as conservative. The agreements show that [redacted] Given that subscription on-demand revenue is likely to become increasingly important over time, it is reasonable to expect that a willing seller will, over time, [redacted]

189. To sum up, the rates that enable the free-to-consumer version of "The Sentence" offer a valuable comparable for determining the benchmark value of a non-interactive play in the market. They are per-play rates for a service for plays that have the same (or even less) customization as statutory licensees. While the overall Beats license includes on-demand plays, and therefore is less influenced by the shadow of the statutory license, the particular free-to-consumer "The Sentence" offering is outside of the subscription model. [redacted] Finally, the service is relatively recent, involves sophisticated willing buyers and sellers, and involved a prominent entrant into the music streaming market.

2 -- Additional non-interactive rates corroborate my analysis.

190. While the Beats "The Sentence" rates are very strong corroborative evidence of the reasonableness of SoundExchange's rate proposal, there are other non-interactive offerings or tiers of services that are not on-demand and non-subscription based that also confirm my analysis.

(1) See Appendix 2

(2) Spotify Free Tier

191. In addition to its subscription-based service offering, Spotify offers a free, ad-supported service. The vast majority of Spotify's users use only the free ad-supported service. Of Spotify's 60 million active users, approximately 75%, or 45 million, are active users of the free service.[147]

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[146] See, e.g., Jason Abbruzzese, Spotify and Pandora Brace for Beats Music to Drop (January 16, 2014), http://mashable.com/2014/01/16/spotify-removes-time-limits/(accessed February 22, 2015).

[147] Information, Spotify.com, https://press.spotify.com/us/information/ (accessed February 22, 2015).

192. Spotify's ad-supported service is available on mobile phones, tablets, and desktop computers. Spotify's free service on mobile phones, released in December 2013, does not have full on-demand functionality, but instead offers a "Shuffle" service.[148] The Shuffle functionality does not allow users to pick particular songs, but does allow them to hear a mix of an artist's album or the artist plus similar tracks; it also limits the number of skips to six per hour.[149] Commentators have described the Spotify free mobile service as similar to that offered by non-interactive customizable services such as Pandora.[150] Spotify has reported that 42% of user listening on its free service occurs through the mobile phone service.[151]

193. The stated per-play rate applicable to plays on Spotify's free ad-supported service for [redacted].[152] This rate further corroborates the reasonableness of my rate proposal, which starts at $.0025 for 2016.

194. As noted, the [[redacted] rate applies to the free, advertising-only tier of Spotify, and thus escapes the criticism of Professors Shapiro and Katz concerning rates that apply to subscription-based services (with which, as noted above, I disagree). Further, like the Beats "The Sentence" service, Spotify's free service is intended as a [[redacted][153]

195. The Spotify free rate is not broken down by [redacted]], as is the case with the Beats "The Sentence" rates. One can reasonably assume that the rate of [redacted] is lower than it would be if the Spotify free service did not [redacted]. Thus, it is conservative to use the [redacted]] rate as a confirmatory benchmark as applied to a non-interactive, ad-supported service (such as Pandora) which [redacted]

[148] Candice Katz, Music for Everyone. Now Free on Your Mobile, Spotify.com (December 11, 2013), https://news.spotify.com/us/2013/12/11/music-for-everyone-now-free-on-your-mobile/ (accessed February 22, 2015).

[149] Spotify Free on Your Mobile Phone, Spotify Help, https://support.spotify.com/us/learn-more/guides/#!/article/spotify-free-on-your-mobile-phone (accessed February 22, 2015).

[150] Dan Rowinski, Every Day It's Shufflin': Spotify Still Limits Mobile Music (December 11, 2013), http://readwrite.com/2013/12/11/spotify-free-shuffle-mobile-play-android-ios (noting that "Spotify Shuffle for free on mobile devices is akin to other music streaming apps like Pandora or Rdio."); Lizzie Robinson, Faceoff: Spotify vs. Pandora (September 4, 2013), http://blog.zagg.com/faceoff-spotify-vs-pandora/ ("The mobile app for Spotify is very similar to Pandora if you are using the Free Membership.").

[151] Josh Constine, Spotify Makes the Shift to Mobile with 52% of Listening Now on Phones and Tablets (January 10, 2015), http://techcrunch.com/2015/01/10/music-is-a-mobile-linchpin/.

[152] [redacted]

[153] Daniel Ek, $2 Billion and Counting (November 11, 2014), https://news.spotify.com/us/2014/11/11/2-billion-and-counting/ (accessed February 22, 2015) (Spotify CEO noting that "Our free service drives our paid service.").

Finally, the rate applies to a free mobile service offering which offers functionality generally similar to that offered by non-interactive services such as Pandora.

(3) Rhapsody "unRadio"

196. Another confirmatory benchmark is the per-play rate that applies to Rhapsody's "unRadio" service, introduced in June 2014.[154] unRadio is a mobile and web-based non-interactive streaming service that offers personalized radio based on users' favorite artists or tracks, with unlimited skips. In terms of functionality, it is very similar to customizable services like Pandora. Rhapsody offers a 14-day free trial for the service, followed by a subscription price of $4.99 per month.[155]

197. [redacted]

198. Given that unRadio is a non-interactive service with the equal purported ability to steer listeners (no different than Pandora), the arguments of Professors Shapiro and Katz regarding the complementary nature of major labels' catalogs would not apply to it (to be sure, as noted above, I believe that even such arguments equally would apply for non-interactive services). The Rhapsody unRadio rates further confirm the reasonableness of my rate proposal.

(4) MixRadio (Nokia)

199. As noted in my written direct testimony, Nokia has offered a free-to-consumer non-interactive radio service, MixRadio, to purchasers of Nokia devices in the U.S. since the fall of 2012. The radio service can be customized by users to take into account their personal tastes. The service does not have advertisements, and appears to be near-DMCA compliant, except that it permits users to play cached radio stations

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[154] Yinka Adegoke, Rhapsody Wants You To Pay for Radio (June 18, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6121651/rhapsody-unradio-t-mobile-pay-for-radio (accessed February 22, 2015).

[155] http://www.rhapsody.com/pricing.

[156] [redacted]

[157] [redacted]

[158] [redacted]

via Nokia devices while offline.[159] MixRadio also has a premium service offering for $3.99 a month that provides unlimited track-skipping, unlimited offline mixes, and high-quality audio, and which is also available on PCs.[160]

200. Nokia has license agreements with [redacted]

201. The Nokia agreements also serve as confirmatory benchmark evidence. Nokia offers a non-interactive, customized streaming service comparable to Pandora and others operating under the statutory license, which likewise offers Nokia the ability to "steer" the content it plays on the service. Moreover, Nokia offers a non-subscription, free service, albeit one tied to the sale of Nokia devices. The Nokia per-play rate of [redacted] the opening rate of $.0025 in my rate proposal for 2016, further confirming the reasonableness of my proposal.

IV. Response to Other Issues

202. In this section, I respond to various other issues that are implicated by the Services' direct case submission.

A. A Unitary Commercial Rate is Appropriate

203. On behalf of Pandora, Professor Shapiro has proposed different per-play rates for paid and free services. I see this as unnecessary and restrictive. The streaming marketplace is dynamic in nature due to entry of large players (iHeartMedia, Apple, Google, Amazon).[161] Moreover, services such as Pandora and Spotify tend to compete on the basis of innovation.[162] My proposal currently accommodates a variety of business models because it sets the "greater-of" a minimum per play rate and a percentage of revenue. It is possible, for example, that many "free" services would pay the minimum per-play rate, whereas many "paid" services would pay according to the percentage of revenue branch.

[159] MixRadio Your own personal radio station, Microsoft, http://www.microsoft.com/enus/mobile/apps/app/mixradio/.

[160] *Id.*; Get Into The Groove, Mix Radio, http://www mixrad.io/us/en/offer; MixRadio, Microsoft, http://apps.microsoft.com/windows/en-us/app/mixradio/4e9de0ba-ed72-4ffc-866d-cf964def6ddf.

[161] Rubinfeld Report, ¶¶ 43-44, and Exhibit 2.

[162] See Mark Mulligan, "Global Digital Music Services Benchmark - The Digital Music Marketplace," MIDiA Insights & Decisions in Action, September 2014, pp. 10 and 21.

204. Moreover, to segment in the way that Pandora proposes is entirely inconsistent with how rates would be negotiated by willing buyers and sellers in the market. It is unreasonable to suggest that sellers in the market would willingly subsidize a service's business decision to rely on advertising rather than subscription revenue. In the market, a reduced rate for free services would likely only arise in conjunction with a conversion incentive to subscription plan revenue, such as where the streaming service limits certain functionality in the free service offering (e.g., on mobile) or increases over time the ad load to the non-subscriber user. But such incentive structures are not part of the statutory license. And as discussed above, I see no material difference in the Category A set of benchmark agreements between the rates that apply to their free ad-supported services and the rates in my rate proposal.

205. The NAB's direct case proposes segmentation of a different sort. By proposing broadcaster-specific rates and terms, it implicitly suggests that simulcasters should be subject to their own distinct rate under the statutory license. I also disagree with rate segmentation based on functionality.

206. From an economic perspective, it would be most prudent for the CRB to set a statutory rate that is based on the value of the full functionality permitted by the statutory license. It is unnecessary to set multiple default rates for different commercial market segments. If it turns out that there are distinct segments of the market for which this default rate is too high, it will be in the interest of both the services and the labels to negotiate a direct deal. In other words, if there is market demand for segmentation, the market will use the bargaining process to effectively achieve segmentation that is in the interest of both services and labels.

207. Moreover, it would be difficult for the CRB to set different rates for different kinds of services given how difficult it would be to draw clear lines. Functionality is not a reasonable metric by which to segment the webcasting market for a five-year statutory license term because functionality – and consumer preferences – are constantly evolving.

208. I also have not seen compelling evidence of the differences in demand elasticities among distinct segments of services. Such evidence would be essential if the CRB were to set different rates for different commercial segments. That said, it is important to keep in mind that the relevant elasticity relates to the demand for the "blanket" license that is at issue here, not the elasticity of demand for individual or particular songs.

209. Special treatment for simulcasters would also be inappropriate because simulcasters directly compete with webcasters for both listeners and advertisers. They do not occupy a distinct submarket. Moreover, many simulcasters offer added functionality, including substituting particular songs from terrestrial radio and offering localized advertising, distinguishing them from "pure" simulcasters and making it more challenging to draw segmented lines based on functionality. And

applications already exist that essentially convert simulcasts into "on-demand radio."[163] For example, a user can search iHeartRadio's simulcast service by genre and/or geographic area, and all simulcast stations responsive to that search will appear to the user, along with the songs currently being played on those stations. This allows the user to immediately listen to the searched-for song. Apps like TuneIn Radio offer similar functionality. These simulcasting services are competing more with on-demand services like Spotify by allowing users to search for and play specific tracks, rendering them fundamentally different from terrestrial radio.

210. The lines between simulcasters and other webcasters will likely continue to blur during the next rate period. To allow simulcasters to pay a lower statutory rate would give them an unfair competitive advantage.

211. Furthermore, a rate segmented based on functionality could invite strategic behavior and gamesmanship. [redacted]] If simulcasters were subject to a distinct rate, other webcasters would inevitably attempt similar tactics to reduce their royalty obligations. The line between categories in this space are indistinct. In my view, to set distinct rates based on such blurry lines would be imprudent.

B. The Services' Proposals Dramatically Depart from Prevailing Statutory Rates

212. It is worth noting that that there is a sizeable gap between the current statutory rate and the Services' rate proposals. This gap in and of itself should raise concerns about the propriety of the Services' benchmarks.[165] In short, I see no sound basis for such a dramatic departure from the CRB's rate-setting precedent.

213. In contrast, my rate proposal sets forth a 'greater of' structure that includes per-play rates that are close to the current statutory rates. The webcasting industry has grown rapidly during the current rate period and there is every reason to believe that the growth will continue into the foreseeable future. A substantial reduction in current rates is not essential to support the continued growth and development of the webcasting industry.

214. Pandora is likely to point to a different gap – the one between SoundExchange's proposed rates and its current pureplay rates. But the pureplay rates are an irrelevant reference point. As explained in my first report, the pureplay rates were expressly

[163] See, Jeffrey Van Camp, TuneIn Is Doing for Radio What Spotify Did for Music, and We Love It (May 7 2014), http://www.digitaltrends.com/music/tunein-review-and-interview/.

[164] Amended Fischel Lichtman Report, ¶ 64, n.64.

[165] *Id.*

designated as non-precedential, non-market agreements.[166] Moreover, a departure in this direction would not raise as many concerns. If it were to turn out that the statutory rates set near current levels by the CRB were thought to be too high by the labels and/or the services, both would have the incentives and capabilities to once again negotiate lower rates.

215. Indeed, Pandora has stated that if the statutory rate is set higher than it has proposed, then it can negotiate direct deals with rights holders.[167] This is consistent with a view that I expressed in my initial report – if the statutory rate is higher than appropriate, then the parties can and will negotiate lower rates. But if the statutory rate is lower than appropriate, music services have no incentive to negotiate higher rates.[168]

216. The Services' experts – particularly Professors Katz and Fischel/Lichtman – suggest that a departure from current rates is warranted because their benchmarks are "better evidence" than the evidence the CRB had available to it in prior proceedings.[169] I disagree with this characterization. As I have already explained in Section II, the Services' benchmark evidence is thin and ultimately uninformative. In the two sections below I further demonstrate that the CRB has appropriately relied on available evidence to set rates.

C. WSA Agreements

217. While the 2009 Webcaster Settlement Act ("WSA") agreements were negotiated in a unique context that differs from the hypothetical market at issue here, I agree with the CRB's conclusion that these deals are nevertheless instructive. They constitute arm's-length negotiations between non-interactive services and the recording labels, albeit in the shadow of the statutory rates.

218. The world of bilateral monopoly offers a reasonable characterization of the WSA agreements. The Web III Remand's commentary supports this view. The Remand quotes Web II as stating, "[T]he question of competition is not confined to an examination of the seller's side of the market alone. Rather, it is concerned with whether market prices can be unduly influenced by sellers' power or buyers' power in the market."[170] The CRB goes on to say that … "the evidence demonstrates that sufficient competitive factors existed to permit the WSA Agreements to serve as

[166] Rubinfeld Report, ¶ 30.

[167] See, Thomson Reuters Transcript, "NOVEMBER 18, 2014 / 10:00PM, P - Pandora Media Inc. Conference Call to Discuss Web IV Proceeding," p. 14. Available online at http://phx.corporate-ir.net/External.File?t=1&item=VHlwZT0yfFBhcmVudElEPTUxNzQ5MTJ8Q2hpbGRJRD01NjI4ODM= (accessed February 21, 2015).

[168] Rubinfeld Report, ¶ 90.

[169] Amended Fischel and Lichtman Report, ¶ 13; *see also* Katz Report, ¶ 44.

[170] Web III Remand at 23102.

useful benchmarks, and does not demonstrate that the rates in the WSA Agreements approximated monopoly rates."[171]

219. Professor Katz discounts the WSA agreements, arguing that SoundExchange acted as a monopolist in reaching the agreements with the NAB and Sirius XM.[172] I disagree.

220. That SoundExchange negotiated collectively on behalf of the record companies does not mean that SoundExchange exercised monopoly power or that the negotiation did not yield competitive rates. While SoundExchange did play a significant role in reaching these agreements, Professor Katz has not shown that SoundExchange was acting as would a classic monopolist. In reality, from my understanding, SoundExchange was representing a multitude of interests.[173]

221. Furthermore, SoundExchange was acting pursuant to Congressional authority to collectively negotiate rate relief for services. Indeed, not only did Congress authorize SoundExchange to negotiate settlements, it expressly encouraged SoundExchange to do so. Just like the first Webcaster Settlement Act of 2002, the WSA of 2009 expressed "the strong encouragement of Congress to reach an accommodation with . . . webcasters on an expedited basis."[174]

222. Even if SoundExchange were a monopolist (which I disagree with), as a practical matter SoundExchange could not extract monopoly rents because it was constrained by the statutory rates. In other words, the ceiling of negotiations was the willing buyer/willing seller rate set by the CRB in Web II, which was not a monopoly rate.

223. The terms of the settlement also demonstrate that SoundExchange did not unilaterally dictate rates and terms. Instead, both Sirius XM and the NAB were able to negotiate discounts from the prevailing statutory rate.[175] The NAB also directly negotiated waivers of certain statutory licensing requirements from the individual labels.[176]

224. Moreover, as the CRB observed, the record shows evidence of countervailing market power on the part of both Sirius XM and the NAB.[177] The NAB negotiated on behalf of a large group of broadcasters that collectively contributed a substantial portion of the royalty payments paid to SoundExchange in 2008.[178] Similarly, Sirius

[171] *Id.*

[172] Katz Report, ¶ 36.

[173] See Huppe WRT ¶ 20.

[174] See Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, § 2(3), 116 Stat. 2780, 2780.

[175] Huppe WRT ¶¶ 11, 29; Huppe WRT Ex. 2, 5.

[176] Huppe WRT ¶ 17.

[177] Web III Remand, 79 FR 23114.

[178] Ordover Web III WRT, ¶ 46.

XM likely derived bargaining leverage as a function of its key role in the broader industry landscape – i.e., Sirius XM's satellite radio service generates a significant revenue stream.[179] Professor Katz purports to demonstrate that a large buyer would be unable to offset monopoly power and obtain a "competitive price."[180] However, his "demonstration" of this point in his Appendix A is based on a specialized model and does not generalize. Among other things, Professor Katz narrowly defines "competitive price" as "closer to the perfectly competitive price than to the monopoly price." But, as the Web III Remand points out, "[b]etween the extremes of a market with 'metaphysically perfect competition' and a monopoly (or collusive oligopoly) market devoid of competition there exists '[in] the real world . . . a mind-boggling array of different markets . . . , all of which possess varying characteristics of a 'competitive marketplace.'"[181] Moreover, if there is true countervailing monopoly and monopsony power, the division of the bargaining surplus will be indeterminate.[182]

225. In addition, as both NAB and Sirius XM have testified in this proceeding, their programming consists of a significant amount of non-music content, and webcasting is an ancillary part of their businesses.[183] Because they are not reliant on music streaming, both the NAB and Sirius XM could credibly threaten to cut back (or even eliminate) their use of the sellers' content.

226. Perhaps most importantly, the bargaining surrounding those agreements was not a take-it-or-leave-it scenario as Professor Katz suggests.[184] No party was forced to agree to a settlement under the WSA. If the final offer that was on the table was unreasonable, both Sirius XM and the NAB could have opted to approach the individual labels to negotiate direct deals. In other words, SoundExchange was not the only licensor of digital performance rights with whom NAB and Sirius XM could negotiate. The fact that the NAB and Sirius XM instead elected to negotiate a settlement agreement with SoundExchange indicates that they believed the rates they had negotiated were no worse than the rate (on average) they could have individually negotiated with the various labels.

227. Of course, the NAB and Sirius XM also had the option to participate in the next rate-setting proceeding or, at the very least, to avail themselves of the market rate that would be established in that proceeding. Again, that they instead elected to negotiate a settlement suggests that they believed that the rates reasonably represented the statutory willing buyer/willing seller rate.

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[179] See SDARS II, 78 FR 23065.

[180] Katz Report, ¶¶ 37-39.

[181] Web III Remand, footnote 37.

[182] See, e.g., Pindyck and Rubinfeld, *Microeconomics*, 8th Edition, Chapter 10.

[183] Frear WDT, ¶ 29; Newberry WDT, ¶ 11.

[184] Katz Report, ¶ 74.

228. In my view, the Services' testimony regarding their financial difficulties[185] at the time of the negotiations does not diminish the instructive value of the settlements to which they willingly agreed. Indeed, normally one would expect such financial difficulties to reduce – not increase – the Services' willingness to pay. In sum, as the CRB observed in Web III, the fact that many entities opted into both settlements supports my view that the rates were reasonable.[186]

D. Critiques of the Pelcovits Methodology

229. The experts for the Services levy a number of attacks on the methodology Dr. Pelcovits used to conduct his interactive benchmark analysis in Web II and Web III.

230. I have addressed many of the Services' criticisms of Dr. Pelcovits' use of an interactive benchmark in Section III. Their remaining methodological critiques do not apply to my analysis.

231. Dr. Pelcovits used two methods to adjust for interactivity. The first method involved a comparison of retail prices of on-demand and non-interactive subscription services. While I utilize retail subscription prices in calculating my interactivity adjustment, my approach is different from that of Dr. Pelcovits. To evaluate the reasonableness of focusing on subscription prices, I reviewed the free ad-supported tier (and free trial periods) and concluded that many more users pick Pandora free than Spotify free;[187] this suggests Pandora free is more highly valued than Spotify free. However, to be conservative I did not account for this fact in making my interactivity adjustment. In Section III.B, I described my analysis of ad-supported services and its implication for the interactivity adjustment. I note also that advertising revenues vary depending on the business model of the services; without accounting for the different business models, one can draw inappropriate conclusions.

232. The second methodology Dr. Pelcovits used to estimate an interactivity adjustment relied on the use of a hedonic regression. Any critique of this approach is moot here, since I have not relied on hedonic regressions in my analysis. I chose not to use the hedonic method primarily because there were not sufficient data to support a reliable study. Rather, I have chosen to rely in part on the conjoint study of Professor McFadden,[188] an approach that has similar goals to that of a hedonic analysis and (in this instance) is highly reliable. As I described in my report, the results of the conjoint study demonstrate that my interactivity adjustment was reasonable.[189]

[185] Frear WDT, ¶¶ 38-45; Newberry WDT, ¶ 23.

[186] Web III Remand at 23111.

[187] Rubinfeld Report, ¶ 47.

[188] See generally Testimony of Daniel L. McFadden.

[189] Rubinfeld Report, ¶ 171.

233. Professor Katz also argues that the market was not in equilibrium during the period of Dr. Pelcovits' interactive benchmark analysis.[190] Whether a market can be considered to be in equilibrium is a difficult question that is unnecessary to address here. I note, however, that the parties were no doubt aware that the market was dynamic and evolving. This would have been accounted for in the contracts that were negotiated.

234. It is important to note that the CRB itself raised a number of specific criticisms of the calculations of Dr. Pelcovits in Web III. As a result, the rate set by the CRB was not biased by any mistakes in the Pelcovits methodology. Despite the imperfection in the Pelcovits approach, the CRB agreed that "it is appropriate to rely on benchmarks to estimate rates in this section 114 proceeding" and that "it was proper for Dr. Pelcovits to use benchmark analyses in attempting to establish the zone of reasonableness."[191] Furthermore, according to the CRB, "such an adjusted [for interactivity] benchmark constitutes the type of benchmark that the Act permits.[192]

E. My Benchmark Analysis Accounts for the Statutory Factors

235. I agree with the CRB's consistent, long-standing view that the two specific considerations enumerated in the statutory standard – (i) the extent to which the service substitutes or promotes other streams of revenue and (ii) the parties' relative contributions – are both reflected in the rates negotiated by buyers and sellers in direct agreements.[193] Indeed, Professors Fischel/Lichtman correctly make the same observation.[194] I see no reason to depart from this firmly established "general principle" in this proceeding.[195]

236. As the CRB has emphasized, an adjustment to a benchmark rate based on either of these factors would only be appropriate if there were empirical evidence demonstrating a quantifiable "difference between the benchmark market and the hypothetical target market" with respect to either factor.[196]

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[190] Katz Report, ¶¶ 56-58.

[191] Web III at 23110.

[192] Web III at 23115.

[193] See, e.g., Web III Remand at 23,119 n.50 ("The adoption of an adjusted benchmark approach to determine the rates leads this panel to agree with Web II and Web I that such statutory considerations implicitly have been factored into the negotiated prices utilized in the benchmark agreements.")

[194] See, e.g., Amended Fischel and Lichtman Report, ¶ 27: "Parties to an agreement are usually assumed to negotiate from the standpoint of their own self-interest; therefore, in the negotiations between webcasters and the record labels, the parties would have considered these factors ["whether the use at issue might substitute for, promote, or otherwise affect the copyright owners' stream of revenues," and "the relative contributions of the owners and licensees in making the licensed work available to the public."], because they are relevant to their own self-interest."

[195] Web III Remand at 23,110.

[196] Web II at 24,095.

237. As for the first statutory factor – "whether the use of the service may substitute for or may promote . . . the sound recording copyright owner's other streams of revenue from its sound recordings"[197] I have seen no compelling evidence suggesting that the interactive per-play rates have increased. Similarly, as discussed previously, royalties for paid interactive services have been falling (Exhibit 12A). To illustrate, Exhibit 17 compares the unadjusted effective rates for (1) all Category A on-demand services; (2) Spotify as a whole (including its paid and free tiers); (3) the minimum per-play rate for Spotify's free on-demand service; and (4) the effective per play rate for the iHeartMedia-Warner deal, computed in two ways – as in the Rubinfeld Report [redacted]

238. Moreover, Professor Shapiro's speculation that on-demand streaming is more substitutional than non-interactive streaming is contradicted by Pandora's own behavior in the market, where it seeks out – and sometimes receives – gratis licenses for its on-demand service, a service that Pandora describes as "promotional."[198] Accordingly, in my view it is unreasonable to presume that on-demand services have a more substantial substitution effect than do non-interactive services (or that non-interactive streaming is more promotional than on-demand streaming).[199]

239. Second, to the extent there are any differences in the two types of services' promotional or substitution effects, my benchmark analysis accounts for them. In the hypothetical willing buyer/willing seller negotiation without the overhang of the statutory license, one would expect that market competition among non-interactive services would lead to a relationship between subscription prices and royalty costs that is similar to what was observed for the interactive services (recall Exhibit 15). I would also expect promotion/substitution effects to be reflected in the terms of the direct Category A agreements that form the basis of my interactive benchmark, and also at least indirectly in the prices and/or listeners' willingness-to-pay for the services. Hence, the interactivity adjustment derived in my initial report for paid services, or alternatively, for free services (as computed in Exhibit 14 using the ARPUs of free services) accounts for any meaningful differences in promotion and substitution between statutory and on-demand services that are reflected in the

[197] 17 U.S.C. § 114 (f)(2)(B)(i).

[198] Fleming-Wood WDT, at ¶ 30.

[199] As I discussed in my initial report, streaming has been increasingly substituting for sales (e.g., of downloads or CDs) and this trend is widely expected to continue. This trend tends to contradict the hypothesis that statutory webcasting is generally promotional. In the future, as streaming continues to substitute for sales, statutory services should be understood to serve as substitutes for directly licensed services. In essence, substitution from directly licensed services towards statutory services will magnify the attenuation of sales that is widely expected to continue and accelerate during the next the five-year rate period.

negotiated rates. As a result, my interactive benchmark fully accounts for the promotion/substitution statutory factor.

240. These very same economic principles apply to the relative contribution factor. I have seen no evidence to suggest that a service's DMCA compliance would have any meaningful impact on its "relative creative contribution, technological contribution, capital investment, cost, [or] risk."[200] Again, given the substantial convergence and competition between the two categories of services, absent any evidence to the contrary, it is reasonable to assume that, on average, their contributions in these areas are comparable. And to the extent there are any differences, these differences would be reflected in retail prices and accounted for in my interactivity adjustment.

241. On the other side of the market, it is important to recognize that copyright owners bear unique financial risks due to the length and compulsory nature of the statutory license. Rights holders' incomes are essentially capped by statutory rates at relatively low levels. For example, at the rates I have proposed for 2016, approximately 7 million plays will be required to generate a total royalty payment sufficient to rent an average one bedroom apartment in Oakland, California for one year.[201] But at Professor Shapiro's rates, at least 13 million would be required. Professors Fischel/Lichtman would require 35 million. And Professor Katz would also require 35 million. These are substantial requirements, given that the average song carried by Pandora generates only 324,000 streams per year.[202]

242. To sum up, my adjusted benchmark rate fully reflects both (i) the extent to which statutory services promote or substitute for other streams of revenue and (ii) the services' relative contributions.

243. The Services, on the other hand, rely on a small number of non-generalizable agreements to derive their rate proposals. As a result, their benchmark analyses do not sufficiently account for how the statutory factors would influence rates negotiated between other buyers and sellers in the market. In other words, even once properly adjusted to capture the full value of the consideration that was paid, a rate solely derived from the Pandora-Merlin agreement would only reflect Pandora's relative contribution and the extent to which Pandora's statutory service promotes or substitutes for other streams of revenue. Given Pandora's unique attributes and

[200] 17 U.S.C. § 114(f)(2)(B)(ii).

[201] See http://www.myapartmentmap.com/data/cities/ca/oakland/ (accessed February 21, 2015) which states that the February 2015 average rent for a one bedroom apartment in Oakland is $1,505 per month. Total average rent over 12 months is $18,060. Dividing this total by $0.0025 yields 7,224,000.

[202] Professor Shapiro proposes $0.001324 or less in 2016 (*see* Shapiro Report, Table 1). Professors Fischel, Lichtman, and Katz propose $0.0005. $0.0025 / $0.001324 = 1.89*7 million = 13 million. $0.0025 / $0.0005 = 5*7 million = 35 million. Pandora had 4.99 billion listener hours and approximately 16.19 streams per listener hour in 3Q 2014 (*see* Backup to Exhibits 14A and 14B (2 of 2)), resulting in approximately 81 billion streams per quarter, or 324 billion streams per year. Pandora has approximately 1 million songs in its library (*see* Pandora 2014 Annual Report, p. 14). As a result, the average song is streamed 324,000 times per year.

distinguishing features,[203] a rate derived from Pandora-Merlin tells us very little about statutory services' general promotional effect and relative contribution. The same holds true for iHeartMedia's proffered direct deals. The market is much broader than these two services; they are not representative of all statutory webcasters.[204]

V. Updated Information Since the Submission of Written Direct Testimony

244. Two sets of data have been updated since I submitted my written direct testimony in October 2014.

245. First, I have received updated performance data for the period June 2014 to November 2014 from Universal, Warner, and Sony. As noted above, these data generally show that the effective per-play rate for interactive services is declining. Second, new lower pricing data for interactive service subscription plans has been released. This new pricing data generally supports a lower interactivity adjustment.

246. Both of these new data points are consistent with the convergence of interactive and non-interactive services. Just as royalty rates for interactive services have gradually declined, so have consumer subscription prices, as they become closer to non-interactive subscription prices such as Pandora One.

A. New Performance Data

247. Since the submission of my written direct testimony in October 2014, I have received updated performance data for the period June 2014 to November 2014 from Universal, Warner, and Sony. The updated performance data for the Category A set of interactive services, the iHeartMedia-Warner deal, and the Category C set of services (YouTube/Vevo) is summarized in Appendix 1.

248. For the Category A set of interactive services, although the average minimum per-play rates have stayed constant, there has been a slight downward trend in total effective compensation per play rates with the additional performance data. This is in part attributable to non-recoupable cash payments that are being spread across increasing plays and monthly payments that have ended.

249. Similarly, for the iHeartMedia-Warner agreement, part of Category B, [redacted]

250. For Category C, YouTube and Vevo, the [redacted]

[203] See, e.g., Westergren WDT, ¶¶ 24-35.

[204] See Web III Remand at 31, 107-08.

B. New Retail Price Offerings and Their Effect on the Interactivity Adjustment

251. Subscription plan prices for interactive services have evolved since I submitted my written direct testimony. For example, it has been widely reported that Apple's upcoming new interactive subscription service plan, based on the acquired Beats service, will retail for $7.99 per month.[205] Similarly, Google's forthcoming new paid service (combining its Google Play with ad-free YouTube) will reportedly be priced at $7.99 per month, at least initially.[206] Various annual billing options, which have implied monthly prices below their monthly-billed counterparts, are also offered. Finally, at least one previously high-priced interactive service, Pasito Tunes, has exited the market. If these changes were taken into account, this would support a smaller interactivity adjustment of 1.8. Exhibit 18 demonstrates the updated interactivity adjustment analysis.

252. Exhibit 18 provides a conservative estimate in light of other low-price interactive services available to some users in the market. For example, Spotify has introduced a new Family plan, in which each additional user costs only 50% more ($14.99 for two users per month, $19.99 for three, $24.99 for four, and $29.99 for all five users). This results in monthly subscription prices per user ranging from approximately $6 to $7.50 per month. Rdio offers similar Family plans. Consideration of these additional data points would support an even smaller interactivity adjustment.

[205] Mark Gurman, The Next Episode: Apple's Plans for Beats-Based Music Service Revealed (February 4, 2015), http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/.

[206] John Callaham, YouTube's New Subscription Music Service is $7.99 a Month and Invite-Only (November 12, 2014), http://www.androidcentral.com/youtube-has-launched-new-music-subscription-service-799-month.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: Feb. 22, 2015

Daniel L. Rubinfeld

Daniel L. Rubinfeld

Materials Reviewed and Relied Upon

Reports and Testimony

1 Amended Testimony Of Daniel R. Fischel & Douglas G. Lichtman, materials cited therein and associated backup materials
2 Corrected Testimony of Daniel L. Rubinfeld, materials cited therein and associated backup materials
3 Fleming-Wood WDT, materials cited therein and associated backup materials
4 Frear WDT, materials cited therein and associated backup materials
5 Harrison WRT, materials cited therein and associated backup materials
6 Huppe WRT, materials cited therein and associated backup materials
7 Katz Report, materials cited therein and associated backup materials
8 Lexton WRT, materials cited therein and associated backup materials
9 McBride Deposition and Exhibits
10 McBride Report, materials cited therein and associated backup materials
11 Newberry WDT, materials cited therein and associated backup materials
12 Ordover Web III WRT, materials cited therein and associated backup materials
13 Testimony of Daniel L. McFadden, materials cited therein and associated backup materials
14 Westergren WDT, materials cited therein and associated backup materials
15 Wilcox WRT, materials cited therein and associated backup materials
16 Written Direct Testimony of Carl Shapiro, On behalf of Pandora Media, Inc., materials cited therein and associated backup materials

Legal Materials

17 17 U.S.C. § 114(f)(2)(B)
18 In Re: Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (“WEB IV”)
19 Report of the Copyright Arbitration Royalty Panel ("Web I")
20 SDARS II
21 Small Webcaster Settlement Act of 2002
22 Statement of Bureau of Competition Director Richard A. Feinstein In the Matter of Vivendi, S.A. and EMI Recorded Music September 21, 2012
23 Web II
24 Web III
25 Web III Remand

Produced Documents

26 IHM_0011429
27 IHM_0041977

Materials Reviewed and Relied Upon

28 IHM_0052310
29 IHM_0052599
30 IHM_EXP_0001171 ("Warner Model.xlsb")
31 PAN_CRB_00003647
32 PAN_CRB_00003949
33 PAN_CRB_00025594
34 PAN_CRB_00066277
35 SNDEX0148972
36 SNDEX0149044
37 SNDEX0149151
38 SNDEX017718
39 SNDEX0177715
40 SNDEX0177717
41 SNDEX0239817
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46 SNDEX0251185
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48 SNDEX0251197
49 SNDEX149036
50 SNDEX149048

Performance Data

51 Apple-Sony Performance Data
52 Apple-Universal Performance Data
53 Apple-Warner Performance Data
54 Beats-Sony Performance Data
55 Beats-Universal Performance Data
56 Beats-Warner Performance Data

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57 Classical Archives-Sony Performance Data
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59 Google Play-Sony Performance Data
60 Google Play-Universal Performance Data
61 Google Play-Warner Performance Data
62 iHeartMedia-Warner Performance Data
63 iHeartMedia Performance Data for 27 Independent Labels Relied on by Fischel and Lichtman
64 Microsoft-Sony Performance Data
65 Microsoft-Universal Performance Data
66 Microsoft-Warner Performance Data
67 Midwest Tape-Universal Performance Data
68 Myspace-EMI Performance Data
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81 Slacker-EMI Performance Data
82 Slacker-Sony Performance Data
83 Slacker-Universal Performance Data
84 Slacker-Warner Performance Data
85 Sony Music Unlimited-Sony Performance Data
86 Sony Music Unlimited-Universal Performance Data
87 Sony Music Unlimited-Warner Performance Data
88 Spotify-Sony Performance Data
89 Spotify-Universal Performance Data

90 Spotify-Warner Performance Data
91 Vevo-EMI Performance Data
92 Vevo-Sony Performance Data
93 Vevo-Universal Performance Data
94 YouTube-EMI Performance Data
95 YouTube-Universal Performance Data
96 YouTube-Warner Performance Data

Agreements

97 Apple-Sony Agreements
98 Apple-Universal Agreements
99 Apple-Warner Agreements
100 Apple Agreement for Independent Labels (Public)
101 Amazon Prime-Sony Agreements
102 Amazon Prime-Warner Agreements
103 Beats-Beggars Agreements
104 Beats-Merlin Agreements
105 Beats-Sony Agreements
106 Beats-Universal Agreements
107 Beats-Warner Agreements
108 Boomio-Sony Agreements
109 Boomio-Universal Agreements
110 Classical Archives-Sony Agreements
111 Classical Archives-Universal Agreements
112 Google Play-Beggars Agreements
113 Google Play-Merlin Agreements
114 Google Play-Sony Agreements
115 Google Play-Universal Agreements
116 Google Play-Warner Agreements
117 iHeartMedia / Clear Channel-23 Muzik Agreements
118 iHeartMedia / Clear Channel-Another Venture d/b/a Seed Agreements
119 iHeartMedia / Clear Channel-Average Joes Entertainment Agreements
120 iHeartMedia / Clear Channel-Bicycle Agreements

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121 iHeartMedia / Clear Channel-Big Machine Agreements
122 iHeartMedia / Clear Channel-Black River Entertainment Agreements
123 iHeartMedia / Clear Channel-Broken Bow Agreements
124 iHeartMedia / Clear Channel-Concord Agreements
125 iHeartMedia / Clear Channel-DashGo Agreements
126 iHeartMedia / Clear Channel-Dualtone Agreements
127 iHeartMedia / Clear Channel-Entertainment One Agreements
128 iHeartMedia / Clear Channel-Fearless Agreements
129 iHeartMedia / Clear Channel-Funzalo Agreements
130 iHeartMedia / Clear Channel-Glassnote Agreements
131 iHeartMedia / Clear Channel-Innovative Leisure Agreements
132 iHeartMedia / Clear Channel-LMJS (Fleetwood Mac) Agreements
133 iHeartMedia / Clear Channel-Naxos Agreements
134 iHeartMedia / Clear Channel-Next Plateau Agreements
135 iHeartMedia / Clear Channel-Robbins Entertainment Agreements
136 iHeartMedia / Clear Channel-RPM Entertainment Agreements
137 iHeartMedia / Clear Channel-S Curve Agreements
138 iHeartMedia / Clear Channel-Signature K Agreements
139 iHeartMedia / Clear Channel-Stardome Agreements
140 iHeartMedia / Clear Channel-Suburban Noize Agreements
141 iHeartMedia / Clear Channel-Three Quarter Agreements
142 iHeartMedia / Clear Channel-Warner Agreements
143 iHeartMedia / Clear Channel-Wind Up Agreements
144 iHeartMedia / Clear Channel-Zojak Agreements
145 Microsoft-Beggars Agreements
146 Microsoft-EMI Agreements
147 Microsoft-Sony Agreements
148 Microsoft-Universal Agreements
149 Microsoft-Warner Agreements
150 Midwest Tape / Hoopla-Universal Agreements
151 Midwest Tape / Hoopla-Warner Agreements
152 MOG-Beggars Agreements
153 MOG-EMI Agreements

Materials Reviewed and Relied Upon

154 MOG-Sony Agreements
155 MOG-Universal Agreements
156 MOG-Warner Agreements
157 MySpace Music-EMI Agreements
158 MySpace Music-Sony Agreements
159 MySpace Music-Universal Agreements
160 MySpace Music-Warner Agreements
161 Nokia Mix Radio-Beggars Agreements
162 Nokia Mix Radio-EMI Agreements
163 Nokia Mix Radio-Sony Agreements
164 Nokia Mix Radio-Universal Agreements
165 Nokia Mix Radio-Warner Agreements
166 Pandora-Merlin Agreements
167 Rara-EMI Agreements
168 Rara-Merlin Agreements
169 Rara-Sony Agreements
170 Rara-Universal Agreements
171 Rara-Warner Agreements
172 Rdio-EMI Agreements
173 Rdio-Merlin Agreements
174 Rdio-Sony Agreements
175 Rdio-Universal Agreements
176 Rdio-Warner Agreements
177 Rhapsody-Beggars Agreements
178 Rhapsody-EMI Agreements
179 Rhapsody-Secretly Canadian Agreements
180 Rhapsody-Sony Agreements
181 Rhapsody-Universal Agreements
182 Rhapsody-Warner Agreements
183 ROK Mobile-Beggars Agreements
184 ROK Mobile-Sony Agreements
185 ROK Mobile-Universal Agreements
186 ROK Mobile-Warner Agreements

187 Slacker-EMI Agreements
188 Slacker-Merlin Agreements
189 Slacker-Sony Agreements
190 Slacker-Universal Agreements
191 Slacker-Warner Agreements
192 Sony Music Unlimited-Beggars Agreements
193 Sony Music Unlimited-EMI Agreements
194 Sony Music Unlimited-Merlin Agreements
195 Sony Music Unlimited-Sony Agreements
196 Sony Music Unlimited-Universal Agreements
197 Sony Music Unlimited-Warner Agreements
198 Spotify-EMI Agreements
199 Spotify-Merlin Agreements
200 Spotify-Sony Agreements
201 Spotify-Universal Agreements
202 Spotify-Warner Agreements
203 Vevo -Beggars Agreements
204 Vevo -EMI Agreements
205 Vevo -Merlin Agreements
206 Vevo-Sony Agreements
207 Vevo-Universal Agreements
208 Yonder-Sony Agreements
209 Yonder-Universal Agreements
210 Yonder-Warner Agreements
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Exhibits Sponsored By Daniel Rubinfeld

Exhibit No.	Sponsored By	Description
SX EX. 058- RR	Daniel Rubinfeld	Appendix 1 – [redacted]
SX EX. 059- RR	Daniel Rubinfeld	Appendix 2 – [redacted]
SX EX. 060- RR	Daniel Rubinfeld	Exhibit 1 – [redacted]
SX EX. 061- RR	Daniel Rubinfeld	Exhibit 2 – [redacted]
SX EX. 062- RR	Daniel Rubinfeld	Exhibit 3 – [redacted]
SX EX. 063- RR	Daniel Rubinfeld	Exhibit 4 – [redacted]
SX EX. 064- RR	Daniel Rubinfeld	Exhibit 5 – [redacted]

Exhibit No.	Sponsored By	Description
SX EX. 065- RR	Daniel Rubinfeld	Exhibit 6 – [redacted]
SX EX. 066- RR	Daniel Rubinfeld	Exhibit 7 – [redacted]
SX EX. 067- RR	Daniel Rubinfeld	Exhibit 8 – [redacted]
SX EX. 068- RR	Daniel Rubinfeld	Exhibit 9 – [redacted]
SX EX. 069- RR	Daniel Rubinfeld	Exhibit 10 – [redacted]
SX EX. 070- RP	Daniel Rubinfeld	Exhibit 11 - Correction of Fischel and Lichtman Exhibit F “Per-Performance Royalty Payment Sufficient to Compensate Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting”
SX EX. 071- RR	Daniel Rubinfeld	Exhibit 12 – [redacted]
SX EX. 072- RR	Daniel Rubinfeld	Exhibit 13 – [redacted]
SX EX. 073- RR	Daniel Rubinfeld	Exhibit 14 – [redacted]
SX EX. 074- RR	Daniel Rubinfeld	Exhibit 15 – [redacted]
SX EX. 075- RR	Daniel Rubinfeld	Exhibit 16 – [redacted]

Exhibit No.	Sponsored By	Description
SX EX. 076- RR	Daniel Rubinfeld	Exhibit 17 – [redacted]
SX EX. 077- RP	Daniel Rubinfeld	Exhibit 18 – Comparison of Subscription Services Pricing and Updated Interactivity Adjustment

SX EX. 058 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Appendix 2: Comparable License Analysis

A. Apple Agreements Specify [redacted]

1. In 2013 Apple entered [redacted] for its "non-interactive" iTunes radio service (including the paid ad-free version, iMatch, which also provides a locker service for listener-purchased songs). Separately, [redacted].

2. Apple's radio service [redacted]"

B. The Apple Agreements Confirm The Reasonableness of the Interactive Service Agreements as Benchmarks

3. The Services' direct case submissions levy a number of attacks on the use of interactive service agreements as benchmarks in this proceeding. In this subsection, I explain that because the Apple agreements are largely immune from these critiques, they constitute important rebuttal evidence to test those critiques. Specifically, they address what the marketplace evidence suggests in the absence of those criticisms, and also whether those criticisms have a meaningful impact on the benchmark value reflected in the agreements (i.e. if Apple is a comparable non-interactive service and its "benchmark value" is roughly equivalent to the "benchmark value" of interactive agreements as adjusted, that suggests at some level that the adjustments are appropriate).

4. One line of criticism is that the major record companies are not meaningful competitors in the sale of sound recording licenses to interactive services, and thus the negotiated rates for these services are above "competitive levels" and improper benchmarks for non-interactive services. This argument is premised on the purported inability of interactive services to affect the mix of sound recordings played on their services. According to the critique, because the catalogs of major record companies might be "complements" rather than "substitutes," i.e., on-demand services "must-have" the repertoire of all of the majors, this allegedly allows each major record company to charge supra-competitive prices for their catalogs. In Section III.A.1, I have explained why this argument is fallacious.

---

[1] Although Apple recently purchased Beats Music (an interactive service), [redacted]

5. Pursuing a different line of criticism, Pandora appears to suggest that because non-interactive services purportedly have the ability to steer listeners to sound recordings offered by independent music labels and away from majors (or away from any particular major's repertoire), record label catalogs are substitutes. According to this argument, in a competitive market record companies compete with the result being lower prices from major record labels. In my analysis of Pandora's steering experiments (Section II.B), I have explained why the implications of those experiments for the determination of competitive rates in this proceeding are limited at best.

6. Professors Shapiro and Katz have argued that because interactive services are primarily subscription services, they have substantially higher ARPUs than non-interactive services, which are primarily ad-supported. According to his view, the royalty rates paid by subscription-based services would be substantially higher than those paid by non-subscription services. In Section III.B, I explain why Professors Shapiro and Katz draw the wrong conclusion from their analyses.

C. Apple iTunes Radio Is Not Susceptible to These Criticisms and Is an Appropriate Benchmark

7. To the extent that there is merit to any of the Shapiro and Katz critiques, the agreements with Apple for the iTunes Radio service largely escape them. iTunes Radio is a non-interactive music service which, just like Pandora, has the ability to steer listeners to music offered by different labels, including independents. Thus, to the extent the Services are arguing that the catalogs of major labels on non-interactive services are more substitutes than complements (which I dispute), that argument would not apply to iTunes Radio. Moreover, like other non-interactive services, iTunes Radio is primarily an ad-supported service and not (acknowledging some revenue from iMatch subscribers) a subscription-based service. Thus, I would expect there to be less of a differential in ARPUs between Apple and other non-interactive services. Finally, Apple occupies a unique position in the marketplace and possesses significant bargaining power in its negotiations with record labels, especially independents.

8. In fact, there may be an additional reason to believe that the Apple agreement is *more* meaningful than any of the non-interactive license benchmarks proposed by the Services. The Apple agreements, while admittedly negotiated in the shadow of the statutory license – just like the benchmarks proposed by iHeartMedia and Pandora, were not contemplated to be the centerpiece of either party's case in the CRB. [redacted] By contrast, the licenses pointed to by Pandora and iHeartMedia appear to have been negotiated with the knowledge that they could be used for evidence in this proceeding. In fact, the Pandora-Merlin license was completed and announced

only shortly before the submission of direct cases and *after* Pandora had identified that it intended to participate in the case. In sum, Apple's license may well be less in the shadow of the statutory proceeding then the ones created and proposed by the Services.

D. [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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2 [redacted]

[redacted]

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[redacted]

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[redacted]

[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

E. Calculations of Warner's Effective Rates at Apple iTunes Radio

1 --[redacted].

21. [redacted]

22. [redacted])

23. [redacted]

2 --[redacted]

24. [redacted]s.

13 [redacted]

14 [redacted]

15 [redacted]

16 [redacted]

17 [redacted]

18 [redacted]

19 [redacted]

20 [redacted]

25. [redacted].

26. [redacted] r.

3 -- [redacted]

27. In my analysis of interactive services I proposed a royalty structure that was a simple maximum of a per-play rate and a percentage of revenues, with the percentage of revenue being the average effective share of applicable pro-rata revenues. For interactive services, the effective shares were generally between 50% and 60%. [redacted]

4 -- Adjustment for numbers of royalty-bearing plays: skips, [redacted]

28. [redacted]

21 [redacted]

22 [redacted]

[redacted]

5 -- Adjustment for independent record company deals and streams

29. Independent record companies have limited bargaining power in negotiating with Apple. Yet, consistent with my treatment of other agreements, my review of Apple's published agreement for independent labels indicates that they receive [redacted]. Based on the single agreement I have evaluated independents do not appear to receive any of the other sources of value received by the majors and described above. However, other than this publicly available agreement I have not reviewed any agreements between Apple and other independent entities. While it is possible that these other entities might negotiate better terms, to be conservative I will assume that all independent companies receive the published terms. I will then adjust the compensation indicated using major label agreements by the independent record companies' shares of iTunes Radio plays (which I assume to be 20%) to derive a rate that would apply to both major and independent labels.

6 -- Summary of adjustments

30. After applying these adjustments, Apple's agreement can be conservatively represented as a statutory benchmark for majors and Indies combined as [redacted]

7 -- 2013/14 to 2016-2020 adjustment

31. To account for changes over time, I adjust the minimum rate using the same factor ($0.00008 per year) used in the interactive benchmark.

[redacted]

8 -- Summary: adjusted Apple benchmark rate

32. Appendix 2b summarizes the calculations of Apple's effective rates to Warner, and the adjusted benchmark rates derived through the above analysis. The adjusted benchmark rate is summarized in the following chart.

Year	Per-play Rate	Percentage of Revenue
2016	[redacted]	[redacted]
2017	[redacted]	[redacted]
2018	[redacted]	[redacted]
2019	[redacted]	[redacted]
2020	[redacted]	[redacted]

F. Calculations of Sony's Effective Rates at Apple iTunes Radio

1 --[redacted]

33. [redacted]

34. [redacted]

35. [redacted]

2 --[redacted]

36. [redacted]

---

23 [redacted]

24 [redacted]

25 [redacted]

26 [redacted]

27 [redacted]

28 [redacted]

29 [redacted]

37. [redacted]

38. [redacted]

3 -- [redacted]

39. In my analysis of interactive services I proposed a royalty structure that was a simple maximum of a per-play rate and a percentage of revenues, with the percentage of revenue being the average effective share of applicable pro-rata revenues. For interactive services, the effective shares were generally between 50% and 60%. [redacted]

4 -- Adjustment for numbers of royalty-bearing plays: [redacted]

40. [redacted]

30 [redacted]

31 [redacted]

[redacted]

5 -- Adjustment for independent record company deals and streams

41. Independent record companies have limited bargaining power in negotiating with Apple. Yet, consistent with my treatment of other agreements, my review of Apple's published agreement for independent labels indicates that they receive [redacted]. Based on the single agreement I have evaluated independents do not appear to receive any of the other sources of value received by the majors and described above. However, other than this publicly available agreement I have not reviewed any agreements between Apple and other independent entities. While it is possible that these other entities might negotiate better terms, to be conservative I will assume that all independent companies receive the published terms. I will then adjust the compensation indicated using major label agreements by the independent record companies' shares of iTunes Radio plays (which I assume to be 20%) to derive a rate that would apply to both major and independent labels.

6 -- Summary of adjustments

42. After applying these adjustments, Apple's agreement can be conservatively represented as a statutory benchmark for majors and Indies combined as [redacted].

7 -- 2013/14 to 2016-2020 adjustment

43. To account for changes over time, I adjust the minimum rate using the same factor ($0.00008 per year) used in the interactive benchmark.

8 -- Summary: adjusted Apple benchmark rate

44. Appendix 2c summarizes the calculations of Apple's effective rates to Sony, and the adjusted benchmark rates derived through the above analysis. The adjusted benchmark rate is summarized in the following chart.

Year	Per-play Rate	Percentage of Revenue
2016	[redacted]	[redacted]
2017	[redacted]	[redacted]
2018	[redacted]	[redacted]
2019	[redacted]	[redacted]
2020	[redacted]	[redacted]

APPENDIX 2 A

[redacted]

[redacted]

APPENDIX 2 B

[redacted]

[redacted]

APPENDIX 2 C

[redacted]

[redacted]

SX EX. 059-RR
ATTACHMENT A AND B

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 060 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 061 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 062 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 063 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 064 -RR

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SX EX. 065 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 066 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

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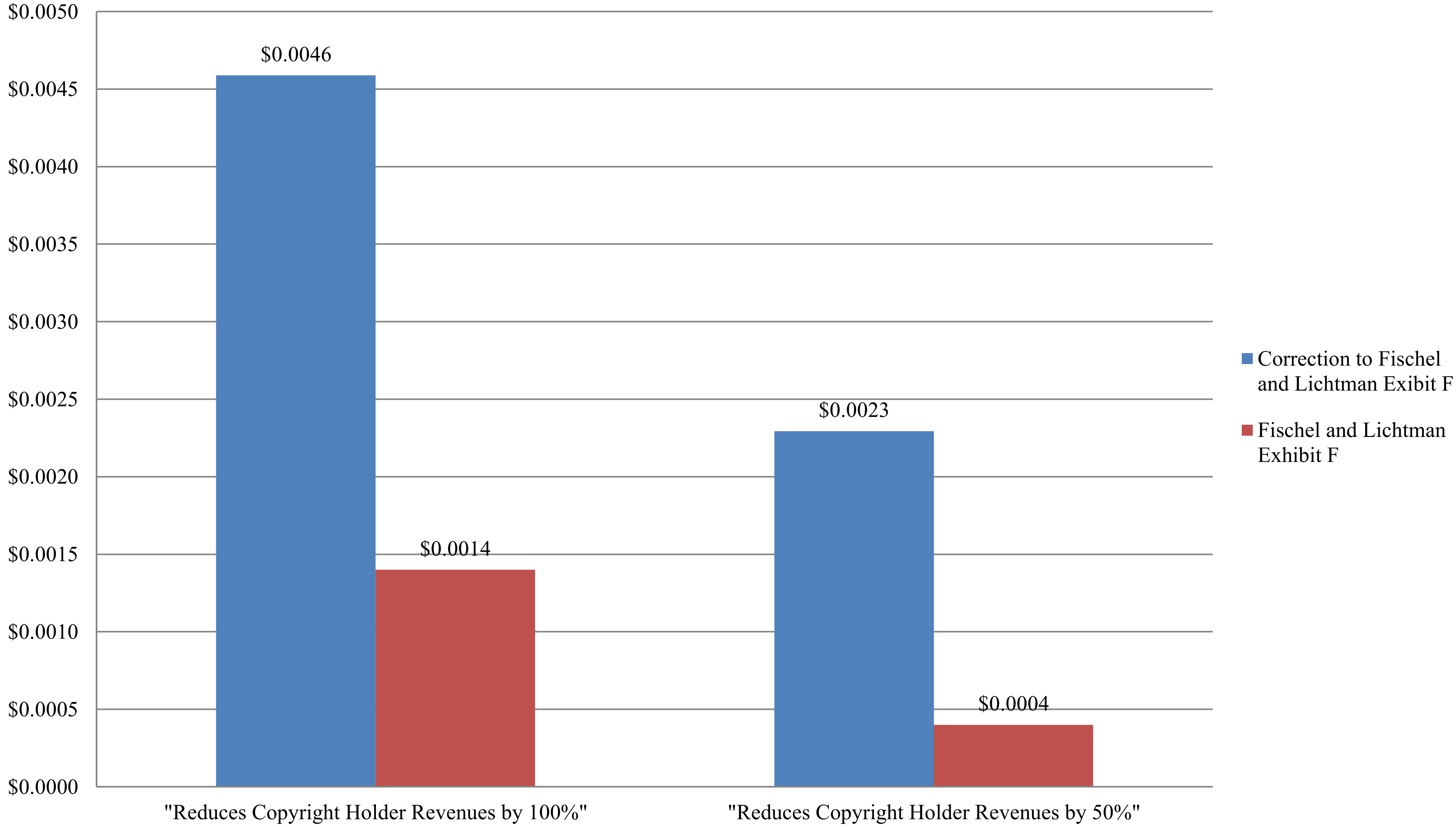
SX EX. 069 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Exhibit 11

Correction of Fischel and Lichtman Exhibit F

"Per-Performance Royalty Payment Sufficient to Compensate Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"



Sources: Backup to Exhibit 11. Fischel and Lichtman Exhibit F.

Backup to Exhibit 11
Correction of Fischel and Lichtman Exhibit F
"Per-Performance Royalty Payment Sufficient to Compensate"
"Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"

		"Migration from Terrestrial Radio to Webcasting"		
		"Does Not Reduce Copyright Holder Revenues"	"Reduces Copyright Holder Revenues by 100%"	"Reduces Copyright Holder Revenues by 50%"
2013 Recorded Music Industry Revenues (MM $)	[1]	$6,996	$6,996	$6,996
Sound Exchange Distributions (MM $)	[2]	$590	$590	$590
Non-SoundExchange Recorded Music Industry Revenues (MM $)	[3] = [1] - [2]	$6,406	$6,406	$6,406
2013 U.S. Population (MM)	[4]	255.0	255.0	255.0
Average Industry Revenue per Person	[5] = [3] / [4]	$25.12	$25.12	$25.12
Average Hours per Day of Radio Music Listening, per Person	[6]	2.3	2.3	2.3
Average Hours per Year of Radio Music Listening, per Person	[7] = [6] x 365	839.5	839.5	839.5
Average Hours per Day of Non-Radio Music Listening, per Person	[8]	1.0	1.0	1.0
Average Hours per Year of Non-Radio Music Listening, per Person	[9] = [8] x 365	365.0	365.0	365.0
Assumed Additional Webcasting Hours per Year from a New Adopter	[10]	0.0	365.0	182.5
Assumed Consequent Reduction in Non-Radio Music Listening and Purchases	[11]	0%	100%	25%
Reduction in Recorded Music Industry Revenue, per Person	[12] = [11] x [5]	$0.00	$25.12	$6.28
Royalty per Listener-Hour Sufficient to Compensate for Assumed Reduction in Revenue	[13] = [12] / [10]		$0.0688	$0.0344
Assumed Webcast Songs per Listener-Hour	[14]		15.0	15.0
Royalty per Performance Sufficient to Compensate for Assumed Reduction in Revenue	[15] = [13] / [14]		$0.0046	$0.0023

Source: Fischel and Lichtman Report, Exhibit F, but with corrections to "Assumed Additional Webcasting Hours per Year from a New Adopter" ([10]).
The third column in Fischel and Lichtman Report, Exhibit F, shows 50% in the subheading ("Reduces Copyright Holder Revenues by 50%") and 25% in row [11].
Row [10] in Fischel and Lichtman Report, Exhibit F is 1022 = 50% * 365 + 839.5, not 25%.

SX EX. 071 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 072 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 073 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 074 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 075 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 076 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Exhibit 18
Updated Comparison of Subscription Services Pricing

Service	Price per Month
Interactive	
Rara Web	$4.99
Rdio Web	$4.99
Sony Music Unlimited Access Plan	$4.99
Classical Archives - Annual Billing	$6.66
Classical Archives	$7.99
Microsoft - Xbox Music Pass - Annual Billing	$8.33
Beats - Annual Billing	$8.33
Beats	$9.99
Google Play	$9.99
Guvera	$9.99
Microsoft - Xbox Music Pass	$9.99
Rara Premium	$9.99
Rdio Unlimited[1]	$9.99
Rhapsody Premier	$9.99
Slacker Premium	$9.99
Sony Music Unlimited Premium	$9.99
Spotify Premium[2]	$9.99
Pasito Tunes PC[3]	-
Pasito Tunes Unlimited Mobile[3]	-
Proposed Apple - Beats Subscription Service	$7.99
Proposed YouTube Music Key Subscription Service	$7.99
Average	**$8.53**
Non-Interactive	
MixRadio+	$3.99
Slacker Radio Plus	$3.99
Musicovery Premium - Annual Billing	$0.99
Pandora One[4]	$3.99/$4.99
Pandora One - Annual Billing	$4.57
Rhapsody unRadio	$4.99
Live 365 VIP	$5.95
Live 365 VIP - Annual Billing	$4.99
RadioTunes[5]	$7.00
RadioTunes - Annual Billing	$5.83
RadioTunes - 2 Year Plan	$5.00
Average (lowest possible monthly rate)	**$4.66**
Average (highest possible monthly rate)	**$4.75**

Ratio of Average Interactive to Non-Interactive Subscription Prices	**1.8 - 1.83**

Notes:

1. Rdio also offers a Student Discount for $4.99 and various family plans that range from $5.99 to $7.49 per user per month.
2. Spotify also offers a Student Discount for $4.99 and various family plans that range from $6.00 to $7.50 per user per month. Spotify is also available through Sprint at $9.99 per month after various trial options. After 6 months free, there is a promotional price of $7.99 per month for 18 months. The price changes to $9.99 per month after 24 months for the Family Share Pack, Simply Unlimited or $60 Unlimited plans. Family Plans have a 6 month trial, then are priced at $7.99 per member for 5 or fewer members and $4.99 per member for 6 or more members. After 24 months the Family Plan price is $9.99 per month. Some Sprint customers recieve a 3 month free trial, then pay $9.99 per month
3. Pasito Tunes, which I listed in my direct report, recently discontinued its music streaming service.
4. Pandora One is $4.99 per month for new customers and $3.99 per month for legacy customers.
5. Sky.fm, which I listed in my direct report, is now called RadioTunes.

- Rdio: (http://www.rdio.com/home/en-us/, accessed January 29, 2015; http://help.rdio.com/customer/portal/articles/1351528#Student Discount, accessed January 29, 2015)
- Sony Music Unlimited: (http://www.sonyentertainmentnetwork.com/support/questions/detail/show-question/music-unlimited-price/, accessed February 6, 2015)
- Rara: (https://www.rara.com/, accessed February 6, 2015)
- Classical Archives: (https://secure.classicalarchives.com/membership/signup.html, accessed January 29, 2015)
- Slacker: (http://www.slacker.com/, accessed January 29, 2015)
- Microsoft: (http://www.xbox.com/en-US/music/music-pass, accessed January 29, 2015; http://www.microsoftstore.com/store/msusa/en_US/pdp/12-Month-Xbox-Music-Pass/productID.258412400, accessed January 29, 2015)
- Rhapsody: (http://www.rhapsody.com/premier, accessed February 17, 2015; http://www.rhapsody.com/unradio, accessed February 18, 2015)
- Spotify: (https://www.spotify.com/us/, accessed January 29, 2015; https://www.spotify.com/us/family/purchase/#__extended-creditcard, accessed February 19, 2015; https://www.spotify.com/us/student/, accessed February 20, 2015; http://www.sprint.com/landings/music/index.html?ECID=vanity:spotify&#spotify accessed February 20, 2015)
- Beats: (http://www.beatsmusic.com/pricing, accessed January 29, 2015)
- Google Play: (https://play.google.com/music/listen#, accessed January 29, 2015); Guvera, (https://www.guvera.com/settings?tab=account, accessed February 19, 2015)
- Pasito Tunes: (http://www.pasito.com/tunes/NewSubscription.aspx?si=pasito, accessed February 19, 2015)
- Proposed Apple-Beats Subscription Service: (http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/, accessed February 19, 2015)
- Proposed YouTube Music Key Subscription Service: (http://www.cnet.com/products/youtube-music-key/, accessed February 11, 2015)
- MixRadio+: (Windows Phone App Store, accessed February 18, 2015)
- Musicovery: (http://musicovery.com/paypal/payer2014.php?id=1480501&lg=en&ct=US, accessed February 18, 2015)
- Pandora: (http://www.pandora.com/one/trial/start, accessed February 18, 2015)
- Live365: (http://www.live365.com/web/components/content/shop/vip.live, accessed February 18, 2015)
- RadioTunes: (https://www.radiotunes.com/premium, accessed February 18, 2015.)
- Guvera: (https://www.guvera.com/settings?tab=account). To see the price, one must create an account then upgrade.

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re	)	
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)*	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

DANIEL L. RUBINFELD

Robert L. Bridges Professor of Law and Professor of Economics Emeritus at the
University of California, Berkeley and Professor of Law at New York University

PUBLIC VERSION

Witness for SoundExchange, Inc.

Table of Contents

I. Overview

A. Assignment

1. I am Professor Daniel L. Rubinfeld. I previously submitted testimony for SoundExchange. My CV and a list of my prior testimony were attached to my prior report.

2. I have been asked to comment on the reports of Carl Shapiro (expert for Pandora), Michael Katz (expert for the NAB), and Daniel Fischel and Douglas Lichtman (experts for iHeartMedia). I have also reviewed the report of Stephen McBride on behalf of Pandora, the testimony of Steven W. Newberry on behalf of the NAB, and the testimony of David J. Frear on behalf of Sirius XM.

B. Summary of Opinions

3. In the direct case, the Services' benchmark analyses primarily rely on just two market agreements: (1) iHeartMedia-Warner, and (2) Pandora-Merlin. Neither is informative. These are atypical deals that were negotiated in the direct shadow of the statutory license, the "pureplay" rates, and this proceeding. Moreover, neither iHeartMedia's direct deal with Warner nor Pandora's direct deal with Merlin can be fairly compared to the statutory license. In both deals the Services exchange forms of consideration – [redacted] – that cannot be replicated across the entire recording industry. In my view, these agreements are inappropriate benchmarks for deriving an industry-wide statutory rate for the next webcasting term. They do not reflect the ideal of a "willing buyer/willing seller" agreement.

4. Not only did the Services err in their use of unrepresentative evidence as their primary benchmarks, but their experts' analyses of these deals are flawed. Both Professors Fischel/Lichtman and Professor Shapiro inadequately account for the full bundle of consideration that was exchanged and the extra-statutory features that were part of the deals they offer as benchmarks. Professors Fischel/Lichtman further distort the value of these deals by focusing only on "incremental" plays. They also make a number of errors in their analysis, including ignoring critical terms in the iHeartMedia-Warner agreement, which materially affect their calculated value of the agreement.

5. Professors Fischel/Lichtman's use and analysis of iHeartMedia's direct deals with various independent labels is similarly flawed. Given the unique bargaining dynamic that existed between iHeartMedia, a power buyer, and these small labels, the deals that were struck are not representative of what most willing buyers and willing sellers

would negotiate.[1] Moreover, Professors Fischel/Lichtman miscalculate the effective per-play rates contained in these agreements.

6. In sum, then, the Services rely on a grand total of just 29 market agreements (Pandora-Merlin, iHeartMedia-Warner, and iHeartMedia-Indies) concerning just 2 services – *their own*. This is not a sound basis by which to derive an industry-wide statutory rate. By contrast, I have looked at the market as a whole, consisting of more than 50 service/label pairs and dozens of licenses (many of which have several amendments) entered into over a four-year period.

7. The NAB does not identify any market benchmarks to corroborate its $0.0005 rate proposal.[2] Instead, Professor Katz relies on two inappropriate comparisons: the SDARS II regulatory decision and terrestrial radio. The first, SDARS II, is a regulatory proceeding, not a voluntary market agreement. And even if the SDARS rate were a willing buyer/willing seller (WBWS) rate, the satellite radio market would yield a different WBWS rate than the webcasting market. Professor Katz's second proposed benchmark is no better. Since Congress has chosen not to create a terrestrial performance right in sound recordings, there necessarily is no market for terrestrial licenses in them. Terrestrial radio has no relevance under the WBWS standard.

8. The Services' critique of the interactive benchmark is misplaced. As I explained in my direct report, interactive benchmarks provide the best available market evidence from which to determine the rate that most buyers and sellers would negotiate in the hypothetical non-interactive market, particularly in light of the increasing convergence and competition between interactive and statutory services. In addition, unlike the limited market evidence Pandora and iHeartMedia have put forward, the interactive space is a "thick market" offering a variety of executed deals. This abundance of market comparisons ensures that the benchmark rate is not skewed by atypical agreements executed under idiosyncratic circumstances, such as the agreements put forward by the Services. Moreover, interactive deals are voluntarily struck by willing parties that cannot resort to the statutory license. Accordingly, these agreements best reflect how negotiations would transpire in the hypothetical market at issue, where there is no statutory license scheme. Finally, the differences in the rights conferred by interactive licenses can be isolated and quantified. The criticisms of Professors Shapiro, Katz, and Fischel/Lichtman with respect to the interactive music space aside, I continue to believe that the use of an interactivity adjustment to the subscription rates of the on-demand services is appropriate.

9. Furthermore, the interactive services marketplace is competitive. Streaming revenue has grown increasingly important over time. Just as labels have always competed for

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[1] See Report of the Copyright Arbitration Royalty Panel (Web I) at 24-25; Web III Remand at 23108.

[2] To the extent that Professor Katz suggests a possible zero rate as appropriate, I find it difficult to imagine most rights holders that would willingly license all their content to webcasters for free.

other sources of revenue, they compete contractually for economic value offered by streaming services. Indeed, the negotiations between the labels and services have resulted in significant concessions by the labels. Moreover, competitive forces in the consumer market constrain the range of negotiated rates in the interactive space. Market evidence confirms that the record companies' deals with interactive music services do not approximate "monopoly rates," but instead are shaped by competitive factors.

10. Finally, the reasonableness of my benchmark analysis is confirmed by examination of additional market agreements. Several directly negotiated deals for non-interactive, ad-supported services contain rates that are in line with SoundExchange's proposal.

C. Organization of the Rebuttal Report

11. The report is organized as follows. In Section II, I offer a number of critiques of the Services' proposed benchmarks.

12. In Section III, I reiterate my belief that it is appropriate to rely on a benchmark that is derived from interactive streaming service contracts, and I respond to various critiques of those benchmark agreements set forth by the Services' experts. In this section, I note that the market for interactive streaming service agreements is competitive, I defend the use of an interactivity adjustment, I explain how my methodology accounts for deals involving the independent record labels, and I demonstrate that my rate proposal is corroborated by additional market benchmark evidence.

13. In Section IV, I respond to several additional issues raised by the Services. First, I explain why a unitary commercial rate is appropriate. Next, I emphasize that the Services' proposals dramatically depart from prevailing statutory rates, and I explain that the evidence the CRB relied on in prior proceedings was appropriate and informative. Finally, I note that my benchmark analysis fully accounts for the promotion/substitution and relative-contribution statutory factors.

14. In Section V, I describe updated performance data and new retail price offerings that have been introduced since my direct case submission.

II. Benchmarks Offered by the Services

15. The Services proffered a number of benchmarks in the direct case. In this section, I analyze these benchmarks and conclude that: (1) each benchmark fares poorly under the CRB's comparability test, and (2) the experts' analyses of these inappropriate benchmarks suffer from serious methodological flaws.

A. iHeartMedia-Warner

16. Professors Fischel/Lichtman chiefly derive their rate proposal from an analysis of iHeartMedia's October 1, 2013 agreement with Warner.[3] Because that deal was struck between a major label and a prominent webcaster, Professors Fischel/Lichtman conclude it is the "best available economic evidence" for determining the willing buyer/willing seller rate.[4] I strongly disagree. As I explained in my direct report, while the iHeartMedia-Warner deal is a comparable benchmark in some limited respects, it scores poorly on each of the CRB's comparability tests.[5]

17. As an initial matter, the agreement was negotiated in the direct shadow of the statutory license. Without the ability to withhold its content, Warner's negotiating position was fundamentally limited during the negotiation. The statutory shadow also caused the agreement's stated per-play rates to be anchored by the NAB and pureplay statutory rates. Furthermore, iHeartMedia is a power buyer, not a representative webcaster, and it offered a unique bundle of consideration that is not comparable to the benefits conferred to content owners under the statutory license.

18. In addition to disagreeing with Fischel/Lichtman's choice of primary benchmark, I find their analysis flawed in several respects: (1) they distort the nature of the deal by focusing on only one "bundle" of plays; (2) they inappropriately focus their analysis on one party's subjective expectations, rather than the actual performance of the deal; (3) the projections on which they rely are unreasonable and inconsistent with the terms of the contract; and (4) they fail to account for material consideration that Warner received under the deal.

1 -- Professors Fischel/Lichtman incorrectly use the incremental rate rather than the appropriate average payment in valuing the iHeartMedia-Warner agreement.

19. Professors Fischel/Lichtman argue that the "incremental" per performance rate – the average rate for the additional performances above and beyond those that iHeartMedia expected to play absent an agreement – is the relevant rate for the purposes of determining an average statutory per-play rate that should apply industry-wide.[6]

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[3] [redacted] Professors Fischel/Lichtman also consider a number of agreements between iHeartMedia and small independent labels, and also make reference to the recent agreement between Pandora and Merlin. See *In Re: Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings* (hereinafter "WEB IV"), Docket No. 14-CRB-0001-(2016-2020), "Amended Testimony Of Daniel R. Fischel & Douglas G. Lichtman (with Exhibits A-F and Appendices A-E)" (hereinafter, "Amended Fischel and Lichtman Report"), ¶¶ 26-27.

[4] Amended Fischel and Lichtman Report. p. 13. I note that Professors Fischel/Lichtman also rely on [redacted] it fails the willing buyer/willing seller test and is not appropriate as a potential benchmark.

[5] Corrected Testimony of Daniel L. Rubinfeld (hereinafter, "Rubinfeld Report"), ¶¶ 177-187.

[6] Amended Fischel and Lichtman Report, ¶¶ 19-20.

20. As I will explain in the paragraphs that follow, this analysis is fundamentally flawed: It views the relevant price as the incremental price of the additional units, rather than the average price over all units.

21. Specifically, Professors Fischel/Lichtman postulate the per-performance fee based on the following formula: (a – b) / (c – d), where:

a = Projected royalty payments to Warner under the agreement;
b = Projected royalty payments to Warner absent the agreement;
c = Projected Warner performances under the agreement; and
d = Projected Warner performances absent the agreement.

22. In this formula (a - b) reflects the "incremental" payments to Warner, i.e., the incremental payments made under the iHeartMedia-Warner agreement. Similarly, (c – d) measures the incremental number of performances that are expected to be achieved under the agreement.[7] Professors Fischel/Lichtman argue that all of the elements of the deal except for the incremental rate represent what would have been paid had there been no agreement and the payment had been at the statutory rate.[8] They assume that incremental performances are "not directly influenced" by the statutory rate.[9] But this is incorrect. Moreover, it is methodologically incorrect to focus on incremental performances. The correct analysis would analyze the *average* value of the iHeartMedia-Warner agreement on a per-performance basis.

23. The Fischel-Lichtman disaggregation of the bundle of plays into two distinct bundles is analytically invalid as a valuation method. There is no bright line that distinguishes performances that were influenced by the statutory rate and performances that were not.[10] For example, Professors Fischel and Lichtman assume that but-for the agreement, Warner would have received [redacted][11] But it appears that Warner believed that but-for the agreement, [redacted]][12] The reality is that both licensor and

[7] Amended Fischel and Lichtman Report, ¶¶ 45-50, Exhibit 9.

[8] Amended Fischel and Lichtman Report, ¶¶ 45-48. The marginal price is defined as the amount of money paid for each additional performance. (See, e.g., Amended Fischel and Lichtman Report, ¶ 86.) The incremental rate is the amount of revenue received under an agreement divided by the number of additional performances that the labels were expected to receive under the agreement (¶ 20).

[9] Amended Fischel and Lichtman Report, ¶ 49.

[10] Professors Fischel/Lichtman suggest that a downward adjustment to their calculation might be necessary to account for the impact of the regulatory structure. They claim that their calculated rate might overstate the actual willing buyer/willing seller rate because the economic theory regarding "price match guarantees" would have discouraged Warner from adopting a rate-lowering strategy to increase its market share. See, Amended Fischel and Lichtman Report ¶ 54. This theoretical possibility is just that – a theoretical possibility. In reality, the countervailing pressure that was exerted by the NAB and pureplay rates was likely more substantial.

[11] Amended Fischel and Lichtman Report, ¶ 42.

[12] SNDEX0177715 [redacted] I understand that the document [redacted]. Moreover, Warner's [redacted], as Professors Fischel/Lichtman mistakenly assume. *See* Wilcox WRT, ¶ 3, n.2.

licensee have recourse to the statutory rate. If there is a separate agreement, it is because both parties thought they stood to gain by entering into a negotiated deal rather than operating with the statutory rate. The negotiation is over the entire deal, not over a first and a separate second bundle.[13] I have seen no evidence that any rights holder accepted or would have accepted an incremental payment of $0.0005 per performance for *all* performances.

24. To see why this does not make sense, consider the following analogy. Suppose that a seller offers to a customer a "BOGO," i.e., a buy-one, get-one-free deal. If a customer responds by buying two of the products, the relevant price is not zero (the incremental price if the second is free). The appropriate price is the average price, i.e., 50%of the price of the first product. The reason, of course, is that you must buy the first product in order to get the second free unit. Thus, the price of the second unit cannot be considered in isolation from the price of the full bundle and/or the price of the first unit.

2 -- Professors Fischel/Lichtman inappropriately rely on projections associated with the iHeartMedia-Warner agreement rather than its performance.

25. To generate their statutory rate proposal, Professors Fischel/Lichtman rely heavily on [redacted] Specifically, they rely on the following projections:

[redacted]

26. In my view, reliance on one party's subjective expectations as to how the deal would perform is inappropriate. My analysis of the iHeartMedia-Warner agreement was instead based on actual performance, which I believe is the better approach.

27. The advantages of using actual performance data outweigh the disadvantages, whereas the opposite is true for the use of projections. The performance data reflect actual experiences in the marketplace. The most recent performance data is likely to be the best predictor of what will happen in the immediate future. I note, however,

[13] Even if the price of the second bundle is a discount off the price of the first bundle, that discounted rate is still influenced by the statutory rate.

[14] Amended Fischel and Lichtman Report, ¶¶ 31-55.

that a review of a longer period of performance data may offer additional value if the review reveals important trends in the industry.[15]

28. With respect to the iHeartMedia-Warner deal, [redacted] This makes actual performance especially important. Here, Warner obtained [redacted]

29. One concern with the use of performance data in this rate hearing is that recent performance has reflected, to some extent, the shadow of the existing statutory rate and other agreements negotiated in that shadow.[16] However, the same concern would apply to information describing the parties' expectations. I am aware of no methodology that completely avoids the effects of this shadow.

30. In some contexts the use of projections can be informative, as for example, when a public company (subject to SEC review) is putting forward a business model and one is relying on the parties' forecasts of expected merger outcomes made prior to reaching a merger agreement. However, in the case at hand, [redacted]

31. It is worth emphasizing that [redacted] projections do not reflect a mutual understanding of the value of the agreement; indeed, even if shared, the other side could have conflicting projections on the deal's worth. In particular, no party has an incentive to correct the other side's overly-optimistic projections. Thus, actual objective performance data best establishes the value of a deal.

32. Furthermore, in this case, even if the expectations [redacted] there is no reason to rely on the expectations of only one of the two parties.

3 -- The projections [redacted] cannot reasonably estimate the expectations of the performance of the iHeartMedia-Warner agreement.

33. [redacted]

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[15] My textbook, *Econometric Models and Economic Forecasts* (4th Edition, 2000, joint with Robert Pindyck), contains many examples in which market "performance" data are used to generate forecasts.

[16] As I explained in my original report, to the extent that one is relying on interactive agreements, that shadow is likely to be small.

[redacted]

34. [redacted]

35. [redacted]

36. [redacted]

37. Professors Fischel/Lichtman state that this discrepancy is meant to adjust for [redacted] Fischel/Lichtman's more sizable discount is unreasonable. In any event, to be conservative in my analysis below, I will apply Fischel/Lichtman's questionable [redacted], but only to custom plays given that skips are not permitted on digital-only webcasts.

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[17] Amended Fischel and Lichtman Report, ¶¶ 42-53, Exhibit B.

[18] Amended Fischel and Lichtman Report, footnote 42.

[19] See the description in backup.

[20] See the [redacted]

[21] Amended Fischel and Lichtman Report, ¶ 35.

[22] Rubinfeld Report, ¶¶ 212-217, 233-234

38. [redacted]

39. [redacted]

40. [redacted]

41. [redacted]

42. [redacted]

43. As I have discussed, the "incremental" rate proposed by Professors Fischel/Lichtman is inappropriate as a rate to be applied to all plays in the market. Although I do not

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23 [redacted]

24 Professors Fischel/Lichtman round up to [redacted] in their Exhibit B.

25 See Rubinfeld Report, Appendix 1b, lines N and U. Note that these computations are based on performance data from October 2013 through May 2014, [redacted] Exhibit 19 shows monthly effective per-play rates for the period October 2013 through September 2014.

26 [redacted] IHM_EXP_0001171.

endorse their methodology, [redacted]

44. Professor Fischel/Lichtman's calculation of the "incremental" rate is based on an assumption that but-for the agreement, Warner would have a [redacted] share of plays at iHeartMedia, but Warner in fact had closer to an [redacted] prior to the agreement.[27] This erroneous assumption is crucial because Fischel/Lichtman compute the incremental compensation in the agreement by multiplying the but-for plays by the NAB rates, and then subtracting this total from the projected compensation under the agreement. All else equal, a smaller but-for share implies that the deal provides larger incremental compensation in comparison to the status quo.

45. It is noteworthy that a [redacted] If one also corrects the first two errors previously discussed (the base rate and the classification of plays), then the Fischel-Lichtman rate increases by a factor of approximately 2.6.

46. The first two pairs of bars in Exhibit 4 highlight the fallacy in the Fischel-Lichtman approach that makes it unusable as a guide for valuation or rate setting. The "incremental" calculations depend on each party's expectations of the but-for number of plays and the implied compensation, but the *average* per-play rate does not.

47. Compounding these errors further, the Fischel-Lichtman calculation of iHeartMedia's projected incremental performances in their Exhibit B misapplies the terms of the contract. [redacted] During the period of the agreement, Warner's actual share of simulcast performances has ranged

[27] See Wilcox WRT, ¶ 3, n.2.

[28] SNDEX0177717 [redacted]

[29] [redacted]

between [redacted]. If one were to use the actual share in place of the assumed [redacted] of simulcast, the projected simulcast per-play rate – determined by dividing the lump sum buyout by the number of simulcast plays – would significantly increase.

4 -- Professors Fischel/Lichtman inappropriately exclude [redacted].

48. Professors Fischel/Lichtman inappropriately exclude [redacted] as a source of value to Warner and other licensees. It is difficult to discern exactly why Professors Fischel/Lichtman chose to exclude [redacted]. If [redacted] was excluded simply because it is hard to value, I disagree. If [redacted] I also disagree.

49. A commitment or guarantee of this type has economic value. [redacted]

50. Above and beyond this [redacted]

51. It would be inappropriate to conclude that the [redacted]

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[30] [[redacted]

[31] SNDEX0177717 [redacted]

[32] [redacted]

[33] [redacted].

[redacted]

52. Professors Fischel/Lichtman allocate [redacted]

53. If one were to use all of the Fischel-Lichtman assumptions concerning the [redacted] this yields rates above my proposal. [redacted], the resulting rates are closer to my proposal than to theirs. (See Exhibit 5.)

5 -- Professors Fischel/Lichtman fail to adequately account for other sources of value to Warner.

54. I disagree with the argument that certain "non-pecuniary" items, such as [redacted] are not valuable. There is no sound basis for Fischel/Lichtman's assumption that these non-monetary terms have a net value of zero. [redacted]

6 -- The payments based on a [redacted]

55. Professors Fischel/Lichtman claim that the agreement gives iHeartMedia [redacted]

[34] To the extent iHeartMedia is suggesting that [[redacted] This would suggest that my interactivity adjustment considerably overstates the value of interactivity, and that my interactive benchmark analysis is conservative.

[35] [redacted]. *See* SNDEX017718.

[36] Amended Fischel and Lichtman Report, ¶¶ 38-39.

[37] [redacted]

[redacted]

56. Professors Fischel/Lichtman's analysis understates the willing buyer/willing seller rate because it does not account for the value of [redacted]

57. Further, payment for a [redacted]

58. Obviously, this cannot be replicated for all companies; otherwise [redacted] As shown in Exhibit 6B, when the value of the agreement's [redacted] term is accounted for, the implied minimum per-play rate exceeds both current statutory rates as well as my proposed rates, by a substantial margin.

7 -- Professors Fischel /Lichtman err in not proposing a [redacted]

59. Finally, Professors Fischel/Lichtman's rate proposal does not take into account [redacted]

60. Professors Fischel/Lichtman suggest that [redacted]] in the iHeartMedia-Warner contract was inflated because of the existence of the statutory rate (*see* their footnote 26). My view is the opposite; if anything, the shadow of the statutory license can be expected to act as an anchor on the terms of any negotiated

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[38] [redacted] See Wilcox WRT, ¶ 3, n.2.

contracts. As I explained in my first report, for services that can use the statutory license, the statutory rate caps their willingness to pay since they can unilaterally choose to take a license or not. Since record companies cannot force anyone to take a license, the statutory rate does not limit their willingness to accept.

61. To sum up, the iHeartMedia-Warner agreement has limited probative value as a benchmark. It scores poorly on the CRB's comparability tests: (1) iHeartMedia had the option of electing the statutory rate; (2) the negotiated rates were influenced by this proceeding; (3) iHeartMedia is not a representative buyer; (4) the compensation in the agreement diverges in material ways from the structure of the statutory license; and (5) the terms of the agreement cannot be replicated across the industry.

B. Pandora-Merlin

1 -- The Pandora-Merlin agreement fails the Judges' comparability test and is an improper benchmark.

62. I turn now to the Pandora-Merlin agreement that was relied on as a benchmark by Professor Shapiro[39] (and also used by Professors Fischel/Lichtman to corroborate their proposed benchmark.)[40]

63. The Pandora-Merlin agreement was not available to me at the time of my initial report. Had it been available, I would have concluded that it is an improper benchmark.

64. Most fundamentally, the Pandora-Merlin agreement is an improper benchmark because it was directly influenced by the existing pureplay rates flowing from the Webcaster Settlement Act ("WSA") and this rate proceeding. Because Pandora had the option to elect the below-market pureplay rates (which are not precedential), Merlin had no ability to negotiate a market rate. [redacted] In light of these circumstances, the Pandora-Merlin agreement cannot reasonably be used as a representation of the deals that most labels would enter into with Pandora in the absence of the statutory license.[43]

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[39] WEB IV, Docket No. 14-CRB-0001, *Written Direct Testimony of Carl Shapiro, On behalf of Pandora Media, Inc*. (hereinafter "Shapiro Report"), Section 5.

[40] Amended Fischel and Lichtman Report, ¶ 82.

[41] [redacted]

[42] [redacted]

[43] Professor Shapiro is aware of this issue; he claims, unconvincingly that the pureplay rates did not artificially depress the negotiated rates. Shapiro Report, p. 36.

65. In addition, relying on a single license negotiated by a single service does not offer a reliable foundation for a statutory benchmark. This is especially the case with respect to the Pandora-Merlin agreement, given that it involved a uniquely situated buyer and seller. Overall, as shown in Exhibit 7, Merlin represents [redacted] of total performances on Pandora. This is hardly a representative benchmark. In contrast, my benchmark analysis incorporated information from agreements between all major directly licensed services and all major labels, covering more than 76% of performances on the benchmark services. In addition to analyzing the majors' agreements with these nearly 20 services, my analysis also explicitly adjusted the majors' terms to account for rates paid to independent labels.

66. While significant as a representative of independent recording companies, Merlin is not a major label. I find unconvincing Professor Shapiro's assertion that there is no meaningful difference for the major labels and the indie labels in the (i) marginal cost to the label and (ii) the service's elasticity of demand for the label's catalog.[44] Merlin's interests and incentives likely differ substantially from those of the major labels. To my knowledge, no major label has entered into a direct agreement with Pandora similar to the scope of its agreement with Merlin.

67. I do note, as illustrated in Exhibit 8A, that in its negotiations with Spotify, Merlin has [redacted] Unlike Professor Shapiro's reliance on one specific deal, my analysis of interactive agreements accounts for such differences because it relies on a wide variety of deals.

68. [redacted]

69. Just as Merlin is not representative of all labels, Pandora is not representative of all non-interactive webcasters. Because of Pandora's power position in the industry, for

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[44] Shapiro Report, pp. 37-41.

[45] Shapiro Report, Table D.1, Table D.2, and Table D.3. Professor Shapiro reports [redacted]

[46] http://investor.pandora.com/phoenix.zhtml?c=227956&p=irol-newsArticle&ID=2015862, accessed February 16, 2015.

a non-major player such as Merlin, the opportunity to establish a "partnership" with Pandora would in and of itself have considerable value. [redacted]

70. [redacted]

71. [redacted]

72. [redacted]

73. To sum up, the Pandora-Merlin agreement is a wholly inappropriate benchmark. It fails each of the CRB's comparability tests: (1) Pandora had the option of electing the below-market pureplay rates; (2) the rates are directly tied to the pureplay rates (and were influenced by this proceeding); (3) the buyer and seller are unrepresentative; and (4) the agreement diverges in material ways from the statutory license.

2 -- Professor Shapiro's analysis of Pandora-Merlin is flawed.

74. As I have explained, I find the Pandora-Merlin deal to be uninformative as a benchmark for this proceeding. That said, if the deal were to be considered, to determine its true value, one would have to quantify and account for the full value of the consideration that Merlin received in the deal. Professor Shapiro has failed to appropriately do so.

75. [redacted]

[redacted]

[redacted]

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[47] [redacted]

[48] *Id.*

[49] Shapiro Report, Appendix D-19.

[redacted]

76. [redacted]

77. Professor Shapiro's calculation is also flawed because it does not appropriately adjust the proposed royalty rates for the following provisions:

[redacted]

[redacted]

[50] Shapiro Appendix D-11.

[51] See Lexton WRT, ¶¶ 36-43.

[52] [redacted]

[53] [redacted]

[redacted]

[redacted]

[redacted]

3 -- The Fischel-Lichtman analysis of the Pandora-Merlin deal confirms the unreasonableness of their "incremental" rate approach.

78. Professors Fischel/Lichtman attempt to apply their "incremental" rate methodology to the same Pandora-Merlin deal that is analyzed by Professor Shapiro.

79. I have a number of substantial criticisms of Professor Shapiro's approach and conclusions. I note, however, that Professor Shapiro's estimates of the overall blended rates in the agreement [redacted] The Shapiro estimates for the blended per play rates in Q4 2014 through 2015 are [redacted].[57] The Fischel-Lichtman estimate of the "incremental" rate under the agreement is a range that is [redacted].[58] That the Fischel-Lichtman approach arrives at rates that are inconsistent with the value assigned by the actual parties to the deal highlights that their incremental methodology is fundamentally unsound.

[redacted]

[55] See also, Shapiro Report, ¶¶ 30-31.

[56] [[redacted]

[57] Shapiro Report, p. 32.

[58] Amended Fischel and Lichtman Report, pp. 39-40.

80. [redacted]

81. [redacted]

C. Services' Other Benchmarks

82. In addition to these two primary benchmarks, the Services point to other evidence to support their rate proposals, including: (1) iHeartMedia's direct deals with a number of independent labels, (2) the SDARS II regulatory proceeding, (3) terrestrial radio, and (4) a "thought experiment" relating to record industry revenues. Below I explain why each of these purported benchmarks are uninformative and inappropriate means by which to determine what most willing buyers and willing sellers would negotiate in the hypothetical target market.

1 -- The Fischel-Lichtman analysis of the iHeartMedia-Indie deals is flawed.

83. To corroborate their rate proposal, Professors Fischel/Lichtman point to agreements iHeartMedia has entered into with 27 independent record labels. Although they acknowledge that there are "several economic considerations that may explain why the independent labels would have agreed to lower royalty rates," they nonetheless contend that iHeartMedia's agreements with these 27 independent labels "provide an important benchmark, because they indicate what a substantial number of willing sellers in the industry would negotiate."[61] I disagree. The rates negotiated between iHeartMedia, a power buyer, and these 27 labels have very little probative value.

84. First, it is important to recognize that these 27 direct licensors "represent a sliver of the universe of rights holders for sound recordings."[62] In fact, iHeartMedia's own

[59] See also, Shapiro Report, ¶¶ 30-31.

[60] [redacted]

[61] Amended Fischel and Lichtman Report ¶ 69.

[62] SDARS II at 23,061.

data [redacted]

85. Given their small size, these 27 independent licensors have unique incentives and business motivations that cannot be extrapolated to the entire industry. That a buyer of iHeartMedia's size and stature was on the other side of the negotiating table only amplifies the uniqueness of the deals.

86. Second, as with all of the other agreements proffered by the Services as benchmarks, iHeartMedia's Indie deals were negotiated in the direct shadow of the statutory license. This further diminishes their usefulness as benchmarks in this proceeding.

87. Each of the independent agreements upon which Professors Fischel/Lichtman rely contain similar core provisions:

[redacted]

[redacted]

[redacted]

88. [redacted]

89. Notwithstanding these disqualifying features of the deals, Professors Fischel/Lichtman offer them as evidence of what a willing buyer and willing seller would negotiate. They purport to calculate the per-play rate embodied in the deals by once again applying their "incremental" methodology. The methodology is misguided in this context.

90. First, rather than rely on actual documented projections that were shared between the parties (which, as I explained above, is itself problematic), Professors Fischel/Lichtman "make certain assumptions regarding what iHeartMedia projected at the time."[64] [[redacted]

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[63] See [[redacted]

[64] Amended Fischel and Lichtman Report, ¶ 63.

[redacted] Finally, once again, Professors Fischel/Lichtman disaggregate these unified deals into two distinct sets of performances and derive their effective rate from only the "incremental" plays.

91. This analysis distorts the actual nature of these agreements. [redacted] In sum, Professors Fischel/Lichtman's assumptions as to what [redacted] is irrelevant to the valuation of these deals.

92. The only way to reasonably calculate the effective per-play rates embodied in iHeartMedia's Indie deals is to look at the average rate on a per-performance basis. As shown in Exhibit 10, the deals carry an average effective per-play rate of [redacted] Finally, as shown above [redacted] would increase the average effective rate by 50%.

2 -- SDARS II is not an appropriate benchmark.

93. Professors Fischel/Lichtman, Shapiro, and Katz all point to the SDARS II regulatory decision as a benchmark that corroborates their individual proposals. In this section, I explain that this is not an appropriate benchmark for three reasons.

94. First, by definition, a rate handed down in a regulatory proceeding is not a voluntarily negotiated rate. There is no guarantee that a Judge-made decision will fairly resemble a voluntary license agreement that would have been reached between market participants.[67] It is therefore not the kind of market evidence that is informative for purposes of determining what willing buyers and willing sellers would negotiate.

95. Second, the statutory mandate in the SDARS standard creates economic imperatives which differ from the willing buyer/seller standard. The SDARS standard is "policy-driven, whereas the standard for setting rates for non-subscription services set forth in

[65] Unlike the iHeartMedia-Warner deal, [redacted]]

[66] Amended Fischel and Lichtman Report, ¶ 63.

[67] See 17 U.S.C. § 114(f)(2)(B).

§ 114(f)(2)(B) is *strictly fair market value*—willing buyer/willing seller."[68] The U.S. Copyright Office recently reaffirmed this fundamental distinction: "Satellite radio and 'pre-existing' subscription services (such as those provided through cable television) are able to benefit from the four-factor section 801(b)(1) test, which allows the CRB to ponder broader concerns than what negotiating parties might consider in the marketplace—for example, whether a contemplated rate will result in 'disruptive impact on the structure of the industries involved and on generally prevailing industry practices.' Many interpret the section 801(b)(1) language as enabling the rate-setting body to protect the vested interests of licensees by establishing rates lower than what would (at least theoretically) prevail in the free market. . . . For example, in 2008, in establishing rates for satellite radio services, the CRB found it 'appropriate to adopt a rate . . . that is lower than the upper boundary most strongly indicated by marketplace data,' stating that they did so 'in order to satisfy 801(b) policy considerations related to the minimization of disruption that are not adequately addressed by the benchmark market data alone.' In any event, there appears to be a shared perception among many industry participants — both those that chafe at the section 801(b)(1) standard and those that like it — that the standard yields lower rates."[69]

96. Professors Shapiro and Fischel/Lichtman's analyses of the SDARS II rate are flawed because they both fail to acknowledge that a policy-driven 801(b)(1) rate is inappropriate for deriving a "strictly fair market value" rate.[70]

97. In any event, even if the SDARS standard was comparable, the SDARS rate would nevertheless be an inapt reference point because the satellite radio market and the webcasting market are dissimilar in two crucial respects. First, the hypothetical willing buyer/willing seller negotiation in the satellite radio market would involve a monopsony buyer, Sirius XM. In the webcasting market, by contrast, there is not a "sole provider of [streaming] service[s]."[71] Instead, the market consists of many services of varying sizes that actively compete with one another. In the satellite market, therefore, Sirius XM would be in the position to "negotiate very different rates."[72]

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[68] See Web I at 45241 (emphasis added).

[69] "Copyright and the Music Marketplace: A Report of the Register of Copyrights," United States Copyright Office, February 2015.

[70] Professor Katz's analysis differs somewhat in that he uses the SDARS benchmark rate – before the Judges adjusted it to account for the 801(b) factors – as his starting point. (See Katz Report at ¶¶ 85, 86). Professor Katz claims that satellite radio and simulcast offer similar content and "copyrighted music is no more important to music-formatted simulcasters than to Sirius XM." (Katz Report, ¶ 5.) He therefore concludes that the "satellite rate" requires no adjustments. (Katz Report, ¶¶ 85-93.)

[71] SDARS II at 23,065.

[72] *Id.*

98. A second difference between satellite radio and webcasting relates to costs. In the recent SDARS II proceeding, Sirius XM relied on the testimony of Mel Karmazin, its Chief Executive Officer since 2004, which "describe[d] the ways in which Sirius XM's cost constraints – including having invented and continually invested in maintaining, upgrading and innovating its technological infrastructure and developing its unique and often exclusive content – vary widely from those of its new Internet-based competitors, which are not saddled with similar costs." ("Introductory Memorandum to the Written Direct Statement of Sirius XM Radio Inc.," SDARS II, p. 7). As the Judges observed in SDARS II, Sirius XM's "substantial financial outlays are unique to Sirius XM, which has developed a proprietary music distribution system, rather than use the existing internet framework," as webcasters have done.[73]

99. Taken together, these unique features of the satellite radio market make it an inappropriate comparison for this proceeding. The Services' reliance on the SDARS II regulatory decision to support their respective rate proposals is misplaced.

3 -- The Fischel -Lichtman "thought experiment" is neither realistic nor conservative.

100. To attempt to show that their $0.0005 rate proposal is reasonable, Professors Fischel/Lichtman report the results of a "thought experiment." Their thought experiment considers the hypothetical impact if all music consumption shifted to statutory streaming services.[74] They argue that their thought experiment demonstrates that statutory rates are high "relative to actual record industry revenues" because a royalty of only $0.0014 would be necessary to maintain industry revenues at their current levels in a world where labels rely entirely on statutory streaming services for revenue.[75]

101. However, the extreme assumptions that Professors Fischel/Lichtman analyze are neither realistic nor conservative. For example, while it is reasonable to postulate that webcasting revenue could exceed CD revenue by the end of the next rate period, it is not reasonable to presume that (performance) royalty-free terrestrial radio listening will migrate to royalty-bearing webcasting. Even if this shift did occur, the labels would not willingly accept $0 for plays that migrated from terrestrial radio, as the Fischel-Lichtman analysis implicitly suggests. If one assumes instead that radio listening habits remain unchanged, a very different picture emerges. See Exhibit 11. With the proposed rates advocated by Professors Fischel/Lichtman, the industry would recover only about 11% to 22% of its lost revenues.[76] Put another way,

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[73] *Id.* at 23,069.

[74] Amended Fischel and Lichtman Report, ¶¶ 121-128.

[75] Amended Fischel and Lichtman Report, ¶ 120.

[76] I calculate $0.0046 and $0.0023 for the 100% and 50% revenue reduction cases, respectively. Professors Fischel/Lichtman propose a rate of $0.0005. $0.0005 / $0.0046 = 11% and $0.0005 / $0.0023 = 22%.

Professors Fischel/Lichtman have understated the minimum rate needed to maintain industry revenues by a factor of 3 to almost 6.

4 -- Terrestrial radio is an inappropriate reference point.

102. Finally, testifying on behalf of the NAB, Professor Katz looks to terrestrial radio as a reference point for the lower bound of his rate proposal. Because labels do not receive any compensation for terrestrial broadcasts – and they in fact seek out terrestrial airplay – Professor Katz concludes that "the lower bound of the zone of reasonableness for a statutory rate for web simulcasting is near zero."[77]

103. I disagree. Terrestrial radio is not the right comparison. Terrestrial radio stations do not pay for the sound recordings they broadcast (although they do pay songwriters via ASCAP, BMI, and SESAC). This fact is a function of an anomaly in existing copyright law – it in no way reflects the value of sound recordings to terrestrial broadcasts. In other words, there is no market for sound recordings in the terrestrial radio space. It is therefore irrelevant to the benchmark analysis. Simulcasting and custom radio services compete directly with the wide range of interactive and non-interactive services that I have analyzed in my expert report. Those services represent the most relevant comparisons with respect to this rate-setting process.

104. To sum up, Professor Katz offers no sound basis for NAB's proposed $0.0005 rate. He does not identify any voluntarily negotiated market benchmarks that reflect this rate.

III. Response to Services' Critique of Interactive Benchmark

105. As I explained in detail in my original report, the interactive services agreements benchmark evidence is the best available market evidence for deriving a willing buyer/willing seller rate.

106. I explained, for example, that there has been increasing convergence between on-demand webcasting services and non-interactive services whose rates are at issue in this matter. Pandora and iHeartMedia appear to have the same view. Both publicly acknowledge that they compete with interactive services.[78] Moreover, in recently-

[77] Katz Report, p. 8.

[78] For example, in their most recent 10-K SEC filing (for the fiscal year ended December 31, 2014, available at http://investor.pandora.com/phoenix.zhtml?c=227956&p=IROL-sec&secCat01Enhanced.1_rs=11&secCat01Enhanced.1_rc=10, accessed February 19, 2015), Pandora stated (p. 9) that "We face competition from providers of interactive on-demand audio content and pre-recorded entertainment that allow listeners to select the audio content that they stream or purchase. This interactive on-demand content is accessible in automobiles and homes, using portable players, mobile phones and other wireless and consumer electronic devices. The audio entertainment marketplace continues to rapidly evolve, providing our listeners with a growing number of alternatives and new media platforms."

Similarly, iHeartMedia describes its competition in broad terms: "Our terrestrial radio broadcasting operations face increasing competition from alternative media platforms and technologies, such as broadband wireless, satellite produced evidence from Pandora and iHeartMedia, [redacted][80] Indeed, iHeartMedia internally observes [redacted]

107. My report also explained that the interactive benchmark is especially informative because there have been a wide range of deals negotiated between the parties in recent years. A "thick market" is the best starting point for a determination of appropriate statutory royalties.

108. Finally, on-demand, interactive services are not eligible for the statutory license. As a result, their direct agreements are the least influenced by the statutory shadow.[82]

109. I also note that valuing service contracts can be especially difficult when agreements provide labels with multiple sources of value, or when service operators have multiple service offerings. Rather than isolate particular elements while ignoring others, my analysis was mindful of the fact that agreements must be evaluated as a whole.[83] Given the difficulty in valuing individual contract elements, I took a conservative approach and only accounted for the subset of the consideration that was exchanged that could be reliably estimated. As a result, I conservatively did not value some elements of additional compensation to rights holders.

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radio, audio broadcasting by cable television systems and Internet-based audio music services, as well as consumer products, such as portable digital audio players and other mobile devices." See iHeartCommunications 10-K (for the fiscal year ended December 31, 2014), available at http://www.iheartmedia.com/Investors/Pages/default.aspx (accessed February 19, 2015).

[79] See, e.g., PAN_CRB_00025594 [redacted]

[80] See, e.g., PAN_CRB_00066277 [redacted]

[81] IHM_0052599 at 23 [redacted]

[82] Rubinfeld Report, ¶ 13.

[83] For example, an agreement may specify lower rates for an operator's free service offerings, subject to the understanding that the free service will be structured to motivate listeners to subscribe to a more-lucrative paid service.

110. In the remainder of this section I will further explain why my benchmark analysis is conservative, and I will demonstrate that the Services' critiques of the interactive benchmark are misplaced.

A. The Market for Interactive Service Agreements is Competitive

111. I have reviewed the testimony of Professor Katz and Professor Shapiro concerning the "willing-buyer/willing seller" requirement and their critique of the interactive agreement set of benchmarks as being the result of a market that is not "effectively" or "workably" competitive. Specifically, they argue that the catalogs of major labels are complements rather than substitutes for interactive streaming services, with the implication being that the rates in these agreements are above those which would exist in a competitive market.[84]

112. I understand that the "'willing seller/willing buyer' standard calls for rates that would have been set in a 'competitive marketplace.'"[85] In the *Web III* remand decision, the Judges stated that "[a]n oligopolistic marketplace rate that did approximate the monopoly rate *could* be inconsistent with the rate standard set forth in 17 U.S.C. 114(f)(2)(B) . . . . [T]his statutory section does not oblige the Judges to set rates by assuming a market that achieves 'metaphysical perfection and competitiveness. . . . Rather . . . the 'willing seller/willing buyer' standard calls for rates that would have been set in a 'competitive marketplace.' . . . Between the extremes of a market with 'metaphysically perfect competition' and a monopoly (or collusive oligopoly) market devoid of competition there exists '[in] the real world . . . a mind-boggling array of different markets,' . . . all of which possess varying characteristics of a 'competitive marketplace.'"[86] As the Judges summarized, the critical question is whether the "evidence demonstrates that sufficient competitive factors existed to permit" agreements "to serve as useful benchmarks, and does not demonstrate that the rates in the" agreements "approximated monopoly rates."[87]

113. Here, for a variety of reasons, my answer to that question is the affirmative. The economic terms of the interactive service benchmark agreements are the result of competitive forces. The analysis in my initial report and in this rebuttal report makes it clear that the rates in the interactive service market do not approximate "monopoly

[84] See, e.g., Katz Report, pp. 6-7; Shapiro Report, pp. 13-15.

[85] Web I, 67 FR at 45244-45.

[86] Web III Remand, 79 Fed. Reg. 23102, 2314 n.37 (April 25, 2014) (emphasis in original) (internal citations and quotation marks omitted).

[87] *Id*. Professors Shapiro and Katz also seem to agree that their proffered concepts of "workable" or "effective" competition do not require anything near "perfect" competition as that phrase is understood in economics, but that such concepts generally just require a degree of competition. (See Shapiro Report, p. 11 ("Workable competition does not require marginal cost pricing or anything approaching the textbook model of perfect competition."); Katz Report, p. 20 (noting that "theoretical conditions of *perfect* competition often are not satisfied in actual markets" and describing "workable" competition as markets that "are competitive, but not perfectly so")).

rates," but instead are consistent with a competitive (though not perfectly competitive) marketplace.

1 -- The fact that major labels' catalogs may be complements rather than substitutes is consistent with a competitive interactive service market.

114. Professors Shapiro and Katz argue that because the catalogs of major labels are complements rather than substitutes for interactive streaming services, the rates in these agreements are above those which would exist in a competitive market.[88] I agree that the catalogs of the major record companies might be more complementary than substitutable. But I disagree that the mere fact that the catalogs are either complements or "must-haves" means that the market is not competitive or that the majors extract supra-competitive contract terms. As explained below, there is clear evidence that the agreements between the record labels and the interactive services set forth terms that reflect competition in the market.

115. Complementarity does increase the value of having access to the repertoire of multiple major labels. I stress, however, that the complementary nature of the repertoires of the major labels should not be seen as evidence that the labels do not compete with one another when negotiating deals with the music services.

116. The labels are competing with each other for a contractual share of the economic value offered by music services. If one label can strike a particularly beneficial deal with a music service, other labels may find it more difficult to obtain their own beneficial deals. Complementarity and competition are distinct economic concepts that are not mutually interchangeable.

117. To illustrate, consider the demand of university libraries for academic journals. For major university libraries, many top-rated journals are must haves. At the same time, top journals in the same field are complementary – having access to all of the top field journals can be highly beneficial to the research efforts of faculty and students. However, from the perspective of the libraries, there is substantial competition among the journal providers for the libraries' limited budgetary dollars. When negotiating its pricing arrangement with one journal publisher, the library has the ability to bargain over (i) the number of journals to be purchased; and (ii) the ease of student and faculty access to journals (e.g., online capability). A particularly beneficial deal with one journal publisher will likely make the deal with other publishers less advantageous.[89]

118. Finally, the example of one sophisticated major streaming service, Amazon, launching an on-demand service without the catalogs of all major labels raises a

[88] See, e.g., Katz Report, p. 6-7; Shapiro Report, pp. 13-14.

[89] For a discussion of these issues, see "Academic Journal Pricing and the Demand of Libraries" (with Aviv Nevo and Mark McCabe), *American Economic Review*, Vol. 95, No. 2, May 2005, pp. 447-452.

question as to whether the catalogues of the majors are in fact must-haves for an interactive streaming service.[90]

2 -- The interactive services market is not collusive.

119. Neither Professor Shapiro nor Professor Katz has offered any evidence that the labels or services in the interactive market have engaged and/or are engaging in "collusion" with one another. I see no basis for concluding that the major recording companies have negotiated together as a monopoly. Nor is it reasonable to conclude that any one sound recording company is acting as a monopoly. To the contrary, evidence suggests that there is strong competition between labels and between services.[91]

120. If the major recording labels were truly negotiating together as a monopoly, then one would expect to observe all licensees paying a "monopoly price" for sound recordings. An analysis of the contracts shows the contrary. Spotify has negotiated rates which are [redacted]

121. And as discussed further below, I find it particularly noteworthy that Merlin, which represents labels that are not a "must have" to the same degree as the three major recording labels, given their substantially smaller catalogs and market shares, has negotiated [redacted]][92] This undermines the claim that the major labels were able to negotiate supra-competitive terms because of the complementary nature of their catalogs.

122. Neither Professor Shapiro nor Professor Katz has offered evidence of coordination between labels and services in negotiating agreements. To the contrary, the evidence shows the opposite. For example, Google's negotiations with Indies were reported to be particularly acrimonious and took months of additional negotiations after Google first announced its agreements with major record labels.[93]

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[90] Ed Christman, Amazon Launches Prime Music Streaming Service, Minus UMG (June 12, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6114217/amazon-launches-prime-music-streaming-service-minus-umg.

[91] Furthermore, in the its statement closing its investigation of the acquisition of EMI by UMG, the FTC noted that that it "did not find sufficient evidence to support the concern that Universal's acquisition of EMI would significantly increase the potential for coordination among recorded music companies" and emphasized "competitors' ability to monitor each other or respond to competitive activity." Statement of Bureau of Competition Director Richard A. Feinstein In the Matter of Vivendi, S.A. and EMI Recorded Music September 21, 2012.

[92] See Rubinfeld Report, ¶ 221.

[93] See, e.g., Andrew Flanagan, YouTube Re-Negotiating with Indies Following Outcry, Billboard (July 6, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6150292/youtube-re-negotiating-with-indies-following-outcry; Stuart Dredge, YouTube Subscription Music Licensing Strikes Wrong Notes with Indie Labels, The Guardian (May 22, 2014), http://www.theguardian.com/technology/2014/may/22/indie-labels-youtube-

Similarly, Amazon's on-demand music service launched with licenses to some but not all major labels' content, which also suggests that the majors' catalogs may not be "must haves" for all on-demand services.[94]

3 -- The music services' negotiations with the labels were consistent with competition.

123. I have reviewed negotiating documents and communications with respect to the interactive streaming service agreements. It is clear that there were prolonged negotiations and that the interactive streaming services demanded and in some cases obtained preferred terms.

124. The evidence I have seen makes it clear that it was not the case that the labels "exercise[d] such monopoly power as to establish them as price-makers" thereby "mak[ing] negotiations between the parties superfluous."[95]

125. To illustrate further,

a. [redacted]

b. [redacted]

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subscription-music; WIN YouTube Statement (June 18, 2014), http://winformusic.org/news/win-youtube-statement-june/.

[94] Ed Christman, Amazon Launches Prime Music Streaming Service, Minus UMG, Billboard (June 12, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6114217/amazon-launches-prime-music-streaming-service-minus-umg.

[95] Web III, 76 Fed. Reg. 13026.

[96] [redacted] See SNDEX0251181, SNDEX0251183, SNDEX0251185, SNDEX0251187, SNDEX0251197.

[97] See Harrison WRT, Ex.2.

[redacted]

c. Even before its launch in the United States, Spotify [redacted]] When Spotify and Warner resumed negotiations for the next term, [redacted] Similarly, in its negotiations with Beats Music, Warner [redacted]]

d. Smaller services [redacted]

e. Press accounts also characterize entities such as Google and Amazon as adopting "take-it-or-leave-it" positions when negotiating with recording labels.[104]

126. Although this negotiation evidence further demonstrates the competitiveness of the interactive streaming service market, the actual agreed-upon price in the agreements offers the most direct evidence for purposes of the willing buyer/willing seller test. For example, to obtain reliable estimates of each parties' "Willingness to Pay"[105] ("WTP") and "Willingness to Accept"[106] ("WTA") numbers, it is necessary

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[98] *Id.*

[99] See SNDEX0149151, SNDEX149036, SNDEX149048, SNDEX0149044.

[100] See SNDEX0148972.

[101] See Wilcox WRT, Ex. 8.

[102] See SNDEX0250671, SNDEX0250665.

[103] See, e.g., SNDEX0239817.

[104] See, e.g., Eamonn Forde, Is Amazon's Streaming Service Trying to Hardball Small Publishers?, Music Ally (April 7, 2014), http://musically.com/2014/04/07/is-amazons-streaming-service-trying-to-hardball-small-publishers/ (accessed February 17, 2015); Wallace E.J. Collins, YouTube's Ultimatum and the Economic Survival of Musicians, HypeBot, http://hypebot.com/hypebot/2014/06/youtubes-ultimatum-and-the-economic-survival-of-musicians.html (accessed February 17, 2015).

[105] The maximum amount a music service would be willing to pay to enter into an agreement.

[106] The minimum amount the record label would be willing to accept to enter into an agreement.

to understand the thinking of both parties that are engaged in the negotiation process. Here, although discovery in this matter may provide useful information with respect to the views of the record labels as to their WTA number, it is unlikely to be informative with respect to the interactive services' WTP number, as they are not parties to this proceeding and have not produced internal valuation or negotiation documents in this proceeding.

4 -- Indie labels with small catalogs have negotiated [redacted]

127. Another factor demonstrating competition in the interactive services market is that independent labels with substantially smaller catalogs than the majors have [redacted]

128. Merlin – which has less than [redacted] of the market and is not a "must have" to the same degree as the three major recording labels – [redacted]][107]

129. This undermines any claim that the major labels, because of the "must have" nature of their catalogs, were able to negotiate supra-competitive terms from interactive streaming services. If the major labels received supra-competitive pricing because of the must-have status that is created by their market shares, then one would not expect [redacted]

5 -- External forces constrain the range of prices for licensed content for interactive streaming services.

130. The focus by Professors Shapiro and Katz on the complementary nature of the catalogs of the major record labels for interactive streaming services also ignores strong external factors in the marketplace that constrain the range of prices negotiated and ultimately agreed upon between labels and interactive streaming services. These include: (i) the strongly competitive consumer market for interactive services; (ii) piracy; and (iii) the labels' desires to see interactive streaming services succeed in order to offset revenue decline from downloads and physical record sales.

i. Competitiveness of the consumer market

131. The competitiveness of the consumer market for interactive streaming services has a substantial impact on the royalty rates negotiated between labels and streaming services. The interactive streaming market has proven to be highly competitive over the years, with a number of new entrants – including Spotify, Google, Beats, and Apple – and a fall in retail prices for interactive streaming services. Indeed, interactive streaming service subscription prices have dramatically fallen over time, from an average of $13.50 per month at the time of Web III[108] to $9.99 – and in some

[107] See Rubinfeld Report, ¶ 221.

[108] See Web III Remand, 79 FR 23117, n.46.

cases, less – today.[109] For example, following its acquisition of Beats, Apple is reported to be introducing a new interactive music streaming service to be priced at $7.99 per month.[110] Similarly, Google is reportedly merging its Google Play premium on-demand service – currently priced at $9.99 per month – with its new premium ad-free YouTube service, and is reported to be pricing the combination at $7.99 per month.[111] Indeed, as I will show below, a number of services offer family or group plans, which if expressed as a price per-person, average around $6 per month.

132. These competitive forces in the downstream consumer market constrain the prices that music labels can charge for their content to interactive music services in the upstream royalty market. This is true for a number of reasons. First, competition among services tends to transfer economic rents to listeners. This limits the ability of rights holders to demand more compensation. Second, competition among services means that, at least over the long run, market prices will tend to reflect costs (in this case, royalties and operating costs, including a normal risk-adjusted return on capital). This implies that rights holders will have incentives to internalize the effects of their royalty rates on consumer demand. To illustrate, suppose that one of the labels were to demand terms that would force a music service to increase its subscriber price. If the consumer demand for the service were believed to be relatively elastic at this higher subscription price, the service would be expected to lose sales, which in turn would reduce the royalty payments that the label would receive. The label would then be motivated to reduce its proposed minimum per-play rate and likely to put forward a proposal for lesser terms.

133. A similar dynamic would arise with respect to ad-supported services as well, including Pandora and services such as YouTube. Industry observers note that paid services such as those offered by Spotify recognize that their paid services compete with their own as well as other service operators' free offerings. For example, one industry executive stated that "most consumers don't know the difference between Spotify and Pandora" and that personalized radio services may be "blinding" some consumers to the advantages of paid subscription services.[112]

134. Others have observed that interactive services' subscription prices compete with non-interactive services' subscription prices, noting that for "someone debating

[109] See, e.g., Exhibit 15.

[110] Mark Gurman, The Next Episode: Apple's Plans for Beats-Based Music Service Revealed (February 4, 2015), http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/.

[111] Mike Roe, YouTube Launches New Music Key Streaming Service as Artists Look to Pull Music (November 13, 2014), http://www.scpr.org/blogs/newmedia/2014/11/13/17559/youtube-launches-new-music-key-streaming-service-a/ (accessed February 17, 2015).

[112] Hannah Karp, Era of Free Digital Music Wanes, Wall Street Journal, http://www.wsj.com/articles/era-of-free-digital-music-wanes-1415839234 (accessed February 17, 2015). The causality works in the other direction as well. Other things equal, an increase in the royalty rate will lead to an increase in the minimum subscription price that services can charge in order to be profitable.

between a $5 per month Pandora One subscription and a $10 per month Spotify Premium subscription, the choice is pretty easy. . . .What's more, Spotify announced last month that it's offering 50% discounts for premium users' family members. In other words, only the first family member costs more than a Pandora One account."[113]

ii. Piracy

135. Thus, competition among services – including from free and statutory services – puts downward pressure on the prices that the interactive services can charge consumers for streaming services, which in turn affects the negotiated licensing rates for the content at issue. Piracy, which provides an alternative to legal streaming services, has a similar effect. Some listeners who would be willing to purchase content may alternatively resort to pirated materials. Because the price of content from the pirated sources is near zero, piracy puts a strong downward influence on the rates that interactive streaming services can charge for their services.

136. For example, Spotify CEO Daniel Ek recently stated that the "hardest thing about selling a music subscription is that most of our competition comes from the tons of free music available just about everywhere. . . . Here's the overwhelming, undeniable inescapable bottom line: the vast majority of music listening is unpaid. If we want to drive people to pay for music, we have to compete with free to get their attention in the first place."[114] It also has been reported that Spotify's new Family plan, in which each additional user costs only 50% more ($14.99 for two users per month, $19.99 for three, $24.99 for four, and $29.99 for all five users), is an attempt to persuade users to subscribe to Spotify who otherwise would turn to pirated, free content.[115]

iii. Labels want services to succeed.

137. An additional external force affecting negotiated rates is that any individual record label negotiating with a service has a desire to see that service succeed in order to offset revenue declines from downloads and physical record sales. If the catalog of every major label is a "must have" in the context of an interactive service, the service would need to license the content of each of the other major labels' catalogs as well. The record label would want the service to obtain a reasonable rate of return that allows it to continue to innovate and grow its services and listenership base. Professors Shapiro and Katz fail to point out that there is potential loss of revenue for any major label that is unable to negotiate a suitable arrangement with the service.

[113] Adam Levy, Pandora Is Losing the Battle to Spotify, Motley Fool (November 17, 2014), http://www.fool.com/investing/general/2014/11/17/pandora-is-losing-the-battle-to-spotify.aspx (accessed February 17, 2015).

[114] Daniel Ek, I'm Spotify CEO Daniel Ek. And These Are the Facts, Digital Music News (November 11, 2014), http://www.digitalmusicnews.com/permalink/2014/11/11/im-spotify-ceo-daniel-ek-facts.

[115] Alex Zaharov-Reutt, Spotify Family Pricing Puts Cheapskate Pirates on the Spot (October 23, 2014), http://www.itwire.com/your-it-news/entertainment/65809-spotify-family-pricing-puts-cheapskate-pirates-on-the-spot.

6 -- The effective per play rates of interactive streaming services have been declining.

138. Furthermore, streaming services' royalty costs have not been increasing over time. Indeed, the effective per-play rate for all interactive streaming services has been *declining* over time. In the period since Spotify's 2011 entry into the U.S. market, effective per-play rates have trended downward (Exhibit 12A). This downward trend demonstrates that the record labels are not price-makers. It is worth noting that the effective percentage of revenue paid in royalties falls slightly as the total revenue (or content fees or label plays) of the service increases (Exhibit 12D).

139. Similarly, Spotify's initial agreements with UMG, Sony, and Warner had [redacted][116] Spotify's subsequent agreements with each company [[redacted][117] If the major record companies were "price makers," Spotify would not have been able to [redacted]].

7 -- Major labels' catalogs are "must haves" in the non-interactive space as well.

140. Professors Katz, Shapiro, and Fischel/Lichtman all argue that in hypothetical negotiations with labels, non-interactive services would have higher elasticities of demand for any given label's content, compared to interactive services, because non-interactive services can more easily steer listeners to particular sound recordings. From this theory each expert concludes that in a hypothetical negotiation in the absence of the statutory license, non-interactive services would be able to demand dramatically lower rates than interactive services.[118] This claim is overstated.

141. I acknowledge the limited ability of Pandora and other non-interactive services to steer. However, steering focuses on the ability to steer consumers toward or away from a percentage of the label's plays, and not toward or away from a label's entire repertoire. The license in question is a *blanket* license for *all content* for all labels. This blanket license would be the central focus of the hypothetical negotiation.

142. In other words, to the extent the major labels' catalogs are "must haves" in the interactive space, the same is true in the non-interactive space, as Pandora's own steering experiments establish. The steering experiments conducted by Pandora demonstrate that Pandora would find it difficult to succeed without the catalogs of each major. [redacted]

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[116] [redacted]

[117] [redacted]

[118] See, e.g., Shapiro Report, pp. 6-7; Katz Report, ¶ 53; Amended Fischel and Lichtman Report, ¶ 118.

[redacted]

143. [[redacted]

144. Dr. McBride argues that these are "small" effects, and that overall, "Pandora is able to steer both toward and away from music of the three investigated music groups with minimal or no effect on the Pandora listening experience."[120] I disagree. As shown in Exhibit 13, [redacted]

145. Exhibit 13A plots the weekly change in listenership for each of the steering away experiments.[121] [redacted] In other words, one would expect the effects of the steering in Pandora's experiment to grow over time as listeners began to observe that the steering was occurring.[123] A longer duration would be more reflective of what would happen in the marketplace, where the steering would likely be felt for far longer than 13 weeks.

146. For the same reason, the 13-week average is likely [redacted] that would result if steering were continued beyond the 13-week period reported by Dr. McBride. Therefore, if one were to estimate the dollar cost to Pandora it is conservative to assume to the average effect from the 13-week experiments would apply if steering were continued for one year or more. Under that assumption, starting from Pandora's most recently released quarterly information and

[119] See McBride Report, Figure 2.

[120] McBride Report, ¶ 22.

[121] See PAN_CRB_00003949.

[122] [redacted]

[123] Dr. McBride's experiment was conducted for just 13 weeks.

extrapolating to a full year, the information in Dr. McBride's Table 1 implies that Pandora would be expected [redacted]

147. These estimates are quite conservative. For example, were one to estimate the yearly effect by using the [redacted]] during the 13-week period rather than the average, Pandora's estimated cost of steering away from UMG [redacted]

148. Note further that when Pandora steers *away* from one label (UMG, for example), it must be steering *towards* other labels by a corresponding amount. As Dr. McBride's Table 1 demonstrates[, [redacted]]

149. It is important to give note to the experiments that were apparently not performed (or reported). The McBride experiments steer away from *individual* majors. There are no reported experiments measuring the effects of steering away from all the majors simultaneously. If spins were steered away from all three majors at the same time, the results in Dr. McBride's Table 1 would tend to [redacted]

150. Dr. McBride likewise did not report the effects of 100% steering away from any major. From Pandora's own experiments it is evident that steering 100% away from a major label, i.e., not streaming the catalog of that label at all, would [[redacted]

[124] Consider the 'thought experiment' in which UMG is steered by -30% and Sony plus Warner (which together are roughly the size of UMG) are steered by +30%. Because the effects in McBride's Table 1 for steering away from UMG, for example, already include some steering toward Sony and Warner, it is not conservative to simply add the effects of steering away from UMG and towards Sony in the Exhibit (the Warner effect is not statistically significant) to conclude that the effects of these simultaneous steers would result in [[redacted]

151. Therefore, the sum of the three average 13-week effects for the 30% steering away for each of the three majors *individually* is likely a very conservative estimate of the effects on Pandora's profits of steering 30% away from all three *simultaneously* for a more extended period.

152. It is likewise not clear from Pandora's experiment whether listeners were aware of the steering. Assuming a lack of awareness, it is not surprising that listeners who had revealed a preference for Pandora in the first place would continue to follow Pandora when steered. That listeners were unaware of the experiment diminishes the significance of the results. In the actual marketplace, consumers would be deterred from listening to a service if they knew that certain desired content was being steered away from them. And if consumers knew that a streaming service lacked a major label's entire repertoire, this effect would be even more pronounced, and the impact on the service's business would likely be devastating.

153. To sum up, Pandora's own steering experiments demonstrate that the major label's repertoires are "must haves" for non-interactive services. As a result, in the hypothetical negotiation for a blanket license, a service's limited ability to steer would have little practical impact. Under the willing buyer/willing seller standard, which again involves a blanket license for *all* of a copyright owner's catalog (and not some or part of it), Universal, for example, could use as leverage its ability to withhold its entire catalog, which would leave Pandora in a similar bargaining situation as Spotify would be in the interactive space. In other words, the implicit threat to steer away from content of a major label would likely play only a modest role in any hypothetical negotiation.

154. Thus, the very bargaining dynamic that the Services challenge in the interactive context as leading to purportedly supra-competitive rates (which, as discussed above, I disagree with) would continue to exist in the non-interactive context in the hypothetical world of a willing buyer/willing seller, assuming no statutory license.

8 -- Steering is also relevant in the interactive space.

155. The ability of non-interactive services like Pandora to steer listeners to certain content is not unique to the non-interactive space. Interactive services also have the ability to steer listeners to featured playlists, in which the service itself would have the discretion to choose which labels' content to feature on such playlists. Indeed, the lean-back model is an increasingly important feature offering of interactive services.[125]

[125] See, e.g., Randall Roberts, Music Streaming Services Unleash a Torrent of Digital Playlists (April 1, 2014), http://www.latimes.com/entertainment/music/la-et-ms-music-streaming-20140803-column.html#page=1 (accessed February 17, 2015).

156. Thus, to the extent the ability of a service to steer is relevant to the competitiveness of the market, the same steering ability exists in the interactive streaming context.

9 -- The interactivity adjustment would account for any "supra-competitive" pricing in the interactive market.

157. Assuming solely for purposes of argument that the nominal rates in the interactive agreements were thought to be "supra-competitive," then the interactivity adjustment that I have applied to those rates to bring them to the non-interactive level would tend to remove the effects of any non-competitive forces which are unique to that space.

B. My Reliance on Rates Applicable to Paid Interactive Services Is Reasonable

158. Professors Fischel/Lichtman and Professor Katz argue that the use of the interactive benchmark is flawed in part because interactive and non-interactive services have different business models and this biases the projected rate upwards.[126] Professor Katz, for example, notes that subscription services have generated higher revenues per play than ad-supported services.[127] In essence, they argue that interactive and non-interactive services represent different commodities in the market place. For several reasons, I disagree with them.

159. It is correct that ad-based models are not currently as profitable for services as are subscription-based models. However, it does not follow that this creates bias in my analysis. To show bias in favor of the labels, one would have to show that using a similar methodological approach to analyze ad-based models would lead to a lower set of benchmark rates.

160. At the outset, the on-demand services that I have analyzed do not rely entirely on subscription revenues. To illustrate, some on-demand services have free ad-supported offerings which they use to motivate paid subscriptions. Spotify, Rdio and Slacker all have free ad-supported tiers (some with on-demand functionality, others "radio" services) to motivate paid subscriptions. Other on-demand services such as Rhapsody may offer free trials but do not have a free ad-supported tier. My existing analysis thus already incorporates the rates charged for these "free" service offerings.

161. Moreover, and as discussed in greater detail in Section E below, when one focuses solely on the rates applicable to free, ad-supported tiers offered by the Category A set of interactive services, some of which involve less functionality than full on-demand (comparable to customizable non-interactive services), those rates

[126] Amended Fischel and Lichtman Report, ¶¶ 88-90.

[127] Katz Report, ¶¶ 53-55.

[redacted], which would start at $.0025 in the year 2016.

162. For example, Beats offers a free ad-supported, non-interactive service called the "Sentence." Absent [redacted] the rates agreed to between Beats and Universal, Sony, Warner, as well as Merlin and the independent record company, Beggars Group, range from [redacted] in 2014.

163. Similarly, Spotify offers a free, ad-supported tier, which has more limited on-demand functionality for mobile (limited to "shuffling" particular albums, but not choosing the tracks of any particular song). The Shuffle functionality does not allow users to pick particular songs, but does allow them to hear a mix of an artist's album or the artist plus similar tracks; it also limits the number of skips to six per hour. The rates agreed to between Spotify and Universal, Sony, Warner, as well as Merlin for this limited-functionality Spotify free service are [redacted]

164. Separately, I have compared the average revenue per user ("ARPU") of interactive and non-interactive ad-supported services. Based on that analysis, I see no need to make further adjustments to the rates applicable to free ad-supported services offered by the Category A set of services.

165. The differences in ARPUs reflect not only the inherent value of ads per minute (e.g., on Spotify vs. Pandora), but also the frequency and obtrusiveness of the ads.[128] Furthermore, differences in these ARPUs will reflect differences in business models of the services and not differences that are solely reflective of an appropriate interactivity adjustment.

166. To make an apples-to-apples comparison, one would have to look at the price of an ad per person and then adjust the ARPUs by removing the differences that result purely from serving more ads (and/or more obtrusive ads). After this adjustment, if the ads for each service were inherently equally valuable (measured on a per-minute per-person basis), the appropriately adjusted implied "interactivity factor" using ARPUs would equal 1. If the ads were not equally valuable, the ratio of the adjusted ARPUs would be different from one. If it were possible to separate these elements, such a ratio could serve to form an interactivity adjustment.

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[128] To illustrate, suppose one service adopted a business strategy of sacrificing ad revenue in the present in order to build and lock in their listener base, in order to enable "monetization" in the future. This service would emphasize free subscriptions and have relatively few and relatively unobtrusive ads. In contrast, another service could adopt a business model of using its free service to recruit new listeners, and then motivate new listeners to convert to its paid, ad-free service. Consequently, such a service would likely choose to present free service listeners with more obtrusive and more frequent ads. One would need to adjust the revenues from the two types of services to reflect these differences, if one wanted to have an apples-to-apples comparison.

167. Using a methodology that is analogous to the computations made with respect to paid services, Exhibit 14 computes an adjustment using the ARPU of ad-supported services.

168. Exhibit 14A shows the estimated ARPUs for Pandora and Spotify for their ad-supported services only. Exhibit 14B shows that the ratio of Spotify's ARPU to Pandora's for the period running from the third quarter of 2011 to the third quarter of 2014 is [redacted]. If one restricts attention to the period from the third quarter of 2013 to the second quarter of 2014 – the period used in the calculations leading to the rate proposal in my initial report – the ratio [redacted][129]

169. This analysis confirms that the interactive benchmark rates derived in my initial report are conservative. The interactivity factor of 2.0 was derived from the ratio of ad-free paid services' subscription prices (their ARPUs). This factor was then applied to the weighted average rates from the free and paid interactive service offerings. If one were to use this 2.0 factor to adjust rates from paid offerings only, and separately used [[redacted] to adjust rates from free offerings, the resulting weighted average benchmark rates would exceed the rates that I proposed.

C. My Reliance on Subscription Prices To Set the Interactivity Adjustment Is Reasonable

170. In my initial report, I computed an interactivity adjustment using the market subscription prices of paid interactive and non-interactive services. I continue to believe in the validity of an interactivity ratio computed using data from paid services.

171. I continue to believe that a comparison of subscription prices is appropriate. The comparison of subscription rates is an apples-to-apples comparison. Because paid services have zero ads, the ratio of prices (interactive/non-interactive) offers an appropriate basis upon which to measure the interactivity adjustment.

172. The data also reveal a strong correlation between services' consumer subscription prices and the licensing rates they pay to labels. All else equal, the interactivity adjustment sets statutory rates that represent the same fraction of subscription prices as paid by the on-demand services in Category A.[130] As shown in Exhibit 15, although various on-demand services are offered at a variety of prices in the marketplace, the royalties paid represent a nearly constant percentage of those service

[129] I note that these figures are based on U.S. performance data. The performance data Spotify reports to labels are likely to be more current and more accurate than information available on the Internet. Spotify's website states that its 2013 ARPU was $41 per user (http://www.spotifyartists.com/spotify-explained/, accessed January 31, 2015). In contrast, I estimate Spotify's ARPU to be about [redacted] using [redacted] of performance data. If one used the published $41 estimate (which might not have the same definition of "user," "revenue," or geography, and covers a different time period), one would obtain an estimate of 1.88 for the interactivity factor.

[130] For an overview, see Rubinfeld Report, ¶¶ 19 and 20.

offerings' revenues. Consistent with the 55% revenue share proposed in my initial report,[131] nearly all the percentages are in the [redacted] interval. As was shown in Exhibit 12D, differences in these percentages appear to be concentrated among the services with the smallest content fees.

173. Additionally, I have chosen to rely in part on the conjoint study of Professor McFadden, an approach that in this instance is highly reliable. As I described in my direct report,[132] the results of the conjoint study demonstrate that my interactivity adjustment was reasonable.[133]

174. Finally, this point is less important today than in prior webcaster proceedings, given that there has been convergence between interactive and non-interactive services.[134]

D. My Treatment of the Independent Record Labels is Appropriate

175. Professors Fischel/Lichtman[135] argue that prior interactive benchmark analyses were flawed because they did not account for the independent recording labels. That criticism is not apt with respect my analysis, which did include the Indies. To analyze this issue, I conservatively assumed that independent deals carry the same minimum per-play rates as those offered to majors, but without the "goodies" the majors would demand and expect – including equity stakes, advertising, minimum guarantees, or non-recoupable payments. In essence, the Indies were assumed to receive effective rates equal to the minimum per-play rates obtained by the majors. This is conservative because [redacted]], and (b) the Indies are likely to have a higher percentage of plays on interactive services.[136] I found that some Indies obtained lower royalties and some higher.[137]

176. iHeartMedia's direct licenses with 27 independent labels confirms that my treatment of Indies was appropriate. Exhibit 10 compared the terms of these licenses to the Warner agreement. The exhibit shows that my previous assumptions were reasonable. [redacted]

[131] Rubinfeld Report, ¶ 32.

[132] See Testimony of Daniel L. McFadden, ¶¶ 54-62.

[133] Rubinfeld Report, ¶¶ 171, 209-210.

[134] Rubinfeld Report, ¶¶ 52-63.

[135] Amended Fischel and Lichtman Report, ¶¶ 56-68 and 92.

[136] The independent recording labels represented approximately 24 percent of all streamed music on the interactive services I have examined. Rubinfeld Report ¶ 225.

[137] See Rubinfeld Report, ¶¶ 221-222.

[redacted]

E. Additional Market Evidence Corroborates SoundExchange's Proposal

177. As noted, Professors Shapiro, Katz, and Fischel/Lichtman have all criticized the prior use of licenses that include on-demand functionality, primarily because they are skeptical about whether one can properly adjust for the value of interactivity and more generally because they are critical of the use of on-demand subscription offerings as benchmarks. I have responded to these criticisms previously.

178. In the sections that follow, I will delve more deeply into several recent licensing agreements for non-interactive and/or ad-supported services showing that they corroborate the rates proposed by SoundExchange. The examples will further confirm my proposed interactivity adjustments because the range of rates for these offerings closely adheres to the rates determined by my analysis of the adjusted rates suggested by on-demand licenses as a whole. Finally, this licensing analysis responds directly to the benchmarks proposed by Pandora and iHeartMedia because it demonstrates that there are market rates negotiated for non-interactive plays that are substantially higher than the deals Pandora and iHeartMedia have presented.

1 -- Beats Music's "The Sentence" rates confirm my analysis.

179. Beats Music ("Beats") launched a music streaming subscription service in the U.S. on January 21st, 2014.[138] While Beats is principally a subscription offering, it announced at the time of launch that it would offer a free feature referred to as "The Sentence" with the expectation that it would encourage people to subscribe to the service.[139] "The Sentence" provided consumers the opportunity to enter a location, mood, setting, and genre and then listen to music curated by the service.[140] This type of mood-based curation is similar to other non-interactive customized services such as Songza.[141] For example the free version of "The Sentence" limits the number of skips a user can make.[142] As a result, the free version of "The Sentence" provides

[138] Beats Music is Here, (January 10, 2014), http://www.beatsbydre.com/on/demandware.store/Sites-beats-Site/en_US/NewsAndPressReleaseShowArticleContent?articleID=2014_PR_Beats_Music_Launch&fdid=company-news (accessed February 22, 2015); Miriam Coleman, Beats Music Launching Streaming Service January 21st, Rolling Stone (January 11, 2014), http://www.rollingstone.com/music/news/beats-music-launching-streaming-service-january-21st-20140111 (accessed February 22, 2015).

[139] Walt Mossberg, Beats Music Streams With a Human Touch (January 21, 2014), http://recode.net/2014/01/21/beats-music-streams-with-a-human-touch/ (accessed February 22, 2015).

[140] *Id.*

[141] Karis Hustad, Beats Music Streaming Hits a Surprise Speed Bump (January 24, 2014), http://www.csmonitor.com/Innovation/2014/0124/Beats-Music-streaming-hits-a-surprise-speed-bump (accessed February 22, 2015).

[142] Walt Mossberg, Beats Music Streams With a Human Touch (January 21, 2014), http://recode.net/2014/01/21/beats-music-streams-with-a-human-touch/ (accessed February 22, 2015).

directly comparable functionality to services that were utilizing the statutory webcasting license. The rates related to the Beats "The Sentence" offering therefore strongly corroborate the SoundExchange rate proposal.

180. [redacted]

181. [redacted] To the extent that Professors Katz, Shapiro, and Fischel/Lichtman criticize my analysis for relying on subscription plays, that criticism would not apply to the free offering of "The Sentence" feature.

182. "The Sentence" rates are also informative because they expressly contemplate [redacted]

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143 [redacted]

144 [redacted]

145 [redacted]

[redacted] Exhibit 16 shows the applicable per-play rates that Beats pays under its licenses with Universal, Sony, Warner, Merlin, and the Beggars Group.

183. Given that the statutory license does not [redacted]. Those rates are as follows:

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

184. Thus, [redacted], the rates agreed to between Beats and Universal, Sony, Warner, [[redacted] range from [redacted] per play in 2014. This is consistent with the rates proposed by SoundExchange, [[redacted]

185. These rates are less subject to the potential distorting effect of the shadow of the statutory license than the benchmarks proposed by Pandora and iHeartMedia. When a proposed benchmark license is directly impacted by the existence of the statutory license, this severely limits the value of that license as a comparable benchmark. That effect is likely most acute when the core service can opt to operate under the statutory license, as Pandora and iHeartMedia have done and continue to do. By contrast, the Beats "The Sentence" rates are more immune to the statutory shadow effect because these [redacted]

186. Finally, the Beats "The Sentence" rates offer a valuable comparable for additional reasons. The rates were all negotiated in early 2014, providing relatively recent evidence. The agreements I have analyzed include licenses with the three major record labels and independent record labels – including a prominent independent record group that negotiates many direct deals and also the independent rights collective (Merlin) that negotiated the license Pandora proposes for a benchmark.

187. Furthermore, Beats was a new entrant that had market clout because of its ties to the industry and its celebrity attention. Also, like many non-interactive services, Beats emphasizes curation as a means of providing provide a better listener experience. Finally, at its launch, Beats was seen as a competitive threat to Pandora.[146]

188. These Beats "The Sentence" rates are yet another reason to view the SoundExchange rate proposal as conservative. The agreements show that [redacted] Given that subscription on-demand revenue is likely to become increasingly important over time, it is reasonable to expect that a willing seller will, over time, [redacted]

189. To sum up, the rates that enable the free-to-consumer version of "The Sentence" offer a valuable comparable for determining the benchmark value of a non-interactive play in the market. They are per-play rates for a service for plays that have the same (or even less) customization as statutory licensees. While the overall Beats license includes on-demand plays, and therefore is less influenced by the shadow of the statutory license, the particular free-to-consumer "The Sentence" offering is outside of the subscription model. [redacted] Finally, the service is relatively recent, involves sophisticated willing buyers and sellers, and involved a prominent entrant into the music streaming market.

2 -- Additional non-interactive rates corroborate my analysis.

190. While the Beats "The Sentence" rates are very strong corroborative evidence of the reasonableness of SoundExchange's rate proposal, there are other non-interactive offerings or tiers of services that are not on-demand and non-subscription based that also confirm my analysis.

(1) See Appendix 2

(2) Spotify Free Tier

191. In addition to its subscription-based service offering, Spotify offers a free, ad-supported service. The vast majority of Spotify's users use only the free ad-supported service. Of Spotify's 60 million active users, approximately 75%, or 45 million, are active users of the free service.[147]

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[146] See, e.g., Jason Abbruzzese, Spotify and Pandora Brace for Beats Music to Drop (January 16, 2014), http://mashable.com/2014/01/16/spotify-removes-time-limits/(accessed February 22, 2015).

[147] Information, Spotify.com, https://press.spotify.com/us/information/ (accessed February 22, 2015).

192. Spotify's ad-supported service is available on mobile phones, tablets, and desktop computers. Spotify's free service on mobile phones, released in December 2013, does not have full on-demand functionality, but instead offers a "Shuffle" service.[148] The Shuffle functionality does not allow users to pick particular songs, but does allow them to hear a mix of an artist's album or the artist plus similar tracks; it also limits the number of skips to six per hour.[149] Commentators have described the Spotify free mobile service as similar to that offered by non-interactive customizable services such as Pandora.[150] Spotify has reported that 42% of user listening on its free service occurs through the mobile phone service.[151]

193. The stated per-play rate applicable to plays on Spotify's free ad-supported service for [redacted].[152] This rate further corroborates the reasonableness of my rate proposal, which starts at $.0025 for 2016.

194. As noted, the [[redacted] rate applies to the free, advertising-only tier of Spotify, and thus escapes the criticism of Professors Shapiro and Katz concerning rates that apply to subscription-based services (with which, as noted above, I disagree). Further, like the Beats "The Sentence" service, Spotify's free service is intended as a [[redacted][153]

195. The Spotify free rate is not broken down by [redacted]], as is the case with the Beats "The Sentence" rates. One can reasonably assume that the rate of [redacted] is lower than it would be if the Spotify free service did not [redacted]. Thus, it is conservative to use the [redacted]] rate as a confirmatory benchmark as applied to a non-interactive, ad-supported service (such as Pandora) which [redacted]

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[148] Candice Katz, Music for Everyone. Now Free on Your Mobile, Spotify.com (December 11, 2013), https://news.spotify.com/us/2013/12/11/music-for-everyone-now-free-on-your-mobile/ (accessed February 22, 2015).

[149] Spotify Free on Your Mobile Phone, Spotify Help, https://support.spotify.com/us/learn-more/guides/#!/article/spotify-free-on-your-mobile-phone (accessed February 22, 2015).

[150] Dan Rowinski, Every Day It's Shufflin': Spotify Still Limits Mobile Music (December 11, 2013), http://readwrite.com/2013/12/11/spotify-free-shuffle-mobile-play-android-ios (noting that "Spotify Shuffle for free on mobile devices is akin to other music streaming apps like Pandora or Rdio."); Lizzie Robinson, Faceoff: Spotify vs. Pandora (September 4, 2013), http://blog.zagg.com/faceoff-spotify-vs-pandora/ ("The mobile app for Spotify is very similar to Pandora if you are using the Free Membership.").

[151] Josh Constine, Spotify Makes the Shift to Mobile with 52% of Listening Now on Phones and Tablets (January 10, 2015), http://techcrunch.com/2015/01/10/music-is-a-mobile-linchpin/.

[152] [redacted]

[153] Daniel Ek, $2 Billion and Counting (November 11, 2014), https://news.spotify.com/us/2014/11/11/2-billion-and-counting/ (accessed February 22, 2015) (Spotify CEO noting that "Our free service drives our paid service.").

Finally, the rate applies to a free mobile service offering which offers functionality generally similar to that offered by non-interactive services such as Pandora.

(3) Rhapsody "unRadio"

196. Another confirmatory benchmark is the per-play rate that applies to Rhapsody's "unRadio" service, introduced in June 2014.[154] unRadio is a mobile and web-based non-interactive streaming service that offers personalized radio based on users' favorite artists or tracks, with unlimited skips. In terms of functionality, it is very similar to customizable services like Pandora. Rhapsody offers a 14-day free trial for the service, followed by a subscription price of $4.99 per month.[155]

197. [redacted]

198. Given that unRadio is a non-interactive service with the equal purported ability to steer listeners (no different than Pandora), the arguments of Professors Shapiro and Katz regarding the complementary nature of major labels' catalogs would not apply to it (to be sure, as noted above, I believe that even such arguments equally would apply for non-interactive services). The Rhapsody unRadio rates further confirm the reasonableness of my rate proposal.

(4) MixRadio (Nokia)

199. As noted in my written direct testimony, Nokia has offered a free-to-consumer non-interactive radio service, MixRadio, to purchasers of Nokia devices in the U.S. since the fall of 2012. The radio service can be customized by users to take into account their personal tastes. The service does not have advertisements, and appears to be near-DMCA compliant, except that it permits users to play cached radio stations

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[154] Yinka Adegoke, Rhapsody Wants You To Pay for Radio (June 18, 2014), http://www.billboard.com/biz/articles/news/digital-and-mobile/6121651/rhapsody-unradio-t-mobile-pay-for-radio (accessed February 22, 2015).

[155] http://www.rhapsody.com/pricing.

[156] [redacted]

[157] [redacted]

[158] [redacted]

via Nokia devices while offline.[159] MixRadio also has a premium service offering for $3.99 a month that provides unlimited track-skipping, unlimited offline mixes, and high-quality audio, and which is also available on PCs.[160]

200. Nokia has license agreements with [redacted]

201. The Nokia agreements also serve as confirmatory benchmark evidence. Nokia offers a non-interactive, customized streaming service comparable to Pandora and others operating under the statutory license, which likewise offers Nokia the ability to "steer" the content it plays on the service. Moreover, Nokia offers a non-subscription, free service, albeit one tied to the sale of Nokia devices. The Nokia per-play rate of [redacted] the opening rate of $.0025 in my rate proposal for 2016, further confirming the reasonableness of my proposal.

IV. Response to Other Issues

202. In this section, I respond to various other issues that are implicated by the Services' direct case submission.

A. A Unitary Commercial Rate is Appropriate

203. On behalf of Pandora, Professor Shapiro has proposed different per-play rates for paid and free services. I see this as unnecessary and restrictive. The streaming marketplace is dynamic in nature due to entry of large players (iHeartMedia, Apple, Google, Amazon).[161] Moreover, services such as Pandora and Spotify tend to compete on the basis of innovation.[162] My proposal currently accommodates a variety of business models because it sets the "greater-of" a minimum per play rate and a percentage of revenue. It is possible, for example, that many "free" services would pay the minimum per-play rate, whereas many "paid" services would pay according to the percentage of revenue branch.

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[159] MixRadio Your own personal radio station, Microsoft, http://www.microsoft.com/enus/mobile/apps/app/mixradio/.

[160] *Id.*; Get Into The Groove, Mix Radio, http://www mixrad.io/us/en/offer; MixRadio, Microsoft, http://apps.microsoft.com/windows/en-us/app/mixradio/4e9de0ba-ed72-4ffc-866d-cf964def6ddf.

[161] Rubinfeld Report, ¶¶ 43-44, and Exhibit 2.

[162] See Mark Mulligan, "Global Digital Music Services Benchmark - The Digital Music Marketplace," MIDiA Insights & Decisions in Action, September 2014, pp. 10 and 21.

204. Moreover, to segment in the way that Pandora proposes is entirely inconsistent with how rates would be negotiated by willing buyers and sellers in the market. It is unreasonable to suggest that sellers in the market would willingly subsidize a service's business decision to rely on advertising rather than subscription revenue. In the market, a reduced rate for free services would likely only arise in conjunction with a conversion incentive to subscription plan revenue, such as where the streaming service limits certain functionality in the free service offering (e.g., on mobile) or increases over time the ad load to the non-subscriber user. But such incentive structures are not part of the statutory license. And as discussed above, I see no material difference in the Category A set of benchmark agreements between the rates that apply to their free ad-supported services and the rates in my rate proposal.

205. The NAB's direct case proposes segmentation of a different sort. By proposing broadcaster-specific rates and terms, it implicitly suggests that simulcasters should be subject to their own distinct rate under the statutory license. I also disagree with rate segmentation based on functionality.

206. From an economic perspective, it would be most prudent for the CRB to set a statutory rate that is based on the value of the full functionality permitted by the statutory license. It is unnecessary to set multiple default rates for different commercial market segments. If it turns out that there are distinct segments of the market for which this default rate is too high, it will be in the interest of both the services and the labels to negotiate a direct deal. In other words, if there is market demand for segmentation, the market will use the bargaining process to effectively achieve segmentation that is in the interest of both services and labels.

207. Moreover, it would be difficult for the CRB to set different rates for different kinds of services given how difficult it would be to draw clear lines. Functionality is not a reasonable metric by which to segment the webcasting market for a five-year statutory license term because functionality – and consumer preferences – are constantly evolving.

208. I also have not seen compelling evidence of the differences in demand elasticities among distinct segments of services. Such evidence would be essential if the CRB were to set different rates for different commercial segments. That said, it is important to keep in mind that the relevant elasticity relates to the demand for the "blanket" license that is at issue here, not the elasticity of demand for individual or particular songs.

209. Special treatment for simulcasters would also be inappropriate because simulcasters directly compete with webcasters for both listeners and advertisers. They do not occupy a distinct submarket. Moreover, many simulcasters offer added functionality, including substituting particular songs from terrestrial radio and offering localized advertising, distinguishing them from "pure" simulcasters and making it more challenging to draw segmented lines based on functionality. And

applications already exist that essentially convert simulcasts into "on-demand radio."[163] For example, a user can search iHeartRadio's simulcast service by genre and/or geographic area, and all simulcast stations responsive to that search will appear to the user, along with the songs currently being played on those stations. This allows the user to immediately listen to the searched-for song. Apps like TuneIn Radio offer similar functionality. These simulcasting services are competing more with on-demand services like Spotify by allowing users to search for and play specific tracks, rendering them fundamentally different from terrestrial radio.

210. The lines between simulcasters and other webcasters will likely continue to blur during the next rate period. To allow simulcasters to pay a lower statutory rate would give them an unfair competitive advantage.

211. Furthermore, a rate segmented based on functionality could invite strategic behavior and gamesmanship. [redacted]] If simulcasters were subject to a distinct rate, other webcasters would inevitably attempt similar tactics to reduce their royalty obligations. The line between categories in this space are indistinct. In my view, to set distinct rates based on such blurry lines would be imprudent.

B. The Services' Proposals Dramatically Depart from Prevailing Statutory Rates

212. It is worth noting that that there is a sizeable gap between the current statutory rate and the Services' rate proposals. This gap in and of itself should raise concerns about the propriety of the Services' benchmarks.[165] In short, I see no sound basis for such a dramatic departure from the CRB's rate-setting precedent.

213. In contrast, my rate proposal sets forth a 'greater of' structure that includes per-play rates that are close to the current statutory rates. The webcasting industry has grown rapidly during the current rate period and there is every reason to believe that the growth will continue into the foreseeable future. A substantial reduction in current rates is not essential to support the continued growth and development of the webcasting industry.

214. Pandora is likely to point to a different gap – the one between SoundExchange's proposed rates and its current pureplay rates. But the pureplay rates are an irrelevant reference point. As explained in my first report, the pureplay rates were expressly

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[163] See, Jeffrey Van Camp, TuneIn Is Doing for Radio What Spotify Did for Music, and We Love It (May 7 2014), http://www.digitaltrends.com/music/tunein-review-and-interview/.

[164] Amended Fischel Lichtman Report, ¶ 64, n.64.

[165] *Id.*

designated as non-precedential, non-market agreements.[166] Moreover, a departure in this direction would not raise as many concerns. If it were to turn out that the statutory rates set near current levels by the CRB were thought to be too high by the labels and/or the services, both would have the incentives and capabilities to once again negotiate lower rates.

215. Indeed, Pandora has stated that if the statutory rate is set higher than it has proposed, then it can negotiate direct deals with rights holders.[167] This is consistent with a view that I expressed in my initial report – if the statutory rate is higher than appropriate, then the parties can and will negotiate lower rates. But if the statutory rate is lower than appropriate, music services have no incentive to negotiate higher rates.[168]

216. The Services' experts – particularly Professors Katz and Fischel/Lichtman – suggest that a departure from current rates is warranted because their benchmarks are "better evidence" than the evidence the CRB had available to it in prior proceedings.[169] I disagree with this characterization. As I have already explained in Section II, the Services' benchmark evidence is thin and ultimately uninformative. In the two sections below I further demonstrate that the CRB has appropriately relied on available evidence to set rates.

C. WSA Agreements

217. While the 2009 Webcaster Settlement Act ("WSA") agreements were negotiated in a unique context that differs from the hypothetical market at issue here, I agree with the CRB's conclusion that these deals are nevertheless instructive. They constitute arm's-length negotiations between non-interactive services and the recording labels, albeit in the shadow of the statutory rates.

218. The world of bilateral monopoly offers a reasonable characterization of the WSA agreements. The Web III Remand's commentary supports this view. The Remand quotes Web II as stating, "[T]he question of competition is not confined to an examination of the seller's side of the market alone. Rather, it is concerned with whether market prices can be unduly influenced by sellers' power or buyers' power in the market."[170] The CRB goes on to say that … "the evidence demonstrates that sufficient competitive factors existed to permit the WSA Agreements to serve as

[166] Rubinfeld Report, ¶ 30.

[167] See, Thomson Reuters Transcript, "NOVEMBER 18, 2014 / 10:00PM, P - Pandora Media Inc. Conference Call to Discuss Web IV Proceeding," p. 14. Available online at http://phx.corporate-ir.net/External.File?t=1&item=VHlwZT0yfFBhcmVudElEPTUxNzQ5MTJ8Q2hpbGRJRD01NjI4ODM= (accessed February 21, 2015).

[168] Rubinfeld Report, ¶ 90.

[169] Amended Fischel and Lichtman Report, ¶ 13; *see also* Katz Report, ¶ 44.

[170] Web III Remand at 23102.

useful benchmarks, and does not demonstrate that the rates in the WSA Agreements approximated monopoly rates."[171]

219. Professor Katz discounts the WSA agreements, arguing that SoundExchange acted as a monopolist in reaching the agreements with the NAB and Sirius XM.[172] I disagree.

220. That SoundExchange negotiated collectively on behalf of the record companies does not mean that SoundExchange exercised monopoly power or that the negotiation did not yield competitive rates. While SoundExchange did play a significant role in reaching these agreements, Professor Katz has not shown that SoundExchange was acting as would a classic monopolist. In reality, from my understanding, SoundExchange was representing a multitude of interests.[173]

221. Furthermore, SoundExchange was acting pursuant to Congressional authority to collectively negotiate rate relief for services. Indeed, not only did Congress authorize SoundExchange to negotiate settlements, it expressly encouraged SoundExchange to do so. Just like the first Webcaster Settlement Act of 2002, the WSA of 2009 expressed "the strong encouragement of Congress to reach an accommodation with . . . webcasters on an expedited basis."[174]

222. Even if SoundExchange were a monopolist (which I disagree with), as a practical matter SoundExchange could not extract monopoly rents because it was constrained by the statutory rates. In other words, the ceiling of negotiations was the willing buyer/willing seller rate set by the CRB in Web II, which was not a monopoly rate.

223. The terms of the settlement also demonstrate that SoundExchange did not unilaterally dictate rates and terms. Instead, both Sirius XM and the NAB were able to negotiate discounts from the prevailing statutory rate.[175] The NAB also directly negotiated waivers of certain statutory licensing requirements from the individual labels.[176]

224. Moreover, as the CRB observed, the record shows evidence of countervailing market power on the part of both Sirius XM and the NAB.[177] The NAB negotiated on behalf of a large group of broadcasters that collectively contributed a substantial portion of the royalty payments paid to SoundExchange in 2008.[178] Similarly, Sirius

[171] *Id.*

[172] Katz Report, ¶ 36.

[173] See Huppe WRT ¶ 20.

[174] See Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, § 2(3), 116 Stat. 2780, 2780.

[175] Huppe WRT ¶¶ 11, 29; Huppe WRT Ex. 2, 5.

[176] Huppe WRT ¶ 17.

[177] Web III Remand, 79 FR 23114.

[178] Ordover Web III WRT, ¶ 46.

XM likely derived bargaining leverage as a function of its key role in the broader industry landscape – i.e., Sirius XM's satellite radio service generates a significant revenue stream.[179] Professor Katz purports to demonstrate that a large buyer would be unable to offset monopoly power and obtain a "competitive price."[180] However, his "demonstration" of this point in his Appendix A is based on a specialized model and does not generalize. Among other things, Professor Katz narrowly defines "competitive price" as "closer to the perfectly competitive price than to the monopoly price." But, as the Web III Remand points out, "[b]etween the extremes of a market with 'metaphysically perfect competition' and a monopoly (or collusive oligopoly) market devoid of competition there exists '[in] the real world . . . a mind-boggling array of different markets . . . , all of which possess varying characteristics of a 'competitive marketplace.'"[181] Moreover, if there is true countervailing monopoly and monopsony power, the division of the bargaining surplus will be indeterminate.[182]

225. In addition, as both NAB and Sirius XM have testified in this proceeding, their programming consists of a significant amount of non-music content, and webcasting is an ancillary part of their businesses.[183] Because they are not reliant on music streaming, both the NAB and Sirius XM could credibly threaten to cut back (or even eliminate) their use of the sellers' content.

226. Perhaps most importantly, the bargaining surrounding those agreements was not a take-it-or-leave-it scenario as Professor Katz suggests.[184] No party was forced to agree to a settlement under the WSA. If the final offer that was on the table was unreasonable, both Sirius XM and the NAB could have opted to approach the individual labels to negotiate direct deals. In other words, SoundExchange was not the only licensor of digital performance rights with whom NAB and Sirius XM could negotiate. The fact that the NAB and Sirius XM instead elected to negotiate a settlement agreement with SoundExchange indicates that they believed the rates they had negotiated were no worse than the rate (on average) they could have individually negotiated with the various labels.

227. Of course, the NAB and Sirius XM also had the option to participate in the next rate-setting proceeding or, at the very least, to avail themselves of the market rate that would be established in that proceeding. Again, that they instead elected to negotiate a settlement suggests that they believed that the rates reasonably represented the statutory willing buyer/willing seller rate.

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[179] See SDARS II, 78 FR 23065.

[180] Katz Report, ¶¶ 37-39.

[181] Web III Remand, footnote 37.

[182] See, e.g., Pindyck and Rubinfeld, *Microeconomics*, 8th Edition, Chapter 10.

[183] Frear WDT, ¶ 29; Newberry WDT, ¶ 11.

[184] Katz Report, ¶ 74.

228. In my view, the Services' testimony regarding their financial difficulties[185] at the time of the negotiations does not diminish the instructive value of the settlements to which they willingly agreed. Indeed, normally one would expect such financial difficulties to reduce – not increase – the Services' willingness to pay. In sum, as the CRB observed in Web III, the fact that many entities opted into both settlements supports my view that the rates were reasonable.[186]

D. Critiques of the Pelcovits Methodology

229. The experts for the Services levy a number of attacks on the methodology Dr. Pelcovits used to conduct his interactive benchmark analysis in Web II and Web III.

230. I have addressed many of the Services' criticisms of Dr. Pelcovits' use of an interactive benchmark in Section III. Their remaining methodological critiques do not apply to my analysis.

231. Dr. Pelcovits used two methods to adjust for interactivity. The first method involved a comparison of retail prices of on-demand and non-interactive subscription services. While I utilize retail subscription prices in calculating my interactivity adjustment, my approach is different from that of Dr. Pelcovits. To evaluate the reasonableness of focusing on subscription prices, I reviewed the free ad-supported tier (and free trial periods) and concluded that many more users pick Pandora free than Spotify free;[187] this suggests Pandora free is more highly valued than Spotify free. However, to be conservative I did not account for this fact in making my interactivity adjustment. In Section III.B, I described my analysis of ad-supported services and its implication for the interactivity adjustment. I note also that advertising revenues vary depending on the business model of the services; without accounting for the different business models, one can draw inappropriate conclusions.

232. The second methodology Dr. Pelcovits used to estimate an interactivity adjustment relied on the use of a hedonic regression. Any critique of this approach is moot here, since I have not relied on hedonic regressions in my analysis. I chose not to use the hedonic method primarily because there were not sufficient data to support a reliable study. Rather, I have chosen to rely in part on the conjoint study of Professor McFadden,[188] an approach that has similar goals to that of a hedonic analysis and (in this instance) is highly reliable. As I described in my report, the results of the conjoint study demonstrate that my interactivity adjustment was reasonable.[189]

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[185] Frear WDT, ¶¶ 38-45; Newberry WDT, ¶ 23.

[186] Web III Remand at 23111.

[187] Rubinfeld Report, ¶ 47.

[188] See generally Testimony of Daniel L. McFadden.

[189] Rubinfeld Report, ¶ 171.

233. Professor Katz also argues that the market was not in equilibrium during the period of Dr. Pelcovits' interactive benchmark analysis.[190] Whether a market can be considered to be in equilibrium is a difficult question that is unnecessary to address here. I note, however, that the parties were no doubt aware that the market was dynamic and evolving. This would have been accounted for in the contracts that were negotiated.

234. It is important to note that the CRB itself raised a number of specific criticisms of the calculations of Dr. Pelcovits in Web III. As a result, the rate set by the CRB was not biased by any mistakes in the Pelcovits methodology. Despite the imperfection in the Pelcovits approach, the CRB agreed that "it is appropriate to rely on benchmarks to estimate rates in this section 114 proceeding" and that "it was proper for Dr. Pelcovits to use benchmark analyses in attempting to establish the zone of reasonableness."[191] Furthermore, according to the CRB, "such an adjusted [for interactivity] benchmark constitutes the type of benchmark that the Act permits.[192]

E. My Benchmark Analysis Accounts for the Statutory Factors

235. I agree with the CRB's consistent, long-standing view that the two specific considerations enumerated in the statutory standard – (i) the extent to which the service substitutes or promotes other streams of revenue and (ii) the parties' relative contributions – are both reflected in the rates negotiated by buyers and sellers in direct agreements.[193] Indeed, Professors Fischel/Lichtman correctly make the same observation.[194] I see no reason to depart from this firmly established "general principle" in this proceeding.[195]

236. As the CRB has emphasized, an adjustment to a benchmark rate based on either of these factors would only be appropriate if there were empirical evidence demonstrating a quantifiable "difference between the benchmark market and the hypothetical target market" with respect to either factor.[196]

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[190] Katz Report, ¶¶ 56-58.

[191] Web III at 23110.

[192] Web III at 23115.

[193] See, e.g., Web III Remand at 23,119 n.50 ("The adoption of an adjusted benchmark approach to determine the rates leads this panel to agree with Web II and Web I that such statutory considerations implicitly have been factored into the negotiated prices utilized in the benchmark agreements.")

[194] See, e.g., Amended Fischel and Lichtman Report, ¶ 27: "Parties to an agreement are usually assumed to negotiate from the standpoint of their own self-interest; therefore, in the negotiations between webcasters and the record labels, the parties would have considered these factors ["whether the use at issue might substitute for, promote, or otherwise affect the copyright owners' stream of revenues," and "the relative contributions of the owners and licensees in making the licensed work available to the public."], because they are relevant to their own self-interest."

[195] Web III Remand at 23,110.

[196] Web II at 24,095.

237. As for the first statutory factor – "whether the use of the service may substitute for or may promote . . . the sound recording copyright owner's other streams of revenue from its sound recordings"[197] I have seen no compelling evidence suggesting that the interactive per-play rates have increased. Similarly, as discussed previously, royalties for paid interactive services have been falling (Exhibit 12A). To illustrate, Exhibit 17 compares the unadjusted effective rates for (1) all Category A on-demand services; (2) Spotify as a whole (including its paid and free tiers); (3) the minimum per-play rate for Spotify's free on-demand service; and (4) the effective per play rate for the iHeartMedia-Warner deal, computed in two ways – as in the Rubinfeld Report [redacted]

238. Moreover, Professor Shapiro's speculation that on-demand streaming is more substitutional than non-interactive streaming is contradicted by Pandora's own behavior in the market, where it seeks out – and sometimes receives – gratis licenses for its on-demand service, a service that Pandora describes as "promotional."[198] Accordingly, in my view it is unreasonable to presume that on-demand services have a more substantial substitution effect than do non-interactive services (or that non-interactive streaming is more promotional than on-demand streaming).[199]

239. Second, to the extent there are any differences in the two types of services' promotional or substitution effects, my benchmark analysis accounts for them. In the hypothetical willing buyer/willing seller negotiation without the overhang of the statutory license, one would expect that market competition among non-interactive services would lead to a relationship between subscription prices and royalty costs that is similar to what was observed for the interactive services (recall Exhibit 15). I would also expect promotion/substitution effects to be reflected in the terms of the direct Category A agreements that form the basis of my interactive benchmark, and also at least indirectly in the prices and/or listeners' willingness-to-pay for the services. Hence, the interactivity adjustment derived in my initial report for paid services, or alternatively, for free services (as computed in Exhibit 14 using the ARPUs of free services) accounts for any meaningful differences in promotion and substitution between statutory and on-demand services that are reflected in the

[197] 17 U.S.C. § 114 (f)(2)(B)(i).

[198] Fleming-Wood WDT, at ¶ 30.

[199] As I discussed in my initial report, streaming has been increasingly substituting for sales (e.g., of downloads or CDs) and this trend is widely expected to continue. This trend tends to contradict the hypothesis that statutory webcasting is generally promotional. In the future, as streaming continues to substitute for sales, statutory services should be understood to serve as substitutes for directly licensed services. In essence, substitution from directly licensed services towards statutory services will magnify the attenuation of sales that is widely expected to continue and accelerate during the next the five-year rate period.

negotiated rates. As a result, my interactive benchmark fully accounts for the promotion/substitution statutory factor.

240. These very same economic principles apply to the relative contribution factor. I have seen no evidence to suggest that a service's DMCA compliance would have any meaningful impact on its "relative creative contribution, technological contribution, capital investment, cost, [or] risk."[200] Again, given the substantial convergence and competition between the two categories of services, absent any evidence to the contrary, it is reasonable to assume that, on average, their contributions in these areas are comparable. And to the extent there are any differences, these differences would be reflected in retail prices and accounted for in my interactivity adjustment.

241. On the other side of the market, it is important to recognize that copyright owners bear unique financial risks due to the length and compulsory nature of the statutory license. Rights holders' incomes are essentially capped by statutory rates at relatively low levels. For example, at the rates I have proposed for 2016, approximately 7 million plays will be required to generate a total royalty payment sufficient to rent an average one bedroom apartment in Oakland, California for one year.[201] But at Professor Shapiro's rates, at least 13 million would be required. Professors Fischel/Lichtman would require 35 million. And Professor Katz would also require 35 million. These are substantial requirements, given that the average song carried by Pandora generates only 324,000 streams per year.[202]

242. To sum up, my adjusted benchmark rate fully reflects both (i) the extent to which statutory services promote or substitute for other streams of revenue and (ii) the services' relative contributions.

243. The Services, on the other hand, rely on a small number of non-generalizable agreements to derive their rate proposals. As a result, their benchmark analyses do not sufficiently account for how the statutory factors would influence rates negotiated between other buyers and sellers in the market. In other words, even once properly adjusted to capture the full value of the consideration that was paid, a rate solely derived from the Pandora-Merlin agreement would only reflect Pandora's relative contribution and the extent to which Pandora's statutory service promotes or substitutes for other streams of revenue. Given Pandora's unique attributes and

[200] 17 U.S.C. § 114(f)(2)(B)(ii).

[201] See http://www.myapartmentmap.com/data/cities/ca/oakland/ (accessed February 21, 2015) which states that the February 2015 average rent for a one bedroom apartment in Oakland is $1,505 per month. Total average rent over 12 months is $18,060. Dividing this total by $0.0025 yields 7,224,000.

[202] Professor Shapiro proposes $0.001324 or less in 2016 (*see* Shapiro Report, Table 1). Professors Fischel, Lichtman, and Katz propose $0.0005. $0.0025 / $0.001324 = 1.89*7 million = 13 million. $0.0025 / $0.0005 = 5*7 million = 35 million. Pandora had 4.99 billion listener hours and approximately 16.19 streams per listener hour in 3Q 2014 (*see* Backup to Exhibits 14A and 14B (2 of 2)), resulting in approximately 81 billion streams per quarter, or 324 billion streams per year. Pandora has approximately 1 million songs in its library (*see* Pandora 2014 Annual Report, p. 14). As a result, the average song is streamed 324,000 times per year.

distinguishing features,[203] a rate derived from Pandora-Merlin tells us very little about statutory services' general promotional effect and relative contribution. The same holds true for iHeartMedia's proffered direct deals. The market is much broader than these two services; they are not representative of all statutory webcasters.[204]

V. Updated Information Since the Submission of Written Direct Testimony

244. Two sets of data have been updated since I submitted my written direct testimony in October 2014.

245. First, I have received updated performance data for the period June 2014 to November 2014 from Universal, Warner, and Sony. As noted above, these data generally show that the effective per-play rate for interactive services is declining. Second, new lower pricing data for interactive service subscription plans has been released. This new pricing data generally supports a lower interactivity adjustment.

246. Both of these new data points are consistent with the convergence of interactive and non-interactive services. Just as royalty rates for interactive services have gradually declined, so have consumer subscription prices, as they become closer to non-interactive subscription prices such as Pandora One.

A. New Performance Data

247. Since the submission of my written direct testimony in October 2014, I have received updated performance data for the period June 2014 to November 2014 from Universal, Warner, and Sony. The updated performance data for the Category A set of interactive services, the iHeartMedia-Warner deal, and the Category C set of services (YouTube/Vevo) is summarized in Appendix 1.

248. For the Category A set of interactive services, although the average minimum per-play rates have stayed constant, there has been a slight downward trend in total effective compensation per play rates with the additional performance data. This is in part attributable to non-recoupable cash payments that are being spread across increasing plays and monthly payments that have ended.

249. Similarly, for the iHeartMedia-Warner agreement, part of Category B, [redacted]

250. For Category C, YouTube and Vevo, the [redacted]

[203] See, e.g., Westergren WDT, ¶¶ 24-35.

[204] See Web III Remand at 31, 107-08.

B. New Retail Price Offerings and Their Effect on the Interactivity Adjustment

251. Subscription plan prices for interactive services have evolved since I submitted my written direct testimony. For example, it has been widely reported that Apple's upcoming new interactive subscription service plan, based on the acquired Beats service, will retail for $7.99 per month.[205] Similarly, Google's forthcoming new paid service (combining its Google Play with ad-free YouTube) will reportedly be priced at $7.99 per month, at least initially.[206] Various annual billing options, which have implied monthly prices below their monthly-billed counterparts, are also offered. Finally, at least one previously high-priced interactive service, Pasito Tunes, has exited the market. If these changes were taken into account, this would support a smaller interactivity adjustment of 1.8. Exhibit 18 demonstrates the updated interactivity adjustment analysis.

252. Exhibit 18 provides a conservative estimate in light of other low-price interactive services available to some users in the market. For example, Spotify has introduced a new Family plan, in which each additional user costs only 50% more ($14.99 for two users per month, $19.99 for three, $24.99 for four, and $29.99 for all five users). This results in monthly subscription prices per user ranging from approximately $6 to $7.50 per month. Rdio offers similar Family plans. Consideration of these additional data points would support an even smaller interactivity adjustment.

[205] Mark Gurman, The Next Episode: Apple's Plans for Beats-Based Music Service Revealed (February 4, 2015), http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/.

[206] John Callaham, YouTube's New Subscription Music Service is $7.99 a Month and Invite-Only (November 12, 2014), http://www.androidcentral.com/youtube-has-launched-new-music-subscription-service-799-month.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: Feb. 22, 2015

Daniel L. Rubinfeld

Daniel L. Rubinfeld

Materials Reviewed and Relied Upon

Reports and Testimony

1 Amended Testimony Of Daniel R. Fischel & Douglas G. Lichtman, materials cited therein and associated backup materials
2 Corrected Testimony of Daniel L. Rubinfeld, materials cited therein and associated backup materials
3 Fleming-Wood WDT, materials cited therein and associated backup materials
4 Frear WDT, materials cited therein and associated backup materials
5 Harrison WRT, materials cited therein and associated backup materials
6 Huppe WRT, materials cited therein and associated backup materials
7 Katz Report, materials cited therein and associated backup materials
8 Lexton WRT, materials cited therein and associated backup materials
9 McBride Deposition and Exhibits
10 McBride Report, materials cited therein and associated backup materials
11 Newberry WDT, materials cited therein and associated backup materials
12 Ordover Web III WRT, materials cited therein and associated backup materials
13 Testimony of Daniel L. McFadden, materials cited therein and associated backup materials
14 Westergren WDT, materials cited therein and associated backup materials
15 Wilcox WRT, materials cited therein and associated backup materials
16 Written Direct Testimony of Carl Shapiro, On behalf of Pandora Media, Inc., materials cited therein and associated backup materials

Legal Materials

17 17 U.S.C. § 114(f)(2)(B)
18 In Re: Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (“WEB IV”)
19 Report of the Copyright Arbitration Royalty Panel ("Web I")
20 SDARS II
21 Small Webcaster Settlement Act of 2002
22 Statement of Bureau of Competition Director Richard A. Feinstein In the Matter of Vivendi, S.A. and EMI Recorded Music September 21, 2012
23 Web II
24 Web III
25 Web III Remand

Produced Documents

26 IHM_0011429
27 IHM_0041977

Materials Reviewed and Relied Upon

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29 IHM_0052599
30 IHM_EXP_0001171 ("Warner Model.xlsb")
31 PAN_CRB_00003647
32 PAN_CRB_00003949
33 PAN_CRB_00025594
34 PAN_CRB_00066277
35 SNDEX0148972
36 SNDEX0149044
37 SNDEX0149151
38 SNDEX017718
39 SNDEX0177715
40 SNDEX0177717
41 SNDEX0239817
42 SNDEX0250665
43 SNDEX0250671
44 SNDEX0251181
45 SNDEX0251183
46 SNDEX0251185
47 SNDEX0251187
48 SNDEX0251197
49 SNDEX149036
50 SNDEX149048

Performance Data

51 Apple-Sony Performance Data
52 Apple-Universal Performance Data
53 Apple-Warner Performance Data
54 Beats-Sony Performance Data
55 Beats-Universal Performance Data
56 Beats-Warner Performance Data

Materials Reviewed and Relied Upon

57 Classical Archives-Sony Performance Data
58 Classical Archives-Universal Performance Data
59 Google Play-Sony Performance Data
60 Google Play-Universal Performance Data
61 Google Play-Warner Performance Data
62 iHeartMedia-Warner Performance Data
63 iHeartMedia Performance Data for 27 Independent Labels Relied on by Fischel and Lichtman
64 Microsoft-Sony Performance Data
65 Microsoft-Universal Performance Data
66 Microsoft-Warner Performance Data
67 Midwest Tape-Universal Performance Data
68 Myspace-EMI Performance Data
69 Myspace-Sony Performance Data
70 Myspace-Universal Performance Data
71 Myspace-Warner Performance Data
72 Rara-Sony Performance Data
73 Rara-Universal Performance Data
74 Rara-Warner Performance Data
75 Rdio-Sony Performance Data
76 Rdio-Universal Performance Data
77 Rdio-Warner Performance Data
78 Rhapsody-Sony Performance Data
79 Rhapsody-Universal Performance Data
80 Rhapsody-Warner Performance Data
81 Slacker-EMI Performance Data
82 Slacker-Sony Performance Data
83 Slacker-Universal Performance Data
84 Slacker-Warner Performance Data
85 Sony Music Unlimited-Sony Performance Data
86 Sony Music Unlimited-Universal Performance Data
87 Sony Music Unlimited-Warner Performance Data
88 Spotify-Sony Performance Data
89 Spotify-Universal Performance Data

Materials Reviewed and Relied Upon

90 Spotify-Warner Performance Data
91 Vevo-EMI Performance Data
92 Vevo-Sony Performance Data
93 Vevo-Universal Performance Data
94 YouTube-EMI Performance Data
95 YouTube-Universal Performance Data
96 YouTube-Warner Performance Data

Agreements

97 Apple-Sony Agreements
98 Apple-Universal Agreements
99 Apple-Warner Agreements
100 Apple Agreement for Independent Labels (Public)
101 Amazon Prime-Sony Agreements
102 Amazon Prime-Warner Agreements
103 Beats-Beggars Agreements
104 Beats-Merlin Agreements
105 Beats-Sony Agreements
106 Beats-Universal Agreements
107 Beats-Warner Agreements
108 Boomio-Sony Agreements
109 Boomio-Universal Agreements
110 Classical Archives-Sony Agreements
111 Classical Archives-Universal Agreements
112 Google Play-Beggars Agreements
113 Google Play-Merlin Agreements
114 Google Play-Sony Agreements
115 Google Play-Universal Agreements
116 Google Play-Warner Agreements
117 iHeartMedia / Clear Channel-23 Muzik Agreements
118 iHeartMedia / Clear Channel-Another Venture d/b/a Seed Agreements
119 iHeartMedia / Clear Channel-Average Joes Entertainment Agreements
120 iHeartMedia / Clear Channel-Bicycle Agreements

Materials Reviewed and Relied Upon

121 iHeartMedia / Clear Channel-Big Machine Agreements
122 iHeartMedia / Clear Channel-Black River Entertainment Agreements
123 iHeartMedia / Clear Channel-Broken Bow Agreements
124 iHeartMedia / Clear Channel-Concord Agreements
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126 iHeartMedia / Clear Channel-Dualtone Agreements
127 iHeartMedia / Clear Channel-Entertainment One Agreements
128 iHeartMedia / Clear Channel-Fearless Agreements
129 iHeartMedia / Clear Channel-Funzalo Agreements
130 iHeartMedia / Clear Channel-Glassnote Agreements
131 iHeartMedia / Clear Channel-Innovative Leisure Agreements
132 iHeartMedia / Clear Channel-LMJS (Fleetwood Mac) Agreements
133 iHeartMedia / Clear Channel-Naxos Agreements
134 iHeartMedia / Clear Channel-Next Plateau Agreements
135 iHeartMedia / Clear Channel-Robbins Entertainment Agreements
136 iHeartMedia / Clear Channel-RPM Entertainment Agreements
137 iHeartMedia / Clear Channel-S Curve Agreements
138 iHeartMedia / Clear Channel-Signature K Agreements
139 iHeartMedia / Clear Channel-Stardome Agreements
140 iHeartMedia / Clear Channel-Suburban Noize Agreements
141 iHeartMedia / Clear Channel-Three Quarter Agreements
142 iHeartMedia / Clear Channel-Warner Agreements
143 iHeartMedia / Clear Channel-Wind Up Agreements
144 iHeartMedia / Clear Channel-Zojak Agreements
145 Microsoft-Beggars Agreements
146 Microsoft-EMI Agreements
147 Microsoft-Sony Agreements
148 Microsoft-Universal Agreements
149 Microsoft-Warner Agreements
150 Midwest Tape / Hoopla-Universal Agreements
151 Midwest Tape / Hoopla-Warner Agreements
152 MOG-Beggars Agreements
153 MOG-EMI Agreements

Materials Reviewed and Relied Upon

154 MOG-Sony Agreements
155 MOG-Universal Agreements
156 MOG-Warner Agreements
157 MySpace Music-EMI Agreements
158 MySpace Music-Sony Agreements
159 MySpace Music-Universal Agreements
160 MySpace Music-Warner Agreements
161 Nokia Mix Radio-Beggars Agreements
162 Nokia Mix Radio-EMI Agreements
163 Nokia Mix Radio-Sony Agreements
164 Nokia Mix Radio-Universal Agreements
165 Nokia Mix Radio-Warner Agreements
166 Pandora-Merlin Agreements
167 Rara-EMI Agreements
168 Rara-Merlin Agreements
169 Rara-Sony Agreements
170 Rara-Universal Agreements
171 Rara-Warner Agreements
172 Rdio-EMI Agreements
173 Rdio-Merlin Agreements
174 Rdio-Sony Agreements
175 Rdio-Universal Agreements
176 Rdio-Warner Agreements
177 Rhapsody-Beggars Agreements
178 Rhapsody-EMI Agreements
179 Rhapsody-Secretly Canadian Agreements
180 Rhapsody-Sony Agreements
181 Rhapsody-Universal Agreements
182 Rhapsody-Warner Agreements
183 ROK Mobile-Beggars Agreements
184 ROK Mobile-Sony Agreements
185 ROK Mobile-Universal Agreements
186 ROK Mobile-Warner Agreements

Materials Reviewed and Relied Upon

187 Slacker-EMI Agreements
188 Slacker-Merlin Agreements
189 Slacker-Sony Agreements
190 Slacker-Universal Agreements
191 Slacker-Warner Agreements
192 Sony Music Unlimited-Beggars Agreements
193 Sony Music Unlimited-EMI Agreements
194 Sony Music Unlimited-Merlin Agreements
195 Sony Music Unlimited-Sony Agreements
196 Sony Music Unlimited-Universal Agreements
197 Sony Music Unlimited-Warner Agreements
198 Spotify-EMI Agreements
199 Spotify-Merlin Agreements
200 Spotify-Sony Agreements
201 Spotify-Universal Agreements
202 Spotify-Warner Agreements
203 Vevo -Beggars Agreements
204 Vevo -EMI Agreements
205 Vevo -Merlin Agreements
206 Vevo-Sony Agreements
207 Vevo-Universal Agreements
208 Yonder-Sony Agreements
209 Yonder-Universal Agreements
210 Yonder-Warner Agreements
211 YouTube-Beggars Agreements
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213 YouTube-Merlin Agreements
214 YouTube-Sony Agreements
215 YouTube-Universal Agreements
216 YouTube-Warner Agreements

Websites

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228 http://readwrite.com/2013/12/11/spotify-free-shuffle-mobile-play-android-ios
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234 http://www.beatsbydre.com/on/demandware.store/Sites-beats-Site/en_US/NewsAndPressRelease-ShowArticleContent?articleID=2014_PR_Beats_Music_Launch&
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279 https://www.spotify.com/us/student/, accessed February 20, 2015
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281 "Academic Journal Pricing and the Demand of Libraries" (with Aviv Nevo and Mark McCabe), American Economic Review, Vol. 95, No. 2, May 2005, pp. 447-4

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282 Econometric Models and Economic Forecasts (4th Edition, 2000, joint with Robert Pindyck)

283 Pindyck and Rubinfeld, Microeconomics, 8th Edition

Public Financial Statements

284 iHeartCommunications 10-K (for the fiscal year ended December 31, 2014)
285 Pandora 10-K (for the fiscal year ended December 31, 2014)
286 Pandora Income Statement 3Q14
287 Pandora Income Statement 4Q13
288 Pandora Media Inc. Quarterly Metrics, Q3 2014
289 Pandora Media Investor Presentation Q3_CY14_FINAL.pdf
290 Thomson Reuters Transcript, "NOVEMBER 18, 2014 / 10:00PM, P - Pandora Media Inc. Conference Call to Discuss Web IV Proceeding,"
291 Pandora 2014 Annual Report

Miscellaneous

292 "Copyright and the Music Marketplace: A Report of the Register of Copyrights," United States Copyright Office, February 2015
293 "Letter Amendment to Webcasting Services License Agreement between the Parties," August 26, 2013
294 Corrected Warner Model.xlsb
295 Mark Mulligan, "Global Digital Music Services Benchmark - The Digital Music Marketplace," MIDiA Insights & Decisions in Action, September 2014
296 Miriam Coleman, Beats Music Launching Streaming Service January 21st, Rolling Stone (January 11, 2014)

Exhibits Sponsored By Daniel Rubinfeld

Exhibit No.	Sponsored By	Description
SX EX. 058- RR	Daniel Rubinfeld	Appendix 1 – [redacted]
SX EX. 059- RR	Daniel Rubinfeld	Appendix 2 – [redacted]
SX EX. 060- RR	Daniel Rubinfeld	Exhibit 1 – [redacted]
SX EX. 061- RR	Daniel Rubinfeld	Exhibit 2 – [redacted]
SX EX. 062- RR	Daniel Rubinfeld	Exhibit 3 – [redacted]
SX EX. 063- RR	Daniel Rubinfeld	Exhibit 4 – [redacted]
SX EX. 064- RR	Daniel Rubinfeld	Exhibit 5 – [redacted]

Exhibit No.	Sponsored By	Description
SX EX. 065- RR	Daniel Rubinfeld	Exhibit 6 – [redacted]
SX EX. 066- RR	Daniel Rubinfeld	Exhibit 7 – [redacted]
SX EX. 067- RR	Daniel Rubinfeld	Exhibit 8 – [redacted]
SX EX. 068- RR	Daniel Rubinfeld	Exhibit 9 – [redacted]
SX EX. 069- RR	Daniel Rubinfeld	Exhibit 10 – [redacted]
SX EX. 070- RP	Daniel Rubinfeld	Exhibit 11 - Correction of Fischel and Lichtman Exhibit F "Per-Performance Royalty Payment Sufficient to Compensate Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"
SX EX. 071- RR	Daniel Rubinfeld	Exhibit 12 – [redacted]
SX EX. 072- RR	Daniel Rubinfeld	Exhibit 13 – [redacted]
SX EX. 073- RR	Daniel Rubinfeld	Exhibit 14 – [redacted]
SX EX. 074- RR	Daniel Rubinfeld	Exhibit 15 – [redacted]
SX EX. 075- RR	Daniel Rubinfeld	Exhibit 16 – [redacted]

Exhibit No.	Sponsored By	Description
SX EX. 076- RR	Daniel Rubinfeld	Exhibit 17 – [redacted]
SX EX. 077- RP	Daniel Rubinfeld	Exhibit 18 – Comparison of Subscription Services Pricing and Updated Interactivity Adjustment

SX EX. 058 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 059 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 060 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 061 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 062 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 063 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 064 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 065 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 066 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 067 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 068 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

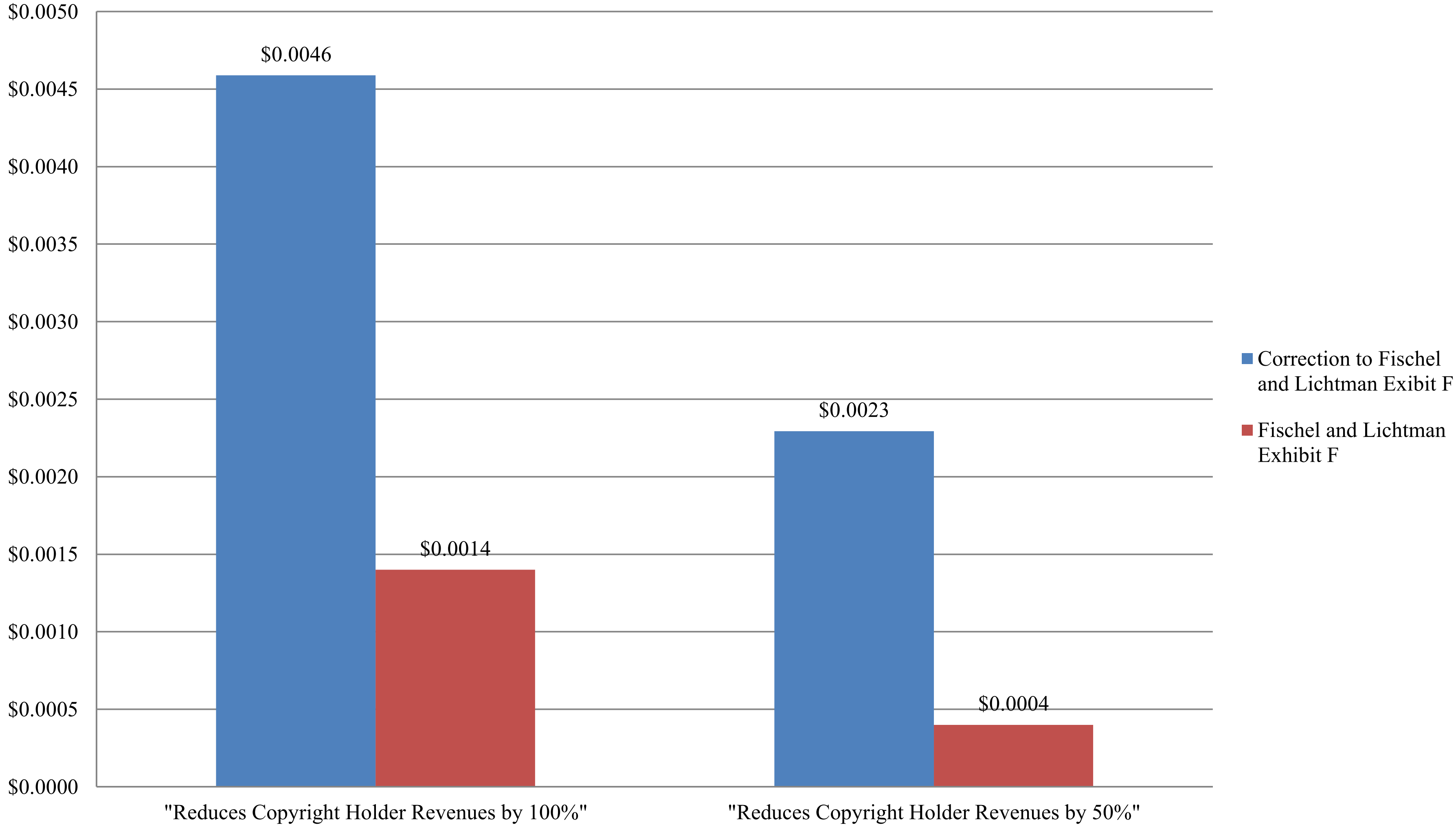
SX EX. 069 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Exhibit 11

Correction of Fischel and Lichtman Exhibit F

"Per-Performance Royalty Payment Sufficient to Compensate Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"



Sources: Backup to Exhibit 11. Fischel and Lichtman Exhibit F.

Backup to Exhibit 11
Correction of Fischel and Lichtman Exhibit F
"Per-Performance Royalty Payment Sufficient to Compensate"
"Copyright Holders for Hypothetical Loss of Other Revenue Due to Migration to Webcasting"

		"Migration from Terrestrial Radio to Webcasting"		
		"Does Not Reduce Copyright Holder Revenues"	"Reduces Copyright Holder Revenues by 100%"	"Reduces Copyright Holder Revenues by 50%"
2013 Recorded Music Industry Revenues (MM $)	[1]	$6,996	$6,996	$6,996
Sound Exchange Distributions (MM $)	[2]	$590	$590	$590
Non-SoundExchange Recorded Music Industry Revenues (MM $)	[3] = [1] - [2]	$6,406	$6,406	$6,406
2013 U.S. Population (MM)	[4]	255.0	255.0	255.0
Average Industry Revenue per Person	[5] = [3] / [4]	$25.12	$25.12	$25.12
Average Hours per Day of Radio Music Listening, per Person	[6]	2.3	2.3	2.3
Average Hours per Year of Radio Music Listening, per Person	[7] = [6] x 365	839.5	839.5	839.5
Average Hours per Day of Non-Radio Music Listening, per Person	[8]	1.0	1.0	1.0
Average Hours per Year of Non-Radio Music Listening, per Person	[9] = [8] x 365	365.0	365.0	365.0
Assumed Additional Webcasting Hours per Year from a New Adopter	[10]	0.0	365.0	182.5
Assumed Consequent Reduction in Non-Radio Music Listening and Purchases	[11]	0%	100%	25%
Reduction in Recorded Music Industry Revenue, per Person	[12] = [11] x [5]	$0.00	$25.12	$6.28
Royalty per Listener-Hour Sufficient to Compensate for Assumed Reduction in Revenue	[13] = [12] / [10]		$0.0688	$0.0344
Assumed Webcast Songs per Listener-Hour	[14]		15.0	15.0
Royalty per Performance Sufficient to Compensate for Assumed Reduction in Revenue	[15] = [13] / [14]		$0.0046	$0.0023

Source: Fischel and Lichtman Report, Exhibit F, but with corrections to "Assumed Additional Webcasting Hours per Year from a New Adopter" ([10]).
The third column in Fischel and Lichtman Report, Exhibit F, shows 50% in the subheading ("Reduces Copyright Holder Revenues by 50%") and 25% in row [11].
Row [10] in Fischel and Lichtman Report, Exhibit F is 1022 = 50% * 365 + 839.5, not 25%.

SX EX. 071 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 072 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 073 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 074 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 075 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 076 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Exhibit 18
Updated Comparison of Subscription Services Pricing

Service	**Price per Month**
Interactive	
Rara Web	$4.99
Rdio Web	$4.99
Sony Music Unlimited Access Plan	$4.99
Classical Archives - Annual Billing	$6.66
Classical Archives	$7.99
Microsoft - Xbox Music Pass - Annual Billing	$8.33
Beats - Annual Billing	$8.33
Beats	$9.99
Google Play	$9.99
Guvera	$9.99
Microsoft - Xbox Music Pass	$9.99
Rara Premium	$9.99
Rdio Unlimited[1]	$9.99
Rhapsody Premier	$9.99
Slacker Premium	$9.99
Sony Music Unlimited Premium	$9.99
Spotify Premium[2]	$9.99
Pasito Tunes PC[3]	-
Pasito Tunes Unlimited Mobile[3]	-
Proposed Apple - Beats Subscription Service	$7.99
Proposed YouTube Music Key Subscription Service	$7.99
Average	**$8.53**
Non-Interactive	
MixRadio+	$3.99
Slacker Radio Plus	$3.99
Musicovery Premium - Annual Billing	$0.99
Pandora One[4]	$3.99/$4.99
Pandora One - Annual Billing	$4.57
Rhapsody unRadio	$4.99
Live 365 VIP	$5.95
Live 365 VIP - Annual Billing	$4.99
RadioTunes[5]	$7.00
RadioTunes - Annual Billing	$5.83
RadioTunes - 2 Year Plan	$5.00
Average (lowest possible monthly rate)	**$4.66**
Average (highest possible monthly rate)	**$4.75**

Ratio of Average Interactive to Non-Interactive Subscription Prices	**1.8 - 1.83**

Notes:

1. Rdio also offers a Student Discount for $4.99 and various family plans that range from $5.99 to $7.49 per user per month.
2. Spotify also offers a Student Discount for $4.99 and various family plans that range from $6.00 to $7.50 per user per month. Spotify is also available through Sprint at $9.99 per month after various trial options. After 6 months free, there is a promotional price of $7.99 per month for 18 months. The price changes to $9.99 per month after 24 months for the Family Share Pack, Simply Unlimited or $60 Unlimited plans. Family Plans have a 6 month trial, then are priced at $7.99 per member for 5 or fewer members and $4.99 per member for 6 or more members. After 24 months the Family Plan price is $9.99 per month. Some Sprint customers recieve a 3 month free trial, then pay $9.99 per month
3. Pasito Tunes, which I listed in my direct report, recently discontinued its music streaming service.
4. Pandora One is $4.99 per month for new customers and $3.99 per month for legacy customers.
5. Sky.fm, which I listed in my direct report, is now called RadioTunes.

- Rdio: (http://www.rdio.com/home/en-us/, accessed January 29, 2015; http://help.rdio.com/customer/portal/articles/1351528#Student Discount, accessed January 29, 2015)
- Sony Music Unlimited: (http://www.sonyentertainmentnetwork.com/support/questions/detail/show-question/music-unlimited-price/, accessed February 6, 2015)
- Rara: (https://www.rara.com/, accessed February 6, 2015)
- Classical Archives: (https://secure.classicalarchives.com/membership/signup.html, accessed January 29, 2015)
- Slacker: (http://www.slacker.com/, accessed January 29, 2015)
- Microsoft: (http://www.xbox.com/en-US/music/music-pass, accessed January 29, 2015; http://www.microsoftstore.com/store/msusa/en_US/pdp/12-Month-Xbox-Music-Pass/productID.258412400, accessed January 29, 2015)
- Rhapsody: (http://www.rhapsody.com/premier, accessed February 17, 2015; http://www.rhapsody.com/unradio, accessed February 18, 2015)
- Spotify: (https://www.spotify.com/us/, accessed January 29, 2015; https://www.spotify.com/us/family/purchase/#__extended-creditcard, accessed February 19, 2015; https://www.spotify.com/us/student/, accessed February 20, 2015; http://www.sprint.com/landings/music/index.html?ECID=vanity:spotify&#spotify accessed February 20, 2015)
- Beats: (http://www.beatsmusic.com/pricing, accessed January 29, 2015)
- Google Play: (https://play.google.com/music/listen#, accessed January 29, 2015); Guvera, (https://www.guvera.com/settings?tab=account, accessed February 19, 2015)
- Pasito Tunes: (http://www.pasito.com/tunes/NewSubscription.aspx?si=pasito, accessed February 19, 2015)
- Proposed Apple-Beats Subscription Service: (http://9to5mac.com/2015/02/04/apple-beats-cheaper-android-ios/, accessed February 19, 2015)
- Proposed YouTube Music Key Subscription Service: (http://www.cnet.com/products/youtube-music-key/, accessed February 11, 2015)
- MixRadio+: (Windows Phone App Store, accessed February 18, 2015)
- Musicovery: (http://musicovery.com/paypal/payer2014.php?id=1480501&lg=en&ct=US, accessed February 18, 2015)
- Pandora: (http://www.pandora.com/one/trial/start, accessed February 18, 2015)
- Live365: (http://www.live365.com/web/components/content/shop/vip.live, accessed February 18, 2015)
- RadioTunes: (https://www.radiotunes.com/premium, accessed February 18, 2015.)
- Guvera: (https://www.guvera.com/settings?tab=account). To see the price, one must create an account then upgrade.

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	**)))))))))**	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

ERIC L. TALLEY, Ph.D.

Rosalinde and Arthur Gilbert Foundation Professor of Law and Director of the Berkeley Center for Law, Business, and the Economy, University of California, Berkeley

PUBLIC VERSION

Witness for SoundExchange, Inc.

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I. QUALIFICATIONS AND ASSIGNMENT

A. Qualifications

I am a Professor of Law at the University of California, Berkeley School of Law, where I hold the Rosalinde and Arthur Gilbert Endowed Chair in Law, Business and the Economy. I have been a professor at UC Berkeley (with tenure) since July 2006. Prior to July 2006, I was the Ivadelle and Theodore Johnson Professor of Law and Business at the University of Southern California, where I held dual appointments in the Gould School of Law and the Marshall School of Business (Finance and Business Economics).

I have taught numerous courses in the areas of economic analysis of law, game theory, corporate law, corporate governance, corporate finance, mergers and acquisitions, commercial law, microeconomics, statistics, and business ethics. I have conducted research and published articles in each of these fields. From 2005 to 2014, I served as Faculty Co-Director of the Berkeley Center in Law, Business and the Economy, at UC Berkeley. From 2001 until 2004, I served as Faculty Director of the USC Center in Law, Economics, and Organization, a multidisciplinary research group organized across three university departments (law, business, and economics). Also from 2001-2004, I directed the USC/Caltech Olin Center for the Study of Law and Rational Choice, a collaborative research group between USC Law School and the Humanities and Social Sciences department at the California Institute of Technology.

Simultaneous with much of my service at UC Berkeley and USC, I also held the position as Senior Economist (Affiliated Adjunct) at the RAND Corporation, Santa Monica, CA. At RAND, I conducted research on the effects of various types of corporate and business litigation, bargaining in the shadow of the law, contract design, securities fraud, securities regulation, the legal and accounting professions, civil justice, business ethics, corporate governance, corporate culture and private class actions.

I hold a Ph.D. in economics from Stanford University, as well as a J.D. from Stanford Law School.

I currently serve as an elected board member for the Society of Empirical Legal Studies (SELS), the leading academic association in the world of empirical legal scholars. I served as co-President of SELS, from November 2013 through November 2014. I have previously served as Chair of the American Association of Law Schools (AALS) section on Contracts, as Chair of the AALS section on Law and Economics, and as an elected board member for the American Law and Economics Association (ALEA), the leading academic association in the world of law and economics scholars.

In addition to my permanent academic positions, I have held visiting teaching appointments or lectureships at the California Institute of Technology, Harvard, University of Chicago, UC Berkeley, Georgetown, the University of Miami, the University of Sydney (Australia), the University of New South Wales (Australia), the University of San Diego, the RAND Graduate School, the Interdisciplinary Center (Israel) and Stanford University. Beginning July 1, 2015, I will assume a tenured position at Columbia Law School, where I will be the Sulzbacher Professor of Law.

I frequently speak both to academic audiences and to professional associations, including attorneys, regulators, judges, and corporate directors. I have numerous published articles in refereed journals, law reviews, and edited volumes, and I am a referee for a number of journals both in law and economics and economics proper.

I have published dozens of articles in areas pertaining to corporate governance, economic analysis of law, bargaining in the shadow of the law, business judgment and ethics, fiduciary duties, corporate opportunities, securities market regulation, and related topics. A particular emphasis in my research dossier is the analysis of bargaining theory, and the effects of legal rules on the nature and outcomes of bargaining – an area where I have multiple scholarly publications.[1] My curriculum vitae (attached) includes a list of my publications, speaking engagements, refereeing experience, and previous expert testimony.

B. <u>Assignment</u>

SoundExchange has asked me to review the testimony of other experts in this case, with particular focus on the written testimony of Professor Michael Katz (NAB) and Professor Carl Shapiro (Pandora). Specifically, I was asked to consider whether the market analyses that Katz and Shapiro utilize in their testimony are internally consistent, consistent with one another, and consistent with the standard in this case to assess the prices that a "willing buyer and willing

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[1] See, e.g., Eric L. Talley, "Contract Renegotiation, Mechanism Design, and the Liquidated Damages Rule," 46 Stan. L. Rev. 1195 (1993); Ian Ayres and Eric Talley, "Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade," 104 Yale L.J. 1027 (1995); Ian Ayres and Eric Talley, "Distinguishing between Consensual and Nonconsensual Advantages of Liability Rules," 105 Yale L.J. 235 (1995); Eric Talley, "Liability-Based Fee-Shifting Rules and Settlement Mechanisms under Incomplete Information," 71 Chi.-Kent. L. Rev. 461 (1995); Eric Talley, "Turning Servile Opportunities to Gold: A Strategic Analysis of the Corporate Opportunities Doctrine," 108 Yale L.J. 277 (1998); Eric L. Talley, "Bargaining under incomplete information and the design of legal rules," Ph.D. Dissertation, Stanford University (1999) (UMI # 9961969); Ian Ayres and Eric Talley, "Bargaining in the Shadow of Different Regimes," in "Optional Law" (by Ian Ayres, U. Chi. Press 2005); Aviad Heifetz, Ella Segev, & Eric Talley, "Market Design with Endogenous Preferences," Games and Economic Behavior 58 (1), 121-153, 2007. 12, (2007); Aviad Heifetz, Ella Segev & Eric Talley, "Legislation with Endogenous Preferences," in N.Vulkan, A. E. Roth and Z. Neeman (eds.), The Handbook of Market Design, pp. 456-488, Oxford University Press, 2013.

seller" (WBWS) would negotiate in a hypothetical market in which the statutory license does not exist.

To the extent I disagreed with Katz and Shapiro, I was further asked to develop and explain an alternative approach to the question of negotiated outcomes in a hypothetical marketplace, based on the core insights of bargaining theory within economics. Within that structure, I was asked to evaluate how the terms and structure of negotiated agreements would change as one varies (a) the degree of relative bargaining power between buyers and sellers, and (b) the existence/characteristics of a statutory licensing regime in the background. Finally, I was asked to evaluate the claims made by both Professor Katz and Professor Shapiro about the extent to which major labels' repertoires are "must haves" for interactive webcasters and what effect that has (if any) on the WBWS analysis. I was not asked to generate an independent set of estimates about reasonable royalties in this matter.

In analyzing these questions, I was guided by the following set of assumptions. My understanding of the CRB's remit under the applicable statutes[2] is to ''establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller."[3] In making this determination, my understanding is that the Copyright Royalty Judges endeavor to formulate rates based on a hypothetical bargaining environment with (*inter alia*) the following characteristics:

[2] 17 U.S.C. 114(f)(2)(B); 17 U.S.C. 112(e)(4).

[3] Web III remand, 79 FR at 23104.

- The hypothetical marketplace is one in which no statutory license exists;[4]
- The sellers in the market are deemed to be the individual record companies;[5]
- The buyers in the market are deemed to be non-interactive webcasters;[6]
- The product being sold is a license to the seller's complete repertoire of sound recordings;[7]
- Sellers offer distinct / differentiated repertoires of sound recordings, protected by copyright;
- Buyers' willingness to pay for the product is heterogeneous – both across buyers as well as within buyer as to different suppliers;[8]
- Sellers' willingness to accept is also heterogeneous – both across sellers as well as within each seller as to potential purchasers;
- In the light of the range of negotiated prices that would be negotiated in the hypothetical market, the WBWS rate is the one "to which, absent special circumstances most willing buyers and willing sellers would agree";[9]
- The CRB deems a market to be sufficiently competitive for purposes of a benchmark analysis when there are "sufficient competitive factors" to prevent negotiated rates from "approximat[ing] monopoly rates."[10]

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[4] Web II, 72 FR at 24091 ("[T]he willing buyer/willing seller… should reflect the rates that would prevail in a hypothetical marketplace that was not constrained by a statutory license.").

[5] Web III Remand, 79 FR at 23110.

[6] *Id.*

[7] *Id.*

[8] Web III, 76 FR at 13029 ("[I]n the hypothetical marketplace we attempt to replicate, there would be significant variations, among *both* buyers and sellers, in terms of sophistication, economic resources, business exigencies, and myriad other factors.").

[9] CARP Web I Report, Dkt. No. 2000-9 CARP DTRA 1 & 2 at 25 (Feb. 20, 2002); *see also* Web III Remand at 23108 ("[T]o the extent [a buyer] is not sufficiently representative of all webcasters (or representative at all of other webcasters)," an analysis of such buyer "would yield an inaccurate royalty rate.")

[10] Web III remand, III remand, 79 Fed. Reg. 23102, n.37.

C. Summary of Opinions

I conclude that the analysis of Professors Shapiro and Katz is inconsistent with the core insights of bargaining theory within economics for a number of reasons:

- Katz and Shapiro offer artificially constrained conceptual accounts of market structure, as viewed against the characteristics of the hypothetical WBWS marketplace. For example, neither of their frameworks satisfactorily describes bargaining between heterogeneous populations of willing buyers and willing sellers – each potentially possessing varying degrees of bargaining power and willingness to pay/accept. Instead, they base their analysis on models that emphasize seller-side bargaining power; their frameworks do not allow for similar meaningful allocations of buyer-side power. Relatedly, neither Katz nor Shapiro offers an adequately specified analysis of negotiations between potential buyers and sellers to formulate their analysis. This is inconsistent with general economic theory and renders their models incapable of supporting the general conclusions they purport to glean from them.

- Neither Katz nor Shapiro offers a satisfactory account of how the shadow of an existing (or anticipated) statutory license would affect the incidence and terms of negotiated transactions, including whether such statutory licensing options can "crowd out" consensually negotiated deals, introducing concomitant downward pricing bias in the observed terms of the negotiated deals that remain.

- Katz and Shapiro ignore how competition from other end-user markets constrains pricing in the interactive licensing space. For example, interactive providers inevitably must compete for listenership with other activities that end users may choose, such as (for example) subscription platforms with lower prices, pirated content, and other low-cost (or free) platforms, such as YouTube. The competitive pressures that such end-user alternatives create for interactive services limits the range of plausible prices that one might observe in the interactive licensing market, no matter how much bargaining power a seller possesses.

- Professor Shapiro's critique of the interactive agreements as being inappropriate benchmarks because they allegedly are the result of a party having "too much" bargaining power, might apply with equal (if not greater) force to Pandora's primary benchmark – the Pandora-Merlin deal – where it is clear that Pandora had a disproportionate share of the bargaining power as compared to the allocation of bargaining power that would exist for most buyer/seller pairs in the target hypothetical market.

- Professor Shapiro's analysis of Pandora's "steering" experiments does not support his conclusion that non-interactive services involve pure substitutes while interactive services involve pure complements. In my view, the bargaining dynamics in the interactive market would likely not differ meaningfully from the bargaining dynamic that would exist in the hypothetical non-interactive market.

To further elucidate my criticisms and analysis, I have developed a structural bargaining framework, using the results of a series of what are called "Monte Carlo" simulations. My framework demonstrates the following:

- Where downstream competition is significant (as is the case in the consumer market for interactive streaming services), negotiated rates will reflect such competition, with relatively modest price variations due to differences in bargaining power. Thus, even in circumstances where the seller has all or almost all of the bargaining power, this framework demonstrates that competitive market forces in the consumer market can constrain the range of prices considerably that the parties would agree to in licensing agreements.

- Regardless of allocation of bargaining power, the range of negotiated prices in agreements negotiated under the shadow of a statutory license will generally be below those that would prevail in the absence of a statutory rate. The reason for this is that the statutory license option crowds out a significant fraction of deals that would otherwise be negotiated transactions, leaving behind only a subset of transactions involving relatively low-value buyers and sellers, who reach transactions with relatively low prices.

- When the buyer has significant bargaining power, the downward bias introduced by the statutory licensing option generally acts to push what were already relatively buyer-friendly terms even further in that direction. This observation is particularly applicable to the Pandora-Merlin deal.

- When the statutory outside option is sufficiently low, the downward biasing effect of the statutory license can grow so large as to swamp all other effects. The terms of such deals, therefore, can be biased more than all other alternative benchmarks, even those where the seller has more (or even all) of the bargaining power, regardless of whether such transactions are executed in the presence or absence of an outside statutory rate.

II. ANALYSIS OF WRITTEN TESTIMONY OF KATZ AND SHAPIRO

In this section, I consider the written direct testimony proffered by two experts for webcasters in this case: Professor Michael Katz (for NAB) and Professor Carl Shapiro (for

Pandora). For each, I question whether the theoretical frameworks advanced are consistent with the core insights of bargaining theory within economics.

A. Direct Written Testimony of Michael Katz (NAB)

In his written submission, Professor Katz asserts that "[f]rom the perspective of economics, the willing-buyer/willing-seller standard is most appropriately interpreted as asking what would happen in an effectively competitive market in the absence of the statutory licensing regime." Katz does not provide a precise definition of effective competition, nor does he provide a roadmap between his definition and the CRB's mandate. Instead, he simply lists what he sees as various attributes of "effectively competitive markets." According to Katz, such markets: (a) "promote consumer welfare and economic efficiency";[11] (b) "push[] prices towards marginal costs";[12] (c) contain "prices [that] will reflect any other benefits that the buyer provides to the seller";[13] and (d) are incompatible with "the absence of buyer choice."[14] In addition to the above indicia, Professor Katz cites (with approbation) several other textbook excerpts related to effective competition, evidently joining their view that effective / workable competition also entails (e) price taking behavior,[15] (f) several firms selling closely related products,[16] and (g) free entry and exit.[17]

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[11] Katz WDT, at 4.

[12] *Id.* at 5.

[13] *Id.*

[14] *Id.* at 6.

[15] *Id.* at 21.

[16] *Id.* at 23.

[17] *Id.* at 21.

Professor Katz also includes with his expert report a Technical Appendix, which he claims to provide the underlying support for his assertion that "even when there is only a single, large buyer, which has equal bargaining with the seller—the resulting price would not be much closer to the perfectly competitive price than to a price determined in circumstances where the sellers exercised pure monopoly power." [18] For several reasons, I disagree with Professor Katz's application and interpretation of this model, which I find questionable as a matter of economic theory.

As I explain in the sections that follow, Professor Katz offers neither (i) a general model of competition capable of generating generalizable conclusions; nor (ii) a tailored model that – while lacking generality – still captures the most important institutional details of the relevant market setting at issue here. Although either approach (i) or (ii) might – in principle – be justifiable, Professor Katz instead studies a model that occupies an uneasy middle ground, neither fish nor fowl. It is a special case that makes selective, restrictive assumptions that are consistent with supporting his conclusions, while omitting or excluding other reasonable assumptions that would tend to dampen or negate those same conclusions.[19] As a consequence,

[18] *Id.* at 27. Katz repeats a nearly identical assertion on page 64 of his testimony ("[W]hen there is only a single buyer and that buyer has equal bargaining power with the seller, the resulting price is not closer to the competitive price than to the monopoly price, and such a price is not effectively competitive as that term would be understood by competition economics").

[19] To be fair, Professor Katz attempts – in a footnote – to distance himself from the very model he analyzes, claiming that he is merely following the analysis of a previous expert in Web II, with which he purports not to agree (Katz WDT, at 63 n.98). In the same breath, however, Professor Katz also appears to embrace that model to support several general conclusions, including his central conclusion (stated without caveats) that "even when there is only a single buyer and that buyer has equal bargaining power with the seller, the resulting price is not closer to the competitive price than to the monopoly price, and such a price is not effectively competitive as that term would be understood by competition economics." (Katz WDT, at 64). Since he has chosen to use this model as a vehicle to generate arguments that he evidently claims (footnote continued)

the framework he develops is incapable of either demonstrating broad, categorical points, or distinguishing among important fact-intensive considerations related to the WBWS framework.

1. Professor Katz's special-case model cannot support his categorical conclusions.

The model Professor Katz uses makes extremely strong (and highly unrealistic) assumptions that simply do not apply to broad settings in economics or standard bargaining theory, no less those in this case. For instance, in Professor Katz's testimony, he lauds the simultaneous policy goals of "promot[ing] consumer welfare and economic efficiency."[20] These two goals, however, are theoretically distinct, and often in tension with one another. For example, in markets where buyers potentially have significant market power (i.e., "monopsony" markets), the simultaneous pursuit of economic efficiency and consumer welfare may very well be impossible. Indeed, maximizing consumer welfare could entail transferring economic rents from producers to consumers, even when consumers gain less than producers lose – an outcome anathema to conventional efficiency calculus. The proposition that monopolist profit maximization may be inconsistent with economic efficiency is widely appreciated; less appreciated – but no less true – is the proposition that monopsonist welfare maximization may be inefficient. Consumer welfare and economic efficiency, therefore, should not be conflated with one another.

Unfortunately, the analytic model Professor Katz relies upon does just that, fusing together two of these important concepts by construction. His technical appendix employs a model that readily allows for the possibility of inefficient monopoly (supplier-side) power. Yet

to be general, it is appropriate to question whether his argument is robust to small variations in his model. As discussed further below, it appears that the answer is "no."

[20] Katz WDT, at 4.

that model does not allow for similar inefficient allocations under monopsony (buyer-side) power. To the contrary, his framework assumes away any possibility that monopsony power could ever introduce anything other than the perfectly competitive outcome. This is inconsistent with general economic theory, which places no *a priori* requirements that either monopoly or monopsony structures coincide with competition. Consequently, this model is incapable of supporting the general conclusions he evidently gleans from it.

More specifically, Professor Katz's model assumes that social marginal benefits (reflected by a demand curve) are falling in the quantity supplied, but that social marginal costs (reflected by the seller's marginal cost curve) are constant. This asymmetry has important implications for the comparison of monopoly and monopsony structures. A monopolist facing a downward-sloping marginal benefit curve deliberately cuts off supply short of the efficient point, because increased production will cause the price to fall not only for the marginal unit produced, but for infra-marginal units as well.

This same tradeoff generally confronts a monopsonist as well, which will ration market quantity when trading off the added marginal utility of consumption against increased price for all infra-marginal units of consumption. Just as a monopolist may truncate supply to the market (relative to the efficient benchmark), so too might a monopsonist truncate demand (relative to the efficient benchmark). However, Professor Katz's model of competition assumes away any such tradeoff for a monopsonist. In his model, a monopsonist can demand any amount, paying a constant marginal cost regardless of quantity demanded. Consequently, a monopsonist in Katz's model will demand exactly the same quantity (and pay the same price) as what Katz ascribes to perfect competition.

The asymmetric assumptions that Professor Katz's model makes in treating the monopolist and monopsonist may have proven a convenient vehicle for Professor Katz in reaching his conclusions, but that does not make them consistent with general economic theories. In fact, it is simple to demonstrate – using modest variations of Professor Katz's model – that if one allows for *both* monopoly power and monopsony power distinct from competition, his conclusion would change tremendously. Indeed, in such situations, a hypothetical bargaining outcome between a monopolist and monopsonist seller can easily deliver prices that are close (if not identical) to competitive prices. I demonstrate just such an example in the appendix (Section IV. A, *infra*), using a relatively modest generalization of Katz's model that decouples monopsony from perfect competition.

Finally, the special-case model that Professor Katz analyzes is inconsistent with conventional bargaining theory within economics, in at least two critical ways. First, he never specifies the "disagreement points" (sometimes called "threat points") of the monopolist and monopsonist in the hypothetical bargaining problem. In other words, Professor Katz's analysis fails to specify what happens when bargaining fails. This omission is critical, since a foundational ingredient of *any* bargaining problem concerns the positions that the parties are bargaining *from*.[21] It is impossible to analyze a bargaining model without specifying those positions, a step that Professor Katz's analysis omits.

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[21] *See* Binmore, K., Rubinstein, A., & Wolinsky, A., *The Nash Bargaining Solution In Economic Modeling*. 17 RAND J. of Econ. 176-188, 176 (1986).

Second, even if one were to speculate on disagreement points for Katz's model,[22] his bargaining analysis is unduly constraining. In particular, he appears to require that any transfer payments between the parties be embedded in a single unit price for all units purchased/sold, with no "lump-sum" transfers allowed. This is an important limiting assumption – for it leads his model to make predictions about negotiated prices / quantities that it would never obtain if he allowed for more general pricing terms, including lump sum payments between the parties.[23]

2. The special case that Professor Katz analyzes is inconsistent with the fundamental nature of this market and conventional economic theory.

Notwithstanding the lack of generality in the model Professor Katz utilizes, his framework and model could still be helpful if they typified important institutional features of the markets at issue here. In this case, the underlying market is for the right to perform copyrighted works, and thus it concerns intangible goods that derive value from enjoying intellectual property protection. A tailored model of market behavior may therefore be relevant if it makes assumptions that adequately capture this setting.

While Professor Katz's assumption of constant marginal costs is *possibly* consistent with this more tailored approach,[24] his framework is not in other respects. In particular, in addition to

[22] In the appendix, for the sake of illustration I have made an assumption that the market shuts down in the absence of a negotiated outcome.

[23] Specifically, Professor Katz's model appears to predict that the bargained-for quantity will (inefficiently) lie somewhere between the inefficient monopoly value and the efficient competitive value, thereby "leaving money on the table" in the form of a deadweight economic loss. If less constrained forms of transfer were allowed, rational parties would not bargain for such an outcome. Rather, the unique bargained-for quantity in his model (regardless of bargaining power) is the competitive quantity, with a lump sum payment from the buyer to the seller redistributing some of that payment (in a magnitude that reflects bargaining power). The corresponding average price / unit would be different from what Professor Katz computes.

[24] Even this point may be a bit of a stretch, since marginal cost also includes various types of indirect costs and opportunity costs, which seem unlikely to be invariant in the quantity supplied.

being at odds with conventional bargaining theory (as noted above), it (a) omits considering any fixed and quasi-fixed costs for suppliers; and (b) ignores critical product differentiation forces introduced by (and even required for) the nature of the goods at issue here.

Professor Katz's omission of these two important features is particularly notable in the light of the fact that his testimony specifically highlights them: "In the case of intellectual property and software markets . . . marginal cost pricing would not allow suppliers to cover their fixed costs. Moreover, even when there are many different suppliers of a good or service, each supplier may offer output that is somewhat different from that offered by other suppliers."[25] Notwithstanding this statement, Katz critically omits these factors in his analysis. Those omissions, in turn, render his analysis unreliable.

Consider first the absence of fixed costs in Professor Katz's theoretical framework. As noted above, the seller in his model is assumed to face constant marginal costs (an explicit assumption), but Katz says nothing about fixed costs, and the model he studies implicitly assumes such costs to be zero. This implicit assumption is internally inconsistent with Katz's own testimonial statement (see above), but it is also inconsistent with a conventional presupposition – common in economics – that firms face positive fixed costs.[26]

Had Professor Katz allowed for the possibility of fixed costs (consistent with both his earlier testimony and sound economic reasoning), he would have had to contend with the difference between marginal cost pricing and average cost pricing in competitive markets.[27] No firm facing constant marginal cost would ever enter (or remain in) a market where it was

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[25] Katz WDT, at 20.

[26] *See, e.g.*, Jean Tirole, The Theory of Industrial Organization (4th ed. 1990) at 307-8.

[27] Average costs reflect the amortized, per-unit value of fixed plus variable costs.

constrained to price at marginal cost, unable to recoup its fixed costs (along with a reasonable return). And yet, Professor Katz identifies the "competitive price" in his model as the point where price equals marginal cost.[28] At such a price, firms would earn negative profits, and consequently could never be in equilibrium. By neglecting to account for fixed costs (even when by his own admission such fixed costs play an important role in this setting), Professor Katz mistakenly identifies a "competitive price" that falls below what economic theory would predict.

Professor Katz strays from a second (perhaps more critical) feature of the institutional context relevant to this matter by failing to account for product differentiation in his analysis. Unlike simple economic models of competition, the markets at issue here have a significant intellectual property (IP) dimension. As Professor Katz himself acknowledges, music licensing markets are protected by a variety of intellectual property rights, including (but not limited to) copyrights. A distinguishing feature of such IP-intensive goods is their qualitative differentiation from one another. Copyright protection, for example, applies only to expressions of ideas that are sufficiently creative and unique to constitute an "original work of authorship" under the Copyright Act.[29] Such works include musical works and sound recordings.[30]

The defining legal attributes of IP assets are significant for understanding the economic characteristics of the markets in which such assets are bought, sold, and licensed. By design and construction, copyrightable works (including sound recordings) will inevitably tend to be *differentiated products*, with distinguishing attributes from product to product. In stark contrast to models of perfect competition, then, and unlike many of Katz's assumptions regarding

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[28] Katz WDT, at 64.

[29] *See* 17 U.S.C. § 102.

[30] *See id.* § 101.

effective competition, differentiated product markets tend to manifest neither a single market price for all goods, unmitigated substitution choices, unconstrained entry, nor marginal cost pricing. In fact, some of these qualities may even be *undesirable* from an economic efficiency perspective within markets for differentiated products.[31]

It is notable, moreover, that other experts retained by webcasters in this case – such as Professor Shapiro (Pandora) – are highly skeptical of the appropriateness of a simple textbook model of competition akin to the type employed by Professor Katz. For example, Professor Shapiro specifically notes early on in his report both of the features I highlighted above:

> First, sound recordings are differentiated products. Every song is distinct, and listeners value variety. Right away, this tells us that textbook models of perfect competition cannot be used in the recorded music industry. Those models are not applicable because they assume that many suppliers offer a homogeneous product… Second, the creation and distribution of sound recordings has a very particular cost structure: high fixed costs and very low marginal costs.[32]

It is widely known within economics that differentiated product markets need not yield a single "market price," and therefore conventional theories of perfect competition – such as the assumption that all consumers pay and all producers receive one price – are simply not tenable. Indeed, differentiated products imply that consumers may value each type of product differently, and may thus be willing to pay more for some than others. Moreover, such differentiation implies that the opportunity costs of selling at a given price may be different for different suppliers (even if their marginal costs of production are identical).

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[31] For example, it is well known that free entry and exit in differentiated product markets could result in too many or too few firms from an efficiency perspective. *See* Tirole, supra note 26, at 295.

[32] Shapiro WDT, at 4. I return to an analysis of Professor Shapiro's opinion in a later subsection, *infra*.

In addition, within licensing markets such as those at issue here, there may be even more pricing heterogeneity than conventional differentiated product models would predict. Indeed, such licenses (be they statutory or negotiated) are generally not transferrable to others.[33] Consequently, even customers who buy the same differentiated product from the same supplier may agree to different prices (a factor not considered even with standard differentiated product models in economics). Within these individual negotiations, potential buyers may sometimes have more bargaining power than the seller they are matched with – a fact that can introduce natural variability in the price of the resulting non-assignable license. Thus, not only should one expect to see a fair amount of price heterogeneity *between* differentiated products, but one can also expect to see pricing heterogeneity *within* the customer base for each product, as each seller bargains with different counterparty buyers who possess heterogeneous valuations and variable relative bargaining power.

It is important to appreciate that differentiated products (and prices) need not be undesirable characteristics of the markets at issue here. To the contrary, these characteristics were created deliberately – through a legal regime that grants copyright protection to the original expressions of ideas, thereby encouraging the development of such expressions.

The conclusion that prices in the differentiated markets at issue here would generally not converge to a single market price has at least three important implications:

First, one should not expect to observe a single, uniform price emanating from negotiated transactions, but rather a range of prices reflecting the natural variability between and among

[33] *See, e.g.*, 17 U.S.C § 112(e)(1)(A) (requiring copies of phonorecords made by a statutory licensee to be "retained and used solely by the transmitting organization that made it"); [redacted]

willing buyers and willing sellers, who each possess different valuations and degrees of bargaining power. Thus, economic frameworks that assume or impose a single equilibrium price for all buyers and sellers (such as the framework underlying Professor Katz's analysis, as supported by his appendix) are inappropriate for analysis of such markets.

Second, for purposes of determining a reasonable licensing fee in a WBWS framework, it is important to account for the heterogeneity one likely will observe in negotiated prices. This may entail – for example – assessing some measure of central tendency (such as means or medians) within the range prices that emerge from negotiated transactions across the differentiated product space. Professor Katz's testimony contains no discussion of this issue.

Third, the heterogeneity of prices that emerges from differentiated product markets such as these suggests that the existence of a statutory licensing regime in the background can profoundly affect the observed distributions (and thus average and median prices) of negotiated transactions, *even when* the statutory rate is set (or expected to be) above the average / median prices that would emerge from market transactions between willing buyers and willing sellers. In a footnote, Professor Katz's analysis discounts the effect of "outside options" in affecting negotiated outcomes when such option prices are above market price.[34] What his analysis fails to appreciate,[35] however, is that his argument depends critically on a uniform market price that prevails for all parties. When no such single market price exists, a seemingly above-market call option created by a statutory license can induce significant downward bias in observed

[34] Katz WDT, at 27.

[35] Professor Shapiro, discussed below, also fails to appreciate this point.

negotiated rates by crowding out negotiations that would otherwise yield higher rates.[36] Consequently, the model that Professor Katz studies in his appendix is incapable of showing how a statutory licensing option can significantly skew prices in a downward direction.[37]

3. Professor Katz's analysis does not adequately account for the effects of downstream market competition.

Finally, Professor Katz's analysis – and his conclusion that the interactive service market is not "effectively" competitive – neglects how other factors in the downstream listener market may affect the ability of sellers (no matter what their market power) to extract value for their differentiated products. For example, as digital content has become a dominant medium of listenership, the credible threat of online piracy has become an important source of concern.[38] The specter of piracy can often act as a significant constraint on pricing, particularly for sellers of differentiated products that are valued highly by the market. An attempt to extract too high a price (a price passed through to consumers by webcasters) can cause end users to substitute

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[36] In Section III of this report, in fact, I demonstrate that even when a pre-existing statutory licensing rate appears to be far above median and average prices that would emerge in a decentralized market of one-on-one bargaining between buyers and sellers, the statutory rate can cause observed negotiated prices to be biased downward, far below the median and average rates that would prevail in the absence of a statutory royalty regime.

[37] It is also important to note that a statutory license regime does not create a conventional form of "outside option" that is frequently studied in bargaining theory. In the conventional setting, one of the bargaining parties may have an outside option to walk out on negotiations and receive an external payoff (and thus the modifier "outside"). *See, e.g.*, Binmore, K., Rubinstein, A., & Wolinsky, A., *The Nash Bargaining Solution In Economic Modeling*. 17 RAND J. of Econ. 176-188, 185 (1986) ("An outside option is defined to be the best alternative that a player can command if he withdraws unilaterally from the bargaining process"). Under a statutory licensing option, however, the seller holds the short position in the buyer's call option, and thus the buyer is not departing the negotiations as much as she is dictating an outcome by exercising the option.

[38] One credible 2007 study estimates the costs of online music piracy in the US to be upwards of $12 billion per year. *See*, *e.g.*, Stephen E. Siwek, "The True Cost of Sound Recording Piracy to the U.S. Economy" (Institute for Policy Innovation, Policy Report #188) (August 2007).

pirated content for legitimate sourced materials, placing significant constraints on supplier pricing. Moreover, even beyond piracy, several other alternative sources of listening (such as competing subscription services with lower prices,[39] free streaming services, YouTube, and terrestrial radio) offer cheap (or even free) alternatives, a fact that further constrains even a monopolist supplier's ability to raise prices in licenses to interactive services.[40] Notably, the constraints imposed by competing with "free" (or near free) are particularly pronounced the more highly the good is valued by the market (where the returns to obtaining free access are the greatest). And yet, Professor Katz's testimony fails to take them into account (as does Professor Shapiro's, discussed below).

B. Direct Written Testimony of Carl Shapiro (Pandora)

Professor Shapiro's analysis is tethered to a slightly different market framework than is Professor Katz's – one where sellers enjoy limited pricing power due to product differentiation. Specifically, Shapiro makes repeated reference to the (so-called) "Lerner equation" (sometimes known as the Lerner index), which relates the price-cost markup charged by producers of differentiated products to the elasticity of consumer demand for the producer's differentiated

[39] There exists substantial price competition in the interactive streaming space, and subscription prices for interactive services are falling. Apple, for example, reportedly is soon to be introducing an interactive subscription service for $7.99 per month (a departure from the previous $9.99/month norm). *See* Joe Rossignol, Apple Working on New Beats Music Service Integrated into OS X and iOS, Available on Android, MacRumors (February 2015), http://www.macrumors.com/2015/02/04/apple-new-beats-music-service/. Similarly, Spotify's new Family Plan effectively sets prices for between $6-$7.50 per user. *See* Lexy Savvides, Spotify Family Plan: Separate Accounts, One Discounted Bill, CNET (October 2014) http://www.cnet.com/news/spotify-rolls-out-family-feature-separate-accounts-one-bill/

[40] *See, e.g.*, Daniel Ek, "I'm Spotify CEO Daniel Ek. And These Are the Facts...," Digital Music News (November 2014) (http://www.digitalmusicnews.com/permalink/2014/11/11/im-spotify-ceo-daniel-ek-facts) ("Here's the overwhelming, undeniable, inescapable bottom line: the vast majority of music listening is unpaid. If we want to drive people to pay for music, we have to compete with free to get their attention in the first place").

product. Using this conceptual framework,[41] Professor Shapiro purports to show how non-interactive webcasters who find it easy to "steer" their listeners towards (and away from) specific labels will tend to exhibit relatively high elasticity of demand, resulting in a relatively low price. In contrast, he argues that webcasters who find it more difficult to steer listeners – which he claims to characterize interactive services – will tend to have a low elasticity of demand, resulting in a relatively high price. He then purports to apply this analysis to distinguish between non-interactive services and interactive services and to argue that it is inappropriate to use negotiated prices in the interactive market as benchmarks for prices that would emerge in the non-interactive market.

As I have noted above, I agree with Professor Shapiro that simple textbook models of perfect competition or monopoly pricing with a single product are simply not appropriate for analyzing this market setting. Rather, Shapiro concludes (and I agree) that an analysis of appropriate benchmarks in this setting would have to account for the fact that sellers in this market offer products that are differentiated from one another.

And yet, while I agree with Professor Shapiro about this dimension of the exercise, I also part company with him. As I elaborate more fully below, Professor Shapiro makes several overly strong assumptions or omissions that undermine the ultimate usefulness of his opinion, including: (1) like Professor Katz, he excludes the possibility that buyers *too* may be differentiated from one another, and that some may possess considerable bargaining power in

[41] Unlike Professor Katz, Professor Shapiro does not appear to base his conclusions on analysis of a specific model of competition, but instead endeavors to draw general conclusions from a set of intuitions that he purports to glean from the general literature. However, like Professor Katz, Professor Shapiro invokes a concept he calls "workable competition" to animate his analysis. This is not a term that has a precise economic definition, and Professor Shapiro fails to offer one.

their own right, depending on their listener base, their market penetration, their scale, their position within the industry and the like;[42] (2) he endorses a single, isolated agreement that involved an atypical bargaining dynamic as his benchmark; (3) he incorrectly dismisses the downward biasing effect of a statutory licensing regime on negotiated prices; and (4) he considerably overstates the degree to which bargaining outcomes would differ in the interactive market as compared to the hypothetical non-interactive market.

1. Professor Shapiro's conceptual approach fails to account for the possibility of buyer-side bargaining power.

It is important to note that Professor Shapiro's analysis – while rooted in models of differentiated product competition – assumes throughout that buyers are *price takers*, and that they possess *no* bargaining power against the seller to negotiate price.[43] Moreover, under his analysis, all buyers from a given seller are all assumed to pay a single, uniform price. In this respect, Professor Shapiro's theoretical framework suffers from a similar defect as does Professor Katz's. Neither is able to accommodate the possibility that producers of differentiated products can (and do) reach different prices with different buyers, depending (*inter alia*) on the buyers' and sellers' relative bargaining power.

In fact, Professor Shapiro concedes that his approach does not adequately capture the effects of buyers' ability to affect price through negotiation. He admits, for example:

> The analysis underlying the Lerner Equation assumes that the supplier is in the driver's seat in the sense of dictating the price, which buyers must then take as given when making their purchase decisions… An alternative formulation would

[42] Such a relationship, for example, is a plausibly apt characterization of the negotiations between Pandora and Merlin (a topic I return to below).

[43] Although buyers in Shapiro's analysis may be able to "vote with their feet" (e.g., by refusing to transact), they have no ability to negotiate directly the terms of any contract with sellers. Those terms are set unilaterally (and on a "take-it-or-leave-it" basis) by sellers.

> have the buyer set the price, which sellers must then take as given when making their supply decisions… Neither of these approaches is precisely on point for the task at hand. Here, we are attempting to approximate a negotiated price – one that is determined following a back-and-forth process, with neither side dictating the price.[44]

Shapiro readily concedes that his Lerner-Equation approach fails to deliver a prediction of a negotiation outcome, but instead delivers "the seller's profit-maximizing price."[45] Rather than explore an approach that is "precisely on point," however, Professor Shapiro instead endeavors to rationalize his Lerner Equation approach, arguing that it delivers a reasonable approximation to a negotiated price, because both inquiries entail assessing the nature and characteristics of both a seller's marginal cost and the buyer's elasticity of demand.

This reasoning is unconvincing. Just because two accounts of economic behavior require the same (or similar) informational inputs, it does not follow that the behavior predicted by the two accounts should be equivalent, even approximately. To take an extreme example, if a firm were interested in *minimizing* (rather than maximizing) its profits, it would likely want to use information about marginal cost and demand elasticity in formulating its strategy – *i.e.*, the same factual inputs that animate the Lerner equation approach. But one cannot conclude, on this basis, that the behavior of profit-minimizing firms and profit-maximizing firms are likely to be similar, even remotely. In the light of the statutory mandate to consider negotiated prices, and Professor Shapiro's concession that his approach (like Professor Katz's) generates prices that would emerge only from a one-sided, seller-dominated market in which buyers are price takers who cannot negotiate over price, his approximation argument is inapposite and unconvincing.

[44] Shapiro WDT, at 7.

[45] *Id.*

Had Professor Shapiro engaged the issue of bilateral negotiations rigorously, his analysis would have attempted to consider how varying degrees of buyer and seller bargaining power would affect observed prices, and under what conditions. However, Professor Shapiro's testimony not only diregards that approach, it actively eschews it. Shapiro briefly notes that he considered – and then rejected on pragmatic grounds – a "structural modeling approach," which would entail formulating an economic model of bargaining, and possibly fitting that model to observed data.[46] Professor Shapiro reports that he rejected the structural modeling approach because there was insufficient data to generate a reliable and robust set of predictions. Specifically, he says he lacked: (a) demand elasticities for sound recordings and (b) record companies' marginal costs.[47]

These grounds for Professor Shapiro's professed dismissal of a structural modeling approach would, if true, significantly undermine much of the remainder of his own analysis. Indeed, by Shapiro's own admission,[48] it is exactly those same factual inputs that are required to put the Lerner Equation into service, a task that he purports to execute in the remainder of his testimony. Thus, even if it were the case that the required data were unavailable to engage in structural modeling (a claim on which I take no position), such constraints should have forestalled Professor Shapiro's Learner-Equation endeavors too, *ab initio*.

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[46] *Id.* at 18.

[47] *Id.* at n.26.

[48] *Id.* at 7.

2. Professor Shapiro's endorsement of the Pandora-Merlin benchmark is highly questionable.

Professor Shapiro's exclusion of buyer-side bargaining power is particularly noteworthy and striking when viewed in conjunction with his forceful endorsement of the Pandora-Merlin transaction as an appropriate benchmark for these proceedings. It is difficult indeed to conceive of a buyer-seller dyad in which the buyer enjoyed greater relative bargaining power – in a direction diametrically opposite to that supposed by Professor Shapiro's theoretical framework – than the Pandora-Merlin deal. As "by far the most recognized and used [music streaming] service"[49] – and with 250 million registered users[50] – Pandora is undeniably a unique, powerful buyer. And unlike other potential counterparties, Merlin's portfolio of independent labels constituted [redacted] of total Pandora plays.[51] Merlin's portfolio, moreover, was small in general when compared to those of the major labels.[52] If any party was truly in the "driver's seat" in setting price here, it was the buyer (Pandora) and not the supplier (Merlin). This asymmetrical bargaining dynamic was even further amplified by the fact that Pandora had the option to fall back on the pureplay rates in the event bargaining broke down.

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[49] *See, e.g.*, Ben Taylor, By the Numbers: The Streaming Music War (and Who's Winning), Time, http://time.com/3109273/streaming-music-services-compared/#3109273/streaming-music-services-compared/ (August 2014).

[50] Matt Burns, The Pandora One Subscription Service To Cost $5 a Month, Tech Crunch, http://techcrunch.com/2014/03/18/the-pandora-one-subscription-service-to-cost-5-a-month/ (March 2014).

[51] Shapiro WDT, at 26.

[52] *See* Lexton WRT Ex. 4 [redacted]

Moreover, as Professor Shapiro notes, the Pandora-Merlin deal also includes special undertakings by Pandora to steer its customers to Merlin-associated artists.[53] As noted in further detail below, one might legitimately be skeptical about Pandora's long-term ability to engage in significant steering between labels or other providers. However, even if Professor Shapiro is correct, and steering efforts could reasonably be expected to be effective and durable, then one would also reasonably expect them to have an effect on the price. Specifically, the non-price steering terms would tend to bias the rates that Merlin was willing to accept *downward*, since the contract permitted it to receive other pecuniary benefits on an in-kind basis.

Such in-kind benefits, in fact, would not be readily available to all potential counterparties. Indeed, Pandora could not credibly undertake to steer customers to labels of the majors too, because it would have to steer them away from something else. Consequently, even if steering "works," Pandora has only a limited ability to promise steering services to counterparties. If it offered such services to all counterparties, it would not be able to perform its contractual undertakings to at least one of them (if not more). Notwithstanding his assertions of the effectiveness of steering, however, Professor Shapiro does not endeavor seriously to correct for the price-effects of a contractual steering obligation in the Pandora-Merlin deal.

Moreover, the Pandora-Merlin transaction is suspicious in its timing. My review of the evidence suggests that Pandora was anxious to close the deal with Merlin [redacted] promptly, possibly so that they could argue that it should be a benchmark for this rate proceeding. The fact that the term of the Pandora-Merlin agreement [redacted] further bolsters the possibility that Pandora

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[53] Shapiro WDT, at 27.

values this contract as much for its strategic value in this rate setting as for its fundamental value for Pandora (or Merlin).[54]

It is therefore odd that Professor Shapiro identified for his benchmark the terms of a transaction so heavily imbued with (a) buyer-side bargaining power; (b) clear non-price concessions by Pandora; and (c) suspicious timing. Moreover, it is incongruous that having isolated this transaction, Professor Shapiro proceeded to shoe-horn it into a theoretical framework that assumes away all buyer-side bargaining power, limited (or no) non-price term variability, and non-strategic timing.

Moreover, as noted previously, Professor Shapiro's conceptual framework has not situated the Pandora-Merlin deal within the broader array of privately negotiated deals – and heterogeneous prices – that would be generated within this type of market setting.

3. Professor Shapiro incorrectly dismisses the downward bias effect that statutory licensing rates may have on negotiated agreements.

In addition to these limitations in his theoretical framework, Professor Shapiro (like Professor Katz) also fails to appreciate the importance of how observed negotiated prices among buyers and sellers are affected when they are executed in the shadow of statutory-licensing options (such as the statutory pureplay rate in the case of the Pandora-Merlin negotiation). In particular, his analysis fails to appreciate how the presence of an existing (or anticipated) statutory licensing regime can introduce a substantial downward bias in negotiated rates. At the end of his written testimony, Professor Shapiro briefly addresses – and quickly dismisses – the idea that a statutory license rate would affect negotiated prices executed in the shadow of a statutory rate. In particular, he asserts that the statutory rate provides only a "ceiling" on prices

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[54] *See id.* at 24.

in negotiated transactions; and that "when this ceiling is above the competitive level," competition in the marketplace will produce lower negotiated rates, which would indicate that the "statutory rate is … above the competitive rate."[55]

This argument is both perplexing and unpersuasive. As noted above, within a differentiated market setting it is likely that individual negotiations among heterogeneous buyers and sellers will give rise to a heterogeneous range of prices. It therefore becomes challenging (if not meaningless) to advert – as Shapiro does – to a single "competitive rate" across the industry, or even within the customer base of a given supplier. Moreover, within this heterogeneous price range, an appropriate statutory rate plausibly aims for some central measure (e.g., the mean or median) of those prices that would plausibly result from bargaining between buyers and sellers in a market reflecting competitive forces.[56] If such a rate prevailed, it would then – by definition – exceed some individual prices within that range, and fall short of others. While it is certainly possible that some transactions (particularly those of relatively low value) will continue to be negotiated in the shadow of the statutory license rate, many others (those of relatively high value) will be "crowded out" by the statutory licensing regime (and, as a practical matter, totally excluded). That is, the option created by the statutory license allows buyers to assume a license non-consensually from the seller at a specified strike price, without ever having to negotiate. Buyers whose valuation exceeds that strike price will exercise it rather than bargain. Consequently, the only negotiated transactions left behind to observe would be between relatively low-valuing buyers and sellers (generating relatively low prices). The net result would

[55] *Id.* at 36.

[56] From my review of prior CRB decisions, the WBWS standard presumes a market reflecting "sufficient competitive factors." Web III at 23114, n.37.

bias the range of observed negotiated prices downward, below (and perhaps far below) the normative WBWS rate.[57] Indeed, in Section III.3, *infra*, I demonstrate how the availability of a statutory license can significantly distort bargaining outcomes in just such a fashion.

4. Professor Shapiro's analysis of Pandora's "steering" experiments does not support his conclusion that non-interactive services involve pure substitutes while interactive services involve pure complements.

Professor Shapiro's testimony advances the argument that the products in the non-interactive market are subject to "steering," and thus webcasters within the non-interactive space can substitute some licensors' content with that of others without losing listenership. Suppliers in the interactive space, he contends, cannot engage in steering strategies. Professor Shapiro appears to employ this argument to assert that the licenses for non-interactive services are consumption substitutes, not complements. Consequently, he suggests the normative WBWS benchmark price would not closely resemble the prices negotiated in a market where products are complements – a descriptor that both he and Professor Katz ascribe to interactive markets, thereby purportedly diminishing the usefulness of interactive benchmarks.

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[57] To put things another way (and borrowing from Professor Shapiro's own hypothetical (at p. 36), suppose there were a population of drivers who were inclined in the absence of a speed limit to drive between 40 and 60 miles per hour, uniformly distributed (and thus their observed average and median speeds would be 50 mph). The introduction of a 50 mile-per-hour speed limit would force half of them to slow down to 50 mph by compulsion. The other half – those who remain unconstrained by the new speed limit – would be a discernibly slower group (with observed average and median speeds of 45 mph). Professor Shapiro's driving hypothetical misses this effect because it – like his economic analysis – assumes away all population heterogeneity, and with it the concomitant downward statistical bias that the speed limit introduces in such an environment.

Professor Shapiro's invocation models that generate a single market price are somewhat more peculiar than Professor Katz's, since Shapiro himself noted 32 pages earlier in his written testimony that "sound recordings are differentiated products," and thus "textbook models of perfect competition cannot be used in the recorded music industry" because such approaches "assume that many suppliers offer a homogeneous product." (Shapiro WDT, at 4.) I am unable to reconcile these two parts of his testimony

Although I agree with Professor Shapiro's characterization of the pricing effects of substitutes and complements as far as it goes, in this case the import of such a characterization is limited. For the reasons noted below, similar bargaining dynamics to those that Professors Shapiro and Katz ascribe to the interactive space would also exist in the non-interactive space.

First, from the standpoint of economic theory, it is highly questionable whether one could ever reliably label intellectual property goods as "pure" complements or substitutes in a categorical sense. More realistically, such products can exhibit complementarity or substitutability on some localized margins, but that tells us little about their behavior outside those margins.[58]

Second, consider Professor Shapiro's claim that the Pandora steering experiments demonstrate that record companies' portfolios are substitutes in the non-interactive space. He bases this claim on a set of internal Pandora experiments, conducted in 2014 for the purposes of this rate-setting proceeding. It is worth noting at the onset that this evidence comes from a non-peer reviewed experiment conducted by an interested party and its own expert. But cabining that issue (and any discount it merits), it is not entirely clear that the evidence provides strong support for Professor Shapiro's categorical conclusions. Indeed, the factual record suggests that the ability of non-interactive services to steer listeners is somewhat more limited than Professor Shapiro's testimony suggests. In particular, the evidence suggests that [redacted]

[58] *See, e.g.*, Josh Lerner & Jean Tirole, "Efficient Patent Pools," 94 Amer. Econ. Rev. 691, 692 (2004) (questioning the characterization of patents as either categorical substitutes or complements).

[redacted]

Third, it is worth noting that by definition, the concept of "steering" is a zero sum exercise; by steering customers away from one record company, one must necessarily steer customers towards the others. This mathematical truism constrains a non-interactive webcaster's ability to steer as a matter of theory, and this fact appears evident in the 2014 experiment's results [redacted][62] The upshot of this evidence is that – as theory and common sense predicts – Pandora's business operations cannot be said to consist of pure complements or pure substitutes. In other words, on some relevant margins, major label copyright libraries also appear to be "must have" assets for non-interactive webcasters. While that is not surprising theoretically, it does undercut the attempt to distinguish interactive and non-interactive services sharply as incommensurable apples and oranges, particularly given that the

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[59] *See* Ex. 1, [redacted] PAN_CRB_00096910.

[60] *Id.* at 12.

[61] *See* McBride WDT, Figure 2, Table 1.

[62] *See* McBride WDT, Figure 2, Table 1.

statutory license at issue in these proceedings operates at a margin, and not a small one: it is a *blanket license for all* of a label's catalog.

This last point bears emphasis. Unlike the fractional manipulations analyzed in Pandora's steering experiments, a hypothetical buyer in the target WBWS market would not have the option to bargain for whatever fraction of a label's repertoire it felt necessary to avoid a loss in listenership. Instead, it would have to bargain for 100 percent of it, or none. In the context of a negotiation for a blanket license, then, this suggests that the relevant margin for assessing the credibility of a steering threat would not be 15 percent, 18 percent, or even 30 percent of a label's repertoire. It would be 100 percent. Viewed in this context, any leverage a service might enjoy from a threat to steer a small segment of a major label's listenership would be outflanked by a major's ability to threaten to withhold its entire catalog. Even if Pandora had a meaningful ability to steer listeners over a small margin in the non-interactive space, it does not follow that labels' repertoires are substitutable at the margin relevant to a hypothetical negotiation involving a blanket license.

Fourth, as noted earlier, both non-interactive and interactive markets must contend with the specter of statutory licensing, piracy, or other low-cost (or free) means to access content. Thus, even if it were the case that interactive content involved pure complements, such outside factors would bias observed interactive services prices downward (possibly considerably).

Finally, recall that Professor Shapiro marshals the Pandora steering experiments in an attempt to support his claim that the non-interactive space involves greater substitutability and less complementary than the interactive space. Even if his interpretation of the Pandora experiments is sound (and I am skeptical, as noted above), his analysis is only halfway done: It offers no empirical basis for comparing of the two markets. In other words, notably absent from

Professor Shapiro's (and Dr. McBride's) analysis is an empirical assessment of the extent to which *interactive* webcasters can also steer customers towards or away from a given label (such as through, for example, featured playlists or radio stations).[63] It is difficult (indeed impossible) to conduct a credible "horse race" between two markets if one's attention is trained exclusively on a single horse.

III. BARGAINING MODEL ANALYSIS AND SIMULATIONS

In the previous sections, I have highlighted the lack of attention paid to bargaining models and negotiating dynamics in other experts' testimony. In particular, I have highlighted that Professors Katz and Shapiro have both employed models that give only sellers "bargaining power" to set prices in negotiations. The frameworks they use to inform their analyses generally presume either that buyers do not have analogous bargaining power, or that if there is buyer-side bargaining power, it is indistinguishable from perfect competition, which is incorrect as a general proposition in economics.

In addition, I have highlighted a fact that other experts have tended to minimize or dismiss: that all of the services' proposed benchmarks were executed in the direct shadow of a type of "real option" created by an existing (or anticipated) statutory licensing regime—an

[63] In his testimony, Professor Shapiro asserts multiple times that the interactive space is characterized by pure complements, but he offers no empirical evidence of this claim, and certainly nothing that affords a direct comparison to Pandora's experiments in the non-interactive space. Although he adverts to the FTC's closing documents in the 2012 UMG-EMI merger, those documents similarly do not provide a basis for comparing the two markets; moreover, the FTC's statement specifically limits its scope to the facts presented by the Universal and EMI portfolios. See Statement of Bureau of Competition Director Richard Feinstein, September 21, 2012, available at

http://www.ftc.gov/sites/default/files/documents/closing_letters/proposed-acquisition-vivendi-s.a.emi-recorded-music/120921emifeinsteinstatement.pdf.

option that would allow the buyer to assume a license non-consensually from the seller at a specified strike price.

Given the absence of serious analysis of these two factors in other expert reports, I undertook to analyze more structurally how – in a market of differentiated products – a heterogeneous population of willing buyers and willing sellers would plausibly negotiate with one another, and how such bargaining outcomes change when (a) one varies the degree of bargaining power held by sellers *and* buyers; and (b) one introduces an "option" favoring the buyer, in the form of a statutory licensing regime.

As I have argued above, this sort of inquiry is critical for understanding the relevance and applicability of various "benchmark" prices for informing the appropriate value for statutory licensing rates. Indeed, it is necessary to understand these dynamics before one can determine whether – and to what extent – the terms observed in certain proffered benchmarks can inform the determination of the prices that would emerge from bargaining between willing buyers and sellers, and from a comparability perspective, which proposed benchmarks may be superior to others. Although I shall elaborate my reasoning at much greater length below, four central conclusions emerge from this analysis.

First, as foreshadowed earlier in this testimony, the prices (and potentially other terms) that one would expect to observe—when heterogeneous buyers and sellers negotiate in differentiated product markets, with heterogeneous degrees of bargaining power, over non-transferrable rights—are likely to exhibit heterogeneity; they need not (in fact they generally will not) converge to a uniform value. Consequently, one should expect to observe a range of prices from such benchmark transactions, suggesting that an appropriate benchmark is unlikely to consist of a single example or specimen price, but rather some aggregated assessment of the range of benchmark prices (such as median or mean). Fixating on a single benchmark – as Professor Shapiro does – would therefore be imprudent.[64]

Second, as one varies the bargaining power of each side, negotiated prices can be expected to fluctuate in a similar fashion. However, the presence of downstream competition in the consumer market from free or low-cost alternatives (such as other lower-priced competing subscription services, piracy, YouTube, and the like), will cause the WBWS price to be tightly clustered, reducing variations due to differences in bargaining power. Thus, even in circumstances where the seller has all or almost all of the bargaining power, competitive market forces in the downstream consumer market can constrain the range of prices considerably that the parties would agree to in the upstream licensing market, and negotiated rates will reflect such competition, with accordingly smaller relative variations in prices due to differences in bargaining power.

Third, a particularly important source of downward pricing bias in observed negotiated rates – and one that many of the other experts appear to neglect (or unduly discount) – comes from bargaining in the "shadow" of existing or pending statutory licensing regimes, whereby the buyer possesses (or expects to have) an option to appropriate a license from the seller non-consensually, upon payment of a known statutory fee. The existence of a statutory license option for the buyer *can bias observed benchmark prices appreciably downward.* That is, regardless of the parties' relative bargaining power, even seemingly high statutory fees tend to push average and median prices of negotiated transactions downward.

[64] Moreover, as elucidated above, fixating on a single specimen benchmark deal risks inviting participants to engage in strategic contracting practices to manipulate the rate setting process.

Fourth, I demonstrate that the downward bias in observed prices in the presence of a statutory licensing regime (the "option bias") can amplify other types of pricing biases due to other forces that work in the same direction. In particular, the option bias tends to reinforce any pre-existing downward bias in price introduced (say) when buyers possessing disproportionate bargaining power negotiate in the shadow of a statutory licensing regime. The aggregated effects of these forces can severely bias the resulting negotiated rate downward, undermining its probative value relative to other benchmarks (even those where sellers have substantial bargaining power).

The discussion below illustrates these points using a set of Monte Carlo simulations based on a more general modeling framework.[65] The appendix to this testimony develops that framework with greater generality (and mathematical rigor) for distributional assumptions that are extremely general.

A. Bargaining Framework

The modeling framework presupposes a heterogeneous population of buyers and sellers of some differentiated good or service, such as licensing rights to non-interactive digital performances. In this context, sellers would be akin to record companies/performers; and buyers would be akin to internet webcasters. Prospective buyers are heterogeneous, in that each has a unique maximal "willingness to pay" for a performance right (which I shall intermittently refer to as the buyer's "type"). Similarly, sellers are also heterogeneous, and each has a unique

[65] A Monte Carlo simulation is a standard technique for assessing outcomes in models that contain a probabilistic element. They frequently involve simulating or sampling behavior multiple times (often in the tens or hundreds of thousands, and sometimes millions or more) to generate distributional inferences about the probabilistic behavior of a model. See generally N. Metropolis, "The Beginning of the Monte Carlo Method," Los Alamos Science, No. 15, at 125-30 (1987).

minimal "willingness to accept" to grant performance rights (the seller's "type"). Both buyers' and sellers' types are assumed to be governed by random variables, and thus the value of a buyer's or seller's valuation can only be estimated probabilistically. This assumption is deliberate, because it allows for heterogeneity of contracting parties (and the ensuing contracts they execute). This is appropriate, moreover, for the current context given the highly differentiated nature of the products and non-transferrable nature of the licenses.

Moreover, the list of conceptual ingredients that go into the buyers' and sellers' respective types is extremely open ended. These values can be thought to embody a multitude of factors such as marginal/fixed/average cost considerations for the seller, budget constraint considerations for the buyer, opportunity cost considerations (for both sides), market penetration decisions, and many other attributes.

B. Simulation Environment

For the purposes of the simulations below, the pair of buyer/seller valuations is assumed to be distributed according to a *bivariate normal*. Bivariate normal distributions are extremely common in economics and statistics; moreover, when traded items are purchased and typically sold in bundles at approximately the average price per item per bundle (as is the case here), such distributions tend to emerge naturally.

Bivariate normal distributions are also relatively straightforward to summarize, as their attributes are wholly dictated by five critical parameters that are familiar within probability and statistics: (a) the mean values for buyer and seller valuations, (b) the variances of buyer and seller valuations, and (c) the correlation[66] between buyer and seller valuations. (One might

[66] The correlation coefficient is defined as the covariance between two random variables divided by the product of their standard deviations. It captures a measure of whether the two random (footnote continued)

imagine that the correlation is frequently positive in the context studied here, as “hits” are likely more valuable both to buyers and to sellers, while “duds” are not as valuable to either population.)[67]

Within this setting, suppose that buyer-seller pairs (or “dyads”) are repeatedly drawn randomly from the population described above. Each time a dyad is drawn in this fashion, the buyer and seller are given the opportunity to bargain with one another for the possible purchase of the underlying good by the buyer.

As is well known in the bargaining literature, there are many ways to model bargaining between two or more parties. Some, however, are more general than others. In what follows, I will highlight what most economists agree is the most general modeling framework for non-cooperative bargaining with complete information: the Nash bargaining solution, which characterizes the prices associated with transactions that make both parties better off given their reservation values (or “threat points”).[68] Specifically, the Nash solution exhibits several characteristics that contribute to its generality, its intuitive appeal, and its overall parsimony.[69]

The Nash solution predicts that a negotiated outcome will occur only when there are potential gains from trade (i.e., when the buyer’s valuation exceeds the seller’s). Moreover, the

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variables tend to move together (positive correlation) against one another (negative correlation) or in no particular pattern (zero correlation).

[67] It warrants reiterating that although I will illustrate my arguments using a set of Monte Carlo simulations based on bivariate normal distributions, my analysis in no way depends on that distributional family. An appendix to this statement demonstrates my general argument for a broader family of distributions.

[68] In my analysis I use a standardized normalization for bargaining models, assuming that in the absence of a statutory license, buyers receives payoff of zero, and sellers retain a payoff equal to their willingness to accept. The introduction of a statutory rate can significantly alter these threat points, as I explain below.

[69] *See* John Nash, “The Bargaining Problem,” 18 Econometrica 155-162 (1950).

Nash solution is based on a set of reasonable general axioms about what a bargaining solution should look like, rather than committing to a particular bargaining protocol.[70] In addition, the Nash solution can often be "translated" into other familiar bargaining frameworks; a Nash solution, for example, can be shown to correspond to the equilibrium outcomes of many of the most widely utilized non-cooperative bargaining games with complete information (such as "take-it-or-leave-it" protocols, or the Rubinstein bargaining game of alternating offers).[71]

Finally, the generalized Nash solution is relatively straightforward to compute. Specifically, in any situation where the buyer values more than the seller, the price produced by the Nash solution is the weighted average of the buyer's and seller's respective reservation payoffs, where the respective weights attached to each party's reservation payoff coincide with *the other party's* bargaining power. Thus, when a seller has all the bargaining power, the Nash price is equal to the buyer's highest willingness to pay. Conversely, when a seller has all the bargaining power, the Nash price is equal to the seller's lowest willingness to accept. When the buyer and seller have commensurate bargaining power, the Nash price would be at the midpoint between the buyer's and the seller's valuations. I understand that the CRB has previously acknowledged the potential usefulness of the Nash solution for characterizing and predicting bargaining outcomes (subject to some caveats).[72]

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[70] These axioms include standard assumptions about individual preferences, Pareto optimality, independence and symmetry. *Id.* Introducing differential bargaining power between the parties requires the relaxation of the symmetry axiom. See Binmore, K., Rubinstein, A., & Wolinsky, A., *The Nash Bargaining Solution In Economic Modeling*. 17 RAND J. of Econ. 176-188 (1986).

[71] *Id.*

[72] *See* Copyright Royalty Board, Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services (SDARS II), 37 CFR Part 382 [Docket No. 2011–1 CRB PSS/Satellite II] (2013). In SDARS II, the Board did not ultimately adopt the recommended rates that Dr. Crawford (Music Choice's expert) purported to generate with the (footnote continued)

C. Simulation Analysis

Having described the basic parameters related to Nash bargaining, I now proceed to analyze how expected prices would behave in the model outlined above. Consistent with my understanding of the CRB's statutory mandate and prior holdings, I first consider such bargaining outcomes in the absence of any outside statutory licensing regime, and for a range of different bargaining power parameters. Then, I will compare those prices to those that would emerge from a setting in which a statutory license exists, giving the buyer a call option.

As noted above, I suppose that a series of prospective buyer-seller pairs are repeatedly chosen at random[73] from the population of buyer-seller pairs characterized by the bivariate normal distribution. For some of these randomly-selected dyads, it will turn out that the buyer's willingness to pay is less than the seller's willingness to accept and thus there exists no mutually beneficial negotiated price in which the buyer could obtain a license from the seller. For these dyads, no trade will occur (nor is trade efficient).

On the other hand, when the buyer's willingness to pay is at least as large as the seller's willingness to accept, there will be a range of prices at which the parties are willing to trade (efficiently) – a range that includes the Nash bargaining solution, which lies along the interval between the seller's willingness to accept and the buyer's willingness to pay.

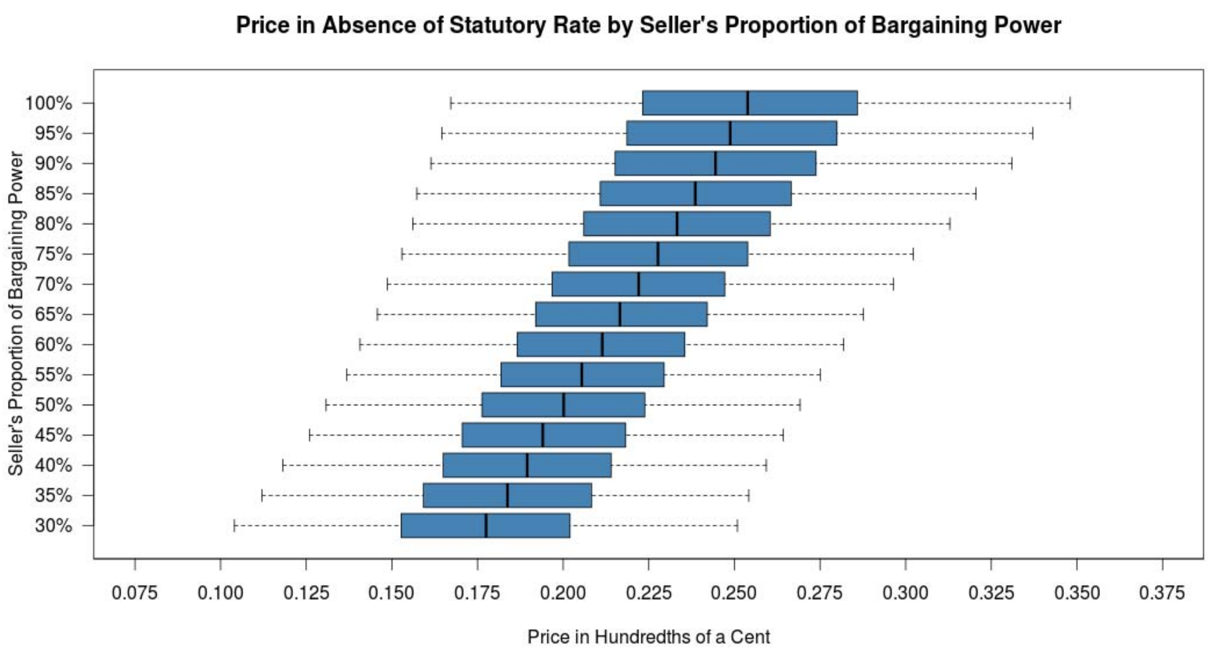
Nash framework, because his framework was not calibrated to real-world data in the case. In this rebuttal testimony, I offer the Nash framework for a substantially different purpose from Dr. Crawford's. Indeed, I have not been asked at this stage to generate estimated royalty amounts. Rather, I use the Nash framework to demonstrate what I consider to be conceptual flaws with prior experts' framing of their own theoretical approaches. Moreover, because of the generality of the Nash approach, it is the best situated bargaining model to make such points. It bears noting, however, that it would – in principal – be possible to calibrate the model developed below to real world data, given sufficient time and access to such data.

[73] I assume sampling with replacement, or more precisely that the distributions are continuous, and thus the distinction between replacement and non-replacement is of no significance.

1. Bargaining in the absence of a statutory rate and the effect of downstream competitive forces on the range of negotiated prices

Consider the prices that would emerge from the interactions described above, as prices are observed whenever a deal is struck. As one might imagine, because the buyers' and sellers' reservation values are governed by random variables, so are the bargaining ranges (if any) associated with each sampled dyad; accordingly, one should expect to observe variation in the prices that these dyads ultimate reach. Figure I below[74] demonstrates this phenomenon, illustrating the results of simulations for a specific set of variables in the bivariate normal distribution. Note that the range of the prices reflected in this chart and other charts below are purely for illustration purposes and do not reflect what the appropriate price or range of prices should be for the statutory license.

Figure I



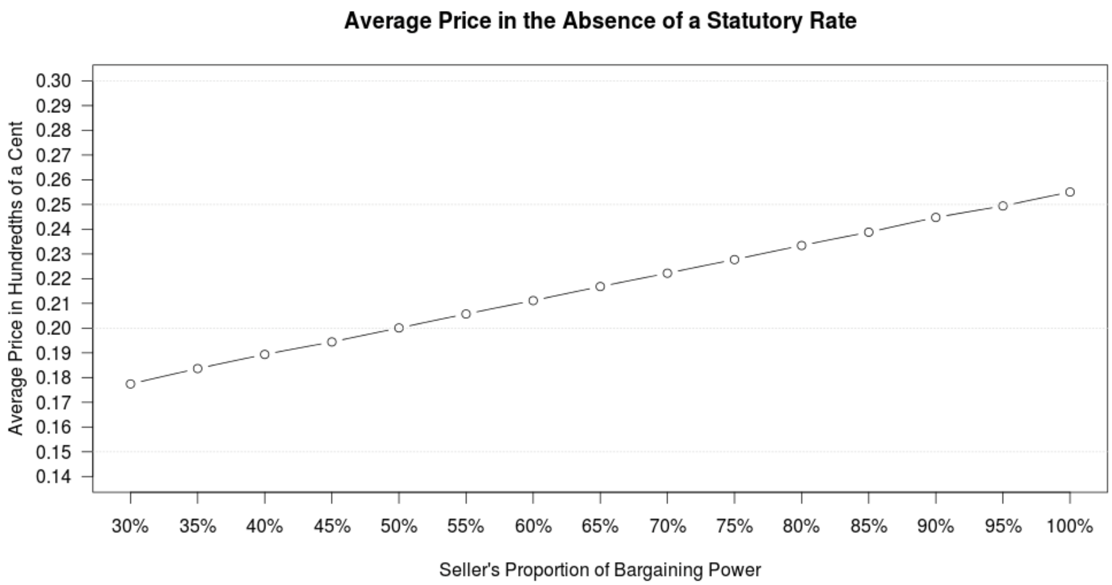
[74] In this and later simulations, the fixed parameter values are given by buyer and seller means of 0.28 and 0.12 (respectively), identical variances of 0.04, and correlation of 0.65.

Figure I was generated from a series of Monte Carlo simulations, each presupposing a specified division of buyer/seller bargaining power. (In this and all future simulations, I express all bargaining power values in terms of percentage Nash bargaining weight assigned to the seller). For each posited division of relative bargaining power, the Figure describes the range of prices that emerge from successfully completed negotiations. This range of prices, in turn, corresponds to a distribution of Nash prices predicted, given the parties' bargaining power.

The seller's relative bargaining power is shown on the vertical axis of Figure I. For each such value, the Figure illustrates quantile measures of the price distribution, which are depicted horizontally. The single black vertical bars correspond to the median of the distribution for each bargaining power value, while the blue bar represents the 25%-75% inter-quartile range, and the dotted lines encompasses the 95% confidence interval (i.e., the range between 2.5% and 97.5%). Once again, notice that as the seller's relative bargaining power increases, all measures of Nash prices also increase, and vice versa as the buyer's relative bargaining power increases. Note also, however, that the various quantile regions overlap considerably, across many hypothetical bargaining power allocations.

Figure II provides a somewhat simpler summary of Nash bargaining distributions – tracking the *mean* (or average) predicted price for various divisions of bargaining power. In Figure II, the *horizontal* axis now depicts the seller's posited bargaining power, while the vertical axis depicts the expected Nash price. Note that the expected price increases continuously in the seller's relative bargaining power, as theory would predict. In this particular simulation, if the seller and buyer had equal relative bargaining power, the simulation would predict a mean price of approximately 0.20 hundredths of a cent (per play).[75]

Figure II



In some bargaining settings, of course, the parties may have relative bargaining powers diverging from equality. In such situations, the predicted average Nash bargaining price would be positively related to the seller's bargaining power. In what follows, I will use the 50 percent bargaining power case as a reference point for comparison, given that the bargaining frameworks posited by Professors Katz and Shapiro appear to place emphasis on an equal distribution of bargaining power. Nevertheless, I do not understand the WBWS standard to compel that division. (As noted above, I do not understand the WBWS standard to imply that any specific

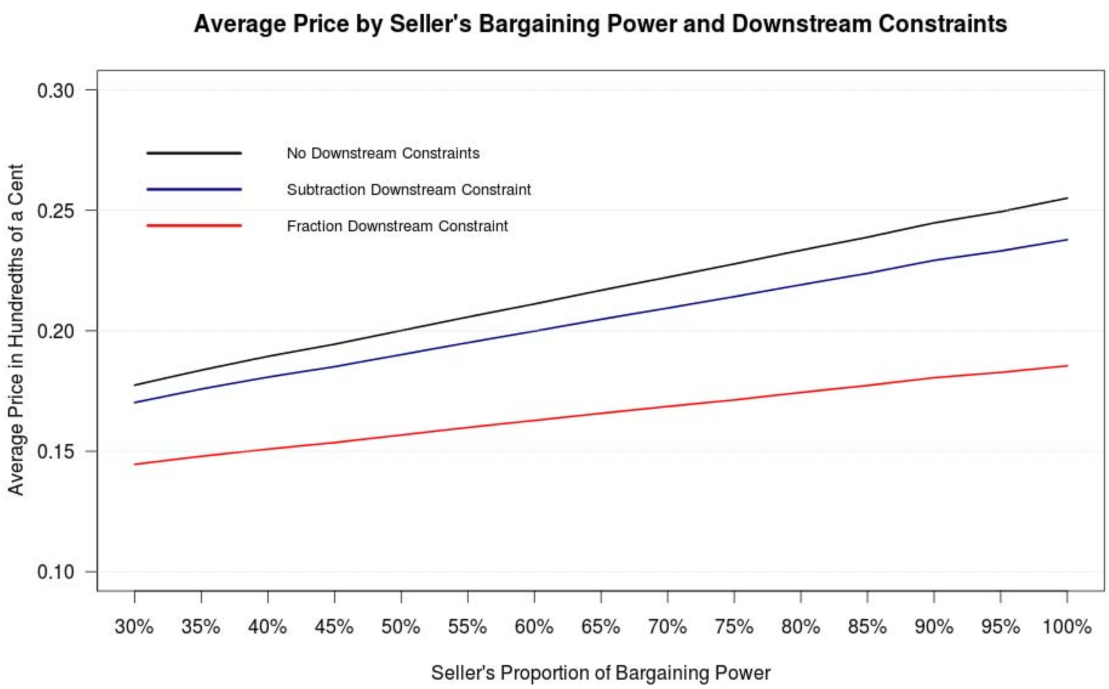
[75] I will eliminate the "per play" reference below for the sake of concision. It is important to again stress that this and following numerical simulations are at this stage just that – simulations, which have not been calibrated in detail to actual data from the case. Nevertheless, they elucidate some core intuitions that are central to my criticisms of Professor Katz's and Professor Shapiro's written testimony.

division of bargaining power is sacrosanct, so long as the prices reflect sufficient competitive factors that avoid duplicating monopoly / monopsony rates.)

If one were to observe prices in a "nearby" market involving goods that were known to be slightly more or less valuable – on average – than the good in question, observed prices from such a market could also be informative as to the WBWS price, after making appropriate corrections for the upward or downward bias introduced by the difference in average values. In this scenario, the distributions of observed prices that emerge from negotiations would still be probative of the WBWS price, even if such observed prices were related to markets that had slightly different attributes.

The above framework can also be used to demonstrate how the terms of negotiated deals might vary in the presence of downstream / upstream competition in other markets. As discussed above, webcasters, and interactive streaming services in particular, face substantial competition in the downstream consumer market from free or low cost alternatives (such as other lower-priced competing subscription services, free streaming services, piracy, YouTube, and the like), which Professors Katz and Shapiro ignore (or suppress) in their analyses. Such downstream competition can be reflected in a reduction in buyers' willingness to pay below what it would be in the absence of such downstream competition. If such an effect were introduced into the simulation framework above, it would translate into a contraction of the upper end of the bargaining range for every buyer-seller dyad, resulting in both a reduction in and a compression of the resulting rates (relative to Figures I and II). In cases where downstream competition is significant, the reduction/compression of the WBWS price could be significant. Thus, even in circumstances where the seller has considerable bargaining power, the downstream consumer market will discipline and constrain the range of prices that the parties would agree to in licensing agreements. Negotiated rates will reflect such competition, with only modest price variations due to differences in bargaining. This is demonstrated by Figure III below.

Figure III



The figure compares the average prices in the baseline WBWS simulations for various levels of the seller's relative bargaining power (pictured in black) to two analogous measures when downstream competition constrains buyer valuations. Under the first scenario (pictured in blue), downstream competition reduces all buyers' valuations by subtracting half a standard deviation from their prior values. Under the second (pictured in red), downstream competition reduces buyers' valuations by thirty percent. In either case, however, note that the resulting average prices are both lower and more compressed than in the baseline case, illustrating the argument above.

2. The downward-biasing effects of bargaining in the shadow of a statutory license

The discussion thus far has cabined an important source of statistical bias that a reasonable bargaining model would predict from observed negotiations: In practice, all of the pricing benchmarks proffered by the services reflect transactions that were consummated "in the shadow" of an existing (or impending) statutory royalty regime. The fact that observed prices are negotiated with a statutory licensing regime looming in the background is important, because this background regime can affect observed prices in ways that are material in an economic sense. In particular, *a statutory licensing option can introduce a significant and persistent downward bias in the observed benchmark prices relative to the WBWS price.* Indeed, in many plausible settings, the downward bias introduced by a statutory licensing option (hereinafter "option bias") can be so large as to swamp all other biases (regardless of their direction). This downward biasing effect, moreover, can be manifest even when the statutory rate is higher than any of the prices that would emerge from transactions negotiated in the absence of the statutory license.

In order to understand the importance of how statutory licenses affect negotiated prices, it is first necessary to understand how the existence of a statutory license option in the background affects the foundational nature of the bargaining problem between the buyer and seller. Going back to the framework developed above, suppose that the parties were to bargain in the shadow of a statutory license fee. Suppose (for the sake of the present argument) that the statutory rate is known, constant, and common knowledge to all players.

In the language of real options, the statutory license provides the buyer with a "call option" to purchase the seller's entitlement non-consensually, so long as the buyer is willing to pay the strike price equal to the statutory rate.[76] The existence of this option implies that no rational buyer would ever be willing to enter into a negotiated, consensual license calling for her to pay a price equal to or exceeding that statutory rate, since she could always obtain the entitlement simply by exercising her call option without the seller's consent. Consequently, at the very least, the presence of the statutory license places a ceiling on the set of plausible negotiated prices that would ever conceivably emerge from negotiated transactions from a willing buyer and willing seller.

In fact, conventional economic theory suggests even more than that, because the existence of the statutory rate can profoundly affect the threat points of the parties: If (a) the bargaining range between the seller's and buyer's reservation payoffs is positive, and (b) the statutory rate lies within that bargaining range, then there is no negotiated transaction that the parties can negotiate that improves on the status quo. In other words, when conditions (a) and (b) hold, the statutory license option effectively *displaces (or "crowds out") any consensual trades that would otherwise have occurred over that bargaining range, regardless of the parties' relative bargaining power.* Instead, such consensual transactions are channeled into non-consensual actions, executed through the statutory licensing statutory rate.

To understand better how this effect works, suppose a buyer with willingness to pay of 0.25 hundredths of a cent (per play) negotiated with a seller with a lower willingness to accept of 0.15 hundredths of a cent (again, these numbers are purely hypothetical). Suppose further (for illustration's sake) that the buyer and seller had equal bargaining power. Absent a statutory

[76] The seller, in contrast, has a short position in the buyer's call option.

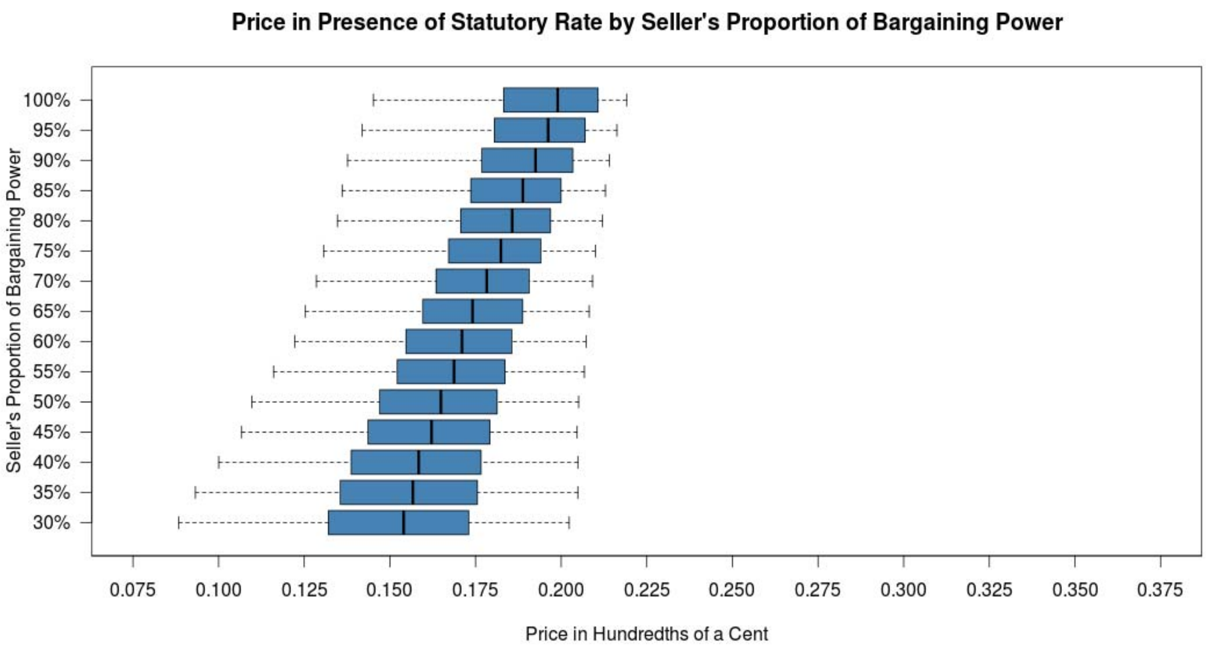
license, the Nash bargaining solution predicts that the buyer and seller will settle on a price at the midpoint of their reservation payoffs, at 0.20 hundredths of a cent.

Against that backdrop, suppose one were to overlay a statutory license at a statutory rate of 0.22 hundredths of a cent – an amount that exceeds the 0.20 price that would emerge from bargaining in the above hypothetical. This added option changes the parties' threat points significantly: Specifically, the seller would now realize that – should bargaining break down – the buyer will still choose to exercise the statutory licensing option, effectively buying non-consensually from the seller at a price of 0.22 hundredths of a cent. The seller therefore can safely reject even the 0.20 hundredths of a cent price knowing that her payoff will be larger if she holds out. In other words, the introduction of a statutory license rate that is less than the buyer's willingness to pay channels the parties exclusively towards non-consensual transactions, even if they would have bargained for a lower price in the absence of the statutory rate.

The same effect holds true (and is in some ways even stronger) when the statutory rate is below the seller's willingness to accept. In such a situation, the buyer may well exercise its option to purchase non-consensually even though the seller realizes a negative payoff (and would never sell on such terms consensually). Because the statutory license swallows a large range of what would otherwise be negotiated deals between willing buyers and willing sellers, it has a profound effect on of the characteristics of the pricing terms that one would predict from any remaining negotiated deals not channeled into the statutory license terms.

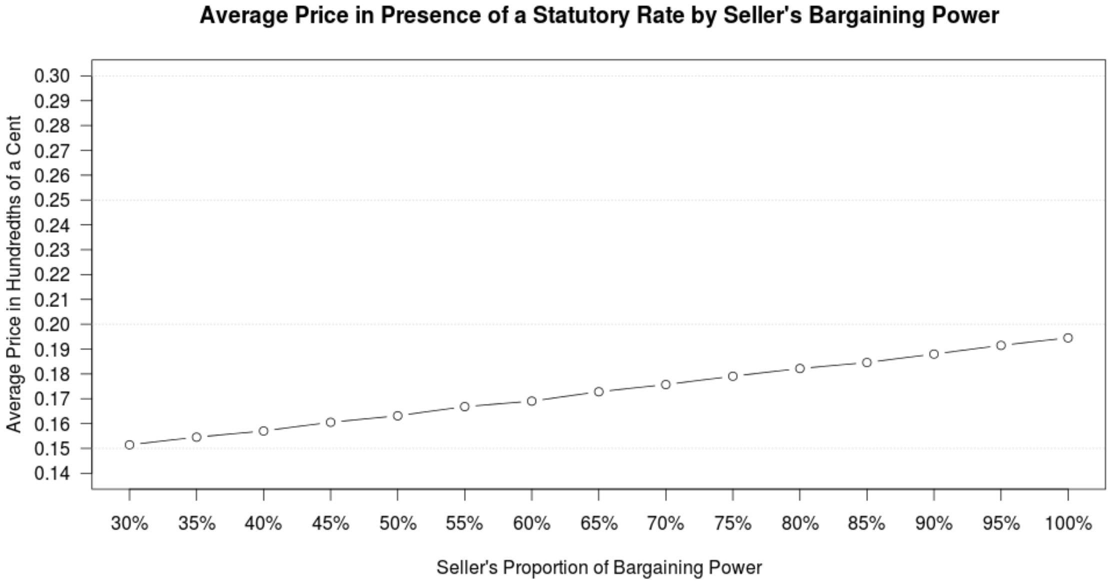
In fact, the only negotiated deals that one would expect to observe in the shadow of the statutory rate would be from those buyer-seller dyads where (a) a positive bargaining range exists; but (b) the buyer's option is "out of the money" (i.e., her willingness to pay falls short of the statutory rate).[77] As I show below, this population of "non-channeled" deals can be significantly biased downward, relative to both the statutory rate and the price that would obtain in the absence of the statutory rate. More generally, so long as the statutory rate falls below the willingness to pay of the highest-valuing buyer, then it is straightforward to demonstrate that the expected Nash price for negotiated transactions in the shadow of a statutory licensing regime *always falls below the corresponding expected Nash price negotiated in the absence of a statutory rate.*

Figure IV



[77] For completeness, it is worth observing that a statutory licensing regime introduces *two* distinct types of negotiated "Coasian" transaction. In the first, a relatively low-valuing buyer and low-valuing seller negotiate a "discount" license, at a price less than the statutory rate. (The conditions stated in the text are the key ingredients for such a contract.) Another type of Coasian bargain involves a high-valuing seller paying off a high-valuing buyer to *refrain* from exercising the statutory option, somewhat akin to a standstill agreement. Because this second type of agreement is not at issue in this case, I do not consider it in the analysis that follows.

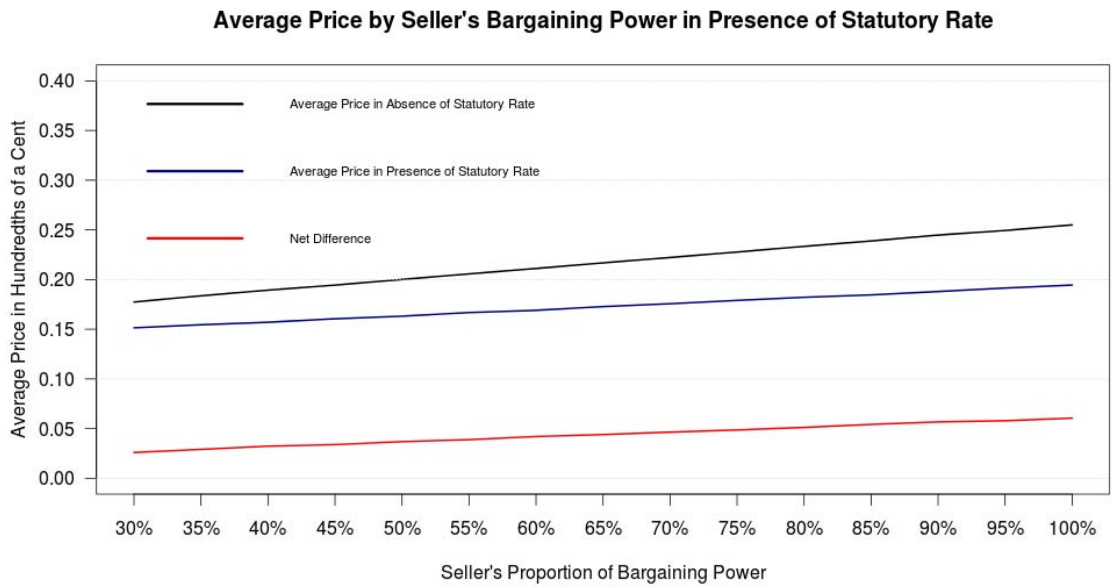
Figure V



In order to illustrate these effects more concretely, consider Figures IV and V above, which are analogous to the prior Figures I and II –depicting the expected Nash price as a function of the seller's bargaining power – but now in the shadow of a statutory rate. For the sole purposes of these simulations, the statutory rate was set at 0.22 hundredths of a cent, above the 0.20 rate that – as illustrated above – would prevail on average for buyer/seller dyads with equal bargaining power. Notice from Figure IV that – in comparison to Figure I – all quantile measures are shifted down, and that no transaction takes place at a price of 0.22 hundredths of a cent or above – reflecting a portion of the transactions crowded out by the statutory rate.

Figure VI below overlays Figures I and V, comparing the expected Nash price in the two contexts. The black line in Figure V replicates the expected price generated from Monte Carlo simulations in the absence of any statutory royalty amount. The blue line overlays the expected Nash price in the shadow of the statutory licensing fee. The red line additionally overlays the expected difference between these two Nash prices. (In these simulations, the value of the outside statutory rate remains fixed at 0.22 hundredths of a cent.) Note that in the presence of a statutory licensing regime, prices are always depressed below their expected value in the absence of a statutory fee.

Figure VI



It is important to note that the downward bias created by the "shadow" of the statutory licensing regime (and pictured in Figures IV and VI) is not merely an artifact confined to a special case depicted by this simulation. Rather, it is a general phenomenon. (The appendix demonstrates the generality of the effect).[78]

[78] The downward bias due to the statutory rate occurs under extremely general conditions. For example, it always occurs when buyer and seller valuations are statistically independent of one another, positively correlated with one another, or even weakly negatively correlated. To the extent that the buyer and seller valuations reflect relatively distinct buyer- and seller-specific considerations (such as seller's costs and buyer's choice alternatives), it would be reasonable to expect some degree of independence. To the extent that some factors commonly drive valuations (such as the overall popularity of a label / song), it would suggest some degree of positive correlation. The simulations in the text stake out a middle ground, assuming weak positive weak correlation between buyer and seller valuations. See the appendix for more details.

3. Implications of the downward bias in negotiated rates induced by the statutory license

The potentially significant downward bias created by the existence of a statutory license option has important implications for discerning whether a candidate benchmark rate is probative of the rate that would obtain in a WBWS framework in the absence of the rate. Indeed, when the buyer has significant bargaining power, for example, the downward bias introduced by the statutory licensing option acts to push what were already relatively buyer-friendly terms even further in that direction. When bargaining power is evenly matched, the option bias acts alone, but once again in a downward direction.

Figure VII

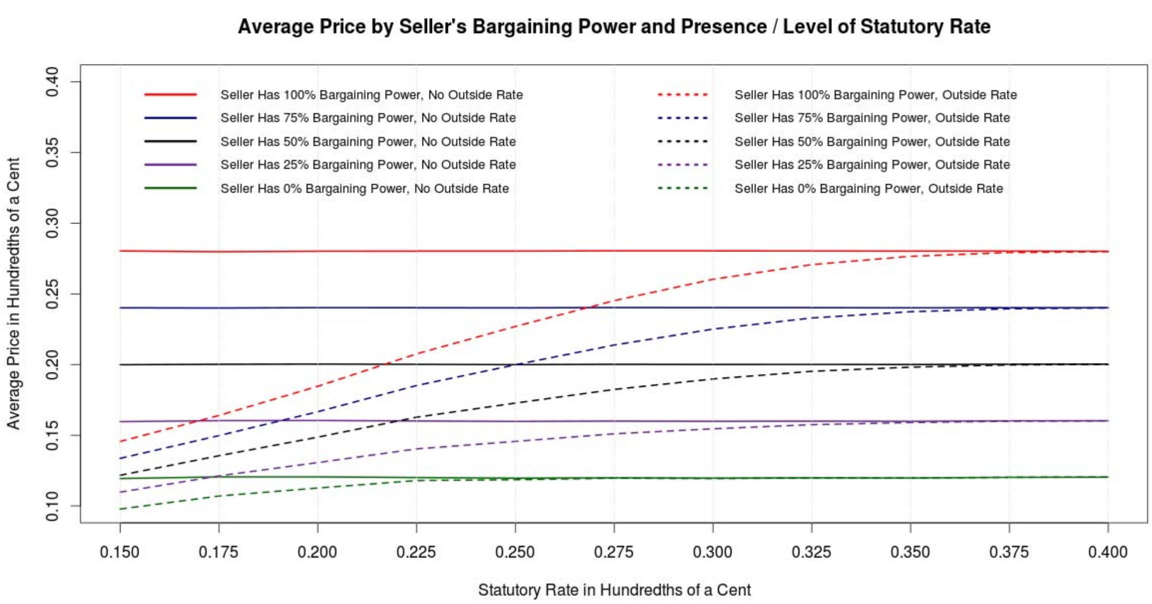


Figure VII illustrates this point more concretely. The horizontal axis in the Figure depicts various hypothetical values of the option strike price associated with the statutory rate, and the vertical axis represents mean prices observed in Monte Carlo simulations. Each of the horizontal lines in the Figure depicts the expected prices that would emerge in the absence of a statutory regime, when the seller possesses 0 percent, 25 percent, 50 percent, 75 percent, and 100 percent (respectively) of the relative bargaining power.[79] As noted above, in the absence of a statutory rate, expected prices increase as the seller enjoys increasing amounts of relative bargaining power (and vice versa as the buyer's relative bargaining power increases).

The dashed lines in the Figure depict the expected prices that would emerge in negotiations within the shadow of a statutory regime (with the same sequence of presumed relative bargaining power allocations as above). The Figure varies the value of the applicable statutory rate, from 0.15 to 0.40 hundredths of a cent.

Note first that for each of the hypothesized allocations of bargaining power, the mean negotiated prices under the statutory license are uniformly below those that would prevail in the absence of a statutory rate.[80] The reason for this is as described above – the statutory royalty option crowds out a significant fraction of deals that would otherwise be negotiated transactions, leaving behind only a subset of transactions involving relatively low-value buyers and sellers to be negotiated. Although the magnitude of the option bias abates as the statutory rate increases, it converges to zero only when the rate grows so large as to exceed the highest conceivable buyer valuation levels, and thus ceases to crowd out transactions.

As can be seen in the Figure, moreover, when the statutory rate grows sufficiently low, the downward biasing effect of the statutory license can swamp all other effects. Consider, by

[79] Note that these are invariant in the statutory rate, since by assumption they emerge in the absence of a statutory licensing option.

[80] Moreover, as noted above and illustrated by the Figure, regardless of bargaining power the mean negotiated rate will always falls short of the statutory rate. This is true by construction for *any* statutory rate; it therefore does not constitute evidence that the statutory rate is "above competitive levels" (Shapiro WDT, at 36.)

way of illustration, the mean price that would emerge from "equally matched" buyers and sellers negotiating in the absence of a statutory rate (represented by the middle of the solid horizontal lines, at 0.20 hundredths of a cent).[81] If one observed negotiated terms between equally matched parties – but one executed in the shadow of a statutory rate (represented by the middle dished curve, picture in black) – would such observations constitute the best benchmark for estimating this target rate? The Figure suggests that the answer is "not necessarily." In fact, in this simulation, once the background statutory rate is less than 0.15 hundredths of a cent, the terms of such deals would be biased downward as much or more than nearly any alternative benchmark pictured, even one where the seller has all of the bargaining power, and regardless of whether such transactions are executed in the presence or absence of an outside rate.

This observation is important, as it bears on many of the arguments offered by Professors Shapiro and Katz about what type of benchmark is (or is not) an appropriate approximation of the WBWS standard. Professor Shapiro, for example, has advocated in favor of using the Pandora-Merlin transaction as the most probative benchmark. But if, as I have opined, this transaction was one where Pandora enjoyed relative bargaining power exceeding similarly-situated buyers in the target market, such a rate would be biased downward from the WBWS rate, perhaps significantly. Moreover, it bears noting that the Pandora-Merlin transaction was negotiated in the shadow of the "pureplay" rate prevailing at the time, which was significantly below the then-prevailing statutory rate for non-interactive services. This added constraint would amplify the downward bias even further, as discussed above. Combined, these two biases suggest that Shapiro's advocated benchmark is of questionable value in determining what most willing

[81] This figure is for reference purposes only. As explained above, I do not understand the WBWS standard to dictate any particular allocation of bargaining power.

buyers and willing sellers would negotiate in the absence of a statutory rate. Indeed, such a benchmark could very easily stray further from the WBWS ideal than even a benchmark where the sellers enjoy *all* of the bargaining power. To further illustrate, consider Figure VIII below.

Figure VIII

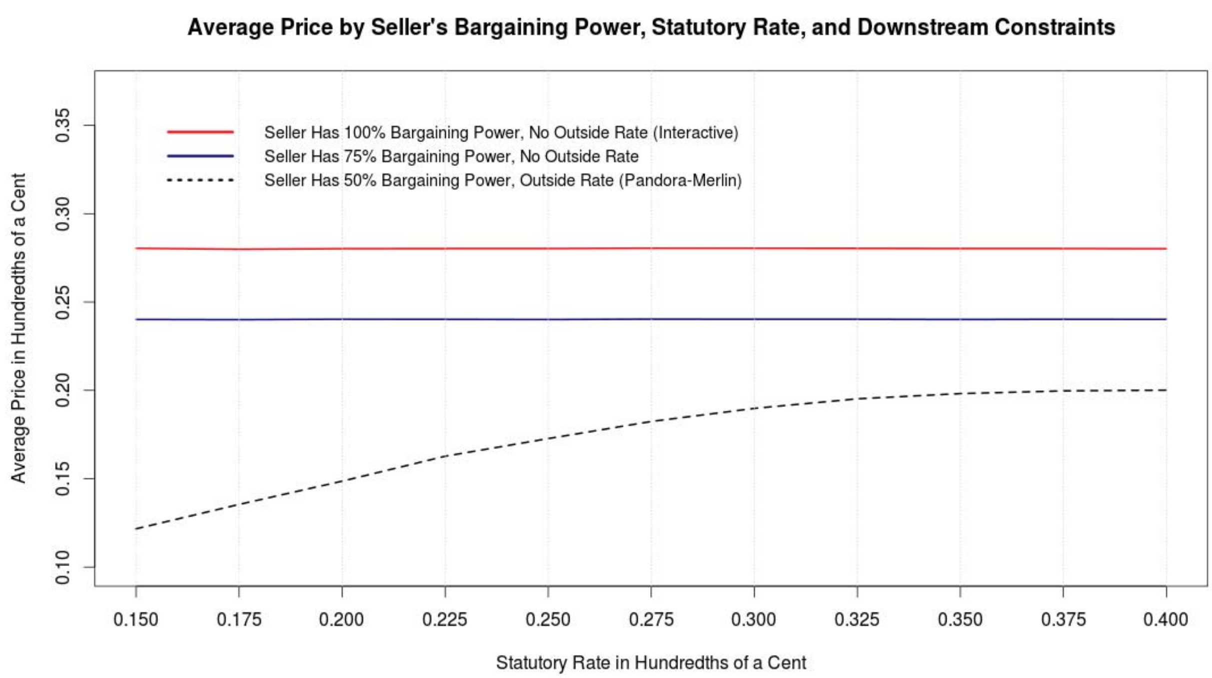


Figure VIII offers one possible interpretation of Professor Katz's and Shapiro's characterizations of the interactive market, assuming in the furthest extreme, purely for the sake of argument, that sellers have 100 percent of the bargaining power in negotiations with interactive services (and yielding a rate depicted the red solid line above, negotiated in the absence of a benchmark). The precise allocation of bargaining power in the target hypothetical market for non-interactive services is unknown (though I have opined that Pandora's steering experiments fail to demonstrate that the bargaining dynamic would differ significantly from the interactive space). Nevertheless, I will again assume, purely for the sake of argument, that Professor Shapiro is correct when he suggests that that sellers on average enjoy less bargaining power in the non-interactive space. The blue line therefore represents one possible WBWS rate – the average bargain that would be struck by most buyers and sellers in the non-interactive market in the absence of a statutory license (here assuming a 25/75 bargaining power split). The dashed line represents mean prices that would occur in deals such as the Pandora-Merlin transaction, executed in the shadow of a statutory regime. Here, even though Pandora very well might have enjoyed more bargaining power than Merlin, I will suppose that Professor Shapiro's proffered benchmark represents perfect equanimity in bargaining power – a 50/50 allocation.

As illustrated by the Figure, neither the interactive benchmark (represented in red) nor the Pandora-Merlin benchmark (dashed black) is a perfectly accurate benchmark in every respect; however, the downward bias introduced by the statutory license in the shadow of Pandora-Merlin can generate prices that may be far less accurate than a variety of benchmarks, including the interactive services benchmark. Figure VIII therefore demonstrates that, even accepting all of Professor Shapiro's arguments as true – (i) that sellers have undue bargaining power in the interactive space, (ii) sellers have less bargaining power in the non-interactive market, and (iii) bargaining power was equally distributed in the Pandora-Merlin deal – his proffered benchmark that was negotiated in the shadow of the pureplay rate could *still* skew significantly further from the WBWS rate than would an interactive benchmark where the seller has all or most of the bargaining power. And to be sure, in Figures VII and VIII I have not attempted to adjust further for the substantial effects of competition, piracy, etc., in downstream consumer markets, which as previously demonstrated, would discipline and constrain the range of prices that the parties would agree to in licensing agreements in the no-outside-rate context.

It also is important to note that these simulations are meant to be illustrative, and thus the precise magnitudes of the net biases at play can differ depending on the parameters utilized. That said, there is one conclusion from this set of simulations that is extremely general, and which in general does not depend on underlying parameters: the bargaining-power bias and the option bias *generally reinforce one another when the buyer enjoys relative bargaining power.*[82]

The analysis above demonstrates several important points in understanding how reference "benchmark" prices can inform (and potentially mislead) the WBWS analysis. First, when a price is negotiated in the shadow of a statutory licensing regime, the observed price *will generally be biased downward* from what would have observed in the absence of the statutory fee. Second, this bias tends to *reinforce* the downward pricing biases due to disproportionate buyer-side bargaining power.

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[82] Moreover, the analysis presented above carries over to other informational environments. In the analysis above, I have made the assumption that parties possess complete information in bargaining. One could alternatively consider an environment where buyers and sellers possess private information about their own valuations (and only probabilistic knowledge of their counterpart's). In such a setting, the Nash solution is no longer appropriate, because it is a complete information bargaining mechanism. However, it is possible to conduct a similar analysis to that above using (so-called) mechanism design techniques, assessing the most efficient bargaining procedure for allocating a license between privately informed buyers and sellers. *See* Roger B. Myerson,& Mark A. Satterthwaite, "Efficient Mechanisms for Bilateral Trading," 29 J. of Econ. Theory 265–281 (1983). As in the complete information setting, the existence of a background real option causes many negotiated transactions to be crowded out by the statutory rate, leaving only relatively low value parties to negotiate licenses. In addition, however, private information tends to reduce the set of negotiated contracts even further, as privately-informed buyers and sellers attempt to extract information rents from the negotiation process. The downward bias in observed prices, however, remains (and can even grow stronger).

This framework was explored in greater detail in Ian Ayres & Eric Talley, "Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade," 104 Yale Law Journal 1027 (1995) (using an extensive form bargaining game). A full characterization of an optimal direct-revelation bargaining mechanism in the shadow of a real option to appropriate the seller's entitlement is developed in Eric L. Talley, "Bargaining under incomplete information and the design of legal rules," PhD Dissertation, Stanford University (1999) (UMI # 9961969).

The results of my analysis therefore cause me to disagree with the analysis of Professors Katz and Shapiro, who dismiss the downward biasing effects of the statutory rate. As noted above, however, both Katz and Shapiro assert that such options should not affect bargaining outcomes when the statutory rate is above the "market price." In both cases, however, this assessment rests on a set of inappropriate models that assume away buyer-side bargaining power (as well as other heterogeneity) and generate a single "market price." The market that the CRB is considering in this case is by definition differentiated and requires the assessment of commensurable buyer-side and seller-side bargaining power. It therefore makes little sense to rely on such models to animate one's interpretation of benchmark rates. To reiterate, in an economic environment most relevant to this setting, a statutory licensing option can crowd out negotiated transactions for relatively high-valuing buyer-seller dyads while not affecting other, low-valuing dyads. The analysis above has demonstrated how this crowding out phenomenon can generate downward statistical bias, leaving behind only a subset of negotiated deals involving buyers and sellers whose valuations are relatively anemic, reflecting prices which serve as poor benchmarks for estimating the price that willing buyers and sellers would agree in the absence of such an option

IV. TECHNICAL APPENDIX

In this appendix, I present some of the technical details behind points made verbally in the text above. I first consider how even a small adaptation to Professor Katz's model – one that (unlike his model) distinguishes between competition and monopsony – easily generates the opposite of his results. Second, I lay out the details of the simulation environment, demonstrating how the outcome of the simulations carries over to a more general framework.

A. Bargaining between a Single Buyer and a Single Seller Can Easily Generate Negotiated Prices at Competitive Prices.

In his written testimony, Professor Katz provides a technical appendix that presents a formal model purporting to show (evidently categorically) that "when there is only a single buyer and that buyer has equal bargaining power with the seller, the resulting price is not closer to the competitive price than to the monopoly price." (Katz at 64). As I have noted above, however, Professor Katz's model appears to be a special case in many important respects, including the fact that while it distinguishes starkly between competition and monopoly, it is incapable of distinguishing between the competition and monopsony. Small variations of this framework, I have argued, can lead to starkly different results.

It is quite easy, in fact, to formulate such variations – ones that adequately distinguish between the distinct cases of monopoly, monopsony and competition – which demonstrate the opposite of Professor Katz's categorical conclusion. And because Professor Katz's conclusion is not robust to such slight variations, it cannot provide a sound foundation for his categorical statement either. Without endorsing Professor Katz's modeling approach (and I do not, for reasons explained above), it may be instructive to demonstrate an example where the opposite of his conclusion holds – that is, bargaining between a single buyer and a single equally matched seller generates a unit price that corresponds *exactly* to the competitive price.

Consider a slight generalization of Katz's baseline model in which the demand curve remains as he assumed, $D(q)=\alpha-q$, but the marginal cost curve is now upward sloping,[83] so that $MC(q)=q$. In this case the price and quantity associated with a perfectly competitive market occur where the demand curve intersects the marginal cost curve, at $p_c = q_c = \frac{\alpha}{2}$. A monopolist, in contrast, would set quantity to maximize profits, dictating a price pegged against the buyer's demand curve. It is easily confirmed that the monopolist would produce quantity $q_{mpl} = \frac{\alpha}{3}$, charging price $p_{mpl} = \frac{2\alpha}{3}$. A monopsonist, in contrast, would fix quantity to maximize consumer surplus, dictating a price pegged against the seller's marginal cost curve. In this case, it is straightforward to confirm that a monopsonist would produce quantity of $q_{mps} = \frac{\alpha}{3}$ paying price $p_{mps} = \frac{\alpha}{3}$.

Note that the monopolist and monopsonist choose identical quantities, though the monopolist would charge twice the price. Note further that the monopoly price is higher than the competitive price, which is in turn higher than the monopsony price – an intuitive ordering that Professor Katz's model did not (and could not) deliver.

[83] To emphasize the modesty of this generalization to Katz's model, I alter only the nature of the marginal cost curve, keeping other assumptions (no matter how unrealistic) intact, such as the absence of fixed costs and the prohibition of any bargaining side payments beyond unit price. That said, most of the derivations below follow even if one allows for fixed costs and lump-sum side payments.

Following what I understand of Professor Katz's approach (again, only for the sake of illustration), consider how a single monopolist and a single monopsonist would bargain hypothetically with one another over the quantity and unit price that would prevail in this market. Assume that in the absence of bargaining both parties realize payoffs of zero.[84] Suppose first that the bargaining solution entailed setting quantity and unit price terms to equilibrate producer surplus (denoted by *π(q,p)*) and consumer surplus (denoted by *S(q,p)*). The relevant condition here is:

$$\pi(q,p) = p \cdot q - \frac{q^2}{2} = \left(\alpha - \frac{q}{2}\right) \cdot q - p \cdot q = S(q,p)$$

The unique unit price that satisfies this expression (for all values of q) is $p_e = \frac{\alpha}{2}$, corresponding to the competitive price.[85]

Still following Professor Katz's approach, suppose instead that the bargaining problem consisted of selecting a quantity and unit price maximizing the Nash product of producer and consumer surplus:

$$\pi(q,p)S(q,p) = \left(p \cdot q - \frac{q^2}{2}\right) \times \left(\left(\alpha - \frac{q}{2}\right)q - p \cdot q\right)$$

Straightforward calculations[86] yield the same result as above – *i.e.,* the unique unit price that

[84] Recall from above that the framework presented by Professor Katz is insufficient to generate any meaningful analysis because he fails to specify "disagreement payoffs" the parties would receive in the absence of bargaining, a necessary ingredient in any bargaining problem. See Binmore, K., Rubinstein, A., & Wolinsky, A., *The Nash Bargaining Solution In Economic Modeling*. 17 RAND J. of Econ. 176-188, 176 (1986). The assumption I make here is perhaps the most sensible to introduce in Katz's stated framework.

[85] This is the bargained-for price independent of quantity. It is easy to show that the buyer and seller would bargain for the competitive quantity as well.

[86] The first order condition with respect to p of the Nash product is: $q^2(\alpha-2p)=0$.

maximizes the Nash product is $p_e = \frac{\alpha}{2}$, corresponding to the competitive price.[87]

In summary, this exercise demonstrates that introducing even a small variation in Professor Katz's model unravels his claim that when a single buyer and single seller negotiate with equal bargaining power, the resulting price is not closer to the competitive price than to the monopoly price. Rather, as shown in this example, the resulting negotiated price is not only closer to – but it is *identical* with – the competitive price.[88] Because Professor Katz's argument is not sufficiently robust to withstand even modest changes to its framework, it cannot provide support for the categorical statements he advances.

B. <u>General Bargaining Analysis</u>

This portion of the appendix demonstrates that several of the phenomena observed in the simulations above can be generalized significantly. In particular, I will demonstrate several inter-related claims in a general bargaining context. First, I show that any statutory license rate that is less than the upper bound of the buyer's valuation range unambiguously "crowds out" what would have been negotiated transactions but for the statutory license. Consequently, the set of WBWS transactions corresponding to privately negotiated prices in the presence of a compulsory licensing regime is a smaller subset of those that would occur without the statutory license. Second, I will show that the expected WBWS price in the shadow of a statutory license is always biased downward compared to the unconstrained case when the seller's relative bargaining

[87] As in the previous case, the buyer and seller would bargain for the competitive quantity as well.

[88] I reiterate that this analysis is not intended to advance a general theory based on this type of model. As described above, I do not agree that this modeling approach is appropriate. Rather, the analysis above is meant to demonstrate that Professor Katz's claim is neither general nor robust.

power is sufficiently large. Finally, I will show that for any combination of bargaining power (under fairly lax conditions), the expected WBWS price is categorically biased downward compared to the case where there is no statutory license.

(a) Basic Framework

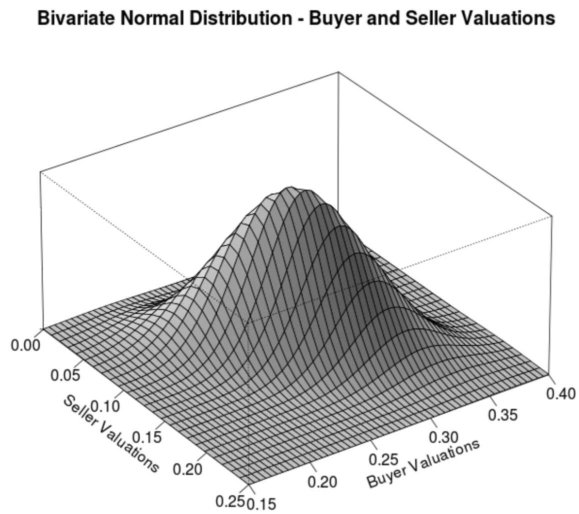
Consider a population of risk neutral buyers and sellers of some good or service, such as licensing rights to a non-interactive digital performance. In this context, sellers would be akin to record companies/performers; and buyers would be akin to internet radio stations. Prospective buyers are heterogeneous, in that each has a maximal "willingness to pay" for a performance right (which I shall refer to as the buyer's "type") summarized by the continuous random variable V_b, whose realization is denoted v_b, defined over the range $[\underline{v}_b, \bar{v}_b]$. Similarly, suppose each seller has a minimal "willingness to accept" to grant rights to the performance (the seller's "type") governed by a different random variable V_s, whose realization is denoted v_s, defined over defined over the interval $[\underline{v}_s, \bar{v}_s]$. The pair of random variables (V_b, V_s) is jointly distributed according to a commonly known cumulative distribution function (CDF) of $F(v_b, v_s)$, and an associated probability density function (PDF) of $f(v_b, v_s)$.[89] As with the simulations in the text, the analysis below will consider a hypothetical market in which prospective pairs of buyers and sellers are drawn randomly from $F(v_b, v_s)$, and then allowed to explore the possibility of a negotiated sale.

(b) Bivariate Normal Distribution Simulations

Although the analysis below pertains to a very general class of CDFs governing the joint population of prospective buyers and sellers, the Monte Carlo simulations in the text are based

[89] The CDF $F(v_b, v_s)$ is simply the aggregated value of the PDF $f(v_b, v_s)$ up to a specified value of (v_b, v_s).

on a *bivariate normal* distribution of buyer and seller valuation types. A representative illustration of the bivariate normal PDF appears in the figure below[90] (with parameters listed below the figure):



$\mu_s = 0.12$, $\sigma_s = 0.04$, $\mu_b = 0.28$, $\sigma_b = 0.04$, $\rho = 0.1$

Unless otherwise stated, the simulations in the foregoing analysis were based on the parametric values stated above.[91]

C. Bargaining in the Absence of a Statutory License

Consider first the "unconstrained" case, in which sellers and buyers may negotiate freely without concern for a statutory license option. Assuming complete information, under Nash bargaining, transactions will occur whenever $v_b > v_s$. The *ex ante* probability of trade is therefore:

$$\Pr\{v_b > v_s\} = \int_{\underline{v}_b}^{\overline{v}_b} \int_{\underline{v}_s}^{\min\{b, \overline{v}_s\}} f(b,s)\, ds\, db,$$

[90] The simulations presented in the text evaluate what is formally a truncated bivariate normal distribution, so as to avoid situations where buyer or seller valuations become negative.

[91] I experimented with several such parameters, obtaining qualitatively similar results for each.

and consequently, conditional on trade, $(v_b\ v_s)$ are jointly distributed according to the density function $g(v_b, v_s)$ where:

$$g(v_b, v_s) = \frac{f(v_b, v_s)}{\int_{\underline{v}_b}^{\bar{v}_b} \int_{\underline{v}_s}^{\min\{b, \bar{v}_s\}} f(b,s)\,ds\,db}$$

If we denote the seller's and buyer's relative Nash bargaining powers at θ and (1- θ), respectively, then the expected value of the Nash price in this case would be:

$$E(\theta v_b + (1-\theta)v_s | v_b > v_s) = \int_{\underline{v}_b}^{\bar{v}_b} \int_{\underline{v}_s}^{\min\{b, \bar{v}_s\}} (\theta b + (1-\theta)s) g(b,s)\,ds\,db$$

It is easy to show that the expected Nash price is increasing in θ, the seller's relative bargaining power.

D. <u>Bargaining in the Presence of a Statutory License</u>

Now, consider the Nash price that would emerge "in the shadow" of a statutory license favoring the buyer at strike price ϕ. Here, there will be trade only when it is the case that both: (1) $v_b > v_s$ and (2) $v_b < \phi$, because (as explained above), whenever the buyer poses a credible threat to force a transaction at the non-consensual strike price, there are no gains from bargaining. Now, the probability of a negotiated (consensual) transaction, conditional on the existence of gains from trade -- denoted by $\alpha(\phi)$ -- is as follows:

$$\alpha(\phi) = \int_{\underline{v}_b}^{\phi} \int_{\underline{v}_s}^{\min\{b, \bar{v}_s\}} g(b,s)\,ds\,db$$

Note that this is an increasing function of ϕ whenever $\phi < \bar{v}_b$, and thus by implication, the conditional probability of negotiated trade shrinks as the statutory rate falls below the highest conceivable buyer's willingness to pay. In other words, the imposition of a statutory license (the effective analog of reducing the statutory rate from infinity to ϕ) "crowds out" bargained-for transactions that would be consummated in the absence of the statutory license. Consequently, as one progressively reduces the statutory rate, the set of transactions that constitute the remaining privately-negotiated prices progressively contracts. Note, moreover, that whenever $\phi \leq \max\{\underline{v}_b, \underline{v}_s\}$, then $\alpha(\phi) = 0$ and the statutory licensing rate crowds out 100 percent of privately negotiated transactions. The expected Nash price of observed negotiated transactions in the shadow of the statutory rate is therefore:

$$E(\theta v_b + (1-\theta)v_s | v_s < v_b < \phi) = \int_{\underline{v}_b}^{\phi} \int_{\underline{v}_s}^{\min\{b,\bar{v}_s\}} (\theta b + (1-\theta)s) \frac{g(b,s)}{\alpha(\phi)} ds db$$

By inspection, it is immediately clear that the expected Nash price must always fall below the statutory rate ϕ (an ordering that was clearly present in the simulations as well).

E. Comparison of Cases

It is important to note that the statutory licensing regime crowds out negotiated transactions from the "top down" --- *i.e.,* starting from those where the buyer's valuation is relatively high. Moreover, because no negotiated deal is reached unless the buyer's valuation exceeds the seller's, that means that any negotiated transactions in the shadow of the statutory rate must involve progressively low-valuing sellers as well.

Accordingly, consider the difference between the "unconstrained" expected Nash price (where no outside statutory rate exists) and the expected Nash price for negotiated deals "in the shadow" of the statutory rate:

$$\begin{aligned}\Delta(\phi,\theta) &= E(\theta v_b + (1-\theta)v_s \mid v_b > v_s) - E(\theta v_b + (1-\theta)v_s \mid v_b > v_s; v_b < \phi) \\ &= (1-\alpha(\phi)) \cdot \begin{Bmatrix} \theta \cdot [E(v_b \mid v_b > v_s; v_b \geq \phi) - E(v_b \mid v_b > v_s; v_b < \phi)] \\ + (1-\theta) \cdot [E(v_s \mid v_b > v_s; v_b \geq \phi) - E(v_s \mid v_b > v_s; v_b < \phi)] \end{Bmatrix}\end{aligned}$$

The term $(1 - \alpha(\phi))$ is clearly strictly positive for any $\phi < \bar{v}_b$. In addition, the first (top) term inside the curly brackets,

$$\theta \cdot [E(v_b|v_b > v_s; v_b \geq \phi) - E(v_b|v_b > v_s; v_b < \phi)]$$

must, by definition, also be strictly positive for any positive value of θ.

Consequently, it follows that a sufficient condition for $\Delta(\phi,\theta)$ to be strictly positive is if the final term:

$$(1-\theta) \cdot [E(v_s|v_b > v_s; v_b \geq \phi) - E(v_s|v_b > v_s; v_b < \phi)]$$

is nonnegative, which occurs whenever:

$$E(v_s|v_b > v_s; v_b \geq \phi) \geq E(v_s|v_b > v_s; v_b < \phi)$$

This condition states (essentially) that, conditional on there being positive gains from trade ($v_b > v_s$), the seller's expected value does not shrink when the buyer's valuation is known to be above threshold ϕ versus below it. Although this condition is not satisfied for every conceivable distribution of (v_b, v_s), there are several weak alternative conditions that, if satisfied, ensure that that $\Delta(\phi,\theta)$ is strictly positive.

First, recall that the first term inside the curly brackets of $\Delta(\phi,\theta)$ is strictly positive. It therefore follows that there exists a critical value of $\theta^* \in [0,1)$ such that the above expression is strictly positive for all $\theta > \theta^*$. This demonstrates that when sellers enjoy a minimal threshold of bargaining power, the "in-the-shadow" price is always below the unconstrained WBWS price.

Second, there are also a variety of relatively weak sufficiency conditions that guarantee that $\Delta(\phi,\theta) < 0$ for all values of θ. One of them is that $E(v_s \mid v_s < v_b = \phi)$ is everywhere increasing in ϕ, which in turn holds whenever cumulative distribution function of $\{v_s \mid v_b = \phi\}$, or:

$$G(\phi, v_s) = \int_{\underline{v}_s}^{v_s} g(\phi, s)ds$$

is weakly increasing in ϕ in the sense of first order stochastic dominance. This sufficient condition is not terribly demanding. Remember that $G(\phi, v_s) = F(\phi, v_s \mid v_s \leq \phi)$ and thus increasing ϕ relaxes the upward bound on possible values of v_s. In fact, even when $F(\phi, v_s)$ is not increasing in ϕ (in the sense of first order stochastic dominance), it may easily be the case that $G(\phi, v_s)$ is weakly increasing in ϕ (in the sense of first order stochastic dominance). For example, when the buyer and seller types are independently distributed, this condition is always satisfied. This demonstrates that under a variety of unrestrictive assumptions about the joint distribution of the parties' valuations, WBWS price is always biased downward compared to the case where there is no statutory license.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 22 Feb 2015

Eric L. Talley

<u>Exhibits Sponsored By Eric Talley</u>

Exhibit No.	Sponsored By	Description
SX EX. 078- RR	Eric L. Talley	[redacted]

SX EX. 078 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

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2004-2013	**Senior Economist**, RAND Corporation, Santa Monica, CA, Institute for Civil Justice (Affiliated adjunct staff).
2011	**Visiting Professor of Law**, University of Chicago Law School, Chicago IL.
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2000-2005.	**Professor of Law,** Univ. of Southern California Law School. (Director, USC Center in Law Economics & Organization, 2002-2004; Director, USC/Caltech Olin Center for Study of Law & Rational Choice, 2002-2004).
2003 (Spr.)	**Visiting Research Fellow,** Institute for Civil Justice, RAND Corporation, Santa Monica, CA.

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1997-2000	**Associate Professor of Law,** University of Southern California Law School.
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1993	**Lecturer,** Stanford Economics Department. Intermediate microeconomics.
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Education

Ph.D./J.D.	**Stanford University Department of Economics & Stanford Law School.** 1989-95, 1999. Dissertation Committee: Paul R. Milgrom. (Principal); Ian Ayres; A. Mitchell Polinsky.
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Courses Taught

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IV. Contract Law
V. Mergers and Acquisitions
VI. Securities Regulation
VII. Law and Economics
VIII. Law and Game Theory Seminar
IX. Quantitative Methods in the Law

Books

- EXPERIMENTAL LAW AND ECONOMICS (Edward Elgar Publishing Ltd.,2008) (co-edited with Jennifer Arlen).

Articles / Chapters

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- *Corporate Inversions and the Unbundling of Regulatory Competition* (available for download at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2511723).

- *Financial Regulation and the World's Most Important Number: LIBOR Reporting Behavior during the Credit Crisis* (2013)

- *A Model of Optimal Government Bailouts* (with Antonio Bernardo and Ivo Welch) (available for download at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1830583).

- *Optimal Liability for Terrorism* (with Darius Lakdawalla) (2005)

- *Uncorporated Professionals* (with John Romley) (2004) (available for download at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=587982).

- *Equilibrium Expectations and Legal Doctrine* (2005).

- *The Impact of Regulation and Litigation on Small Business and Entrepreneurship: An Overview*, RAND Working Paper WR-317-ICJ (2006) (with Lloyd Dixon, Susan M. Gates, Kanika Kapur, and Seth A. Seabury).

- *Criteria Used to Define a Small Business in Determining Thresholds for the Application of Federal Statutes*, RAND Working Paper WR-292-ICJ (2005) (with Ryan Keefe and Susan M. Gates).

- *A Defense of Shareholder Favoritism* (with Stephen Choi 2002).

- *Incentives, Investment, and the Legal Protection of Trade Secrets* (with Gillian Lester, 2001).

- *Corporate Governance, Executive Compensation and Securities Litigation* (May 2004) (with Gudrun Johnsen).

- *Private Information, Self-Serving Biases, and Optimal Settlement Mechanisms: Theory and Evidence* (November 2003) (with Seth Seabury).

- *Trade Secrets and Mutual Investments* (with Gillian Lester) USC Law School Working Paper # 00-15; Georgetown Law and Economics Research Paper No. 246406 (Oct. 2000).

- *A Note on Presumptions with Sequential Litigation*, USC Olin Working Paper # 99-9 (with Antonio Bernardo) (1999).

- *Property Rights, Liability Rules, and Coasean Bargaining Mechanisms under Incomplete Information*, Stanford Olin Working Paper # 108 (1994).

- *Incentive Theory Falls Into Diablo Canyon: Optimal Regulation Under Political Constraints*

(September, 1993).

Funding/Grants

- Securities and Exchange Commission Grant to study investment advisors and broker dealers, RAND Corporation, 1/2007-3/2008; $280,000 (research staff, task director).

- Ewing Marion Kauffman Foundation, 3-year support grant to fund RAND Center for the Study of Small Business Regulation and Litigation; 11/03-10/06; $1,500,000 (co-PI).

- John Olin Foundation, 3-year support grant to fund USC/Caltech Program in Law and Rational Choice, 6/02-6/05; $300,000 (PI).

- University of Southern California, 3-year Seed Money Grant to Implement USC Center in Law, Economics and Organization, 7/00-6/03; $800,000 (co-PI).

- University of Southern California Zumberge Junior Faculty Award, 8/97-6/98; $30,000 (PI).

Endowed Presentations and Addresses

- Twenty-Fifth Annual Francis G. Pileggi Distinguished Lecture in Law, Delaware Journal of Corporate Law, Widener University, October 2008.

- Ninth Annual Distinguished Speaker Series, McGeorge Law School, University of the Pacific, November 2001 (*Common Agency in Fiduciary Law*).

Consulting/Testimony

- Allergan, Inc. et al. v. Valeant Pharmaceuticals International et al. (Case No.: SACV 14-1214 DOC(ANx); USDC C.D. Cal.) (2014). Retained as a consulting (non-testifying) expert in relation to action involving allegations of insider trading and securities fraud related to a hostile tender offer.

- Hawley et al. v. Newman Flange & Fitting Company (Case No. 684731 Cal. Superior Court of Stanislaus County) (2014). Retained as expert to opine on corporate governance practices, business ethics, and business judgment in relation to a series of interested transactions of privately-held company.

- Glenridge Pharmaceuticals, LLC v. Questcor Pharmaceuticals, Inc. (CASE NO. 11 1-CV-203 554; Cal. Superior Court of Santa Clara County) (2014). Retained as an expert to opine on corporate governance practices, business ethics, and business judgment in context of self-interested corporate transaction and alleged corporate opportunity appropriation.

- Orchard Brands Topco LLC et al. v. Twin City Fire Ins. Co. (Case No. 12-526950; Cal. Superior Court of San Francisco County) (2014). Retained as an expert to offer opinion on plausible financial exposure in fiduciary duty and corporate waste litigation related to the likely extent of insurance coverage.

- In Re. High-Tech Employee Litigation (11-CV-2509-LHK, USDC, N. Dist. Cal.) (2013-14). Retained as an expert to opine on governance aspects related to alleged antitrust conspiracy regarding recruitment of Silicon Valley employees.

- Kane v. Ho et al (Case No. 2:09-CV-06816 JAK (CWx); USDC, C. Dist. Cal.) (2013). Retained as an expert to opine on alter ego liability and business judgment related to corporate dividend policies of Emerson Radio Corporation.

- Innkeepers v. Cerberus (Case No. 10-13800 (SCC); US Bankruptcy Court, SDNY) (2011). Retained as an expert to opine on contractual language in a material adverse event provision in a corporate acquisition.

- In Re Flex Fuels et al (Claim No HC11C00257; High Court of Justice, Chancery Division; UK) (2010). Retained as expert in corporate governance regarding authority of board and officer nominations.

- SenesTech, Inc. (2010). Retained as expert consultant to provide corporate governance training to board of directors.

- Klass v. Vestin Mortgage et al. (Case No. A528385; 8th Judicial District Court, Clark County, NV) (2010). Retained as expert in corporate governance and compensation in dispute concerning effects of merger transactions.

- Bates et al. v. Skilled Healthcare Inc. et al. (No. DR050474; Cal. Superior Court, Humboldt County) (2009). Retained as expert on corporate structure, limited liability, agency, the purposes of the corporate form, and piercing the corporate veil.

- Ammari Electronics et al. v. SBC Yellow Pages (Case No. RG05198014; Cal. Superior Court for Alameda County) (2008-09, 2011-12). Retained as expert on economic valuation of contract rights and damages calculation in breach of contract class action alleging delivery shortfalls of advertiser-sponsored directories.

- Marvell Technology Group (2007-08). Retained as expert consultant to provide corporate governance training to senior executive and board relating to managerial oversight, appropriate delegation, and conflicts of interest.

- Recipco v. Citigroup (Smith Barney) and Rothstein (2007). Retained as expert on corporate governance matters pertaining to the formation of, conduct of, and reaction to an internal investigation performed by a special litigation committee formed by a board of a privately-held company.

- Fitzhugh v. Granada Healthcare (2007). Retained as expert on corporate structure, limited liability, agency, the purposes of the corporate form, and piercing the corporate veil.

- Inamed LLC v. Newcomb et al. (2006). Retained as expert on the economic incentives regarding fiduciary and professional conduct obligations that an in-house attorneys owe to former employers in civil lawsuit involving a concentrated industry.

- Islamic Republic of Iran v. The United States of America (2006). Retained as expert for U.S. State Department on the nature and economic valuation of loss in context of property and contractual rights allegedly belonging to Iran but never repatriated. Iran-United States Claims Tribunal, The Hague, Netherlands.

- John Garamendi, California Insurance Commissioner v. Credit Lyonnais et al. (2004-05). Retained as expert on nature of optimal deterrence and damages in context of purchase/sale of financial assets.

- Doe v. Unocal Corp. (2003). Retained as expert on organizational structure, limited liability, agency, the purposes of the corporate form, and piercing the corporate veil.

- Deutsche Bank, North America Equities Research (2002). Retained to acquaint stock analysts of factors relevant to prospective injunctive relief order in breach of contract action between Boston Scientific Corporation & Cook, Inc.

- Robert J. Wagner vs. Aaron Spelling Productions et al. (2002). Retained as expert on bargaining dynamics and nature of economic loss in contractual settlement concerning cancelled network television series.

- Gonzales v. Michael Angelo's Foods (1999). Designated as expert on corporate opportunity appropriation.

- ARI Property Management Corp. v. Van Zoebrook et al (2001-02). Retained as expert on corporate opportunity appropriation.

- In re Tata Consultancy (1993). Retained as expert on reasonableness of liquidated damages provision in employment contract.

Media Appearances (Selected)

- *"Marketplace" American Public Radio: Corporate Trials and Retrials (January 2005) (interview with Tess Vigeland regarding ongoing white collar crime trials).*

- *"Marketplace" American Public Radio: Merger Mania (February 2005) (interview with Kai Ryssdal).*

- *"Marketplace Report on Day-to-Day" National Public Radio: The Marketplace Report: SEC May Relax Regulations (February 2005) (interview with Tess Vigeland regarding possible decline of corporate oversight and compliance regulations in the post-Enron era).*

- *"Marketplace" American Public Radio: So Long and Farewell to the SEC (June 2005) (interview with Kai Ryssdal regarding the departure of William Donaldson from the SEC).*
- *"Morning Edition," National Public Radio: Pension Fund Sues Morgan Stanley (July 2005) (interview with Wendy Kaufman discussing Morgan Stanley compensation litigation by pension fund).*
- *"Marketplace" American Public Radio: Cornering the Corner Office (January 2006) (interview with Tess Vigeland regarding the SEC's proposed executive compensation reforms).*
- *"Marketplace" American Public Radio: Ben Bernanke Preview (January 2006) (interview with Lisa Napoli about the Federal Reserve's new chair).*
- *"Marketplace" American Public Radio: Corporate Pension Plan Changes (February 2006) (interview with Lisa Napoli regarding the recent trend in pension cutbacks and freezes at major U.S. Companies).*
- *"Marketplace" American Public Radio: Betting on home prices (February 2006) (interview with Tess Vigeland regarding real estate derivative markets) -- RealAudio Format.*
- *"Marketplace" American Public Radio: The Supreme Court's Impact on Business (March 2006) (interview with Mark Austin Thomas providing an update of business-related cases before the Court during the current term).*
- *"Marketplace" American Public Radio: Regulating the NYSE (March 2006) (interview with Chery Glaser regarding the challenges that confront the NYSE as it moves from a non-profit to a for-profit corporation.*
- *"Marketplace" American Public Radio: Talley on Fastow (March 2006) (interview with Chery Glaser regarding the Enron trial, Andrew Fastow's testimony and Sarbanes-Oxley)*
- *"Marketplace" American Public Radio: Enron Trial Continues (April 2006) (interview with Mark Austin Thomas discussing the much-anticipated testimony of Ken Lay, and personality differences between himself and Jeffrey Skilling).*
- *"Marketplace" American Public Radio: Accounting standards for small business (April 2006) (interview with Mark Austin Thomas discussing the SEC's Advisory Committee on Small Business' recommendation that the internal controls section of the Sarbanes-Oxley act be relaxed for small-cap and micro-cap issuers)*
- *"Marketplace" American Public Radio: Demand Is High for Lawyers (April 2006) (interview with Mark Austin Thomas discussing the recent increases in large law firm salaries for first year associates) -- RealAudio Format.*

- *"Marketplace" American Public Radio: Going Bankrupt Isn't Cheap (April 2006) (interview with Mark Austin Thomas discussing legal and professional fees being paid in high-profile bankruptcies).*

- *"Marketplace" American Public Radio: Shareholder Activism (May 2006) (interview with Mark Austin Thomas discussing shareholder activism).*

- *"Marketplace Money" American Public Radio: Secrets and Stocks (May 2006) (interview with Kai Ryssdal regarding the secrecy policies of companies like Google and how much that should matter for investors).*

- *"Marketplace" American Public Radio: White House Economic Forecast (June 2006) (interview with Stacey Vanek-Smith discussing inferences from mid-year report on the economy).*

- *"Marketplace" American Public Radio: HP Drama Unfolds on Capitol Hill (September 2006) (interview with Kai Ryssdal regarding the 'pretexting' scandal at Hewlett-Packard Co.).*

- *"Mornings on 2" KTVU Television (September 2006) (interview with Ross McGowan discussing the 'pretexting' scandal at Hewlett-Packard Co.).*

- *"Morning Edition," National Public Radio: Merck Cleared in Vioxx Death Case (March 2007) (interview with Wendy Kaufman discussing litigation strategy and settlement in multi-district tort litigation).*

- *"Marketplace Money" American Public Radio: The changing face of investor lawsuits (June 2007) (interview with Tess Vigeland regarding recent Supreme Court business and securities cases).*

- *"Forum" (with Michael Krasny); KQED Radio, San Francisco: Stock option backdating scandal (August 2007) (panel interview and discussion with Dave Iverson).*

- *"Marketplace" American Public Radio: Is there subprime in your portfolio? (August 2007) (interview with Ashley Milne-Tyte regarding contagion effects from the subprime market crisis).*

- *"Marketplace" American Public Radio: SEC looks into Goldman Sachs-Facebook Deal (January 2011) (interview with Stacey Vanek-Smith on legal permissibility of Facebook private offering).*

- *"Forum" KQED Public Radio San Francisco: Financial Reform, One Year Later (July 2011) (interview with Larry Mantle discussing implementation of the Dodd-Frank Act)*

- *"Marketplace" American Public Radio: HP Gets Activist on Board (November 2011) (interview with Jennifer Collins, discussing addition of activist hedge fund manager on Hewlett Packard's board of directors).*

- *"Airtalk" KPPC Radio Los Angeles: Activist Shareholders try New Tactics (February 2013) (interview with Larry Mantle in role of publicly-minded institutional investors in corporate governance debates).*

- *"Take Two" KPPC Radio Los Angeles: What do new US patent laws mean for inventors? (March 2013) (interview with A. Martinez on effect of recent changes to patent law)*

Awards and Service

- BARBRI, Inc., Legal Education Advisory Board, August 2013-Pres.

- UC Berkeley Campus Budget and Interdepartmental Relations Committee (Budget Committee) (2011- Present; Chair, 2013-14).

- UC Berkeley Academic Senate Divisional Council (DIVCO) (2013-14).

- UC Berkeley Academic Planning and Resource Allocation Committee (CAPRA) (2013-14).

- Elected Member, Dean's Faculty Advisory Committee, UC Berkeley School of Law (2010 – 2013).

- Corporate Practice Commentator designation as author of one of the "Ten Best Corporate and Securities Articles written in 2009 (for *Going Private Decisions and the Sarbanes Oxley Act of 2002: A Cross-Country Analysis*). 4/10

- Board of Directors, Society for Empirical Legal Scholars (SELS) (2009 - Present) (Vice President 2012-13; President 2013-14).

- Board of Directors, American Law and Economics Association (Three-year term: June 2005-May 2008).

- Program Committee, American Law and Economics Association Annual 2006 Conference.

- Chair, Dean Search Committee, Haas Business School, UC Berkeley (2007-2008).

- Member, National Science Foundation Law and Social Science Grant Evaluation Panel (2008 - 2010).

- Program Committee, American Law and Economics Association Annual 2006 Conference (with D. Rubinfeld, and K. Pastor) (November 2005 – May 2006).

- Chair, Administration and Finance Committee (Elected), USC Law School 2004-05.

- Finance Committee, University of Southern California Board of Trustees (faculty representative), 2004-05.

- Representative, Faculty Senate, University of Southern California 2004-05.

- Board Treasurer, The Growing Place Early Childhood Education Center Board of Directors (non-profit) 2004-05.

- Director, The Growing Place Early Childhood Education Center Board of Directors (non-profit), 2002-2004.

- *Corporate Practice Commentator* designation as author of one of the "Ten Best Corporate and Securities Articles written in 2004 (for *Unregulable Defenses and the Perils of Shareholder Choice)*. 4/05.

- Chair, Faculty Appointments Committee, USC Law School 2003.

- Chair, AALS Section in Law and Economics, 2004-05.

- Chair, AALS Section in Contracts, 2007-08.

- Chair, Faculty Handbook Committee, University of Southern California, 2002-03. Oversaw complete reorganization of faculty handbook (approved by USC Faculty Senate, 2004).

- Alfred P. Sloan Foundation Research Fellowship, Georgetown Law Center. 9/00-12/00.

- *Corporate Practice Commentator* designation as author of one of the "Ten Best Corporate and Securities Articles written in 1999" (for *Turning Servile Opportunities to Gold: A Strategic Analysis of the Corporate Opportunities Doctrine)*. 3/00.

- Zumberge Junior Faculty Research Award, USC. 7/97 - 7/99.

- Centennial Teaching Award, Stanford University. 6/95.

- Articles Editor, *Stanford Law Review* 1993-94 (Volume 46).

- Outstanding Teaching Assistant Award in Economics. 3/94; 6/94; 12/94.

- Hellman Prize for Outstanding Law-Review Note, *Stanford Law Review*. 5/94

- Fellow, Stanford Center for Conflict and Negotiation. 11/92-10/93

- Goldsmith Award for Outstanding Paper in Dispute Resolution. 4/93

- Hilmer Oehlmann, Jr. Prize for excellence in legal research and writing. 5/92

- John Olin Foundation Fellowship in law and economics. 4/94; 6/94; 6/92

- Phi Beta Kappa

- Departmental Honors in both economics and political science, University of California, San Diego. Graduated Magna Cum Laude from Revelle College. 12/88

Professional Affiliations

- Referee, *American Economic Review; Rand Journal of Economics; Journal of Law, Economics & Organization; Journal of Legal Studies; Review of Economic Studies; International Review of Law and Economics; International Economic Review; Journal of Law and Economics.*

- Member, American Law and Economics Association; Society for Empirical Legal Studies.

PhD Students/Advisees

- Surajeet Chakravarty, USC Economics Department (PhD), Lecturer, University of Exeter Business School.

- Svetlana Pevnitskaya, USC Economics Department (PhD), Professor of Economics, North Carolina State University.

- Kathy Zeiler, Caltech, Social Science (PhD) / USC Law (JD), Professor of Law, Georgetown University

- Jingfeng Lu, USC Economics Department (PhD), Professor of Economics, National University of Singapore Department of Economics.

- Brian Broughman, UC Berkeley JSP Program (PhD), Professor of Law, University of Indiana.

- Michael Gilbert, UC Berkeley JSP Program (PhD), Assistant Professor of Law, University of Virginia.

- Andrew Hayashi, UC Berkeley JD / PhD (Economics), Assistant Professor of Law, University of Virginia.

Personal

- Date of Birth: 26 March, 1966.
- Married (since 1998) to Gillian Lester, Professor of Law and Interim Dean, UC Berkeley Law School.
- Two children.
- Hobbies include cycling, hiking, classical/jazz guitar, and skiing.

Eric L. Talley: Materials Relied Upon

CRB Materials

Copyright Arbitration Royalty Panel Report, Docket No. 2000–9 CARP DTRA 1&2 (Feb. 20, 2002), "Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings."

Copyright Royalty Board, Docket No. 14-CRB-0001-WR (2016-2020), "Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (Web IV)."

United States Copyright Royalty Judges, In re Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV), Docket No. 14-CRB-0001-WR (2016-2020), "Order Dismissing Petition to Participate (Triton Digital, Inc.)."

United States Copyright Royalty Judges, In re Determination of Royalty Rates for Ephemeral Recordings and Digital Performance of Sound Recordings, Docket No. 2009-1 CRB (Webcasting III), "Determination After Remand of Rates and Terms for Royalty Years 2011 – 2015."

United States Copyright Royalty Judges, In the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2009-1 CRB Webcasting III, "Final Determination of Rates and Terms."

United States Copyright Royalty Judges, In the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, "Final Determination of Rates and Terms" (Webcasting II).

United States Copyright Royalty Judges, In the Matter of Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Docket No. 2011-1 CRB PSS/Satellite II, "Final Determination."

Academic Books

Jean Tirole, The Theory of Industrial Organization. MIT Press. (4th ed. 1990).

Academic Articles and Chapters

Ian Ayres and Eric Talley, "Bargaining in the Shadow of Different Regimes," in "Optional Law" (by Ian Ayres, U. Chi. Press 2005).

Ian Ayres and Eric Talley, “Distinguishing between Consensual and Nonconsensual Advantages of Liability Rules,” 105 Yale L.J. 235 (1995).

Ian Ayres and Eric Talley, “Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade,” 104 Yale L.J. 1027 (1995).

Binmore, K., Rubinstein, A., & Wolinsky, A., *The Nash Bargaining Solution In Economic Modeling*. 17 RAND J. of Econ. 176-188, 176 (1986).

Jeremy Bulow and John Roberts, “The Simple Economics of Optimal Auctions,” The Journal of Political Economy, Vol. 97, No. 5. (Oct., 1989), pp. 1060-1090.

Kaylan Chatterjee and William Samuelson, “Bargaining under Incomplete Information,” Operations Research. Vol. 31, No. 5 (September-October 1983).

Aviad Heifetz, Ella Segev, & Eric Talley, “Legislation with Endogenous Preferences,” in N.Vulkan, A. E. Roth and Z. Neeman (eds.), The Handbook of Market Design, pp. 456-488, Oxford University Press, 2013.

Aviad Heifetz, Ella Segev, & Eric Talley, “Market Design with Endogenous Preferences,” Games and Economic Behavior 58 (1), 121-153, 2007 (2007).

Josh Lerner & Jean Tirole, “Efficient Patent Pools,” 94 Amer. Econ. Rev. 691, 692 (2004).

N. Metropolis, “The Beginning of the Monte Carlo Method,” Los Alamos Science, No. 15, p. 125-30 (1987).

Roger B. Myerson,& Mark A. Satterthwaite, “Efficient Mechanisms for Bilateral Trading,” 29 J. of Econ. Theory 265–281 (1983).

John Nash, “The Bargaining Problem,” 18 Econometrica 155-162 (1950).

Abraham M. Othman, and Tuomas W. Sandholm, “How Pervasive is the Myerson-Satterthwaite Impossibility?” Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI) (2009).

Alvin E. Roth, “Risk Aversion and the Relationship Between Nash’s Solution and Subgame Perfect Equilibrium of Sequential Bargaining,” Journal of Risk and Uncertainty 2: 353-365 (1998).

Ariel Rubenstein, “Perfect Equilibrium in a Bargaining Model,” Econometrica, Vol. 50, No. 1 (Jan., 1982), pp. 97-109.

Stephen E. Siwek, “The True Cost of Sound Recording Piracy to the U.S. Economy” (Institute for Policy Innovation, Policy Report #188) (August 2007).

Eric L. Talley, "Bargaining Under Incomplete Information and the Design of Legal Rules," PhD Dissertation, Stanford University (1999) (UMI # 9961969).

Eric L. Talley, "Contract Renegotiation, Mechanism Design, and the Liquidated Damages Rule," 46 Stan. L. Rev. 1195 (1993).

Eric Talley, "Liability-Based Fee-Shifting Rules and Settlement Mechanisms under Incomplete Information," 71 Chi.-Kent. L. Rev. 461 (1995).

Eric Talley, "Turning Servile Opportunities to Gold: A Strategic Analysis of the Corporate Opportunities Doctrine," 108 Yale L.J. 277 (1998).

Joel Watson, "Alternating Bargaining with Two-Sided Incomplete Information", Review of Economic Studies (1998) 65, 573-594.

Robert Wilson, "Incentive Efficiency of Double Auctions," Econometrica, Vol. 53, No. 5 (Sep., 1985), pp. 1101-1115.

Press and Online Articles

Matt Burns, The Pandora One Subscription Service To Cost $5 a Month, Tech Crunch, (March 2014), available at: http://techcrunch.com/2014/03/18/the-pandora-one-subscription-service-to-cost-5-a-month/.

Daniel Elk, I'm Spotify CEO Daniel Ek. And These Are the Facts...," Digital Music News (November 2014), available at: http://www.digitalmusicnews.com/permalink/2014/11/11/im-spotify-ceo-daniel-ek-facts

Joe Rossignol, Apple Working on New Beats Music Service Integrated into OS X and iOS, Available on Android, MacRumors (February 2015), available at: http://www.macrumors.com/2015/02/04/apple-new-beats-music-service/

Lexy Savvides, Spotify Family Plan: Separate Accounts, One Discounted Bill, CNET (October 2014), available at: http://www.cnet.com/news/spotify-rolls-out-family-feature-separate-accounts-one-bill/

Ben Taylor, By the Numbers: The Streaming Music War (and Who's Winning), Time (August 2014), http://time.com/3109273/streaming-music-services-compared/#3109273/streaming-music-services-compared/

Statutes

17 U.S.C. §§ 101-101 2 – Subject Matter and Scope of Copyright.

17 U.S.C. § 112 - Limitations on exclusive rights: Ephemeral recordings.

17 U.S.C. § 114 – Scope of Exclusive Rights in Sound Recordings.

Administrative Materials

Federal Trade Commission. Statement of Bureau of Competition Director Richard Feinstein (September 21, 2012), available at: http://www.ftc.gov/sites/default/files/documents/closing_letters/proposed-acquisition-vivendi-s.a.emi-recorded-music/120921emifeinsteinstatement.pdf

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

NERA
ECONOMIC CONSULTING

14-CRB-0001-WR (2016-2020)

Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (Web IV)

WRITTEN REBUTTAL TESTIMONY OF DAVID BLACKBURN, PH.D.
On Behalf of SoundExchange, Inc.

February 23, 2015

PUBLIC VERSION

I. INTRODUCTION

A. Assignment and Qualifications

1. I am an applied microeconomist and Vice President for NERA Economic Consulting ("NERA"), an economic consulting firm based in White Plains, New York. I previously filed written testimony in this matter dated October 6, 2014 ("Blackburn Report" or "my initial testimony").[1] My qualifications, the terms of NERA's retention, and my analyses and opinions as set forth in my initial testimony are incorporated herein by reference.

2. I have been asked by counsel for SoundExchange, Inc. ("SoundExchange"), to provide economic analysis relating to assertions made by Pandora Media, Inc. ("Pandora"), iHeartMedia, Inc. ("iHeartMedia") and the National Association of Broadcasters ("NAB") (collectively, the "Services") through testimony filed in this proceeding. In particular, I have been asked to respond to:

a) Stephan McBride's Music Sales Experiments as analyzed in his Written Direct Testimony ("McBride Testimony"), as well as the supporting data and documents associated with that analysis;

b) Simon Fleming-Wood's Written Direct Testimony ("Fleming-Wood Testimony") that "Pandora fills the traditional role of radio, and the on-demand streaming services fill the traditional role of record stores, or replacement of a personal music collection;"[2]

c) Timothy Westergren's assertions in his Written Direct Testimony ("Westergren Testimony") regarding the extent to which Pandora plays artists who receive "no airplay at all on terrestrial radio;"[3]

d) Prof. Carl Shapiro's Written Direct Testimony ("Shapiro Testimony") and Prof. Michael Katz's Written Direct Testimony ("Katz Testimony") regarding the purported lack of competition in the marketplace for direct licenses between the record companies and interactive streaming services.

3. My qualifications are disclosed in my initial testimony and an updated version of my CV, including my past testimony, is attached as **Appendix 1**.

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1 Report of David Blackburn, Ph.D., On Behalf of SoundExchange, Inc. Defined terms used in my initial written direct testimony (or report) retain their meaning herein.

2 Fleming-Wood Testimony, ¶19.

3 Westergren Testimony, ¶20.

B. Sources Relied Upon

4. As with my initial testimony, I (or economists or staff working under my direction) have reviewed and relied upon information from a variety of sources while in the process of preparing this testimony. These include testimony submitted by Pandora, iHeartMedia, and NAB,[4] documents and data produced by SoundExchange, Pandora and iHeartMedia, publicly available disclosures from a number of firms, and other market research. In addition, I have relied on my experience and training as an applied microeconomist and my experience in the economic analysis of markets in general and the recorded music industry in particular. A list of the documents I have reviewed and relied upon in preparing this testimony is appended as **Appendix 2**.

C. Summary of Conclusions

5. Based on my research and analysis to date, I have reached the following conclusions:

- Dr. McBride's analysis of the "Music Sales Experiments" does not provide any evidence that consumers' use of Pandora, as such, promotes the overall sales of physical or digital copies of sound recordings or other streams of revenue to the recorded music industry. As a former economist at Pandora wrote: [redacted]][5] Moreover, Dr. McBride's inability to accurately link the areas in which music was turned off and the areas in which music was purchased undermines his entire experimental design, while his exclusion of relevant data biases the estimated effect in favor of finding "promotion;"

[4] In addition to the testimony cited above, I have reviewed the December 2, 2014 Corrected Version of the Written Direct Testimony of Brett Danaher (the "Corrected Danaher Testimony"). While I understand that the Corrected Danaher Testimony has been withdrawn, I have reviewed and analyzed data produced by iHeartMedia that were described in detail in the Corrected Danaher Testimony. [See, for example, Corrected Danaher Testimony, ¶¶ 6-12 and Appendix B and Appendix D.] Accordingly, I have relied on those data and descriptions in forming the opinions described herein.

[5] [redacted]

- Both (1) evidence regarding consumers' use of Pandora's "Buy Button" feature and (2) the market trend of declining sales of recorded music as the use of webcasting services increases indicate that Pandora is *not promotional* and, indeed, may be substituting for other streams of revenue to the recorded music industry;

- An analysis of sales of sound recordings from Warner Music Group ("Warner") following an increase in performances on iHeartRadio provides further evidence that additional performances on non-interactive services do not increase sales for those sound recordings;

- Due to critical flaws in Dr. McBride's Music Sales Experiments – excluding tracks with no sales and the inability to link geographic information – his results regarding diversionary promotion are not reliable.

- An econometric analysis of data and information provided by iHeartMedia indicates that (a) non-interactive streaming services have no statistically identifiable promotional effect on users' purchases of digital tracks and (b) there is no statistically identifiable difference in the promotional impact of interactive and non-interactive streaming services;

- Contrary to the assertions of its CEO, Mr. Westergren, the vast majority of sound recordings streamed by Pandora are from a relatively small fraction of artists. Indeed, only about [redacted]] percent of sound recordings played on Pandora are from the least performed 80 percent of artists; and

- Finally, contrary to the assertions of Profs. Shapiro and Katz, due to the fact that consumers have the ability to access music from non-licensed sources, such as illegal downloads, licenses for interactive streaming services are competitively priced; the competition from piracy exerts a downward pressure on the price.

II. The Relationship Between Promotion and Sales: Expansionary and Diversionary Promotion

6. I begin by discussing the various ways in which a "promotional activity"[6] may lead to increased sales. If it is effective, a promotional activity can increase the sales of the promoted product (or service) in two ways – (a) it can create sales that would not otherwise exist were it not for the promotional activity ("expansionary" promotion) or (b) it can capture sales that would have otherwise gone to a competing product ("diversionary" promotion).[7] That is, if a promotional activity leads to an additional sale of the promoted product, that sale either expands the total size of the market or is offset by a reduction in the sales of a competing product.

7. This distinction is vital here. The statute calls for consideration of "whether use of the service may substitute for or may promote the sales of phonorecords or otherwise may interfere with or may enhance the sound recording copyright owner's other streams of revenue from its sound recordings."[8] This question necessarily addresses *expansionary* promotion because only expansionary promotion informs the determination of an industry-wide rate:

- All else equal, if the use of the service *increases* revenue from other sources, the market rate would be lower because the use creates secondary revenue.
- All else equal, if the use of the service *decreases* revenue from other sources, the market rate would be higher to compensate for that substitution.

Expansionary promotion means that the promotional activity increases industry-wide revenues because consumers purchase more recorded music (sound recordings) and/or spend more on recorded music (sound recordings) than they would absent the promotional activity. The converse of expansionary promotion – if consumers are purchasing or spending less on recorded music (sound recordings) as a result of using webcasting services than they otherwise would – is

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6 By "promotional activity," I mean some action taken with a product – in this case the webcasting of sound recordings – that aims (or in this case purports) to increase sales of or revenues from that product.

7 In the marketing literature, these are sometimes referred to as "generic" (expansionary) or "brand" (diversionary) advertising. See, for example, Frank M. Bass, Anand Krishnamoorthy, Ashutosh Prasad and Suresh P. Sethi, "Generic and Brand Advertising Strategies in a Dynamic Duopoly," *Marketing Science*, Vol. 24, No. 4, Fall 2005, pp. 556-568.

8 17 U.S.C. § 114(f)(2)(B)(i).

substitution. Of course, an activity can be neither promotional nor substitutional, on net, if it neither increases nor decreases purchases and spending on recorded music.

8. Diversionary promotion means that a promotional activity affects which specific brand of a product – here, which sound recording, artist, or labels' content – the consumer will purchase.[9] If additional performances of an artist on Pandora increase sales for that artist, but do not increase industry-wide sales, then the revenue from some other artist (or artists) will be equally worse off. This type of diversion or substitution does not enhance sales or other streams of revenue for the industry as a whole. To the extent that the purported promotional benefit of webcasting is diversionary promotion,[10] it is not germane. Diversionary promotion does not answer the question of whether the use at issue – statutory webcasting – might substitute for, promote, or otherwise affect the copyright owners' other stream of revenues from their sound recordings.

9. In practice, saying that statutory webcasting may have an expansionary promotional impact for the recorded music industry means that statutory webcasting may lead to higher revenues attributable to those sound recordings from sources other than statutory webcasting. In contrast, saying that statutory webcasting may have a substitutional impact for the recorded music industry means that statutory webcasting may lead to lower revenues attributable to those sound recordings from sources other than statutory webcasting. A music consumer may allocate their music consumption across multiple sources: terrestrial radio, purchased physical or digital music, non-interactive webcasting, and interactive webcasting, for example. Statutory webcasting may have different effects on different sources. Indeed, it is possible that statutory, non-interactive webcasting is neither promotional nor substitutional – it may be neutral to the industry (perhaps being substitutional to some channels and expansionary promotional to others). This is, of course, an empirical question. As I describe in the remainder

9 Diversionary promotion/substitution focuses on a track-by-track (or artist-by-artist, or label-by-label) impact, as opposed to the impact on the industry as a whole. In setting an *industry-wide* rate the appropriate scope is the entire industry.

10 As discussed more fully below, Dr. McBride's Music Sales Experiments test *diversionary* promotion. The Music Sales Experiments focused on promotion of *those specific sound recordings*, not the promotion of overall record sales or revenue streams because of Pandora. [McBride Testimony¶ 23.] Pandora purported to stop playing some recordings in some areas and examined whether doing so reduced the sales of *those recordings*. [McBride Testimony¶ 23.] By design, Dr. McBride's experiments can only test diversionary promotion.

of this testimony, the empirical evidence, in my opinion, indicates that statutory webcasting does not have an expansionary promotional impact on copyright owners' revenues from their sound recordings.

III. THE MCBRIDE TESTIMONY DOES NOT ANALYZE A RELEVANT ECONOMIC QUESTION

10. Dr. McBride's Music Sales Experiments test only *diversionary* promotion. As a result, those experiments do not and cannot answer the question: what effect does webcasting – the use of webcasting services – have on copyright owners' revenues from their sound recordings?

11. Pandora asks the wrong question and provides analysis that is useless in setting an industry-wide rate. Dr. McBride aims to determine only whether Pandora has a *diversionary* promotional effect. He does not even attempt to analyze expansionary promotion.[11] He focuses only on whether performances of a specific track or artist on Pandora leads to sales of that specific track or artist. He does not consider whether overall increases or decreases in the amount that people use Pandora (or other statutory webcasters) lead to increases or decreases in the sales of recorded music – let alone consider the impact that it would have on other revenue streams, including from sources such as interactive (or other directly-licensed) streaming services.

12. Pandora was aware of this flaw in the Music Sales Experiments. [redacted]

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11 The McBride Testimony also omits an increasingly important stream of revenue – that from interactive, directly-licensed services like Spotify. As I detailed in my initial testimony, there is substantial evidence that Pandora and other statutory services compete with directly-licensed services. If one were to properly analyze the promotional effect of Pandora he would need to analyze the entire *net* effect of the use of Pandora on all other sources of revenue. Thus, even if Dr. McBride had asked the right question but only analyzed the impact on the physical and digital sales, he could not rule out the possibility that statutory services are, on the whole, *substitutional*.

12 [redacted]

13 [redacted]

[redacted]

[redacted]

13. These are the precise issues that I have raised above. Pandora [redacted]][16]

14. The right question to ask is: what is the impact of statutory webcasting as a whole on the recorded music industry? The appropriate way to test *expansionary* promotion would be to look at a "natural experiment" to determine if webcasting services *as such* have an effect on a user's patterns of music spending. Pandora could have conducted such an experiment – it could have "turned off" Pandora for certain geographic regions and looked at the impact on sales, for example, but did not do so. Only iHeartMedia attempted to analyze the expansionary promotional effect of webcasting (as compared to interactive streaming) in its direct case. iHeartMedia withdrew that expert testimony after a correction in the data revealed that no

14 [redacted]

15 [redacted]

16 [redacted]

statistically significant difference exists between the expansionary promotional effect for interactive and non-interactive services.[17]

IV. THE MCBRIDE TESTIMONY IS CONTRADICTED BY MARKET EVIDENCE AND SUFFERS FROM OTHER FLAWS

15. The McBride Testimony's conclusions that Pandora promotes sales for the recorded music industry is, at best, a result of Dr. McBride's focus on diversionary promotion. As I describe in this section, however, even if one were to focus on diversionary promotion, Dr. McBride's analysis suffers from other flaws that, in my opinion, render his conclusions inapt. Moreover, while Dr. McBride has undertaken a complex experimental design and analyzed it with complex econometric techniques, the results of his analysis are inconsistent with straightforward market evidence about the relationship between webcasting and music sales and revenues from other channels.

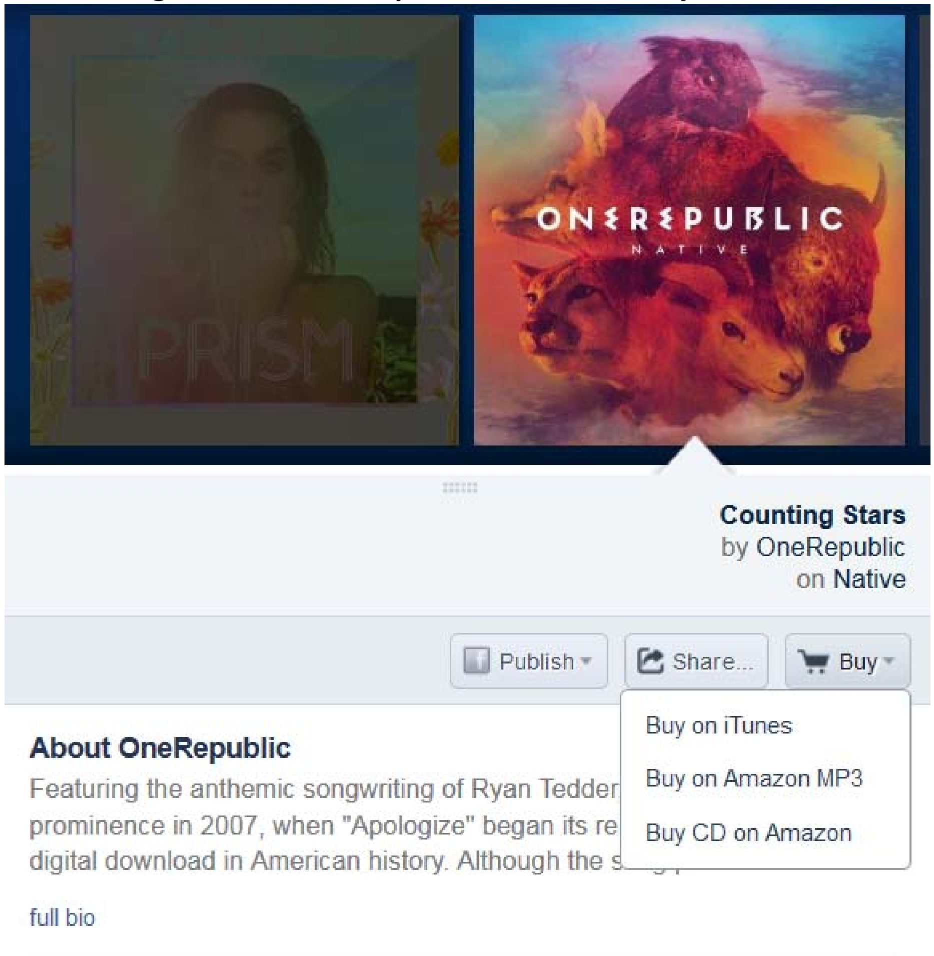
A. Pandora's Buy Button

16. Nowhere in Dr. McBride's analysis, or as I understand, in Pandora's written direct case, does he or any other Pandora witness examine any information related to Pandora's "Buy Button." The "Buy Button" is a feature in Pandora's mobile app and web-based platform that allows a user to easily click a button and be taken to a page (at Amazon or the iTunes Store) from which he or she can purchase the track that Pandora was streaming when the user clicked the Buy Button. An example of this feature in action is shown in **Figure 1** below.[18] One would expect that this easy-to-use and presumably easy-to-track feature of Pandora would be the first place that Pandora would look for evidence of its promotional value to the recorded music industry. The silence on this very direct potential avenue for promotion is itself telling.

[17] As I describe in more detail below, a proper analysis of the data shows, in fact, that there is further no evidence of any statistically (or economically) significant expansionary promotional effect for non-interactive services.

[18] As can be seen in **Figure 1**, the link to the iTunes Store takes the user to a page where he or she may purchase a digital copy of the track (or album). The link (or links) to Amazon takes the user to a page where he or she may purchase a digital copy of the track (or album) and/or a page where he or she may purchase a physical CD.

Figure 1 – Screen Capture of Pandora "Buy Button"



17. As I demonstrate below, Pandora apparently does not track carefully whether or how its users interact with the Buy Button feature. Again, this is telling. There are numerous reasons to think that Pandora would analyze consumers' use of the Buy Button: Pandora [redacted]]; Pandora apparently conducts numerous experiments to refine its algorithm and user experience;[19] and Pandora argues that its purported promotion of recorded music is a benefit to the music industry. Yet, based on the documents and information that Pandora has produced in this proceeding, [redacted]

[19] McBride Testimony, ¶3.

18. I reviewed the relatively small number of documents produced by Pandora that relate to its Buy Button activity. These documents provide [redacted]

19. [redacted]

20 [redacted]

21 See **Appendix 4**, [redacted]

22 [redacted]

23 [redacted]

24 [redacted]

[redacted]

20. [redacted]

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25 [[redacted]

26 [redacted]]

27 [redacted]

28 McBride Testimony, Table 5.

29 Of course, the fact that a Pandora user purchases a digital music file through use of the Buy Button is not definitive proof, in and of itself, that the purchase was due to a supposed promotional effect from Pandora, if that sale would have occurred through some other means if Pandora was not available.

21. [redacted]

B. The Market Defies Dr. McBride's Conclusions

22. Second, to the extent that Dr. McBride claims Pandora has increased total sales to the music industry – that is, *expansionary* promotion – this is in contrast to the general market trends in music sales and streaming activity over the past 10 years. Were Pandora as promotional as Dr. McBride suggests, one would expect that the growth of Pandora's user base to around 80 million users over the past decade would have resulted in substantial growth for the recorded music industry. This is not what has happened.

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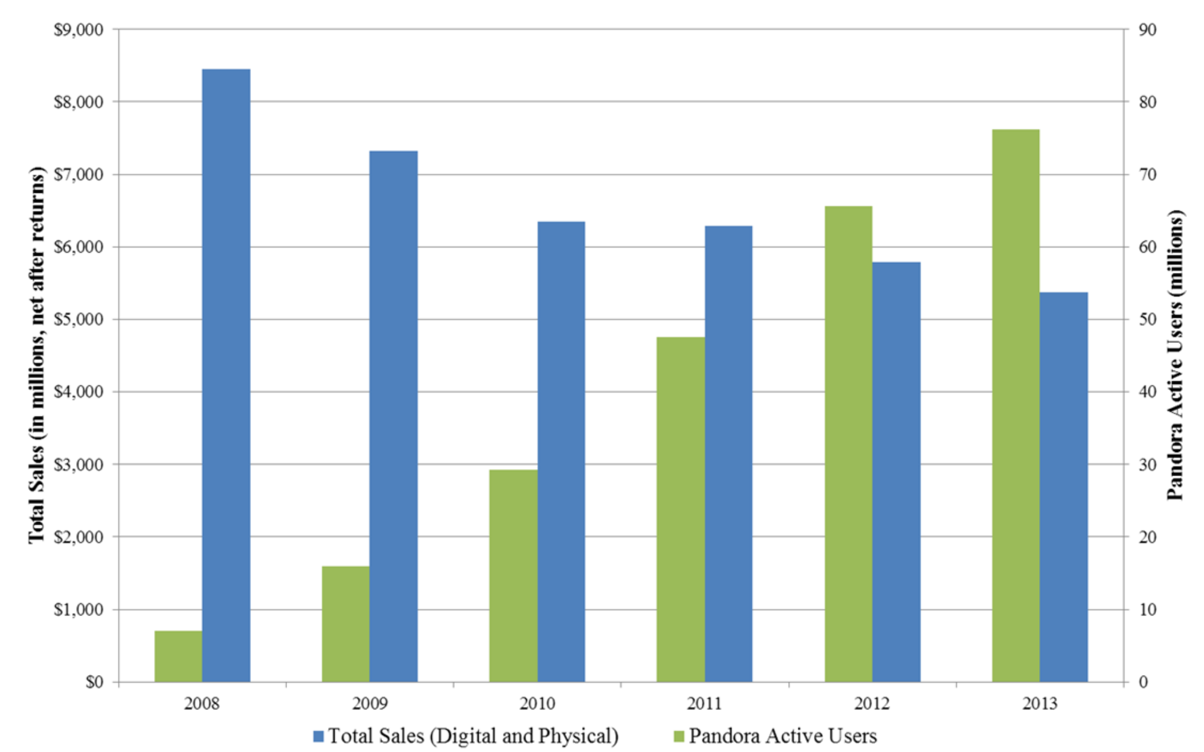
30 [PAN_CRB_00166338.xlsx.]

Figure 2 – Pandora Active Users and Industry Sales, 2008 - 2013



Note: Pandora active users are as of 1/31 of the following year, except 2013, which is as of 12/31/2013.
Sources: RIAA - Music Industry Shipment and Revenue Statistics 2004-2013.
Pandora FY 10-K 2011-2014.

23. I discuss below further econometric evidence that undermines the theory that statutory webcasting services promote industry revenues from other sources. Here, a review of the aggregate revenue trends in the music industry over the past several years suggests that streaming services are more than simply neutral in their net promotion/substitution impact; the trends suggest that streaming services substitute for other industry revenue sources.[31] As **Figure 2** shows, industry revenues from the sales of digital and physical media have been steadily falling since 2008. During the same time period, Pandora has acquired more and more active users. And, as shown in **Figure 3** below, Pandora has streamed more and more music to its users over this period. While a structured econometric analysis on such aggregate data is not possible, the fact that Pandora is playing more and more tracks to more and more users, while sales

[31] I discussed this issue in greater detail in my initial report. See Initial Blackburn Testimony, Section IV.

revenues have steadily fallen, is inconsistent with the idea that Pandora (or any statutory service) promotes other industry revenue streams.

Figure 3 – Pandora Total Listening Hours and Industry Sales, 2008 - 2013

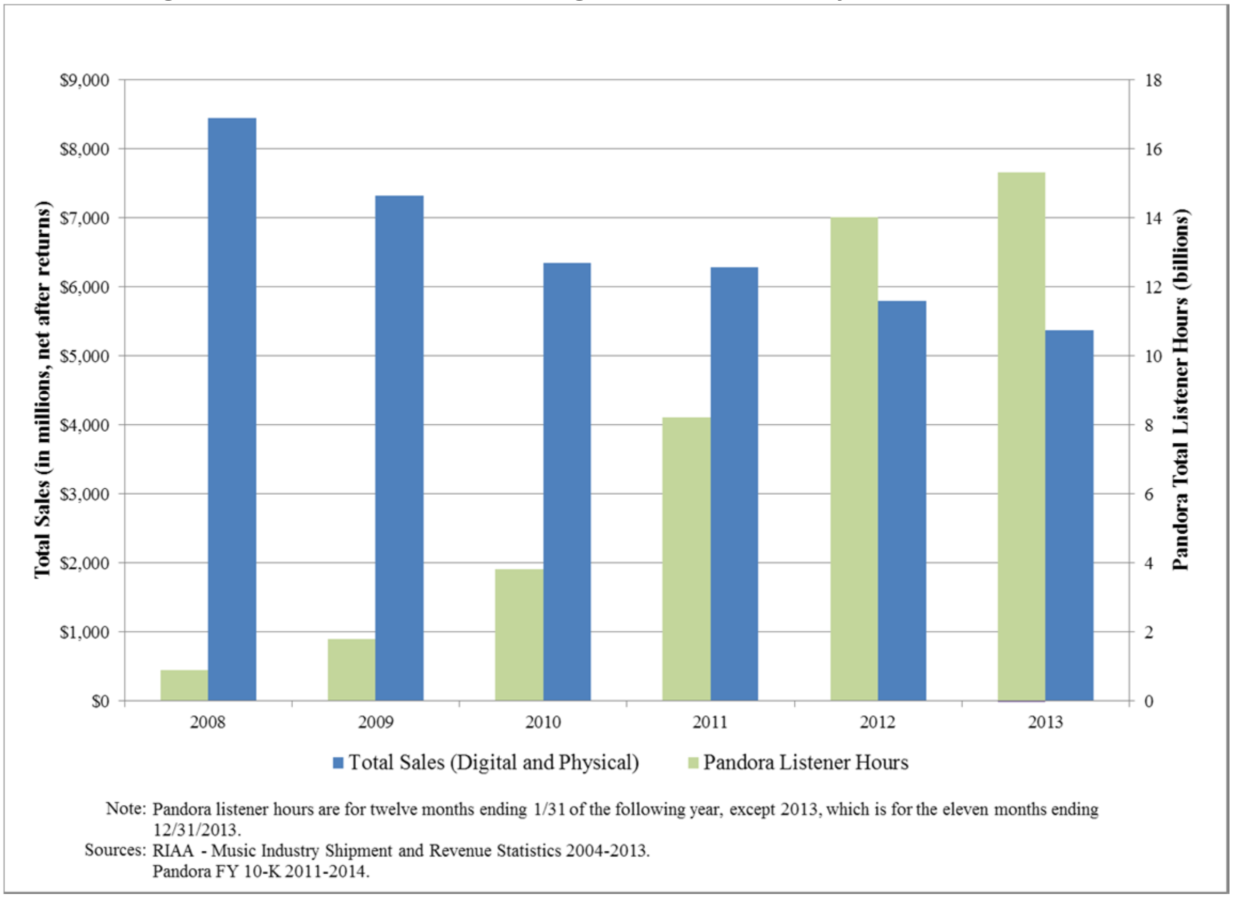
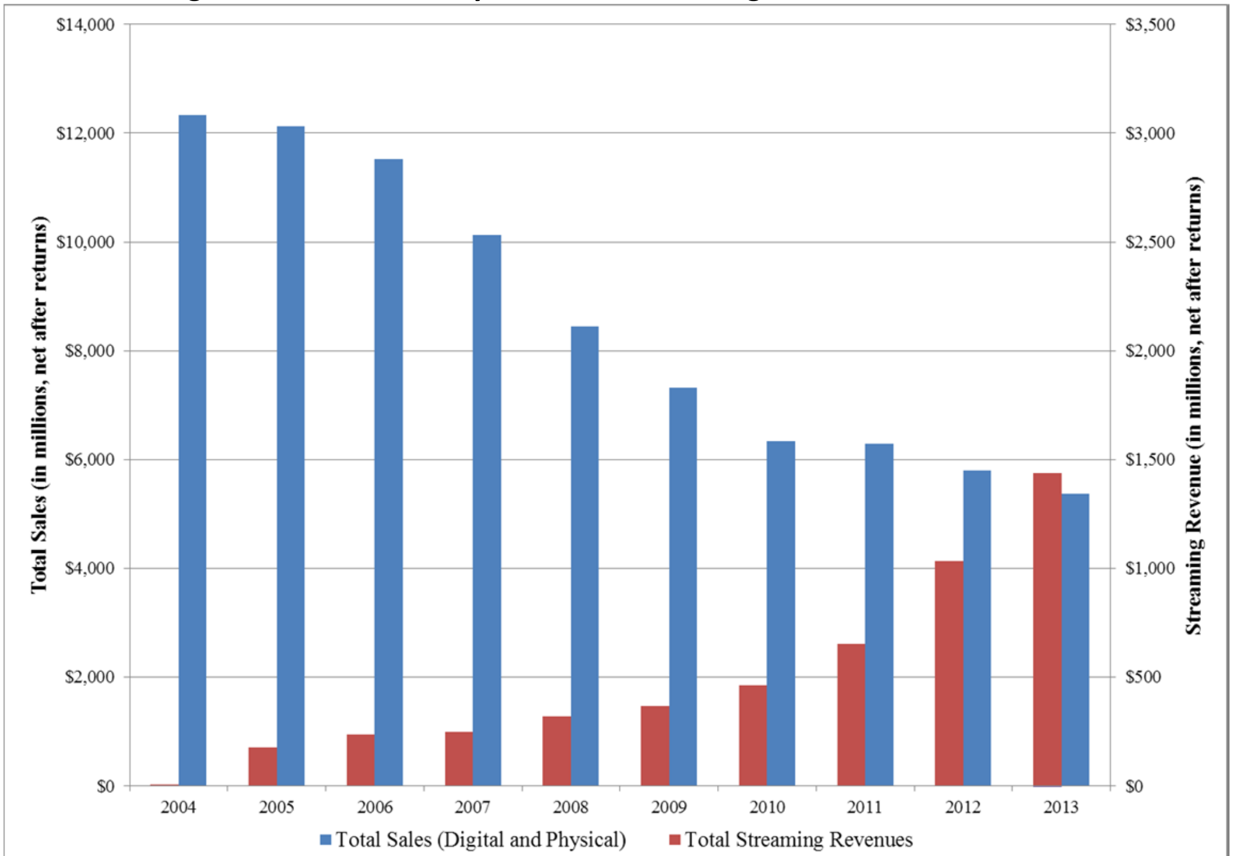


Figure 4 – Total Industry Sales and Streaming Revenues, 2004 - 2013

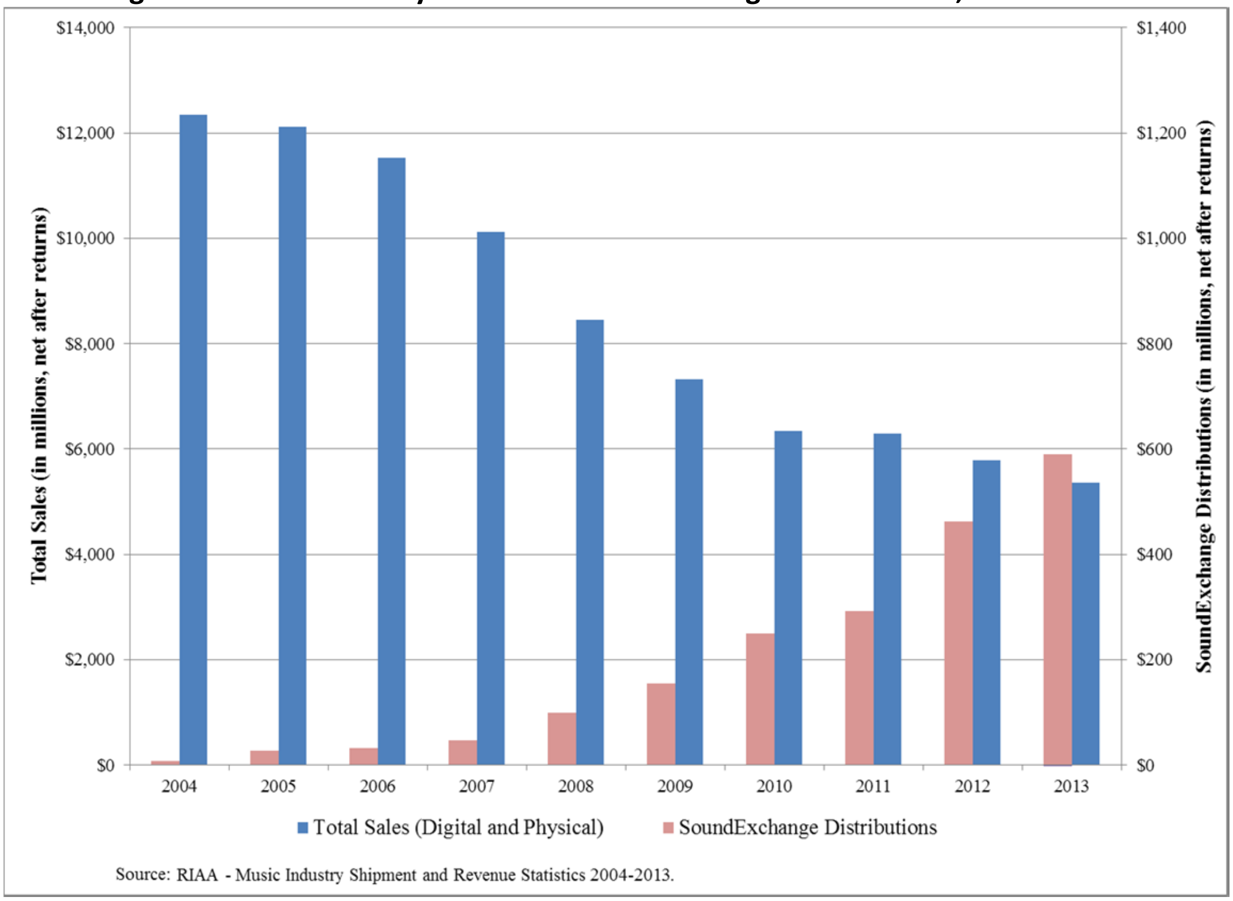


Source: RIAA - Music Industry Shipment and Revenue Statistics 2004-2013.

24. The same relationship is seen when looking at revenues from streaming services in general, and over a longer time period, as shown above in **Figure 4**. Again, as industry streaming revenues have steadily risen, industry revenues from sales have fallen consistently – and to a greater degree than streaming revenues have risen. This divergence is not due exclusively to directly-licensed services. First, as shown above, the increase in industry streaming revenues parallels the increase in Pandora usage and performances. Second, as SoundExchange distributions have increased, industry revenues from sales have fallen consistently. **Figure 5** shows this relationship. SoundExchange distributions exclude industry revenues from interactive, directly-licensed streaming services, but include revenues from statutory webcasting services (as well as satellite radio). As **Figure 5** shows, while industry sales revenues have fallen from over $12 billion per year to less than $6 billion per year, industry revenues from SoundExchange distributions has grown from essentially nothing to nearly $600 million per year. Even since 2011, distributions from SoundExchange have essentially doubled,

while total industry sales of digital and physical media have fallen by about 15 percent. Note that the increase of about $300 million in distributions over that period is only about one-third of the approximately $900 million drop in sales over that time.

Figure 5 – Total Industry Sales and SoundExchange Distributions, 2004 - 2013



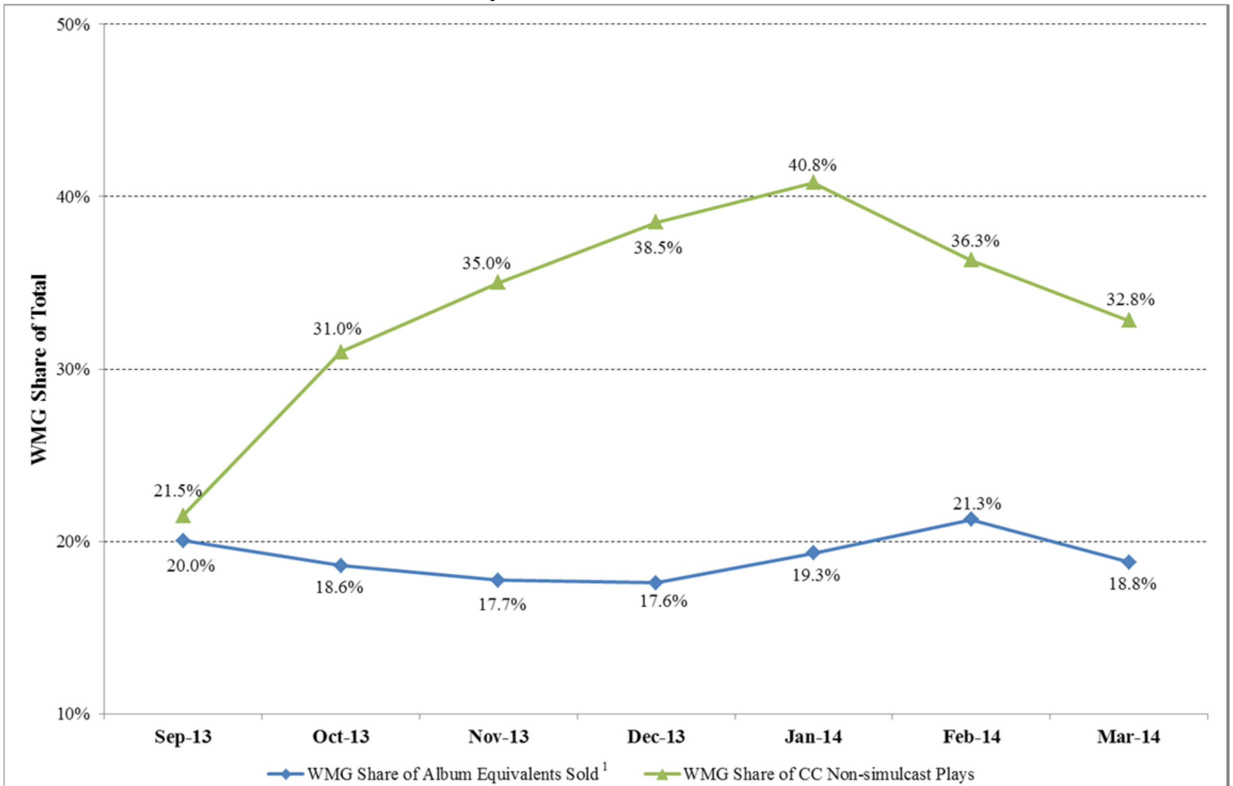
C. An Analysis of Warner-iHeartMedia Data

25. An agreement between iHeartMedia and Warner presents the possibility of a natural experiment to test diversionary promotion – calling into question both whether Dr. McBride's analysis is correct and, even if it is, whether it can be extrapolated to *all* webcasters. I understand that as a result of this direct license, [redacted] This agreement became effective in October 2013.[33] [redacted]

[32] Written Direct Testimony of Ron Wilcox, ("Wilcox Direct Testimony"), pp. 9-10.

[redacted]

Figure 6 – RESTRICTED - Warner's Share of iHeartRadio Performances and Track Equivalent Sales, September 2013 - March 2014



[1] One album is equivalent to ten tracks.
Sources: Nielsen SoundScan data.
SNDEX0127290.

33 Wilcox Direct Testimony, pp. 7-8.

34 [redacted]

26. As **Figure 6** above shows, [redacted]

27. Rather than looking simply at the change in plays and sales for the entire Warner catalog, one also can examine the particular Warner tracks that Dr. McBride analyzed in his Music Sales Experiments. Because Dr. McBride's "New Music Experiments" involve music that was added to Pandora after the iHeartMedia-Warner agreement took effect, I have focused on the tracks from his Catalog experiments. In all, I identified 78 tracks that were in Dr. McBride's Catalog experiments that were Warner sound recordings. I tallied the total performances and total sales in the period from July 2013 through September 2013 (three months before the agreement took effect) and in the period from October 2013 through March 2014 (six months after the agreement took effect). **Table 1** below shows that [redacted]

[35] [redacted]

[36] Dr. McBride's experiments purport to show that sales of particular sound recordings are decreased *during the time period* (and in the locations) that the sound recording is purportedly not played. Thus, the appropriate parallel is to look at sales of the Warner sound recordings during the time period that their plays are increased.

Table 1 – RESTRICTED - Change in Plays and Sales of Warner Music in Catalog Music Sales Experiments, Before and After iHeartMedia Agreement

WMG Song Metrics	Monthly Average for Pre-Period[1]	Monthly Average for Post-Period[2]	Percentage Change
	--------------------(Count)--------------------		---(Percent)---
(a)	(b)	(c)	[(c)-(b)]/(b)
WMG Total Song Performances	2,304,086	4,478,339	94.37 %
WMG Total Song Unit Sales	201,233	183,695	(8.72) %

Notes: Performances include simulcasts and non-simulcasts.
This analysis is limited to 78 Warner Music Group catalog songs from McBride's analysis that appear in both the Clear Channel Performance data and the Nielsen SoundExchange sales data.

[1] July 2013 - September 2013.

[2] October 2013 - March 2014.

Sources: Nielsen SoundScan data.
Clear Channel Performance data.
Turnover from Stephan McBride.

D. Other Critical Flaws in the Music Sales Experiments

28. Regardless of whether the Music Sales Experiments' focus on diversionary promotion is appropriate or not, Dr. McBride attempts to show that – on a track-by-track basis – removing a sound recording from Pandora's rotation causes sales of that recording to fall. His experiments suffer from critical flaws that, in my opinion, render the conclusions drawn from them inapt and without basis. The statistical analysis of the Music Sales Experiments excludes over one third of the experiments; these excluded experiments are all ones in which sales were not lower when the sound recordings were shut off. As well, the very design of the experiments is flawed in that it relies on matching sales and Pandora plays by geography and the data that Dr. McBride chose to rely upon in the Music Sales Experiments cannot accurately link where Pandora listeners are (and thus whether or not people in an area were subject to the treatment or the control) with where many purchases were made. This geographic linkage is the source of the identification of the Music Sales Experiments; the fact that it cannot be verified is a critical failure of the validity of the experimental design.

1. Over [[redacted]] of the Music Sales Experiments Show No Impact of Pandora Performances on Sales but Are Excluded from Dr. McBride's Analysis

29. [[redacted]]

30. Sound recordings that have zero sales regardless of whether or not they are played on Pandora are evidence of a lack of a (diversionary) promotional effect; playing the sound recording did not increase the sales relative to areas where it was not played. These experiments should not be excluded – they are highly relevant. In fact, dropping these experiments from the analysis *necessarily* biases the resulting estimation in favor of finding an effect – this is, it biases the analysis of the Music Sales Experiments in Pandora's favor.

31. [redacted] There were 1,215 experiments analyzed by Dr. McBride,[40] [redacted]

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37 [redacted]

38 [redacted]

39 [[redacted]

40 McBride Testimony, ¶26; [[redacted]]

41 [redacted].]

[redacted]

32. In my opinion, Dr. McBride's exclusion of these results undermines the validity of his reported results. If testing for the presence of some effect (in this case, a purported (diversionary) promotional impact of playing songs on Pandora), the exclusion of over [[redacted]] of the relevant data which uniformly contradict the purported effect in question renders the resulting estimates from an analysis of the remaining experiments essentially meaningless. One cannot throw out over [redacted]] of the relevant data, all of which suggests that no such promotional relationship exists, and then use the remaining data to conclude that the effect does exist.

2. The Experimental Design of the Music Sales Experiments is Critically Flawed

33. Finally, even ignoring the improper exclusion of relevant and contradictory data, Dr. McBride's experimental design rests on a flawed premise due to the quality of the data used for his identification. The basis of the Music Sales Experiments is an attempt to measure changes in the sales of certain sound recordings that Pandora purported to stop performing in specific geographic areas. Dr. McBride then attempted to examine the variation in sales of those recordings between areas where the recordings purportedly were and were not blocked. Dr. McBride utilized sales data from Nielsen's SoundScan.[42] [[redacted] For example, if a Pandora listener –a college student – shares a credit card with a family member and

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[42] McBride Testimony, ¶29.

[43] [redacted]

the zip code associated with that card reflects the parents' address (Seattle, WA) rather than the student's college address (Washington, DC), the purchase would be incorrectly attributed to Seattle even if made in D.C. That, in turn, affects the validity of Dr. McBride's conclusions, which depend upon the purchaser actually being located in a geographic area where the sound recording was blocked. (Dr. McBride's assumption regarding the physical location of the user at the point of hearing (or not hearing) the tested track has a similar flaw which I discuss below.)

34. Dr. McBride, however, does not seem to recognize the problem with this inability to accurately track where purchases originate from. Indeed, Dr. McBride [[redacted]] This makes no sense. [redacted]]

35. Similarly, Dr. McBride explained that the exclusion of sound recordings from Pandora's algorithm was based, not on the user's physical location, but on the zip code associated with a user's account. That is, if a certain recording was excluded from users in zip code 02905, this was done *not* by confirming that the user physically was in that zip code (Providence, RI), and thus either deprived (or not) of the track on Pandora. Rather, Dr. McBride relied on the zip code associated with the Pandora user's account – zip codes which are provided by the user.[46] As a result, there is no guarantee that these zip codes accurately reflect where a

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44 [redacted]

45 [[redacted]

46 [[redacted]

user is at the time, or even lives permanently. Indeed, Eric Bieschke, Pandora's Chief Scientist, stated that "[y]ou'd be surprised how many people listening to Pandora say they live in 90210."[47]

Figure 7 – 90210 is a Popular Pandora Zip Code

36. Accordingly, Dr. McBride cannot accurately verify the geographic connection between the exclusions of certain sound recordings and corresponding sales (or lack thereof). This geographic linkage is critical to the validity of his conclusion: if users he assumed were located in an area in which a recording was turned off, but in reality they were located in an area in which the recording was played, then Dr. McBride's conclusions about the relationship between shutting off recordings and changes in music sales for those recordings are unverifiable. Indeed, the extent of the problem cannot even be known. Dr. McBride presents no evidence that indicates that this is a rare problem, and Pandora's concessions about the "90210" zip code suggest that it may be widespread.

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[47] Greenfield, Richard, "Pandora Admits That a Surprising Number of Users Enter 90210 For Their Zip Code #BadData," BTIG Research, October 3, 2014, available at: http://www.btigresearch.com/2014/10/03/pandora-admits-that-a- surprising-number-of-users-enter-90210-for-their-zip-code-baddata%2F&reauth=1, accessed February 19, 2015.

The comment was made during a conference session – "Big Data and Streaming Audio" from the RAIN Summit Indy 2014 on September 9, 2014 – which can be viewed on YouTube. The comment itself is made shortly after the 34:00 mark of the video. [See https://www.youtube.com/watch?feature=player_embedded&v=2t6qj5ysiaE.] Mr. Bieschke is introduced shortly after the 1:25 mark. [See also http://rainnews.com/summits/rain-summit-indy-2014/, February 20, 2015.]

37. The fact that Dr. McBride's analysis is flawed as to both user location while listening and user location while purchasing ultimately means that the results of the Music Sales Experiments, especially in light of other evidence contradicting these results, are, in my opinion, speculative.

38. Dr. McBride also confirmed [[redacted]] The inability to confirm that Pandora's exclusions on listening that are the basis for the Music Sales Experiments are actually limited to users in those geographic areas – and thus would accurately be linked to physical sales in those geographies – fundamentally brings into question the conclusions Dr. McBride draws from those experiments, even ignoring the other critical flaws in his analysis.

V. INTERACTIVE AND NON-INTERACTIVE SERVICES HAVE THE SAME PROMOTIONAL/SUBSTITUTIONAL IMPACT ON THE INDUSTRY

A. Econometric Analysis of the iHeartMedia Data[49]

39. One witness – now withdrawn – understood that any study must test *expansionary* promotion rather than *diversionary* promotion. That witness, Prof. Brett Danaher, used survey data from computer users to analyze a natural experiment and submitted testimony on behalf of iHeartMedia. However, after a correction in the data revealed that Prof. Danaher's study provided ***no evidence*** of a promotional impact from webcasting and ***failed to prove*** a difference between interactive and non-interactive services in this respect, iHeartMedia withdrew him as a witness. Despite this withdrawal, Prof. Danaher's study and data are relevant evidence to test the

[48] McBride Deposition, p. 181.

[49] As mentioned in footnote 4 above, iHeartMedia withdrew the Corrected Danaher Testimony after Prof. Danaher revised his conclusions in light of a correction made to the data. Here, I am not rebutting the withdrawn testimony but rather using the data and explanation provided by iHeartMedia through discovery in this proceeding to recreate the experiment and show that the evidence contradicts the claims made by Mr. Fleming-Wood and the Services that non-interactive services are more promotional than interactive services.

qualitative assertions of other witnesses – including Mr. Fleming-Wood – that "Pandora fills the traditional role of radio, and the on-demand streaming services fill the traditional role of record stores, or replacement of a personal music collection."[50] The results I describe in this section demonstrate that no such distinction exists between interactive and statutory services.

40. I analyzed consumer tracking data produced by iHeartMedia (and used by Prof. Danaher) that follows consumers' desktop (not mobile) usage of interactive streaming services (Spotify and/or SoundCloud) and non-interactive streaming services (Pandora and iHeartRadio) over two three-month periods and tracks consumers' purchase of digital tracks.[51] The analysis focuses on users who, in the first period, did not use either an interactive or a non-interactive streaming service, but used at least one type (and possibly both) in the second three-month period. Each user is represented in a data point for the first period and the second period, and the data tracks the user's purchase of digital tracks in both periods, as well as the number of visits the user made to a music-focused website.

41. Thus, the econometric specification can identify the average change in purchasing of digital tracks from the first period to the next and see how that relates to the increase in usage of streaming services (both interactive and non-interactive). The regression analysis takes the form:

$$\begin{aligned}
&\mathit{Digital\ Tracks\ Purchased}_{i,t} \\
&\quad = \alpha + \beta_1 \mathit{Music\ Site\ Visits}_{i,t} + \beta_2 I(\mathit{Period\ 2})_{i,t} \\
&\quad + \beta_3 I(\mathit{Used\ Interactive\ Site})_{i,t} + \beta_4 I(\mathit{Used\ Non\text{-}Interactive\ Site})_{i,t}
\end{aligned}$$

The coefficients on the indicator variables for using an interactive or non-interactive site (which are equal to zero, by construction, in the first period for all users) show the average change in the number of tracks purchased by users in the second period if they begin using interactive and non-interactive services in the second period. The results of this analysis can be found in **Table 2** below.

50 See, for example, Fleming-Wood Testimony, ¶¶14-19.

51 A description of the data that was produced can be found in the Corrected Danaher Testimony, ¶¶ 6-12 and Appendix B and Appendix D.

Table 2 – Econometric Analysis of Differential Impact of Starting Use of Interactive and Non-Interactive Services on Digital Track Purchases

	Dependent Variable = Song Downloads	
VARIABLES	**Music Purchasers Only**	**All Music Streamers**
(a)	**(b)**	**(c)**
Period 2	-2.936	-0.33
	(3.04)	(0.33)
Non-Interactive User * Period 2	5.123	0.624
	(4.02)	(0.45)
Interactive User * Period 2	-3.383	-0.493
	(6.41)	(1.10)
Music Site Visits	1.448 **	0.234 **
	(0.70)	(0.09)
Constant	10.334 ***	1.168 ***
	(1.42)	(0.16)
Observations	486	4316
Users	243	2158
R-squared	0.512	0.596

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

Source: Corrected Danaher Report

42. This analysis was first restricted to include only users who purchased at least one digital track over the two time periods.[52] Column (b) shows the result of this specification – the average change in the number of tracks purchased by users who adopt a streaming service in the second period is ***not statistically different from zero***, regardless of whether the user begins using an interactive or non-interactive service. To the extent that – after not using a service in the first three months of the data – a user's "adoption" of one of these services in the second period represents true "discovery" of these services (which I discuss in Section V.B below), the results indicate that neither interactive nor non-interactive services have a statistically significant promotional impact on users' propensity to purchase digital tracks.

[52] While, in my opinion, this restriction is inappropriate, I do it simply because Professor Danaher did so in his testimony, which has since been withdrawn. See, for example, Corrected Danaher Testimony, ¶12. I discuss the results omitting this restriction below.

43. Additionally, one can conduct a statistical test of whether or not the use of non-interactive services is more promotional than the use of interactive services using this same regression specification. The hypothesis that the effect of using a non-interactive streaming service on purchases of digital tracks is the same as the effect of adopting use of an interactive service can be analyzed with a so-called F test. Testing this hypothesis yields an F-test statistic of 1.23, with 239 degrees of freedom, yielding a p-value of 0.268. A p-value of 0.268 indicates that this statistical test ***fails to reject*** the hypothesis that the measured promotional effect of the two types of services is the same. That is, even excluding the users who never buy digital tracks, this analysis indicates that non-interactive streaming services are no more promotional than interactive services.[53] These results challenge the Services' contentions that statutory webcasting is *more* promotional (or any different in this regard) than interactive streaming.

44. Column (c) shows the output of the same analysis, without artificially excluding users who never purchase digital tracks during the sample period. As before, this specification finds that the adoption of a non-interactive streaming service in the second period corresponds to no change in users' purchases of digital tracks. In fact, when including all relevant users in the data, the average increase in purchase of digital tracks for adopters of non-interactive streaming services – relative to those who did not adopt – is not only ***statistically insignificant***, the point estimate is quite small, less than two-thirds of a track (over three months). As I discuss below, even this estimate is biased upward.

45. Further, as before, an F-test of the hypothesis that the effect of adopting use of a non-interactive service on purchases of digital tracks is the same as the effect of adopting use of an interactive service yields a test statistic of 0.87, with 2,154 degrees of freedom. This test has

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[53] In a statistical analysis of this type, a conventional level of confidence in a result is 95 percent. Occasionally a researcher will report a result with 90 percent confidence, with the universal understanding that such a result is weaker than the conventional 95 percent threshold, but the researcher nonetheless believes it worthy of consideration.

The statement that a hypothesis is rejected at the 95 percent level of statistical significance is the same as saying that "if the hypothesis were true, we would expect to see results of the test this extreme only five percent of the time." Accordingly, the researcher believes that the test result is unlikely to be found if the hypothesis is, in fact, true and therefore rejects the hypothesis. In this case, a p-value of 0.268 corresponds to "73 percent confidence," which indicates that if the hypothesis is true, we would expect to see something as extreme (or more extreme) as this about 27 percent of the time. Thus, there is no reason to believe that the hypothesis (of equality between interactive and non-interactive services) is not true.

a p-value of 0.350, again failing to reject the hypothesis that there is no difference between how adoption of non-interactive and interactive services relate to a user's purchase of digital tracks. That is, the data provided by iHeartMedia indicate that (a) non-interactive streaming services have no statistically identifiable promotional effect on users' purchases of digital tracks and (b) there is no statistically identifiable difference in the promotional impact of interactive and non-interactive streaming services.

B. Limitations of the iHeartMedia Data

46. The data provided by iHeartMedia and, as a result, the econometric analysis of the data are limited in certain respects. Due to these limitations, the econometric analysis is biased in favor of finding a positive relationship between the use of streaming services (both interactive and non-interactive) and the purchase of digital tracks.

47. The key variable in the data provided by iHeartMedia is an indicator variable that shows whether or not the user started to use a streaming service in the second period of the data – that is, did the user "discover" a streaming service. As a result, the econometric model focuses on the change in purchasing behavior that is associated with this "discovery" of interactive or non-interactive streaming. For this analysis to identify a causal relationship between the usage of services and sales of digital tracks, users who adopt the services in the second period must otherwise be no different than other music listeners regarding their propensity to purchase digital music over time. If one could control for such propensity, then a measured change in purchasing behavior might be viewed as a change *due* to the usage of the service.

48. It is theoretically possible that some users are discovering Pandora (or other services) for the first time in the second period. However, limitations in the data make it impossible to know whether that is true for *all* users. Users in the data may well have been aware of Pandora (or other services) in the pre-data period (and, in fact, have used them in the pre-data period), and simply gone more than three months without accessing Pandora on their computer. Indeed, given the prevalence of mobile listening (on Pandora and other services), this

is entirely plausible.[54] If so, any change in the propensity to purchase digital tracks in the second period that corresponds to the adoption of these services is due to the use of the services and thus does *not* accurately represent a promotional effect of use of the service; rather both the "discovery" and the increased sales are the result of an underlying propensity to purchase music.

49. Because the data provided by iHeartMedia cannot separately identify customers who are truly joining Pandora (or other services) without a corresponding change in their underlying propensity for purchasing music, it is unsound to attribute any measured relationship to any promotional effect. As a result, while these results indicate that the average increase in purchases of digital tracks by users who adopted Pandora or iHeartRadio is statistically indistinguishable from zero, it should be noted that even this estimate is biased upward. Hence, the true expansionary impact of non-interactive services is lower than the estimate in Column (c) above.

50. Importantly, however, these biases are likely similar for interactive and non-interactive services. As such, the comparison of the estimated promotional effect of interactive services with that of non-interactive services can be made.[55] As described above, this comparison makes clear that non-interactive services are no more promotional than interactive services are.

VI. THE VAST MAJORITY OF PANDORA PERFORMANCES COME FROM A RELATIVELY SMALL FRACTION OF ARTISTS

51. Mr. Westergren asserts that "Pandora now streams more than 1.5 billion listener hours each month and plays [sound recordings] from more than 120,000 artists each month. The vast majority – some 80% – of these artists are independent, working musicians whose recordings receive no airplay at all on terrestrial radio."[56] Mr. Westergren claims – referencing

[54] Indeed, I personally have been a Pandora user for at least the past five years and have, at times, gone months without using the web-based version of Pandora.

[55] While discussing other biases that would make an analysis such as this more likely to find a positive promotional effect, Professor Danaher makes the same point in his testimony. [Corrected Danaher Testimony, ¶17.]

[56] Westergren Testimony, ¶20.

the McBride Report that I have discussed above – that Pandora is "without question promotional of record sales."[57] While I have already discussed the shortcomings of the McBride Testimony above, I now investigate the claim that the vast majority of what Pandora performs is not available elsewhere – and the resulting inferences that Mr. Westergren draws that Pandora is an engine of music discovery (and as a result indirectly promotes sound recordings that receive no attention from terrestrial radio).

52. I have reviewed logs of all the sound recordings that Pandora has performed from January 2011 through November 2014. These account for approximately [[redacted] over this period. While it is not possible to build a list of all artists who receive some airplay on some terrestrial radio station, I can look at the 20 percent most performed artists on Pandora, and the 80 percent least performed artists on Pandora.

53. First, about ***[[redacted]] percent of all performances*** on Pandora are from the 20 percent of artists most performed on Pandora. That is, the overwhelming amount of listening time is devoted to a small percentage of artists. Presumably, the 20 percent of artists that Mr. Westergren acknowledges receive some airplay on terrestrial radio are these most frequently played artists. In other words, [redacted]] of the time Pandora listeners hear music that is also played on terrestrial radio.

54. Second, turning to the other 80 percent of artists whose sound recordings are played least often on Pandora over this period, these artists – again, the ones to whom Mr. Westergren is presumably referring – therefore account for only about [redacted] percent of all Pandora performances.[58] That is, assuming that the average sound recording is 3.5 minutes long, a Pandora listener, on average, would have to listen for about [redacted] to hear one sound recording from the least performed (on Pandora) 80 percent of artists. In 2013, Pandora reported having 76.2 million active listeners and 15.31 billion listener hours – an average of 201 hours per user.[59] Thus – over the course of that entire year – the average Pandora

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[57] Westergren Testimony, ¶21.

[58] Pandora Media Inc. Performance Data (January 2011 – November 2014).

[59] Pandora Media, Inc. Form 10-K for the fiscal year ended December 31, 2014.

listener would hear about 3,450 sound recordings. On average, only about [redacted]] of those 3,450 sound recordings (about [redacted] percent) would feature the 80 percent of artists performed least.

55. Thus, it is clear that while it is possible that Pandora plays many artists whose sound recordings do not receive any terrestrial airplay, these artists account for only a small percentage of all of the total performances by Pandora. Furthermore, in 2013, the average Pandora listener would have heard only about [redacted]] performances, or about [[redacted]] of listening time by the least performed artists.[60] When viewed in this light, and considering the issues I have detailed above with respect to the Music Sales Experiments and the econometric evidence and other market evidence, in my opinion, there is no reason to believe that Pandora (or any other statutory service) is promotional to the recorded music industry.

VII. THE IMPACT OF NON-LICENSED SERVICES ON RECORD COMPANIES' NEGOTIATING POSITIONS

56. I understand that both Pandora and iHeartMedia have asserted that the record companies' directly-licensed agreements with services such as Spotify and other interactive services are set through a non-competitive process. Through the Shapiro Testimony, Pandora argues that "the market for recorded music licensed to *interactive* streaming services is *not* workably competitive" because interactive services must have access to every record company's catalog.[61] Similarly, through the Katz Testimony, NAB argues that "the major record companies are not meaningful competitors in the sale of sound performance licenses to interactive services, so that [rates negotiated between interactive services and the record companies] are well above competitive levels."[62]

60 I note that as of January 2015, the FCC reported that there were over 11,000 terrestrial (*i.e.*, AM or FM) radio stations in the United States. [http://transition.fcc.gov/mb/audio/newsite/datafiles/BroadcastStationTotals.xls, February 19, 2015.] These stations would include college radio stations and other genre-specific and niche stations that are likely to play "long-tail" music by artists who may not receive airplay elsewhere. Mr. Westergren provides no source for his claim that the artists he references "receive no airplay at all on terrestrial radio."

61 Shapiro Testimony, p. 12. [Emphasis on "interactive" added; emphasis on "not" in original.]

62 Katz Testimony, ¶46.

57. In my experience, the record companies recognize that the availability of non-licensed, pirated music content, from a variety of sources, represents a true competitive threat that must be taken seriously, as it is one to which music consumers have continually turned for over a decade. For example, it is well-known that one of the major impetuses for the creation of a marketplace for digital tracks (and digital albums), such as the iTunes Store, was competition from pirated sites such as Napster and Kazaa. A *Rolling Stone* article on the occasion of the iTunes Store's 10-year anniversary notes plainly – "Apple's iTunes Store, which opened 10 years ago this Sunday, exists for one major reason: Napster."[63] At the time the iTunes Store was introduced, Steve Jobs stated that iTunes was designed to compete with non-licensed, "free," services by offering low-priced digital tracks and an improved customer interface.[64] While not focused on the music industry, work by Professor Danaher demonstrates that after NBC removed its video content from the iTunes Store in late 2007, non-licensed downloads of NBC content increased relative to non-licensed downloads of content from the other major television networks.[65]

58. Despite the industry's efforts to combat music piracy, the competitive threat from pirated music is likely to strengthen, not dissipate, over time. For example, the group of music consumers aged 35 or less comprise 44 percent of music buyers, yet they constitute a larger share of those who make use of non-licensed services.[66] Indeed, approximately 75 percent of those

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63 Steve Knopper, "iTunes' 10th Anniversary: How Steve Jobs Turned the Industry Upside Down," *Rolling Stone*, April 26, 2013, available at http://www.rollingstone.com/music/news/itunes-10th-anniversary-how-steve-jobs-turned-the-industry-upside-down-20130426, accessed February 19, 2014.

64 Walter Isaacson, *Steve Jobs*, Simon & Schuster, 2011, pp. 402-3.

65 Brett Danaher, Samita Dhanasobhon, Michael D. Smith and Rahul Telang, "Converting Pirates without Cannibalizing Purchasers: The Impact of Digital Distribution on Physical Sales and Internet Piracy," available at http://www.heinz.cmu.edu/~rtelang/ms_nbc.pdf, accessed February 15, 2015, pp. 2-3; Brett Danaher, Samita Dhanasobhon, Michael D. Smith and Rahul Telang, "Understanding Media Markets in the Digital Age: Economics and Methodology," Prepared for Inclusion in Economics of Digitization: An Agenda, available at http://www.nber.org/chapters/c12999.pdf, accessed February 16, 2015, pp. 1, 10-3.

66 "Music Consumer Profile – 2013," *NPD Group*, available at http://riaa.com/media/179F6A9B-42EB-F309-8382-5AB1E00D7C29.pdf, accessed 2/15/2014.

who use peer-to-peer (p2p) downloading services, locker downloaders and streamripping technologies are 35 or younger.[67]

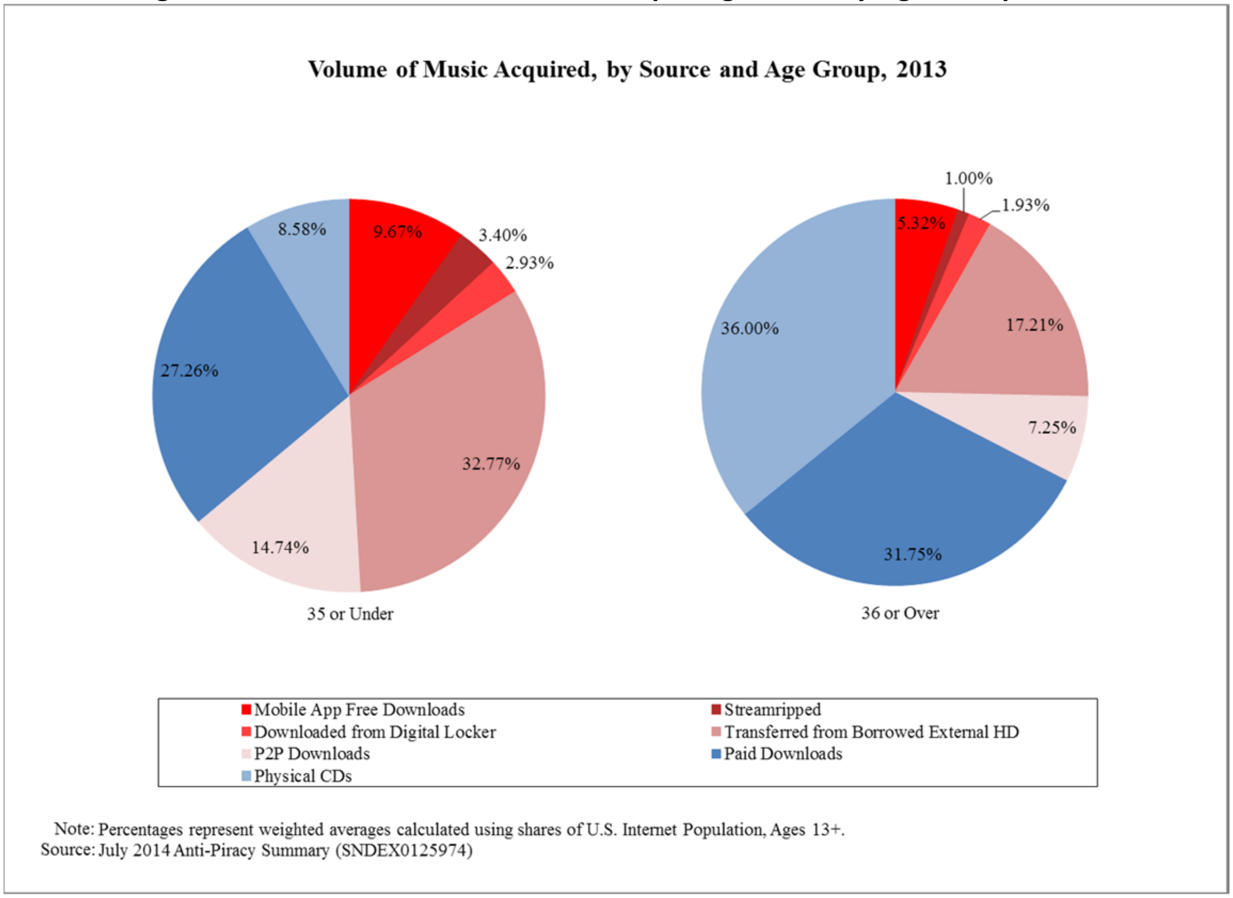
59. As individual users in the music-listening (and potentially music-purchasing and music-subscribing) population age over time, the population of music consumers will likely include more and more younger users who have become accustomed to using non-licensed services. Thus, users of non-licensed services will likely constitute a much larger share of the population that might otherwise pay for music. [redacted]] [See **Figure 8**.] Accordingly, it is reasonable to expect that the aggregate willingness and ability to obtain non-licensed music will grow over time.

67 "Music Consumer Profile – 2013," *NPD Group*, available at http://riaa.com/media/179F6A9B-42EB-F309-8382-5AB1E00D7C29.pdf, accessed 2/15/2014.

68 [redacted]

69 [redacted]

Figure 8 – RESTRICTED - Sources for Acquiring Music, by Age Group, 2013



60. This competition, however, is not limited to competition for digital downloads. Even today, directly-licensed streaming services also compete with non-licensed services, such as MP3 downloads via BitTorrent. A 2012 *Billboard* article highlighted that a Musicmetric "Digital Music Index" report found that "music file downloads using BitTorrent tend to increase in countries that don't have legal music streaming services such as Spotify" and that among the ten countries with the fastest growing BitTorrent market share, only one had Spotify, whereas among the ten countries in which BitTorrent had decreased the most, Spotify was available in five of them.[70]

[70] Billboard Staff, "Legitimate Streaming Services Cut Down on Piracy, Report Suggests," *Billboard*, October 3, 2012, available at http://www.billboard.com/biz/articles/news/1083571/legimate-streaming-services-cut-down-on-piracy-report-suggests, accessed February 19, 2015.

61. The competitive threat that pirated content represents is even more pronounced because many individuals consume both authorized and pirated content, meaning that such consumers can potentially be swung in either direction.[71] Given the background of this competitive threat, rational negotiators for both record companies and directly-licensed services would take this threat into account in setting the terms of their agreements. In particular, because directly-licensed services must "compete with free," it follows that the terms of the resulting agreements have lower licensing rates than likely would prevail absent competition from illegal piracy services. That is, the threat of losing potentially paying customers to non-paying, illegal services would cause rational negotiators for the directly-licensed services to demand lower royalty rates and would cause rational negotiators for the record companies to accept lower rates, than otherwise would be the case absent piracy. Indeed, [redacted][72]

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71 [redacted]

72 [redacted]

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 2/22/15

David Blackburn

Exhibits Sponsored By David Blackburn

Exhibit No.	Sponsored By	Description
SX EX. 079 – RP	David Blackburn	Ex. 1 – Appendix 1
SX EX. 080- RR	David Blackburn	Ex. 2 – Appendix 2
SX EX. 081- RR	David Blackburn	Ex. 3 – Appendix 3
SX EX. 082- RR	David Blackburn	Ex. 4 – Appendix 4

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Appendix 1

David Blackburn
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Education

Harvard University
Ph.D., Economics, 2005

Brown University
B.Sc., with Honors, Applied Mathematics and Economics, 1998

Professional Experience

	NERA Economic Consulting
2012-	Vice President
2008-2012	Senior Consultant
2005-2008	Consultant
	Framingham State College
2003	Instructor - Intermediate Microeconomics
	Universidad Nacional de Tucumán, Argentina
Summer 2002	Visiting Professor
	Instructor - Regulation in Network Industries

Written Testimony

Expert Report of David Blackburn, Ph.D., *Endo Pharmaceuticals Inc. and Grünenthal GmbH v. Actavis Inc., Actavis South Atlantic LLC, and Watson Pharmaceuticals, Inc.*, United States District Court for the Southern District of New York, C.A. No. 13-cv-436-TPG, January 2015. Assess the commercial success of Opana ER, a long-acting opiod sold by Endo.

Expert Report of David Blackburn, Ph.D., *Takeda Pharmaceuticals Co., Ltd., Takeda Pharmaceuticals U.S.A., Inc., and Takeda Pharmaceuticals America, Inc. v. TWI Pharmaceuticals, Inc.*, United States District Court for the Northern District of California, Case No. 5:13-cv-02420 LHK (PSG), December 2014. Assess the commercial success of Takeda's Dexilant pharmaceutical product.

Report of David Blackburn, Ph.D., On Behalf of SoundExchange, *14-CRB-0001-WR (2016-2020) Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (Web IV)*, Before the United States Copyright Royalty Judges, Library of Congress, Washington, D.C., October 2014. Assess webcasting and relationship to other music distribution channels.

Expert Report of David Blackburn, Ph.D., *Carrier Corporation v. Goodman Global, Inc., Goodman Manufacturing Company, L.P., Goodman Global Holdings, Inc., Goodman Distribution, Inc., and Goodman Sales Company,* United States District Court, District of Delaware, C.A. No. 12-930 (SLR), February 2014. Assess commercial success of Carrier's Infinity HVAC system and related patents.

Declaration of David Blackburn, Ph.D., *Ferring B.V. v. Watson Laboratories, Inc. - Florida*, United States District Court, District of Nevada, Case Nos.: 3:11-cv-00481-RCJ-VPC, 2:12-cv-01935-RCJ-VPC, and 3:11-cv-00853-RCJ-VPC, February 2014. Asses potential impact of continued sale of Watson's generic tranexamic acid tables.

Expert Report of David Blackburn, Ph.D. and Supplemental Expert Report of David Blackburn, Ph.D., *In re: Cengage Learning, Inc. et al.*, U.S. Bankruptcy Court, Easter District of New York, Case No.: 13-44106 (ESS), Case No.: 13-44105 (ESS), Case No.: 13-44107 (ESS), and Case No.: 13-44108 (ESS), December 2013 and January 2014. Assess the appropriate royalty rates to use in determining the value of certain copyrights held by Cengage.

Expert Report of David Blackburn, Ph.D., *Energy Intelligence Group, Inc. and Energy Intelligence Group (UK) Limited v. Canal Barge Company, Inc.*, United States District Court, Eastern District of Louisiana, Civil Action No.: 12-cv-02107-JCZ-DEK, June 2013. Supplemental Expert Report of David Blackburn, Ph.D., December 2013. Assess EIG's claim for damages resulting from Canal Barge's alleged copyright infringement.

Expert Report of David Blackburn, Ph.D., *Machine Maintenance Inc., d/b/a Luby Equipment Services, Inc. v. Generac Power Systems, Inc.*, United States District Court, Eastern District of Missouri, Eastern Division, Case No: 4:12-cv-793-JCH, September 2013. Assess the reasonableness of Generac's determination of the market opportunities available to Luby.

Updated: February 22, 2015

Declaration of David Blackburn, Ph.D., *Endo Pharmaceuticals, Inc. v. Actavis, Inc. and Actavis South Atlantic LLC*, United States District Court, Southern District of New York, Civil Action No. 12-cv-8985-TPG-GWG, August 2013. Assess potential impact of at-risk entry by Actavis and Roxane of a generic extended-release oxymorphone.

Rebuttal Expert Report of David Blackburn, Ph.D., *Ferring B.V. v. Watson Laboratories, Inc. - Florida*, United States District Court, District of Nevada, Case Nos.: 3:11-cv-00481-RCJ-VPC, 2:12-cv-01935-RCJ-VPC, and 3:11-cv-00853-RCJ-VPC, June 2013. Assess commercial success of Lysteda and related patents.

Expert Report of David Blackburn, Ph.D., *Warner Chilcott Company, LLC v. Watson Laboratories, Inc.* and *Warner Chilcott Company, LLC v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.*, United States District Court, District of New Jersey, 12-cv-2928-JAP-TJB, June 2013. Assess commercial success of Lo Loestrin Fe and related patents.

Expert Report of David Blackburn, Ph.D. and Declaration of David Blackburn, *Edward L. White, P.C., v. West Publishing Corporation d/b/a "West"; and Reed Elsevier Inc., d/b/a LexisNexis*, United States District Court, Southern District of New York, Case No. 12-cv-1340, September 2012 and October 2012. Assess economic factors related to fair use considerations in Lexis's and West's alleged copyright infringement.

Expert Report of David Blackburn, Ph.D., *William F. Shea, LLC, et al. v. Bonutti Research, Inc., et al.*, United States District Court, Southern District of Ohio, Case No. 2:10-cv-615, January 2012. Assess issues relating to alleged competition related to Shea's alleged breach of contract and other claims.

Rule 26(b)(4) Expert Witness Disclosure of Plaintiffs Wildheart Entertainment, L.P., Maxim Langstaff, and Michele Langstaff, *Wildheart Entertainment, L.P., Maxim Langstaff, and Michele Langstaff v. Higher Ground, LLC et al.*, Superior Court for the District of Columbia (Civil Division), Civil Action No. 2010 CA 005253 B, June 2011. Assess Wildheart's claims for damages resulting from Higher Ground's alleged breach of contract, interference, and other claims.

Expert Report of David Blackburn and Christine S. Meyer, *Waddington North America, Inc. v. Sabert Corporation*, United States District Court for the District of New Jersey, Civil Action No. 2:09-cv-04883-GEB-MCA, January 2011. Assess Waddington's claim for damages resulting from Sabert's alleged infringement of patented metalized cutlery technology.

Rebuttal Expert Report of David Blackburn, *International Business Machines Corporation v. BGC Partners, Inc., BGC Brokers US, L.P., BGC Financial L.P., and BGC USA, L.P.*, U.S. District Court, Southern District of New York, Civil

Action No. 1:10-cv-00128, November 2010. Assess IBM's claim for damages resulting from BGC's alleged breach of contract and copyright infringement.

Expert Report of David Blackburn, *Danforth S. DeSena, DPM and Solstice Corporation v. Beekley Corporation*, United States District Court, District of Maine, Civil Action No. 2:09-cv-00352-DBH, December 2009. Assess DeSena's claim for damages from Beekley's alleged infringement of patented radiographic scanner technology.

Report of David Blackburn on Claimed Monopolistic Impact of Proposed New York State Legislation (Senate Bill Number 3708-D), Letter to Governor David Paterson, December 2009.

Expert Report of David Blackburn, Ph.D., *Carolina Power & Light Co., et al. v. Aspect Software, Inc. and BellSouth Communications Systems, L.L.C.*, United States District Court, Eastern District of North Carolina, Western Division, Case No. 5:08-cv-00449, October 2009. Assess Aspect's indemnification obligation relating to a patent settlement entered into by Carolina Power.

Expert Report of David Blackburn, *Jose Estrada and Rene Byron Brizuela v. Toyota Motor Sales USA, Inc., et al.*, United States District Court, Central District of California, Case No. CV 08-05992 GAF(AJWx), October 2009. Assess Estrada's claim for damages resulting from the alleged infringement of Estrada's musical copyrights.

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Expert Report of David Blackburn, Ph.D., *Dominion Resources, Inc. v. Aspect Software, Inc. and Rockwell Automation, Inc.*, United States District Court, Eastern District of Virginia, Case No. 3-08-cv-737, June 2009. Assess Aspect's indemnification obligation relating to a patent settlement entered into by Dominion.

Expert Report of David Blackburn, Ph.D., *UMG Recordings, Inc., et al. v. Veoh Networks, Inc., et al.*, United States District Court, Central District of California, Case No. CV 07 5744 – AHM(AJWx), May 2009. Rebuttal Expert Report of David Blackburn, Ph.D., June 2009. Assess the extent and source of UMG's damages resulting from Veoh's alleged infringement of UMG's copyrighted works.

Updated: February 22, 2015

Report of David Blackburn on Claimed Monopolistic Impact of Proposed New York State Legislation (Senate Bill Number 4487-B), Letter to Governor David Patterson, November 2008.

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Live Testimony

Deposition Testimony, *Carrier Corporation v. Goodman Global, Inc., Goodman Manufacturing Company, L.P., Goodman Global Holdings, Inc., Goodman Distribution, Inc., and Goodman Sales Company*, United States District Court, District of Delaware, C.A. No. 12-930 (SLR), April 2014. Assess commercial success of Carrier's Infinity HVAC system and related patents.

Deposition Testimony, *Energy Intelligence Group, Inc. and Energy Intelligence Group (UK) Limited v. Canal Barge Company, Inc.*, United States District Court, Eastern District of Louisiana, Civil Action No.: 12-cv-02107-JCZ-DEK, December 2013 and July 2013. Assess EIG's claim for damages resulting from Canal Barge's alleged copyright infringement.

Trial Testimony, *Warner Chilcott Company, LLC v. Watson Laboratories, Inc.* and *Warner Chilcott Company, LLC v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.*, United States District Court, District of New Jersey, 12-cv-2928-JAP-TJB and 11-cv-5048-JAP-TJB, October 2013. Assess commercial success of Lo Loestrin Fe and related patents.

Deposition Testimony, *Machine Maintenance Inc., d/b/a Luby Equipment Services, Inc. v. Generac Power Systems, Inc.*, United States District Court, Eastern District of Missouri, Eastern Division, Case No: 4:12-cv-793-JCH, September 2013. Assess the reasonableness of Generac's determination of the market opportunities available to Luby.

Deposition Testimony, *Warner Chilcott Company, LLC v. Watson Laboratories, Inc.* and *Warner Chilcott Company, LLC v. Lupin Ltd. and Lupin Pharmaceuticals, Inc.*, United States District Court, District of New Jersey, 12-cv-2928-JAP-TJB, August 2013. Assess commercial success of Lo Loestrin Fe and related patents.

Deposition Testimony, *Ferring B.V. v. Watson Laboratories, Inc. - Florida*, United States District Court, District of Nevada, Case Nos.: 3:11-cv-00481-RCJ-VPC, 2:12-cv-01935-RCJ-VPC, and 3:11-cv-00853-RCJ-VPC, August 2013. Assess commercial success of Lysteda and related patents.

Deposition Testimony, *International Business Machines Corporation v. BGC Partners, Inc., BGC Brokers US, L.P., BGC Financial L.P., and BGC USA, L.P.*, U.S. District Court, Southern District of New York, Civil Action No. 1:10-cv-00128, December 2010. Assess IBM's claim for damages resulting from BGC's alleged breach of contract and copyright infringement.

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Papers and Publications

"25 Percent, 50 Percent ... What's In A Number?" (w/ C. Meyer), *IPLaw360*, June 23, 2011.

"The 25 Percent Rule in Patent Damages: Dead and Now Buried" (w/ S. Tzenova), NERA Working Paper, June 10, 2011.

"Intellectual Property Valuation Techniques and Issues for the 21st Century," (w/ B. Ray), in *Intellectual Property Strategies for the 21st Century Corporation*, John Wiley and Sons, Inc., 2011.

"Secondary Currency in Circulation: An Empirical Analysis," (w/ M. Colacelli), *Journal of Monetary Economics*, Volume 56, Issue 3, April 2009, pp. 295-308.

"Does the Supreme Court's Decision in *Quanta* Affect Firms' Incentives to Innovate?" (w/ B. Ray and L. Wu), NERA Working Paper, March 2009.

Updated: February 22, 2015

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Updated: February 22, 2015

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Bates Stamped Materials

Start	End
[redacted]	[redacted]
[redacted]	[redacted]
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[redacted]	[redacted]
[redacted]	[redacted]
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SX EX. 081 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 082 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY BOARD
The Library of Congress

In re DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS *(WEB IV)*	Docket No. 14-CRB-0001-WR (2016-2020)

EXPERT WRITTEN REBUTTAL TESTIMONY

SARAH BUTLER, M.S.

Vice President, NERA Economic Consulting

PUBLIC VERSION

Witness for SoundExchange, Inc.

WRITTEN REBUTTAL TESTIMONY OF SARAH BUTLER

Table of Contents

I. INTRODUCTION & ASSIGNMENT

1. I understand that iHeartMedia, Pandora, the National Association of Broadcasters ("NAB") and other participants in this proceeding argue that statutory webcasters primarily compete with, and are substitutes for, terrestrial AM/FM radio and are not substitutes, and do not compete with, interactive streaming services.[1] I also understand that the Judges will consider evidence regarding whether the statutory webcasters at issue here "may substitute for or may promote the sales of phonorecords or *otherwise may interfere with or may enhance* the sound recording copyright owner's other streams of revenue from its sound recordings."[2] I further understand that SoundExchange's witnesses have testified that statutory webcasting services substitute for directly-licensed services, and on-demand services in particular, thereby interfering with this important stream of revenue for the recorded music industry.

2. To better understand these issues, counsel for SoundExchange asked me to review a number of consumer surveys publicly available and produced by the participants in this proceeding. I was also asked to design and conduct my own survey related to consumers' music listening. In particular, I was asked to evaluate for which other types of music listening iHeartRadio and Pandora substitute in the opinion of consumers. More specifically, my study was designed to evaluate whether a greater percentage of consumers view Pandora and iHeartRadio as substitutes for terrestrial AM/FM radio or consumers view these services as substitutes for on-demand streaming music services, such as Spotify. It is my understanding that such survey-based, consumer evidence can help to address the questions of market competition and substitution at issue in this rate-setting proceeding.

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[1] I describe the testimony that I have reviewed and the assertions to which my report responds more fully in Part III.

[2] Statute 17 U.S.C. § 114(f)(2)(B)(i) (emphasis added).

II. QUALIFICATIONS

3. I am a Vice President at NERA Economic Consulting ("NERA") where I participate in the Product Liability, Intellectual Property, Antitrust, and Labor Practices. My business address is 4 Embarcadero Center, San Francisco, CA 94111. NERA is a firm providing expert statistical, survey, economic, and financial research analysis.

4. Among my responsibilities, I conduct survey research, market analysis, and sampling analysis on a wide range of topics regarding business and consumer decision making, consumer choice, and consumer behavior. In the course of my career, I have conducted numerous studies for leading corporations and government agencies involving research on consumers, employees, and businesses. My work has been included in numerous lawsuits involving issues of trademark and trade dress, false advertising and secondary meaning, as well as in antitrust and employment-related litigation. I am a member of the American Association of Public Opinion Research, the American Statistical Society, the Intellectual Property Section of the American Bar Association, and the International Trademark Association (INTA).

5. I have also worked as a market researcher conducting focus groups, in-depth interviews, and surveys of physicians and patients. I worked as an independent consultant conducting research for the Department of Environment and Rural Affairs in the United Kingdom. I have taught courses focused on or involving research methodologies in both the United States and Europe. I hold a Master's Degree from Trinity College, Dublin and another Master's Degree from Temple University.

6. I have substantial experience conducting and using surveys and focus groups to measure consumer opinions and behaviors regarding products and services including purchase processes, product attributes, branding and positioning, market segmentation, new product

research, and communications strategies. During my career in academic and commercial research, I have personally facilitated focus groups and conducted in-depth interviews. I have submitted expert reports, been deposed, and have testified at trial within the last five years. A list of my testimony is included on the copy of my current resume, which is attached as Exhibit 1.

7. NERA is being compensated for my services in this matter at my standard rate of $550 per hour. Other NERA consultants assisted me in this engagement and are being compensated at rates less than $550 per hour. No part of NERA's or my compensation depends on the outcome of this litigation. Throughout this report, I have used the terms "I" and "my" to refer to work performed by me and/or others under my direction.

III. TESTIMONY & DOCUMENTS REVIEWED

8. I have reviewed written direct testimony submitted in this proceeding. My analysis and survey data are responsive to the statements made by several witnesses, as described below:

- I have reviewed the written direct testimony of Tom Poleman, President of National Programming Platforms, iHeartMedia, Inc. ("Poleman Testimony"). Mr. Poleman argues that iHeartRadio (the webcasting service) and terrestrial AM/FM radio are the same in their ability to drive record sales.
- I have also reviewed the written direct testimony of Robert Pittman, CEO of iHeartMedia, Inc. ("Pittman Testimony"). Mr. Pittman argues that "interactive services," like Spotify, have replaced CDs and music purchased via downloads. He further argues that interactive services and "Internet radio," like iHeartRadio, serve very different consumer needs.
- I have reviewed the written direct testimony of Simon Fleming-Wood, Chief Marketing Officer for Pandora Inc. ("Fleming-Wood Testimony"). Mr. Fleming-Wood argues that Pandora is a "lean-back" music service which does not compete with the more active, "lean-forward" experiences provided by on-demand services, like Spotify.
- I have also reviewed the written direct testimony of Stephan McBride, a Senior Scientist at Pandora ("McBride Testimony"). Dr. McBride has conducted experiments measuring the impact that playing particular songs on Pandora has on music sales. He does not offer

testimony on the extent to which listening to Pandora in general increases (or decreases) total music sales nor does his testimony address whether Pandora substitutes for on-demand or other directly-licensed services.

- My testimony is also responsive to several of the NAB's witnesses who argue that the promotional power of simulcasts is no different, or even more powerful, than that of terrestrial radio, including John Dimick of Lincoln Financial Media Company, Robert Francis Kocak of Greater Media, Inc., and Johnny Chiang of Cox Media Group, collectively ("NAB Testimony"). These witnesses present evidence based on their experiences with radio, and terrestrial radio more specifically, and do not address consumer substitution patterns.

9. I also reviewed a number of additional market research studies, including both publicly available studies and those produced through discovery in this proceeding. A list of the specific materials I reviewed and relied upon can be found in Exhibit 2.

IV. SUMMARY OF OPINIONS

10. **Evidence Contradicts Claims that Statutory Webcasting and Terrestrial AM/FM Radio Are the Same:** I have reviewed the survey on which Mr. Poleman relied to conclude that simulcasting and terrestrial AM/FM radio are fundamentally similar and that both have a promotional impact on sales for the recorded music industry. The survey he cites does not support such conclusions. Instead, Mr. Poleman simply adopts the terrestrial AM/FM radio data and assumes that these findings are applicable to his conclusions about iHeartRadio.

11. **Statutory Webcasters Compete with On-Demand Services:** Based on my review of the evidence, including publicly available consumer surveys and research produced as a part of discovery in this proceeding, I conclude that there is evidence that statutory webcasting services, particularly Pandora and iHeartRadio, compete with directly-licensed services, especially services offering on-demand functionality, like Spotify.[3] The materials I have

[3] By "on-demand," "interactive," or "directly-licensed" services, I mean those audio music streaming services that do not operate pursuant to the statutory license. I understand that SoundExchange has offered these services as benchmarks in this

reviewed demonstrate that consumers view statutory and on-demand services as competitors, the recorded music industry views them as competitors, and the statutory webcasters themselves view on-demand streaming services as competitors.

12. **Statutory Webcasting Services Are Substitutes for On-Demand Services:** I have designed and implemented a survey to determine the extent to which users of Pandora or iHeartRadio view these services as substitutes for other ways of listening to music. My results demonstrate that:

- Many current users of iHeartRadio and Pandora would otherwise listen to interactive streaming services if iHeartRadio and/or Pandora did not exist.
- A total of ***33.7 percent*** of current Pandora users view Pandora as a substitute for on-demand services.[4] Of these, ***19.7 percent*** view Pandora as a substitute for Spotify. A total of ***15.6 percent*** of current iHeartRadio users view iHeartRadio as a substitute for on-demand services.
- When we combine on-demand services, iTunes Radio, and purchased music,[5] a total of ***51.4 percent*** of consumers who currently listen to Pandora would listen to one of these higher value substitutes if they were unable to listen to Pandora. A total of ***28 percent*** of consumers who currently listen to iHeartRadio would otherwise listen to a higher value substitute if they were unable to listen to iHeartRadio.

proceeding because the agreements between these services and the recorded music companies represent market evidence for the rates that should be paid by statutory webcasting services here.

[4] On-demand services include Spotify, Rhapsody, Amazon Prime Music, Slacker Radio, GooglePlay, Beats Music, and Rdio.

[5] These two types of listening are formats which I understand result in a larger stream of revenues flowing to the recorded music industry. As a result, I refer to them as "higher value" collectively.

- Only ***9.0 percent*** of current Pandora users and ***12.1 percent*** of current iHeartRadio users would otherwise listen to traditional AM/FM radio if these services were not available.
- Very small proportions of respondents, ***1 percent*** of current Pandora users and ***3.6 percent*** of current iHeartRadio users, would listen to less music or stop listening altogether if they could no longer use Pandora or iHeartRadio.

13. These results demonstrate that music listeners do not generally view iHeartRadio and Pandora as equivalent to AM/FM radio. Rather they are more likely to view other directly-licensed streaming services (and on-demand services in particular) as the appropriate substitutes.

V. MR. POLEMAN'S RELIANCE ON THE *ROLE OF RADIO* STUDY

14. Mr. Poleman cites the results of two surveys in his testimony: the *Role of Radio* survey conducted in 2013 and *The Infinite Dial 2014* survey. Neither survey is appended to Mr. Poleman's testimony, but I have included the relevant tables and questionnaire as Exhibits 3 and 4 to this report. Based on his review of these studies, Mr. Poleman asserts three broad findings:

a. Listening to "live radio"[6] is the primary way that Americans discover new music;

b. Even those who use "custom playlist" and "on-demand" services indicate that "live radio" is the primary means of new music discovery;

c. Hearing a song on the "radio" motivates or confirms a consumer's decision to purchase that song.[7]

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[6] Mr. Poleman's testimony characterizes "live radio" or "FM radio" as including *both* terrestrial and simulcast services. Without evidence that the two products are the same—indeed that might be what Mr. Poleman's testimony is trying to establish—the survey should not assume the services are interchangeable. To be sure that I am clear, throughout my report I refer to terrestrial radio as "terrestrial" or AM/FM radio.

[7] Poleman Testimony, at 2-3.

15. These findings, as well as his experience with various promotional programs undertaken at iHeartMedia, indicate to Mr. Poleman that,

> Consumers tune in to live radio, including simulcast, to find new music. Record labels, promoters, managers, and artists ask us to play their songs on live radio, including simulcast**,** to help them gain fans and sell records. When we do play their songs, records labels, promoters, managers, and artists regularly credit those spins with increasing artists' popularity and sales of their music.[8]

16. There are a number of problems with the conclusions Mr. Poleman draws from the survey data he cites and in fact, as discussed below, the survey he reviewed presents findings which contradict his assertions.

17. To begin, Mr. Poleman's testimony under the heading—"Live Radio Promotes Music Discovery"—assumes that iHeartRadio's simulcast service and terrestrial AM/FM radio are music equivalent sources in the minds of consumers. His report does not lay a foundation for this assumption, nor does he have any data which would suggest that consumers view iHeartRadio (and other similar services, like Pandora) as analogs for AM/FM radio. This assumption leads Mr. Poleman to argue that because survey evidence demonstrates that terrestrial radio is a source for new music and promotes the sale of recorded music, both consumers' opinions of and the impact of iHeartRadio (the webcasting service itself) are exactly and necessarily the same. Yet, a closer examination of the data demonstrates that in fact, iHeartRadio, Pandora, and AM/FM radio are different and affect both consumers and their listening and music purchasing habits differently.

18. The *Role of Radio Study* was a national survey of 18 to 44-year-olds using a proprietary Internet panel, which appears to have been commissioned by iHeartMedia.[9] From the results of this study, Mr. Poleman concludes that approximately 70 percent of weekly users

[8] Poleman Testimony, at 13-14.

[9] Poleman, at 2 n.1. *See also* [redacted]. *See* Exhibit 3.

of a custom playlist service or an on-demand service agree that "FM radio" (meaning both simulcast and terrestrial radio) is the main way they discover new music. Additionally, Mr. Poleman presents the study's finding that 61 percent of respondents are motivated to purchase a song (or have their purchase decision confirmed) after hearing it "a few times on FM radio" and 80 percent say they have bought a song that they liked after hearing it on the radio.[10] While Mr. Poleman seems to argue that the findings about "FM radio" from this study translate to the impact of iHeartRadio on consumer habits and music purchases, the results demonstrate otherwise.

19. First, it should be noted that a substantial number of the respondents in the *Role of Radio* survey [redacted]

20. Second, *none* of the percentages that Mr. Poleman cites is specific to simulcast streaming or iHeartRadio. Rather, he relies on [redacted]

[10] Poleman, at 2-3.

[11] [redacted] *See* Exhibit 4.

[12] [redacted] *See* Exhibit 4.

[13] [redacted] *See* Exhibit 4.

[14] [redacted] *See* Exhibit 4.

[redacted]

21. Contrary to Mr. Poleman's suggestion that iHeartRadio is similar to over-the-air radio in its promotional impact, these results suggest that respondents who listen to *streamed* FM radio are purchasing less music. For example, of the [redacted]

22. While this study does not distinguish between the use of terrestrial AM/FM radio and iHeartRadio, it does provide some information about "custom playlist services" like Pandora. These data show that [redacted]

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15 [redacted] *See* Exhibit 4.

16 [redacted] *See* Exhibit 4.

17 [redacted] *See* Exhibit 4.

18 [redacted] *See* Exhibit 4.

19 [redacted] *See* Exhibit 4.

23. The data from the study cited by Mr. Poleman suggest that consumers view services like iHeartRadio and Pandora as being meaningfully different from traditional AM/FM radio. Moreover, data in these studies suggest that such services discourage additional music purchasing. Other third party studies confirm these findings and are discussed below.

VI. ADDITIONAL MARKET RESEARCH

24. A number of studies conducted by different market research organizations examine trends in music listening habits. My review of these studies should not be seen as a tacit approval of the methodologies used in these studies nor of the overall reliability of the findings. My review simply demonstrates that there are many studies, with multiple findings, indicating that Mr. Poleman's conclusions are incorrect. Moreover, my review of these studies demonstrates data patterns which suggest that iHeartRadio and Pandora are different from traditional terrestrial radio and that these services may, in fact, depress or divert sales or downloads of music. I will discuss a number of examples of study results.

1. Streaming and Terrestrial Radio Are Viewed Differently

25. Market research demonstrates that consumers perceive and have different listening habits for terrestrial and streaming radio services. [redacted]][20] In fact, one study produced by the NAB [redacted]][21] An iHeartRadio [redacted]

[20] [redacted]

[21] [redacted]

[redacted][22]

2. On-Demand Streaming, iHeartRadio and Pandora, Are Seen As Similar

26. Industry analyses classify streaming services like Pandora and Spotify as similar types of services in their discussion of the competitive landscape. For example, in BIA/Kelsey's report, "The Internet Radio Revolution Has Arrived: Platforms, Services, Audiences and Advertisers Reinvent Audio," Internet Radio Streaming includes services like Pandora and Spotify, while Broadcast Radio Streaming is used to classify AM/FM radio.[23] Other reports indicate that consumers view both statutory and on-demand streaming services as competitors. For example, Clear Voice's 2014 survey of over 1,000 consumers found:

> Three competitors—iTunes Radio, Spotify and Grooveshark—are poised to challenge Pandora. iTunes Radio has made tremendous gains since its launch in September of last year. About 15% of US consumers report using it—putting it in the same league as iHeartRadio and Spotify—over a much shorter period.[24]

In fact, this study presents data which demonstrate that Pandora and Spotify are valued more than other streaming services because they allow for customization.[25]

27. Multiple studies classify Pandora, Spotify, iHeartRadio and other streaming services, including on-demand services, as competitors.[26] In its own analyses, Pandora [redacted][27]

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[22] Emphasis in the original [redacted]

[23] BIA/Kelsey *The Internet Radio Revolution Has Arrived: Platforms, Services, Audiences and Advertisers Reinvent Audio* 2014, at 2, 3, 4, 19.

[24] Clear Voice Research *Media Review: Music Streaming Services Market Profile* 2014, at 8. *See also* 17, 18, 20, 26, 28, 30,

[25] Clear Voice Research *Media Review: Music Streaming Services Market Profile* 2014, at 37 ("Only two streaming services—Pandora and Spotify—deliver the level of customization desired by consumers; many of the services struggle to meet consumer ease-of-use requirements"). This contrasts with the testimony of Mr. Fleming-Wood that Pandora is a "passive" listening experience (Fleming-Wood Testimony, at 7).

[26] [redacted]

3. Streaming Services are Viewed as Having a Negative Impact on Music Purchasing

28. In contrast to the assertions made in the Services' written direct testimony,[28] a number of studies I have reviewed demonstrate that consumer usage of online music services leads to reductions in music purchases. For example, a number of studies conducted by [redacted]][29] A RIAA study of music streaming [redacted][30] A [[redacted][31]

VII. SURVEY OF CONSUMER SUBSTITUTION

29. In addition to reviewing the surveys relied upon by Mr. Poleman and a number of third party studies, I have designed and implemented my own survey to determine what services and methods of listening to music consumers would use if they could not listen to iHeartRadio or Pandora. In other words, the survey addresses the following questions: for which form of listening (if any) are iHeartRadio and Pandora substituting? I understand that the answer to this

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27 [[redacted]

28 Notably, Testimony of Mr. Pittman, at 6; Testimony of Mr. McBride, at 10-22; Testimony of Mr. Poleman, at 4- 14.

29 [[redacted]

30 [[redacted]

31 [[redacted]

question matters to the recorded music industry and to the rates to be set in this proceeding because the industry expects more and more listening to transition away from physical and digital sales and toward streaming music services over the next five years.[32] As a result, whether or not statutory webcasting services substitute for the higher value directly-licensed services will affect sources of revenue to the recorded music industry. The survey questionnaire can be found in Exhibit 5.

1. Population for Survey

30. My study included a national sample of current users of iHeartRadio or Pandora music services ages 13 and older. In my view, it was important to survey 13-17 year-olds for this study because teenagers represent a substantial share of the music listening population, particularly for digital formats.[33]

2. Sampling of the Relevant Population

31. Potential survey respondents were contacted using an Internet panel hosted by Survey Sampling International ("SSI").[34] SSI complies with the standards for online survey data panels set forth by ESOMAR (the World Association for Marketing and Opinion Research).[35] SSI also holds industry memberships with AAPOR (the American Association of Public Opinion Research), the American Marketing Association, CASRO (Council of American Survey

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[32] [redacted]

[33] *See* RIAA Consumer Profile, demonstrating ages 13 – 17 are a larger share of music streaming population, accessed February 22, 2015, http://riaa.com/media/179F6A9B-42EB-F309-8382-5AB1E00D7C29.pdf. Also see, [redacted]

[34] For additional information about SSI, *see*: Survey Sampling International (2014), "*Who We Are*," accessed January 16, 2015, http://www.surveysampling.com/en/our-company. ESOMAR (2012), "*28 Questions to Help Research Buyers of Online Samples*," accessed January 16, 2015, http://www.esomar.org/uploads/public/knowledge-and-standards/documents/ESOMAR-28-Questions-to-Help-Buyers-of-Online-Samples-September-2012.pdf.

[35] For a description of SSI's methodologies and how it adheres to ESOMAR standards, *see* http://www.surveysampling.com/en/who-we-are/ssi-media/F835E197FF2E415E83A9B0E1AD03A7C9.ashx, accessed January 10, 2015.

Research Organizations), the Advertising Research Foundation, and the Marketing Research Association.

32. SSI uses a variety of quality control measures to ensure the reliability and integrity of the responses it provides. For example, SSI uses digital fingerprinting which creates a "fingerprint" for each respondent based on computer characteristics (like IP address), which can then be used to identify respondents and exclude individuals who attempt to take the same survey more than once. SSI's standard quality control measures were undertaken in this study.

33. Data were collected between February 6, 2015 and February 16, 2015. A total of 2,090 potential respondents opened the invitation and began the survey and 607 respondents qualified and completed the survey.

3. Quality Control Measures for Survey

34. To ensure that my data are of the highest quality, I implemented the following quality control measures in addition to those undertaken by SSI:

a. As is standard survey practice for litigation, the survey was conducted in a "double-blind" fashion; that is, neither the staff at SSI nor the respondents were aware of the survey sponsor or the ultimate intention of the survey.[36]

b. Respondents had to correctly answer a CAPTCHA question to ensure that a person, and not a computer or "bot," was taking the survey.[37]

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[36] Diamond, Shari, S. (2012) "Reference Guide on Survey Research," *Reference Manual on Scientific Evidence*, Committee on the Development of the Third Edition of the Reference Manual on Scientific Evidence; Federal Judicial Center; National Research Council, at 410-411 (hereafter, "*Diamond*").

[37] The acronym CAPTCHA stands for "Completely Automated Public Turing Test to Tell Computers and Humans Apart." ("CAPTCHA: Telling Humans and Computers Apart Automatically," *CAPTCHA*, available at http://www.captcha net/, accessed January 10, 2015.)

c. Respondents were required to enter their gender and age at the outset of the survey and if these data conflicted with the respondent information on file with SSI, the respondent was excluded.

d. Respondents who indicated that they did not understand or were unwilling to adhere to the survey instructions were also screened out of the survey.

e. My survey also included a control measure used to evaluate the extent to which respondents were guessing or not carefully attending to choices in the survey. As a control, I included a streaming service called "MyStro." The survey results demonstrate that almost no respondents select MyStro for any of the questions and therefore I can determine that respondents were not guessing and were attending to the questions asked.[38]

4. Questionnaire

35. To ensure that panel respondents were part of the relevant population as defined for this case, a series of screening questions was asked:

a. First, potential respondents were asked an industry screener. Respondents who indicated that they or a member of their household worked for online streaming music service, a record company or other owner of copyrighted music, or in a market research or an advertising agency were screened out.

b. Respondents had to indicate (from a list of options) that they had listened to music in the past week.

c. Respondents needed to indicate that they have listened to music streamed online.

[38] A total of 17 respondents or 2.8 percent indicated that they had heard of MyStro. A total of 5 respondents or less than one percent said they use MyStro. No respondents selected MyStro for any of the other questions.

d. Respondents also needed to indicate they currently use either iHeartRadio or Pandora for listening to music.

36. Respondents who listened to both iHeartRadio and Pandora were randomly assigned to answer questions about only one of the services.

37. Once qualified, respondents were then asked how they typically or mostly listen to Pandora or iHeartRadio, whether at home, at work, commuting, working out or in some other setting.

38. After describing how they listen to Pandora or iHeartRadio, respondents were then asked to evaluate a circumstance in which they could no longer listen to the service. Specifically, respondents were asked:[39]

Q2. **Imagine you could no longer listen to music on Pandora. Which of the following statements represents what you would be most likely to do?**

1. I would find a substitute for the music I listen to on Pandora
2. I would stop listening to music
3. Don't know/unsure

39. The answer choices presented to the respondent (shown above as choices 1. and 2.) were displayed in a random order, such that finding a substitute and no longer listening could appear as the first choice.[40]

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[39] For those who were part of the iHeartRadio sample, the identical questions were asked about iHeartRadio.

[40] The "Don't know/unsure" choice was anchored such that this choice always appeared at the bottom of the list. *Diamond*, at 396.

40. Respondents who indicated that they would find a substitute were then asked a follow-up question:

Q3. **You said you would find a substitute for the music you listen to on Pandora. Which of the following, if any, would be your <u>most preferred</u> substitute for Pandora?**

1. FM or AM radio (e.g. "terrestrial" or traditional radio)
2. Satellite radio
3. CDs
4. Purchased downloaded music / MP3s
5. Other downloaded music / MP3s
6. Vevo or YouTube (for music)
7. iHeartRadio
8. iTunes Radio
9. Spotify (free/paid)
10. Google Play
11. Beats Music
12. Amazon Prime Music
13. MyStro
14. Last.fm
15. Rdio
16. Rhapsody
17. SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)
18. Slacker Radio
19. Songza
20. TuneIn Radio
21. SoundCloud
22. Listening to less music
23. Other ***(Type in response)***
24. Don't know/not sure

41. As with the previous question, the answer choices presented to the respondent (shown above as choices 1 through 21) were displayed in a random order, such that any of the alternatives could appear as the first choice. The last three options (shown above as choices 22 through 24) remained at the end of the list. In addition, to avoid confusion choices 4 and 5 were always presented as a pair to indicate that "other downloaded music" referred to music that was not purchased (e.g., pirated music). Respondents were only shown the options that they had heard of as indicated in an earlier screener question.

42. After indicating which, from the list, would be their preferred substitute, the survey was complete and the respondent was thanked for his or her time.

5. Results of the Survey

5.1. Demographic Profile of Respondents

43. Qualified respondents were current users of Pandora or iHeartRadio 13 years or older living in the U.S. My survey was designed to get a representative sample of all U.S. individuals by using inbound click through sample, balanced by age, gender, and region to match U.S. Census data. In other words, the distribution of respondents who started the survey by clicking the link closely matched that of the Census in terms of age, gender, and region. In addition, I also used as a guideline for the age and gender quotas of respondents the demographic characteristics found in the NPD Group/2013 Annual Music survey. The age distribution and gender distribution of the qualified respondents are shown below in Table 1 and Table 2.

Table 1: Gender of Survey Respondents

Gender	Pandora		iHeartRadio		Total	
	Count	Percent	Count	Percent	Count	Percent
Male	127	42.33 %	121	39.41 %	248	40.86 %
Female	173	57.67	186	60.59	359	59.14
Total	300	100.00	307	100.00	607	100.00

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Table 2: Age of Survey Respondents

Age Range	Pandora		iHeartRadio		Total	
	Count	Percent	Count	Percent	Count	Percent
13 - 17	46	15.33 %	46	14.98 %	92	15.16 %
18 - 24	43	14.33	71	23.13	114	18.78
25 - 34	69	23.00	57	18.57	126	20.76
35 - 49	75	25.00	69	22.48	144	23.72
50 - 64	46	15.33	44	14.33	90	14.83
65+	21	7.00	20	6.51	41	6.75
Total	300	100.00	307	100.00	607	100.00

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

44. Respondents were also from all regions of the United States. As shown below in Table 3, respondents were distributed across regions in the U.S.

Table 3: Geographic Region of Survey Respondents

Region	Pandora		iHeartRadio		Total [1]	
	Count	Percent	Count	Percent	Count	Percent
Northeast	65	22.57 %	59	21.85 %	124	22.22 %
South	100	34.72	84	31.11	184	32.97
Midwest	64	22.22	66	24.44	130	23.30
West	59	20.49	61	22.59	120	21.51
Total	288	100.00	270	100.00	558	100.00

[1] A total of 49 respondents did not provide their home state.

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

5.2. Awareness and Use of Streaming Services

45. The majority of respondents are familiar with a number of online music streaming services, including webcasting services, on-demand services and video services, like Vevo and YouTube. More than half of respondents have heard of each of the following: Amazon Prime Music, Google Play, iTunes Radio, SiriusXM, Rhapsody, Spotify and Vevo/YouTube. The sample was designed to include only those who use Pandora or iHeartRadio and therefore it is not surprising that 70 percent of Pandora users have heard of iHeartRadio. Pandora is more well-known, with 94.5 percent of iHeartRadio users being aware of Pandora. Table 4 below depicts the percent of respondents who are current users of Pandora and iHeartRadio who have heard of other streaming services.

Table 4: Percent of Current Pandora/iHeartRadio Users Who Have Heard of Other Streaming Services

Have Heard of Service	Pandora User		iHeart User	
Amazon Prime Music	61.3	%	64.2	%
Beats Music	38.7		42.0	
Google Play	66.0		72.0	
iHeartRadio	70.3		100.0	
iTunes Radio	79.3		85.0	
Last.fm	29.7		30.6	
MyStro	1.3		4.2	
Pandora	100.0		94.5	
Rdio	17.3		19.5	
Rhapsody	66.0		69.7	
SiriusXM Internet Radio	64.0		64.8	
Slacker Radio	26.7		32.9	
Songza	16.0		18.6	
Spotify	74.0		75.2	
TuneIn Radio	15.3		20.8	
SoundCloud	36.3		42.0	
Vevo or YouTube (for music)	57.7		65.1	
Total Respondents	**300**		**307**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

46. In general, current Pandora and iHeartRadio users listen to streaming services regularly. Of the 607 respondents, 42 percent (256 respondents) listen to music online daily. Of those that listen daily to a streaming service, slightly more than half (54.7 percent or 140 respondents) also listen to AM/FM radio daily.

47. In particular, survey respondents use Pandora and iHeartRadio frequently. Of the current Pandora users, 35.7 percent use Pandora daily and 78.4 percent use Pandora at least once a

week.[41] For current iHeartRadio users, 26.1 percent use the service daily and 70.7 percent listen to iHeartRadio at least once a week. These results are shown below in Figures 1 and 2.

Figure 1: Frequency of Listening for Current Pandora Users

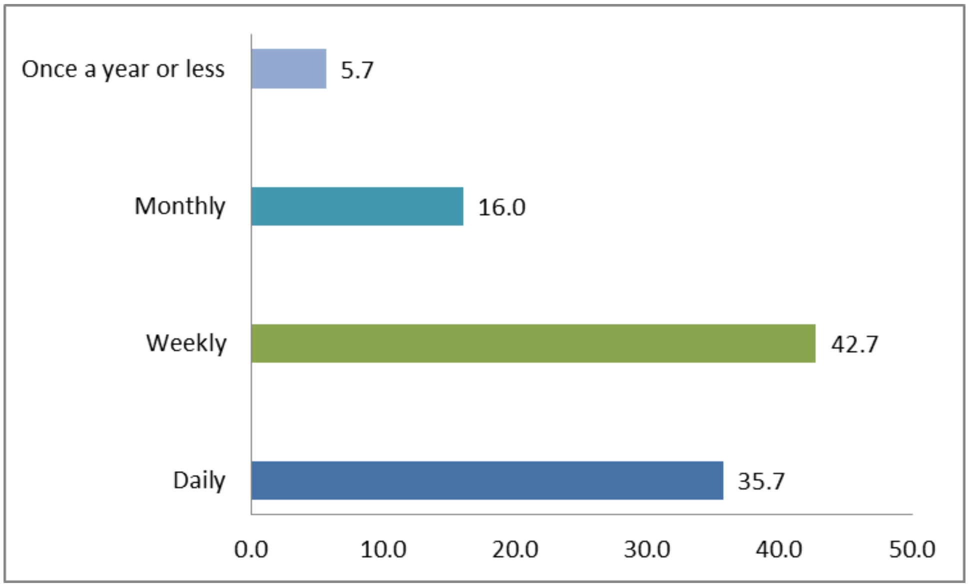
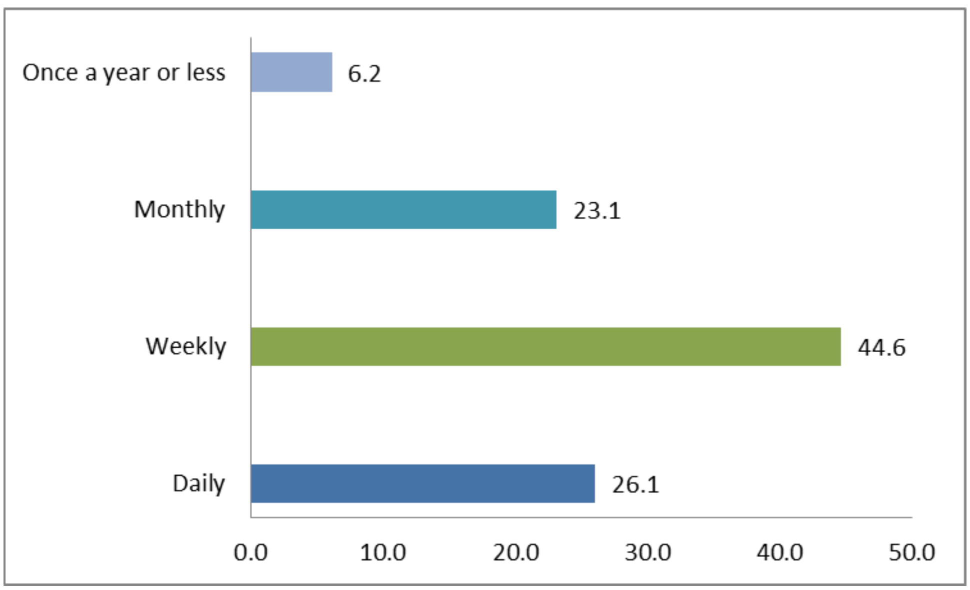


Figure 2: Frequency of Listening for Current iHeartRadio Users



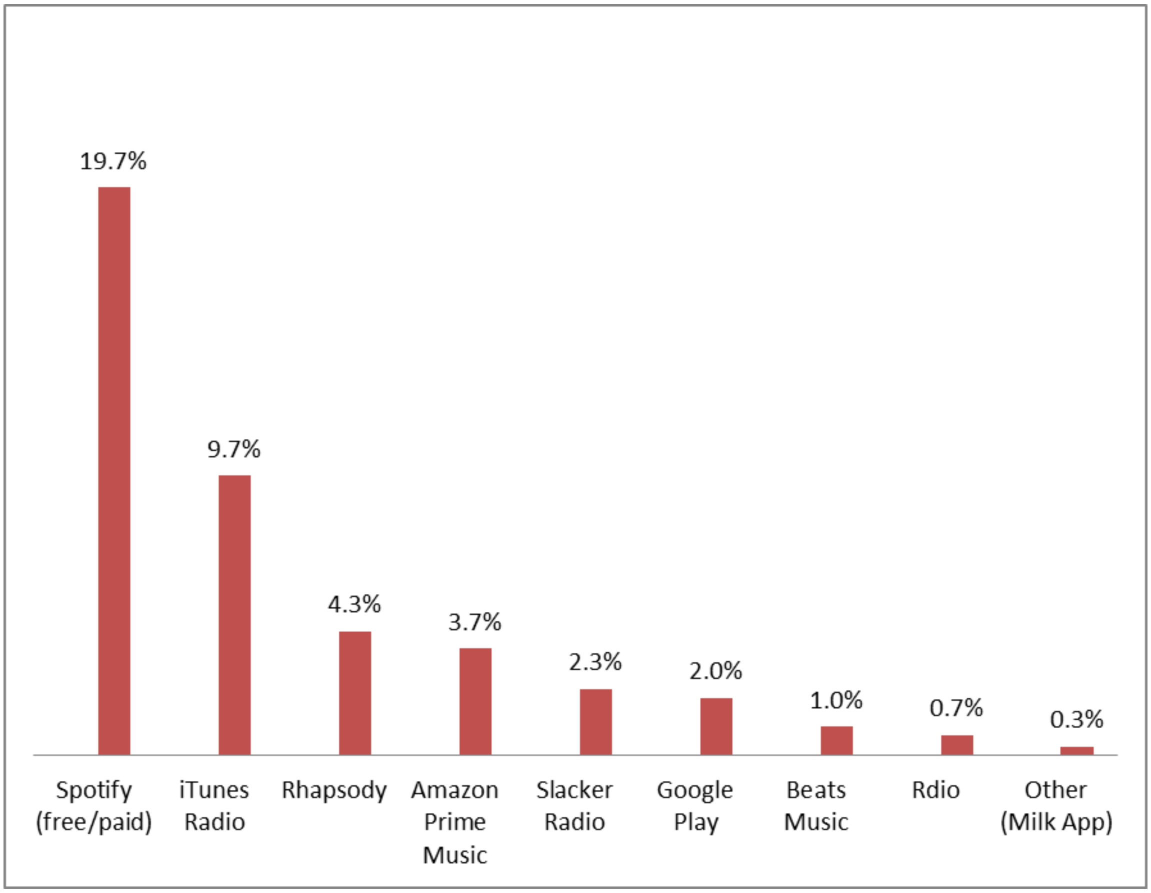
[41] This calculation omits respondents who were asked about iHeartRadio use but also use Pandora. Of these 173 respondents, 77.5 percent listen to Pandora at least once a week.

5.3. Substitution Findings

5.3.1. Pandora

48. When asked what they would do if Pandora were no longer available, all but three respondents indicated that they would find an alternative music source. The most common substitute for Pandora is one of the directly-licensed music streaming services. As shown in Figure 3 below, a total of ***43.3 percent*** of Pandora users would otherwise listen to one of the following services: Spotify (19.7 Percent), iTunes Radio (9.7 percent), Amazon, Rhapsody (approximately 4 percent each), Google Play and Slacker Radio (approximately 2 percent each), and Beats and Rdio (approximately 1 percent each). Pandora substitutes ***most frequently*** for Spotify with ***19.7 percent*** of respondents indicating this would be their preferred mode of listening if Pandora was no longer available. Of those respondents that would select Spotify as the best alternative to Pandora, 39 percent are not currently listening to Spotify. A complete table of all services substituted for can be found in Exhibit 6.

Figure 3: Pandora Substitutes for Directly-Licensed Streaming Services



49. Figure 4, below, depicts all responses. A total of ***33.7 percent*** of Pandora users would otherwise listen to an on-demand service if they were no longer able to listen to Pandora.[42] Only ***9 percent*** of current users would substitute terrestrial AM/FM radio for Pandora listening and only 5.3 percent would substitute for another statutory webcaster (including iHeartRadio, Sirius XM Internet Radio, TuneIn and Songza).[43] Approximately 8 percent of respondents would substitute Pandora for listening to music that they purchased.[44] Another 8.3 percent of

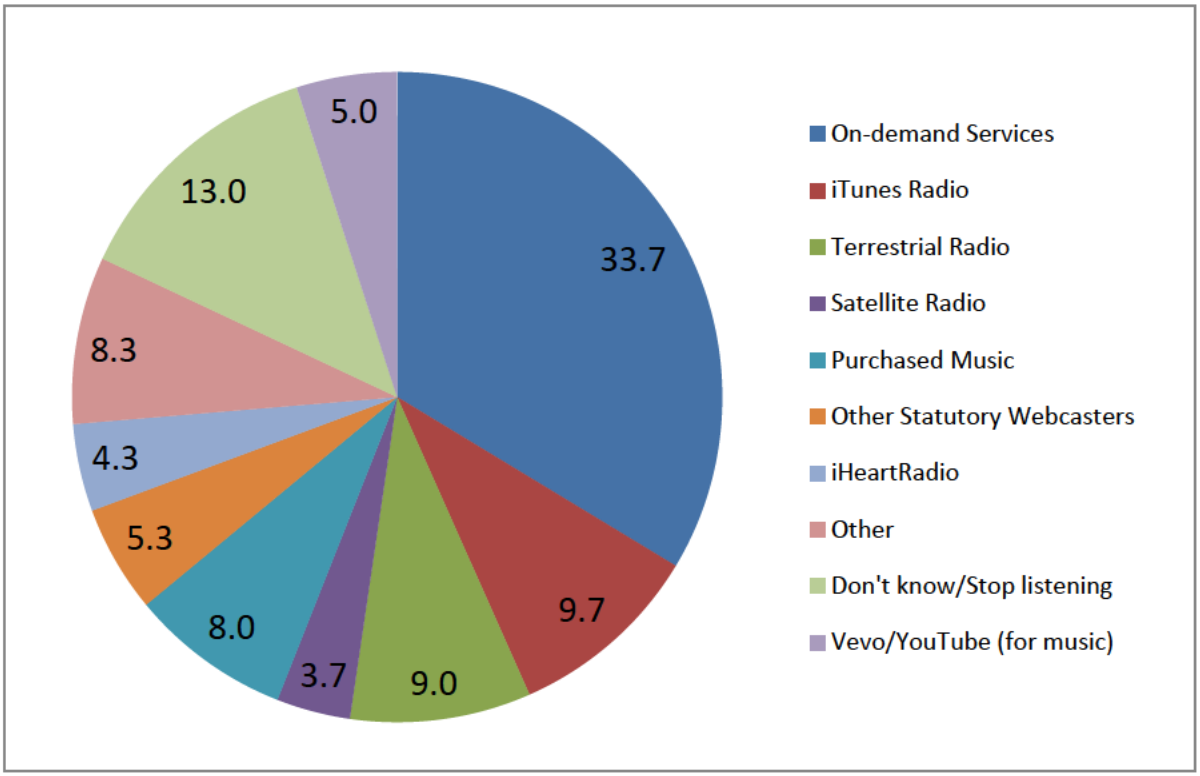
[42] The category of on-demand services includes: Spotify, Rhapsody, Amazon Prime Music, Slacker Radio, Google Play, Beats Music, and Rdio.

[43] The category of other statutory services includes: Sirius XM Internet Radio, TuneIn, and Songza.

[44] Purchased music includes CDs and purchased downloads.

respondents would switch to "other" forms of listening.[45] If we combine those forms of listening that generate higher levels of revenue for the recorded music industry (on-demand services, iTunes Radio, and purchased music), these listening types account for ***51.4 percent*** of the substitutions for Pandora.

Figure 4: Substitutions for Pandora



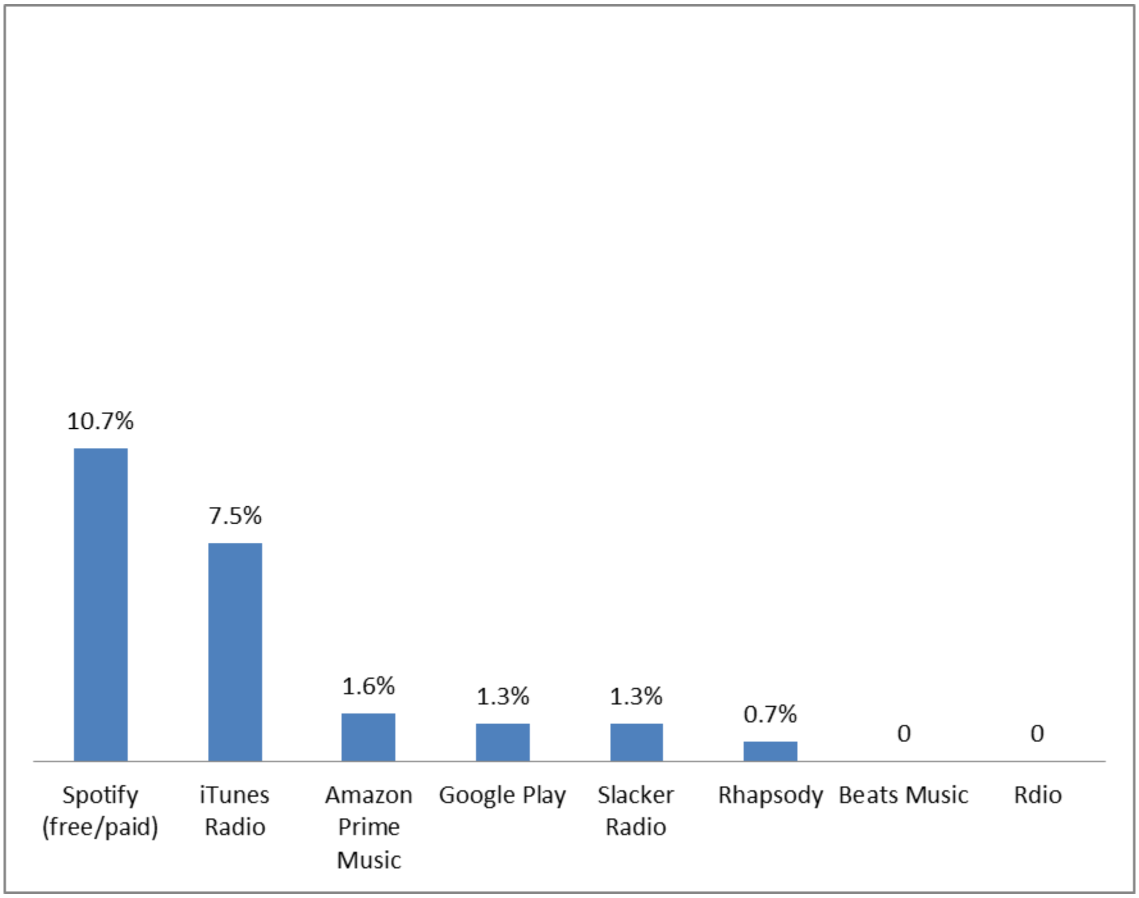
5.3.2. iHeartRadio

50. Current users of iHeartRadio were also asked what they would do if the service were no longer available. The most frequently named substitute for iHeartRadio is Pandora, with 30.0 percent of all respondents indicating they would otherwise listen to Pandora if iHeartRadio was no longer available. A total of ***10.7 percent*** of iHeartRadio listeners would otherwise listen

[45] The other category includes SoundCloud, Last fm, other downloaded music and four other responses not classified as statutory webcasting or on-demand.

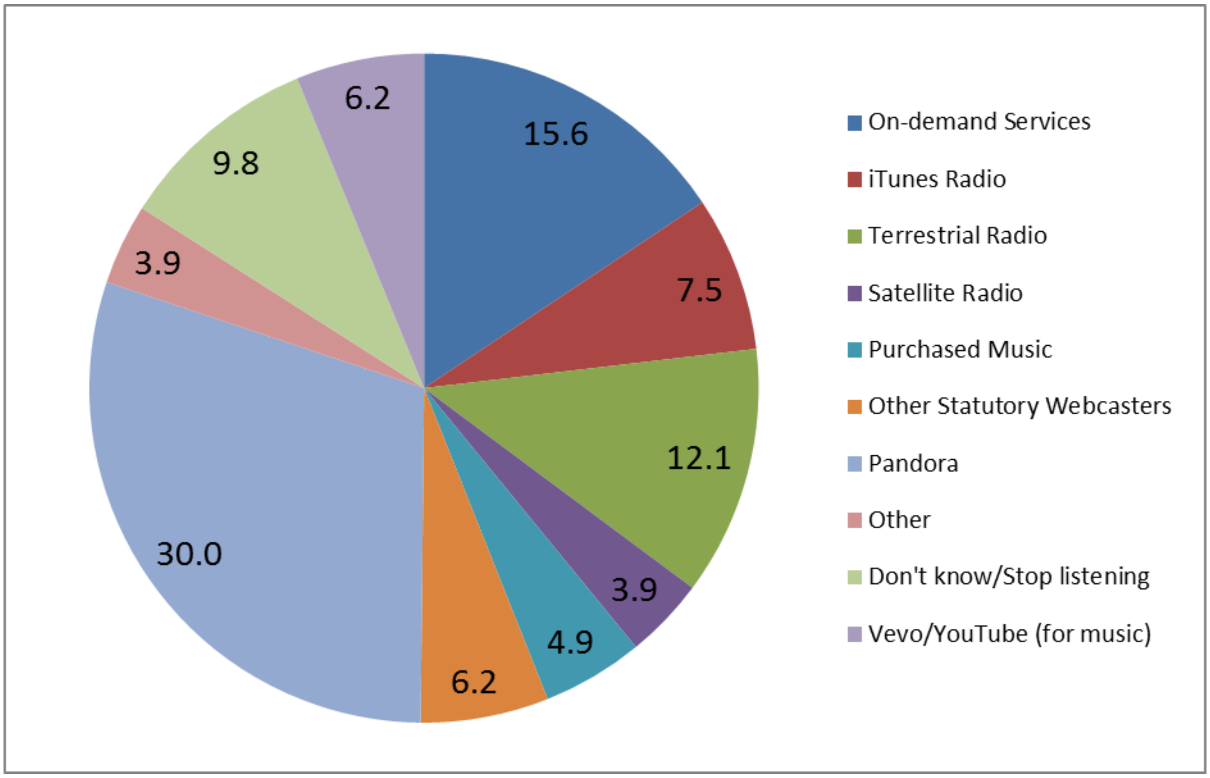
to Spotify and this was the most commonly named on-demand service, as shown below in Figure 5.

Figure 5: iHeartRadio Substitutes for Alternative Streaming Services



51. A total of ***23.1 percent*** of iHeartRadio users would otherwise listen to an alternative on-demand streaming service or iTunes Radio. In total ***28 percent*** of users of iHeartRadio would otherwise listen to form of music consumption that generate higher levels of revenue for the recorded music industry (on-demand services, iTunes Radio, and purchased music). Only ***12.1 percent*** of iHeartRadio users indicated that, were iHeartRadio not available, they would otherwise listen to terrestrial radio. These results are shown below in Figure 6.

Figure 6: Substitutions for iHeartRadio



52. We can also look at the rate of switching to an alternative streaming service for users of both Pandora and iHeartRadio. As shown below in Table 6, much larger percentages of respondents who use only Pandora (34.1 percent) or who use both Pandora and iHeartRadio (15.8 percent) would otherwise listen to a higher value streaming service than terrestrial AM/FM radio (9.1 percent and 5.6 percent, respectively).[46] For respondents who use only Pandora, an on-demand streaming service is by the far the most preferred alternative when compared with iHeartRadio and AM/FM radio. Respondents who listen to ***only*** iHeartRadio are also more likely to substitute for an on-demand service than Pandora, although 20.1 percent of this smaller group

[46] Notably, many respondents who do not currently listen to an on-demand service would nonetheless *start using* an on-demand service if Pandora and/or iHeartRadio were no longer available. Of the total 149 respondents who would substitute iHeartRadio and/or Pandora for an on-demand service, 30.9 percent are *not* currently using such a service. In other words, over 30 percent of iHeartRadio and Pandora users would otherwise listen to an on-demand service they do not currently use if these services were no longer available.

would switch to AM/FM radio. For those users who listen to both Pandora and iHeartRadio, nearly all would switch to the other service (meaning if they could not listen to iHeartRadio, they would listen to Pandora and vice versa). The vast majority of the respondents who use both services were those assigned to be asked about iHeartRadio.[47] Of the 79 respondents (44.6 percent of 177 = 79) who stated they use both iHeartRadio and Pandora and would otherwise listen to the other service, 78 are respondents who would substitute Pandora for iHeartRadio listening. This is of interest because individuals who listen to Pandora are more likely to report that Pandora substitutes for an on-demand streaming service like Spotify.

Table 6: Alternatives by Respondent Type

	Respondent Type		
	Pandora Only	iHeartRadio Only	Use Both
Switch to On-Demand Streaming Service	34.1 %	14.9 %	15.8 %
Switch to Pandora or iHeart	4.1	10.4	44.6
Switch to AM/FM Radio	9.1	20.1	5.6
Number of Respondents	296	134	177

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

53. The results of the survey demonstrate that generally consumers view Pandora and iHeartRadio as substitutes for other streaming services, and particularly on-demand services, like Spotify. For users of Pandora, on-demand streaming services are the most frequently selected substitute. This result is in contrast to Mr. Simon Fleming-Wood’s testimony that terrestrial radio is Pandora’s biggest competitor. The survey demonstrates that current users of Pandora do not view terrestrial radio as a substitute – only 9.0 percent of current Pandora users would otherwise

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[47] Respondents who used both services were randomly assigned to either the Pandora or iHeartRadio group. Because more potential survey respondents listen to Pandora only, this group was filled more quickly. Thus more of the iHeartRadio sample includes consumers who use both iHeartRadio and Pandora.

listen to terrestrial radio.[48] Current users of both iHeartRadio and Pandora are also more likely to select a streaming service over terrestrial radio.

VIII. CONCLUSIONS

54. A review of the market research demonstrates that there are multiple studies which conflict with the testimony asserting that Pandora and iHeartRadio are substitutes for terrestrial radio and are unlike on-demand streaming services. A review of this market research (both third party and research conducted by Pandora and iHeartRadio themselves) demonstrates that under many circumstances Pandora and iHeartRadio compete directly with (and are classified as competitors to) on-demand services like Spotify.

55. In addition to reviewing existing research, I conducted a survey of current Pandora and iHeartRadio users to determine for which other forms of music listening (if any) these services are substituting. My results demonstrate that ***51.4 percent*** of Pandora users would otherwise listen to a higher value format (including on-demand services, iTunes Radio, CDs and personal downloads) and the most commonly named alternative is Spotify, with ***19.7 percent*** of Pandora users selecting it as the most preferred substitute. A total of ***28.0 percent*** of iHeartRadio users would otherwise listen to a higher value format and ***10.7 percent*** view iHeartRadio as a substitute for Spotify. iHeartRadio users primarily would otherwise listen to Pandora and this is not surprising as well over half of iHeartRadio users also listen to Pandora.[49]

56. My opinions and conclusions as expressed in this report are to a reasonable degree of professional and scientific certainty. My conclusions have been reached through the proper application of survey methods and using standard methodologies relied upon by experts in

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[48] Testimony of Simon Fleming-Wood, at 6.

[49] A total of 56.9 percent of respondents who are current users of iHeartRadio also currently use Pandora; this compares to 37.4 percent of Pandora users who also currently use iHeartRadio.

the field of survey and market and consumer research. My work is ongoing and my opinions will continue to be informed by any additional material that becomes available to me.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Sarah Butler

Exhibits Sponsored By Sarah Butler

Exhibit No.	Sponsored By	Description
SX EX. 083 – RP	Sarah Butler	Ex. 1 – Butler CV
SX EX. 084- RR	Sarah Butler	Exhibit 2 – Materials Considered
SX EX. 085- RR	Sarah Butler	Exhibit 3 – Role of Radio Study
SX EX. 086- RR	Sarah Butler	Exhibit 4 – Role of Radio Tables
SX EX. 087- RP	Sarah Butler	Exhibit 5 – Survey Instrument
SX EX. 088- RP	Sarah Butler	Exhibit 6 – Survey Tables

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Ms. Butler is an expert in survey research, market research, sampling, and statistical analysis. She has applied her expertise in a wide range of litigation and strategic business cases. Her litigation and project experience includes survey research, market research, the design of samples, and the statistical and demographic analysis of large data files in a number of areas including:

Intellectual Property

- Trademark and Trade Dress Infringement: Design, analysis, and critique of surveys used to measure consumer confusion, secondary meaning, and dilution in trademark and trade design infringement cases.
- False and Misleading Advertising: Design, analysis and critique of surveys used to measure consumer perceptions and the materiality of advertising claims.
- Patent Infringement: Sample designs and surveys to the value of patented feature of a larger product and to establish rates at which infringing material exist in populations of products.
- Copyright infringement: Sampling plans and analysis of the rates of infringing material in populations of shared information (such as through websites or other sharing medium).

Mass Torts/Class Actions

- Conduct surveys and design samples providing evidence on issues of commonality and consumers' awareness of key documents or facts and reliance on representations.
- Analyze large databases of claims files to generate invoices, estimate future liabilities and calculate policy shares for insurer liabilities in asbestos, tobacco and pharmaceuticals.
- Design, analyze and critique surveys and sampling plans used to evaluate employment and promotion records. Review and design surveys for purposes of estimating key facts

in labor class actions including time to complete activities, exempt/nonexempt activities, and meal and rest break issues.

Antitrust

- Design, analysis and critique of surveys and other market research used as evidence of consumer purchasing and switching behavior in the areas of CPG, entertainment, automobiles, public transportation, sports and consumer electronics.

- Design, analysis and critique of surveys used to demonstrate consumer price sensitivities and willingness to pay.

Prior to joining NERA, Ms. Butler worked in market research, conducting survey research, focus groups and in-depth interviews. She has recently completed an article for the ABA Trial Practice Newsletter and has written on trademark infringement and the internet and surveys in litigation.

Education

Temple University
ABD Applied Sociology, coursework, exams and dissertation proposal complete (2005).

Temple University
M.A. Sociology, (2000).

Trinity College, Dublin Ireland
M.Phil. (1997).

Wellesley College
B.A. Sociology and History (with honors). (1995).

Professional Experience

July 2006 - Present	**Senior Consultant – Vice President** NERA Economic Consulting San Francisco, California, USA
Oct 2005 – May 2006	**Special Consultant** NERA Economic Consulting London, England
Jan 2003 – Oct 2005	**Senior Analyst - Consultant** NERA Economic Consulting Philadelphia, Pennsylvania, USA

2002 - 2003	**Consultant** Integrated Marketing Associates Bryn Mawr, PA, USA
Oct 1998 - Jan 2002	**Research Associate – Analyst** NERA Economic Consulting Philadelphia, Pennsylvania, USA
Sept 1998 – May 2003	**Adjunct Professor** Temple University Philadelphia, Pennsylvania, USA
Jan 1997 – Feb 1998	**Manager of Member Research** Society for Neuroscience Washington DC, USA

Expert Analysis and Testimony

Larry Butler, Joseph Leonard, Kevin Barnes, Victor Matos, Alfred Blair, and Martin Champion, Individually And On Behalf of All Others Similarly Situated* v. Sears, Roebuck and CO. Northern District of Illinois – Eastern Division. Surveys and Expert Report on issues of experienced rates and consumer preference for machines with product defects. [Expert Report: February 2, 2015]

Church & Dwight Co. Inc. v. SPD Swiss Precision Diagnostics GmbH* Southern District of New York Report on surveys used in false advertising matter. [Expert Report: December 15, 2014. Deposition: January 16, 2015, Written Testimony: February 17, 2015]

Real Foods Pty, LTD.* v. Frito-Lay North America, Inc. United States Patent and Trademark Office - TTAB Survey and Expert report on issues of genericness. [Expert Report: September 26, 2014.]

Ingrid and Isabel, LLC* v. Baby Be Mine, LLC United States District Court Northern District of California Product testing of maternity bands and false advertising. [Expert Report: May 27, 2014]

KIND, LLC* v. Clif Bar & Company. United States District Court Southern District of New York Research on actual confusion related to trade dress. [Expert Report: April 11, 2014. Preliminary Injunction Testimony, April 28, 2014.]

T-Mobile US, Inc. and Deutsche Telekom AG* v. Aio Wireless LLC. United States District Court Southern District of Texas, Houston Division Survey and Expert report on issues of fame and dilution. [Expert Report: August 13, 2013. Deposition October 4, 2013.]

Reynolds Consumer Products, Inc.* v. Handi-Foil Corporation. United States District Court, Eastern District of Virginia, Alexandria Division. Survey and Expert report on issues of trade dress infringement. [Expert Report: July 12, 2013. Deposition September 9, 2013, Trial Testimony March 25th, 2014.]

Shurtape Technologies, LLC and Shurtech Brands, LLC* v. 3M Company. United States District Court, Western District of North Carolina, Statesville Division. Expert rebuttal report on issues of trademark confusion. [Expert Report: July 2, 2013. Deposition July 30, 2013.]

Eastman Chemical Company v. Plastipure, Inc., and Certichem, Inc.*, United States District Court, Western District of Texas, Austin Division. Survey and Expert rebuttal report on issues of false advertising. [Expert Report: March 1, 2013. Deposition: March 15, 2013.]

Select Comfort Corporation,* v. The Sleep Better Store, LLC., United States District Court, District of Minnesota. Survey and Expert report for evidence of secondary meaning. [Expert report: March 1, 2013.]

In re: Whirlpool Corp. Front-Loading Washer Products Liability Litigation, United States District Court, For the Northern District of Ohio, Eastern Division. Designed and implemented a survey to evaluate the discount consumers would require if disclosures regarding front-loading washing machines were made prior to purchase. [Expert Report: November 2, 2012, Deposition December 13, 2012, Rebuttal Report: April 26, 2013, Deposition: January 15, 2014, Trial Testimony October, 2014.]

Economic Analysis of Home Improvement Demand and Preferences in Mexico Using Survey Data: On behalf of Lowe's Mexico. Report submitted to Federal Competition Commission of Mexico (CFC). Designed survey and aided in data analysis for research on consumer preferences and willingness to pay for home improvement supplies. [October 2012]

Apple Inc.* vs. Samsung Electronics Co. LTD et al, United States District Court, Northern District of California, San Jose Division. Consulting expert on surveys related to confusion and dilution in a trade dress infringement matter involving smart phones and tablet computers. [March 2012]

Daniel Taheri, M.D. and Valencia Dermatology and Laser Center and Parviz Taheri vs. Aetna U. S. Healthcare, Inc. and Aetna U. S. Healthcare and Aetna Health of California, Inc. American Arbitration Association. Statistical expert appointed by Association to design sample to estimate amounts owed on claims. [Work and Testimony conducted September 2010 – September 2011]

Children Without Borders, Inc. vs. Mèdecins Sans Frontiéres d/b/a Doctors Without Borders* United States District Court for the District of Massachusetts. Design and implement survey for evidence in a likelihood of confusion case. [Expert Report: July 25, 2011]

Merck Eprova AG vs. Brookstone Pharmaceuticals, L.L.C. a/k/a Acella Pharmaceuticals*, United States District Court, Southern District of New York. Expert report on issues of false advertising and survey used as evidence of misleading and materiality claims. [Expert Report:

July 18, 2011. Deposition: September 13, 2011. Trial Testimony: November 18, 2011]

Georgia-Pacific Consumer Products LP vs. Global Tissue Group, Inc.* United States Patent and Trademark Office, Trademark Trial and Appeal Board. Expert report on issues of trademark confusion and secondary meaning. [Expert Report: July 8th, 2011. Deposition: September 9, 2011]

CHEK-MED Systems, Inc.* vs. PMT Corp. and Permark, Inc. United States District Court, Middle District of Pennsylvania. Design and implement survey for evidence in false and misleading advertising claims. [Expert Report: June 22nd, 2011. Deposition: August 11, 2011]

National Association of Independent Housing Professionals, Inc.* vs. Board of Governors of the Federal Reserve System. et. al. United States District Court, District of Columbia. Expert report on issues of false and misleading advertising and materiality claims. [Expert Report: March 24th, 2011]

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PamLab, L.L.C. and Metabolite Laboratories, Inc. vs. Brookstone Pharmaceuticals, L.L.C. a/k/a Acella Pharmaceuticals*, United States District Court, Eastern District of Louisiana. Expert report on issues of false advertising and survey used as evidence of misleading and material claims. [Expert Report: September 14th, 2010. Deposition: September 29th, 2010]

Confidential client. Design and implement survey used to determine market shares and price elasticity for brands of hair relaxers [2010].

Jack Branning et al. vs. Apple Computer, Inc.* Expert analysis on issues of sampling records in a consumer class action. [Testimony before judge, April 2008].

* Retaining party

Publications and Presentations

"Effective Use of Surveys in Trademark Litigation," (August, 2014) *Knowledge Group Webinar*.

"The Use of Statistical Sampling Post-Duran," (August, 2014) *Law360*.

"The Value of Personal Information to Consumers of Online Services: Evidence from a Discrete Choice Experiment," (June 19, 2014). *National Economic Research, Inc.*

"An assessment of the nonmarket benefits of the Water Framework Directive for households in England and Wales," with Metcalfe, Baker, Andrews, Atkinson, Bateman, Carson, East, Gueron, Sheldon and Train in *Water Resources Research*, 48:W10516. (Paper awarded Editor's Choice Award for 2013).

ABA Webinar "The Use of Surveys in Advertising Substantiation" (June 23, 2011).

"Meeting the New Standards for Reasonable Royalties," (February, 2011) with Mario Lopez. *Law360.*

"Survey Evidence in False Advertising Cases," (Winter, 2010). *The Antritrust Trial Practice Newsletter.*

"The Use of Surveys in Litigation: Recent Trends," (April, 2010) with Kent Van Liere. National Economic Research Associates, Inc.

"Emerging Issues in the Use of Surveys in Trademark Infringement on the Web," with Kent Van Liere. Paper published in the *Advanced Trademark & Advertising Law Conference* proceedings, September 2007, Seattle, WA.

"An Analysis of the Hypothetical Situations in Willingness to Pay Studies." Paper presented at the July 2006 Thematic Seminar "Quality Criteria in Survey Research," hosted by World Association for Public Opinion Research, Lake Como, Italy.

"Use of Surveys in Intellectual Property Disputes," (2005) with Eugene P. Ericksen, in *Economic Approaches to Intellectual Property Policy, Litigation and Management Issues,* Gregory K. Leonard and Lauren J. Stiroh (eds.) National Economic Research Associates, Inc.

"Response Rate Standards: Lessons from the 2004 Presidential Polls." Paper presented at the 2005 Annual Meeting of American Association of Public Opinion Research, Miami Beach, FL.

"Using Surveys to Determine Damages in Patent Infringement Cases" presented at *Calculating and Proving Patent Damages* workshop, March 2004 Charlotte, NC.

"Using Surveys to Determine Damages in Patent Infringement Cases" presented at *Calculating and Proving Patent Damages* workshop, January 2004 San Diego, CA.

"Using Surveys to Determine Damages in Patent Infringement Cases" presented at *Calculating and Proving Patent Damages* workshop, June 2003, McLean, VA .

Professional Associations

Member, American Association of Public Opinion Research and World Association for Public Opinion Research, Member, American Statistical Association, Member, American Bar Association, Intellectual Property Section, Member, International Trademark Association (INTA), Reviewer for *Trademark Reporter*, Member, American Marketing Association.

SX EX. 084 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 085 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 086 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Music Consumer Survey

[DO NOT ALLOW ROUTED SURVEY TRAFFIC]

[PROGRAMMER: DISABLE RESUME LATER BUTTON FOR ENTIRE SURVEY]

[DO NOT INCLUDE THE SURVEY EVALUATION QUESTIONS AT THE END OF THE SURVEY]

INTRO:
Thank you for your willingness to participate in our study. This is a brief study which should take no more than 10 minutes of your time. The responses you give to our questions are very important to us. If you don't know an answer to a question or if you don't have an opinion, please indicate this in your response.

Your answers will only be used in the aggregate and your personal information will be kept confidential. The results of this study will not be used to try to sell you anything.

When you are ready to get started, please click the "NEXT" button.

S1. [TEEN] We currently need the opinions of teenagers, are there any teens between the ages of 13 and 17 in your household who could participate?
1. Yes
2. No [SWITCH TO ADULT QRE]

S2. [TEEN] We would like the teen in your household to participate in this survey. Do we have your permission?
1. Yes, you have my permission
2. No, you do not have my permission [SWITCH TO ADULT QRE]

S3. [TEEN] Please now have your teen complete the remainder of the survey. If they are unavailable at this time please select that and we will give her a pin for them to complete the survey at a later time.

We only ask that you do not assist your teen with this survey.
1. Yes, ready to begin the survey
2. Not available

TEEN INTRO: Ok! The rest of the study is for you, the teen in this home. [REPEAT ABOVE INTRO]

S4. Before continuing with this survey, please carefully read these instructions:
- Please take the survey in one session.
- While taking this survey, please do not at any time open any other windows or tabs on this computer or device or any other computer or device.

- Please do not view any other written material while taking this survey.
- Please do not consult or talk with any person while taking this survey.
- You will not be able to go back to previous screens to change your answers.

1. I have read the above instructions and understand them, and I will adhere to these instructions.
2. I do not understand the above instructions, or I don't wish to agree to them. **[SCREEN OUT]**

S5. What are you using to complete this survey?

1. Desktop Computer
2. Laptop Computer
3. Tablet Computer
4. Mobile phone or cell phone
5. Other **[SCREEN OUT]**

S6. Insert CAPTCHA

S7. Are you…?

1. Male
2. Female

S8. Please select your age. **[PROVIDE DROP DOWN BOX WITH AGE]**
Prefer not to answer **[SCREEN OUT]**

[INCLUDE RESPONDENTS AGES 13 +]

S9. Do you or do any members of your household work for any of the following?
(Select all that apply) **[RANDOMIZE]**

1. A market research or advertising company **[SCREEN OUT]**
2. An Internet service provider
3. A video recording or production studio
4. An online streaming music service **[SCREEN OUT]**
5. A record company or other owner of copyrighted music **[SCREEN OUT]**
6. A social networking service
7. None of these

S10. In the past week, have you…? [**RANDOMIZE**]

1. Listened to music
2. Gone to see a movie
3. Visited a social media website
4. Read a newspaper online
5. None of these **[SCREEN OUT]**
6. Prefer not to answer **[SCREEN OUT]**

[QUALIFIED RESPONDENT MUST HAVE LISTENED TO RECORDED MUSIC IN THE PAST WEEK]

S11. In the past week, how have you listened to music? Have you... ? [**RANDOMIZE BUT KEEP RESPONSES 3 AND 4 TOGETHER IN BLOCK WITH 3 ALWAYS PRIOR TO 4**] ***(Select all that apply)***

1. Listened to FM or AM radio (e.g. “terrestrial” or traditional radio)
2. Listened to satellite radio
3. Listened to music you purchased and downloaded from an online download/MP3 store, like iTunes or Amazon
4. Listened to other downloaded music (e.g. music obtained from a peer-to-peer download website)
5. Listened to music streamed online
6. Listened to CDs
7. None of these **[SCREEN OUT]**
8. Don’t recall **[SCREEN OUT]**

S12. **[ONLY ASK ABOUT ITEMS NOT MENTIONED IN S8]** Have you ever …? [**MAINTAIN ORDER FROM S8**] ***(Select all that apply)***

1. Listened to FM or AM radio (e.g. “terrestrial” or traditional radio)
2. Listened to satellite radio
3. Listened to music you purchased and downloaded from an online download/MP3 store, like iTunes or Amazon
4. Listened to other downloaded music (e.g. music obtained from a peer-to-peer download website)
5. Listened to music streamed online
6. Listened to CDs
7. None of these

[QUALIFIED RESPONDENT MUST HAVE LISTENED TO MUSIC STREAMED ONLINE AT S8 OR S9]

S13. **[ONLY ASK ABOUT ITEMS MENTIONED IN S8 or S9]** Using the following grid, please indicate how often you typically use the different methods for listening to music.

	Listen daily	Listen at least once a week but not daily	Listen a few times a month but not every week	Listen a few times a year but not every month	Listen only once a year or less
FM or AM radio (e.g. “terrestrial” or traditional radio)					
Satellite radio					
Music purchased and downloaded from an online download store, like iTunes					
Other downloaded music (e.g. music obtained from a peer-to-peer download website)					

Music streamed online					
CDs					

S14. Which, if any, of the following streaming services have you heard of? ***(Select all that apply)*** **[RANDOMIZE]**

1. Amazon Prime Music
2. Beats Music
3. Google Play
4. iHeartRadio
5. iTunes Radio
6. Last.fm
7. MyStro
8. Pandora
9. Rdio
10. Rhapsody
11. SiriusXM Internet Radio (not satellite , but listened to on a computer/phone)
12. Slacker Radio
13. Songza
14. Spotify
15. TuneIn Radio
16. SoundCloud
17. Vevo or Youtube (for music)
18. Other ***(Type in response)***

S15. Which, if any, of the following streaming services do you <u>currently use</u> to listen to music? ***(Select all that apply)*** **[RANDOMIZE-FOLLOW ORDER IN S11]**

1. Amazon Prime Music
2. Beats Music
3. Google Play
4. iHeartRadio
5. iTunes Radio
6. Last.fm
7. MyStro
8. Pandora
9. Rdio
10. Rhapsody
11. SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)
12. Slacker Radio
13. Songza
14. Spotify
15. TuneIn Radio
16. SoundCloud
17. Vevo or Youtube (for music)
18. Other ***(Type in response)***

[QUALIFIED RESPONDENT MUST HAVE LISTENED TO iHEARTRADIO and/or PANDORA. CHECK QUOTAS FOR GROUPS 1) PANDORA 2)IHEART]

S16. **[ONLY ASK ABOUT ITEMS MENTIONED IN S12]** You indicated you listened to streaming services. Using the following grid, please indicate how often you typically use the streaming service for listening to music.

	Listen daily	Listen at least once a week but not daily	Listen a few times a month but not every week	Listen a few times a year but not every month	Listen only once a year or less
Amazon Prime Music					
Beats Music					
Google Play					
iHeartRadio					
iTunes Radio					
Last.fm					
MyStro					
Pandora					
Rdio					
Rhapsody					
SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)					
Slacker Radio					
Songza					
Spotify					
TuneIn Radio					
SoundCloud					
Vevo or Youtube (for music)					

[IF RESPONDENT LISTENS TO PANDORA ASK Q1-Q3. IF IHEART ASK Q4 – Q6.IF RESPONDENT LISTENS TO BOTH RANDOMLY ASSIGN TO ONE OR OTHER]

Q1. Thinking about the time you spend listening to Pandora, do you mostly listen to Pandora …?

1. At home
2. At work
3. While commuting or in transit
4. While working out
5. Other ***(Type in response)***

6. Don't know/ unsure

Q2. Imagine you could no longer listen to music on Pandora. Which of the following statements represents what you would be most likely to do? **[ROTATE 1 AND 2]**

1. I would find a substitute for the music I listen to on Pandora
2. I would stop listening to music **[GO TO END]**
3. Don't know/ unsure **[GO TO END]**

Q3. You said you would find a substitute for the music you listen to on Pandora. Which of the following, if any, would be your <u>most preferred</u> substitute for Pandora? **[RANDOMIZE 1- 22. BUT KEEP RESPONSES 4 AND 5 TOGETHER IN BLOCK WITH 4 ALWAYS PRIOR TO 5] [ALWAYS INCLUDE ITEMS 1 – 5 AND 22 - 24. LIMIT ITEMS 6 – 21 TO ONLY THOSE MENTIONED IN S11. ITEMS 22 - 24 SHOULD BE LAST THREE ITEMS SHOWN]**

1. FM or AM radio (e.g. "terrestrial" or traditional radio)
2. Satellite radio
3. CDs
4. Purchased downloaded music / MP3s
5. Other downloaded music / MP3s
6. Vevo or YouTube (for music)
7. iHeartRadio
8. iTunes Radio
9. Spotify (free/paid)
10. Google Play
11. Beats Music
12. Amazon Prime Music
13. MyStro
14. Last.fm
15. Rdio
16. Rhapsody
17. SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)
18. Slacker Radio
19. Songza
20. TuneIn Radio
21. SoundCloud
22. Listening to less music
23. Other ***(Type in response)***
24. Don't know / not sure

GO TO END

Q4. **[ASK ONLY IF CURRENTLY USE IHEART IN S12.]** Thinking about the time you spend listening to iHeartRadio, do you mostly listen to iHeart…?

1. At home
2. At work
3. While commuting or in transit

4. While working out
5. Other ***(Type in response)***
6. Don't know/ unsure

Q5. Imagine you could no longer listen to music on iHeartRadio. Which of the following statements represents what you would be most likely to do? **[ROTATE 1 AND 2]**

1. I would find a substitute for the music I listen to on iHeartRadio
2. I would stop listening to music **[GO TO END]**
3. Don't know/ unsure **[GO TO END]**

Q6. You said you would find a substitute for the music you listen to on iHeartRadio. Which of the following, if any, would be your most preferred substitute for iHeartRadio? **[RANDOMIZE 1- 22. BUT KEEP RESPONSES 4 AND 5 TOGETHER IN BLOCK WITH 4 ALWAYS PRIOR TO 5] [ALWAYS INCLUDE ITEMS 1 – 5 AND 22 - 24. LIMIT ITEMS 6 – 21 TO ONLY THOSE MENTIONED IN S11. ITEMS 22 - 24 SHOULD BE LAST THREE ITEMS SHOWN]**

1. FM or AM radio (e.g. "terrestrial" or traditional radio)
2. Satellite radio
3. CDs
4. Purchased downloaded music / MP3s
5. Other downloaded music / MP3s
6. Vevo or YouTube (for music)
7. Pandora (free/paid)
8. iTunes Radio
9. Spotify (free/paid)
10. Google Play
11. Beats Music
12. Amazon Prime Music
13. MyStro
14. Last.fm
15. Rdio
16. Rhapsody
17. SiriusXM Internet Radio (not satellite radio, but listened to on a computer/phone)
18. Slacker Radio
19. Songza
20. TuneIn Radio
21. SoundCloud
22. Listening to less music
23. Other ***(Type in response)***
24. Don't know / not sure

Thank you for your participation. Those are all the questions we have today.

Exhibit 6

Pandora and iHeartRadio Substitutions by Age

Age of Respondent

	13 - 17		18 - 24		25 - 34		35 - 49		50 - 64		65 or older		Total	
	(Count)	(Percent)	(Count)	(Percent)	(Count)	(Percent)	(Count)	(Percent)	(Count)	(Percent)	(Count)	(Percent)	(Count)	(Percent)
On-demand Services	25	27.17 %	29	25.44 %	32	25.40 %	35	24.31 %	19	21.11 %	9	21.95 %	149	24.55 %
Pandora/iHeartRadio	14	15.22	34	29.82	21	16.67	18	12.50	14	15.56	4	9.76	105	17.3
Don't know/Stop listening	11	11.96	8	7.02	15	11.90	20	13.89	10	11.11	5	12.20	69	11.37
Terrestrial Radio	3	3.26	4	3.51	15	11.90	22	15.28	13	14.44	7	17.07	64	10.54
iTunes Radio	12	13.04	7	6.14	9	7.14	11	7.64	10	11.11	3	7.32	52	8.57
Purchased Music	5	5.43	5	4.39	6	4.76	11	7.64	7	7.78	5	12.20	39	6.43
Other	5	5.43	6	5.26	12	9.52	9	6.25	3	3.33	2	4.88	37	6.10
Other Statutory Webcasters	3	3.26	6	5.26	5	3.97	9	6.25	10	11.11	2	4.88	35	5.77
Vevo/YouTube (for music)	10	10.87	11	9.65	7	5.56	2	1.39	2	2.22	2	4.88	34	5.60
Satellite Radio	4	4.35	4	3.51	4	3.17	7	4.86	2	2.22	2	4.88	23	3.79
Total	92	100.00	114	100.00	126	100.00	144	100.00	90	100.00	41	100.00	607	100.00

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

SX EX. 088-1-RP

Exhibit 6

Pandora and iHeartRadio Substitutions by Respondent Gender

	Male			Female			Total		
	(Count)	(Percent)		(Count)	(Percent)		(Count)	(Percent)	
On-demand Services	61	24.60	%	88	24.51	%	149	24.55	%
Pandora/iHeartRadio	30	12.10		75	20.89		105	17.30	
Don't know/Stop listening	29	11.69		40	11.14		69	11.37	
Terrestrial Radio	21	8.47		43	11.98		64	10.54	
iTunes Radio	23	9.27		29	8.08		52	8.57	
Purchased Music	23	9.27		16	4.46		39	6.43	
Other	17	6.85		20	5.57		37	6.10	
Other Statutory Webcasters	19	7.66		16	4.46		35	5.77	
Vevo/YouTube (for music)	12	4.84		22	6.13		34	5.60	
Satellite Radio	13	5.24		10	2.79		23	3.79	
Total	248	100.00		359	100.00		607	100.00	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Pandora Substitutions

Alternative Selected	Count	Percent	
Spotify (free/paid)	59	19.7	%
Don't know	36	12.0	
iTunes Radio	29	9.7	
FM or AM radio (e.g. "terrestrial" or traditional radio)	27	9.0	
Purchased downloaded music/MP3s	16	5.3	
Vevo or YouTube (for music)	15	5.0	
Rhapsody	13	4.3	
iHeartRadio	13	4.3	
Other downloaded music/MP3s	13	4.3	
Amazon Prime Music	11	3.7	
Satellite radio	11	3.7	
CDs	8	2.7	
SiriusXM Internet Radio	8	2.7	
Slacker Radio	7	2.3	
Google Play	6	2.0	
Other [1]	6	2.0	
TuneIn Radio	4	1.3	
Songza	4	1.3	
Beats Music	3	1.0	
SoundCloud	3	1.0	
Stop listening	3	1.0	
Rdio	2	0.7	
Last.fm	2	0.7	
Other (Milk App)	1	0.3	
Total Respondents	300	100.0	

[1] Category includes the following responses: Another streaming service, music through Uverse, 8tracks, AccuRadio, Jango, "radio station website for live stream."

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

iHeartRadio Substitutions

Alternative Selected	Count	Percent	
Pandora	92	30.0	%
FM or AM radio (e.g. "terrestrial" or traditional radio)	37	12.1	
Spotify (free/paid)	33	10.7	
iTunes Radio	23	7.5	
Vevo or YouTube (for music)	19	6.2	
Don't know	19	6.2	
Satellite radio	12	3.9	
Stop listening [3]	11	3.6	
CDs [1]	9	2.9	
SiriusXM Internet Radio	7	2.3	
TuneIn Radio	7	2.3	
Purchased downloaded music/MP3s	6	2.0	
Amazon Prime Music	5	1.6	
SoundCloud	5	1.6	
Google Play	4	1.3	
Slacker Radio	4	1.3	
Other downloaded music/MP3s	4	1.3	
Last.fm	3	1.0	
Songza	3	1.0	
Rhapsody	2	0.7	
Other [2]	2	0.7	
Beats Music	0	0.0	
Rdio	0	0.0	
Total Respondents	307	100.0	

[1] Includes one respondent who indicated, "my CD music I downloaded to my computer".

[2] Category includes the following responses: KCRW.com and "Live 365 online".

[3] Includes one respondent who indicated, "read a book".

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Respondents Who Listened to Music in the Past Week
Method of Listening to Music

Listening Method	Number of Respondents			
	Pandora		iHeartRadio	
	-(Count)	---(Percent)---	-(Count)	---(Percent)---
Listened to FM or AM radio (e.g. "terrestrial" or traditional radio)	221	73.7 %	258	84.0 %
Listened to satellite radio	71	23.7	97	31.6
Listened to music you purchased and downloaded from an online download/MP3 store, like iTunes or Amazon	145	48.3	167	54.4
Listened to other downloaded music (e.g. music obtained from a peer-to-peer download website)	69	23.0	102	33.2
Listened to music streamed online	244	81.3	239	77.9
Listened to CDs	119	39.7	157	51.1
None of these	0	-	0	-
Don't recall	0	-	0	-
Total Number of Respondents:	**300**		**307**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Respondents Who Have Ever Listened to Music
Method of Listening to Music

Listening Method	Number of Respondents			
	Pandora		iHeartRadio	
	-(Count)	---(Percent)---	-(Count)	---(Percent)---
	(a)	(b)	(c)	(d)
Listened to FM or AM radio (e.g. "terrestrial" or traditional radio)	65	21.7 %	43	14.0 %
Listened to satellite radio	139	46.3	129	42.0
Listened to music you purchased and downloaded from an online download/MP3 store, like iTunes or Amazon	91	30.3	88	28.7
Listened to other downloaded music (e.g. music obtained from a peer-to-peer download website)	99	33.0	91	29.6
Listened to music streamed online	56	18.7	68	22.1
Listened to CDs	166	55.3	130	42.3
Total Number of Respondents:	**300**		**307**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Frequency of Listening to Music, by Method for Current Pandora Users

Listening Method	Number of Respondents: Daily (Count) (a)	Daily ---(Percent)--- (b)	At Least Once a Week But Not Daily --(Count)- (c)	At Least Once a Week But Not Daily ---(Percent)--- (d)	A Few Times a Month But Not Every Week -(Count)- (e)	A Few Times a Month But Not Every Week ---(Percent)--- (f)	A Few Times a Year But Not Every Month -(Count)- (g)	A Few Times a Year But Not Every Month ---(Percent)--- (h)	Only Once a Year or Less (Count) (i)	Only Once a Year or Less ---(Percent)--- (j)
Listened to FM or AM radio (e.g. "terrestrial" or traditional radio)	120	40.0 %	104	34.7 %	36	12.0 %	15	5.0 %	11	3.7 %
Listened to satellite radio	39	13.0	44	14.7	31	10.3	43	14.3	53	17.7
Music purchased and downloaded from an online download store, like iTunes	71	23.7	68	22.7	48	16.0	33	11.0	16	5.3
Other downloaded music (e.g. music obtained from a peer-to-peer download website)	44	14.7	44	14.7	32	10.7	26	8.7	22	7.3
Music streamed online	122	40.7	111	37.0	44	14.7	18	6.0	5	1.7
CDs	29	9.7	84	28.0	67	22.3	56	18.7	49	16.3
Total Number of Respondents:	**300**		**300**		**300**		**300**		**300**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Exhibit 6

Frequency of Listening to Music, by Method
for Current iHeartRadio Users

Listening Method	Daily		At Least Once a Week But Not Daily		A Few Times a Month But Not Every Week		A Few Times a Year But Not Every Month		Only Once a Year or Less	
	(Count) (a)	(Percent) (b)	(Count) (c)	(Percent) (d)	(Count) (e)	(Percent) (f)	(Count) (g)	(Percent) (h)	(Count) (i)	(Percent) (j)
Listened to FM or AM radio (e.g. "terrestrial" or traditional radio)	178	58.0 %	90	29.3 %	28	9.1 %	3	1.0 %	2	0.7 %
Listened to satellite radio	54	17.6	51	16.6	33	10.7	52	16.9	36	11.7
Music purchased and downloaded from an online download store, like iTunes	99	32.2	77	25.1	55	17.9	19	6.2	5	1.6
Other downloaded music (e.g. music obtained from a peer-to-peer download website)	57	18.6	58	18.9	42	13.7	18	5.9	18	5.9
Music streamed online	134	43.6	106	34.5	49	16.0	16	5.2	2	0.7
CDs	58	18.9	96	31.3	63	20.5	40	13.0	30	9.8
Total Number of Respondents:	**307**		**307**		**307**		**307**		**307**	

Number of Respondents

Source NERA Survey of Current Pandora and iHeart Listeners, February 2015

Exhibit 6

Frequency of Listening to Music via Streaming Services
Pandora

Streaming Service	Number of Respondents: Daily		At Least Once a Week But Not Daily		A Few Times a Month But Not Every Week		A Few Times a Year But Not Every Month		Only Once a Year or Less	
	(Count)	---(Percent)---	--(Count)--	---(Percent)---	--(Count)--	---(Percent)---	--(Count)--	---(Percent)---	--(Count)--	---(Percent)---
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Amazon Prime Music	7	2.3 %	18	6.0 %	10	3.3 %	2	0.7 %	0	- %
Beats Music	5	1.7	2	0.7	1	0.3	1	0.3	0	-
Google Play	11	3.7	15	5.0	3	1.0	0	-	0	-
iHeart Radio	0	-	2	0.7	1	0.3	1	0.3	0	-
iTunes Radio	17	5.7	36	12.0	9	3.0	3	1.0	1	0.3
Last fm	1	0.3	7	2.3	2	0.7	1	0.3	0	-
MyStro	0	-	0	-	0	-	0	-	0	-
Pandora	107	35.7	128	42.7	48	16.0	15	5.0	2	0.7
Rdio	3	1.0	3	1.0	3	1.0	1	0.3	0	-
Rhapsody	7	2.3	8	2.7	3	1.0	1	0.3	0	-
SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)	11	3.7	10	3.3	1	0.3	0	-	0	-
Slacker Radio	2	0.7	2	0.7	2	0.7	1	0.3	0	-
Songza	3	1.0	2	0.7	0	-	0	-	0	-
Spotify	28	9.3	28	9.3	9	3.0	3	1.0	1	0.3
TuneIn Radio	1	0.3	7	2.3	0	-	1	0.3	1	0.3
SoundCloud	8	2.7	12	4.0	3	1.0	3	1.0	0	-
Vevo or YouTube (for music)	30	10.0	33	11.0	9	3.0	3	1.0	0	-
Total Number of Respondents:	**300**		**300**		**300**		**300**		**300**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Exhibit 6

Frequency of Listening to Music via Streaming Services
iHeartRadio

Streaming Service	Daily (Count) (a)	Daily (Percent) (b)	At Least Once a Week But Not Daily (Count) (c)	At Least Once a Week But Not Daily (Percent) (d)	A Few Times a Month But Not Every Week (Count) (e)	A Few Times a Month But Not Every Week (Percent) (f)	A Few Times a Year But Not Every Month (Count) (g)	A Few Times a Year But Not Every Month (Percent) (h)	Only Once a Year or Less (Count) (i)	Only Once a Year or Less (Percent) (j)
Amazon Prime Music	15	4.9 %	25	8.1 %	14	4.6 %	3	1.0 %	0	- %
Beats Music	7	2.3	7	2.3	5	1.6	0	-	0	-
Google Play	18	5.9	24	7.8	16	5.2	5	1.6	2	0.7
iHeart Radio	80	26.1	137	44.6	71	23.1	16	5.2	3	1.0
iTunes Radio	33	10.7	37	12.1	20	6.5	4	1.3	4	1.3
Last fm	9	2.9	12	3.9	5	1.6	0	-	1	0.3
MyStro	4	1.3	1	0.3	0	-	0	-	0	-
Pandora	64	20.8	70	22.8	31	10.1	6	2.0	2	0.7
Rdio	5	1.6	6	2.0	1	0.3	1	0.3	0	-
Rhapsody	10	3.3	15	4.9	9	2.9	1	0.3	1	0.3
SiriusXM Internet Radio (not satellite, but listened to on a computer/phone)	20	6.5	15	4.9	7	2.3	1	0.3	0	-
Slacker Radio	6	2.0	6	2.0	6	2.0	1	0.3	1	0.3
Songza	8	2.6	5	1.6	3	1.0	2	0.7	0	-
Spotify	32	10.4	33	10.7	14	4.6	1	0.3	0	-
TuneIn Radio	9	2.9	5	1.6	8	2.6	1	0.3	0	-
SoundCloud	12	3.9	21	6.8	11	3.6	4	1.3	0	-
Vevo or YouTube (for music)	59	19.2	51	16.6	12	3.9	2	0.7	0	-
Total Number of Respondents:	**307**		**307**		**307**		**307**		**307**	

Source: NERA Survey of Current Pandora and iHeart Listeners, February 2015

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, D.C.

In re **DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV)***	**)))))))))**	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**

WRITTEN REBUTTAL TESTIMONY OF

THOMAS Z. LYS, Ph.D.

Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management,
Kellogg School of Management, Northwestern University

PUBLIC VERSION

Witness for SoundExchange, Inc.

Table of Contents

List of figures

I. Introduction

I.A. Qualifications

(1) My name is Thomas Z. Lys. I am the Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management at the Kellogg School of Management, Northwestern University, located in Evanston, Illinois.

(2) I submitted written direct testimony in this matter on October 7, 2014 ("Initial Report"), which contains a complete summary of my qualifications. From it, I highlight that in 2011 I also submitted an expert report on behalf of SoundExchange in the matter of Determination of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Docket No. 2011-1 CRB.

(3) My curriculum vitae is attached as Appendix A to this testimony, along with a list of my prior testimony. Appendix B lists the materials I relied on in reaching my conclusions.

(4) Some of the analyses underlying my opinions were supported by my research staff, working under my direction. All of the opinions expressed in this report are my own independent conclusions. I am compensated at a rate of $975 per hour for my work in this matter. My compensation is not dependent on the outcome of this case or on any of the opinions expressed in this matter.

I.B. Assignment

(5) Counsel for SoundExchange has asked me to review and analyze:

a) Michael Herring's testimony,[1] on behalf of Pandora, regarding Pandora's financial health, its profitability, and its ability to pay royalties;

b) David Pakman's testimony,[2] on behalf of iHeartMedia and the National Association of Broadcasters ("NAB"), regarding the profitability of and investments in the webcasting industry;

c) Professors Fischel & Lichtman's testimony,[3] on behalf of iHeartMedia, regarding a hypothetical simulcaster's ability to pay royalties;

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1 Written Direct Testimony of Michael Herring, submitted on October 6, 2014 ("Herring Testimony").

2 Testimony of David B. Pakman, submitted on October 7, 2014 ("Pakman Testimony").

3 Amended Testimony of Daniel R. Fischel & Douglas G. Lichtman (with Exhibits A-F and Appendices A-E), submitted

d) Testimony presented by NAB witnesses, including the testimony submitted by John Dimick,[4] Ben Downs,[5] Robert Francis Kocak,[6] and Julie Koehn,[7] regarding NAB's members' ability to pay royalties;

e) The NAB's proposal to change the fee for late payments;

f) The definition of revenue and other related terms in Pandora's rate proposal;[8]

g) The National Religious Broadcasters Noncommercial Music License Committee's proposals to raise the listening hours threshold for eligibility for the minimum fee and to implement a "tiered" flat fee structure for non-commercial webcasters.

I.C. Summary of Conclusions

(6) Multiple witnesses in this proceeding, including Michael Herring, David Pakman, Professors Fischel and Lichtman, and the NAB witnesses, claim that the statutory royalty rates should be reduced on account of the profitability or lack of profitability of a specific firm, of the webcasting industry in general, or of another related industry. Because each witness's testimony is slightly different, I address them separately in my testimony. In general, however, attempting to determine what a company or industry could "afford" based on current profitability levels is not a helpful approach. First, this approach does not reflect the "willing buyer/willing seller" approach prescribed by Congress. Second, it fails to account for business strategies employed by firms that depress current profits in an effort to achieve growth. Third, it ignores that current profitability levels reflect only a current market equilibrium. Changes in input prices—in this case royalties—have a dynamic effect on profits by, for example, eliminating oversupply by inefficient competitors.

(7) Mr. Herring's testimony does not tell the full story regarding Pandora's growth, its future prospects, and its ability to pay higher royalties. In the past, Pandora focused on a growth strategy, and the company has only begun to shift to monetizing its large user base. My analysis of Pandora's finances, based on analyst reports, Pandora's public statements, and its internal analysis, shows a rapidly growing firm that has turned the corner on monetization and that can afford SoundExchange's royalty rates and remain profitable over the next rate period.

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on January 12, 2015 ("Fischel and Lichtman Testimony").

4 Written Direct Testimony of John Dimick, submitted on October 7, 2014 ("Dimick Testimony").

5 Written Direct Testimony of Ben Downs, submitted on October 6, 2014 ("Downs Testimony").

6 Written Direct Testimony of Robert Francis Kocak, submitted on October 3, 2014 ("Kocak Testimony").

7 Written Direct Testimony of Julie Koehn, submitted on October 6, 2014 ("Koehn Testimony").

8 Proposed Rates and Terms of Pandora Media, Inc., submitted on October 7, 2014.

(8) Mr. Pakman's analysis of the profitability and failures in the digital music industry fails to differentiate between digital music companies in general and statutory webcasters in particular. Accordingly, all his analysis can possibly show is that the challenges facing webcasters reflect the same trends and pressures that apply to the industry as a whole. But, in addition, Mr. Pakman's analysis of the webcasting and digital music industries is inconsistent with contemporaneous evidence. His discussion of venture capital investments in digital music fails to account for differences between digital music and the "comparable" industries he analyzes.

(9) Professors Fischel and Lichtman's Economic Value Added ("EVA") analysis is not informative because it is inconsistent with fundamental principles of economics relating to supply, demand, and market equilibrium. In addition, this analysis attempts to analyze the webcasting industry based on a model built on the terrestrial radio industry. This approach is inadequate because it ignores fundamental differences between the industries and is akin to studying the horse and buggy industry to understand the profits available in the automobile industry. Finally, this analysis suffers from serious technical flaws that make it completely unreliable. For instance, excluding a single massive outlier from the sample *doubles* the royalty rate obtained by this approach.

(10) Pandora's proposed definition of revenue, which is limited to the sum of advertising and subscription revenues, is too narrow. Although Pandora's proposal captures all of *Pandora*'s revenues, it is not flexible enough, as a statutory rate must be, to apply to a wide swath of potential business models.

(11) The NAB's new late fee proposal is based on the late payment fees charged by the Internal Revenue Service for underpayment of taxes. This approach simply fails to take into consideration the obvious and significant differences between tax penalties and commercial terms for late payment fees, including the fact that the Internal Revenue Service has other sanctions at its disposal to encourage accurate and timely payment of taxes.

(12) The National Religious Broadcasters Noncommercial Music License Committee's (NRBNMLC) rate proposal is based on an artificial difference between a noncommercial and a commercial broadcaster. There is no market-based reason to provide a competitive advantage to small noncommercial broadcasters versus small commercial broadcasters.

(13) My complete opinions and the explanations for how I reached them appear throughout my testimony.

II. Pandora

(14) Michael Herring, Pandora's CFO, testifies that rates "anywhere comparable" to the *Web III* rates would have a "crippling effect on Pandora's finances," and he suggests that they would cause Pandora to "continue to sustain net losses for many additional years."[9]

(15) My analysis shows that Mr. Herring is wrong. As I explain in more detail in the sections that follow, Mr. Herring fails to tell the whole story regarding Pandora's current financial performance, its growth, and its prospects for future profits. That story, as told by Pandora's public statements,[10] its internal documents, and analyst reports,[11] shows that Pandora voluntarily adopted a high growth strategy over the past few years—a strategy that has resulted in dramatic increases to Pandora's revenues and its listening hours. To achieve this dramatic growth, Pandora, like other growth companies, sacrificed short-term profitability.

(16) The evidence shows that Pandora's strategy has begun to pay off. Pandora has started to take advantage of the scale generated by its high-growth strategy and has turned its focus to monetizing its listener hours. For example, Pandora recently raised the price of its Pandora One subscription service by 25%, from \$3.99 to \$4.99.[12] With respect to advertising revenue, Pandora's revenue per thousand hours of listening ("RPM") has markedly increased from \$35.66 in 2013 to \$41.66 in 2014, a 17% increase.[13] In fact, during the last quarter of 2014, Pandora achieved an RPM of \$48.19.[14]

(17) Pandora's shift to monetization is telling: Over the coming rate period, Pandora expects to and will likely experience further significant increases in RPM. Pandora's public statements [redacted] confirm that Pandora expects to achieve an RPM of \$60 early in the coming rate period. At an RPM of \$60, Pandora could comfortably afford royalties not only at the *Web III* level but also

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9 Herring Testimony, ¶ 4 and ¶ 10.

10 I consider public statements made to investors by company executives to be an extremely valuable source of information. These statements are made outside the context of an adversarial court proceeding where the executive may have an incentive to avoid volunteering certain information. Moreover, these statements are subject to S.E.C. regulations that require statements to be truthful and not misleading to investors.

11 Pandora is widely covered in the stock market analyst community. Analyst reports from reputable research firms are an extremely valuable source of information, to be evaluated along with other sources of data and information, such as company statements. For example, see (1) Beyer, Anne, Daniel Cohen, Thomas Lys and Beverly Walther, "*The financial reporting environment: Review of the recent literature,*" December 2010, Journal of Accounting and Economics 50(2-3), and (2) Asquith, Paul, Michael Mikhail and Andrea Au, "Information content of equity analyst reports," *Journal of Financial Economics*, February 2005, Volume 75(2). Wall Street analysts are highly sought after finance professionals who have developed sophisticated tools for analyzing the performance of companies, and often specialize in few market segments to which they bring the expertise gained from studying those industries. Analysts incorporate this industry expertise with macroeconomic projections, company-specific factors, and historical outcomes to form the forward-looking projections upon which their careers rely. I discussed these issues in greater detail in my rebuttal testimony in the SDARS matter. Lys Rebuttal Testimony in SDARS, at 11-12.

12 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 42.

13 Pandora Historical Financial Results, December 31, 2014, at 7.

14 Pandora Historical Financial Results, December 31, 2014, at 7.

at the royalty rates proposed by SoundExchange. Specifically, at an RPM of $60, while paying $0.00232 per performance Pandora would still maintain its current gross profit margin of $23.71 for every one thousand listener hours.

(18) Finally, I turn to a fundamental criticism of Mr. Herring's testimony. A firm's current financial position or profitability does not determine the market rate for a service or product. And focusing on a firm's current profitability distorts the willing buyer/willing seller analysis by rewarding inefficient firms or firms that have focused on growth instead of profitability. As a result, Mr. Herring's testimony, which primarily focuses on Pandora's historical financial position and profitability, is not useful in determining the rates that would be set between a willing buyer and a willing seller or what Pandora could "afford" to pay in the future.

II.A. Pandora's Business Strategy

II.A.1. Pandora's Initial Focus on Growth

(19) Michael Herring suggests that royalty rates were the reason for Pandora's unprofitability over the last few years. But, as Pandora has admitted outside these proceedings, Pandora made a voluntary decision to adopt a business strategy aimed at rapid growth. For instance, Pandora clearly explained this strategy in its 2014 Form 10-K:[15]

> "A key element of our strategy is to increase the number of listeners and listener hours to increase our industry penetration, including the number of listener hours on mobile and other connected devices. … In addition, we have adopted a strategy to invest in our operations in advance of, and to drive, future revenue growth."

(20) During Pandora's Q4-2014 earnings call, Mr. Herring highlighted his belief that "by not optimizing earnings growth in the near term we will accrue the benefits and long term revenue growth in market share expansion, resulting in Pandora becoming a multibillion dollar business in a relatively short time."[16]

(21) Similarly, in 2013 Pandora acknowledged that it planned to incur losses in order to fund growth.[17]

> "[W]e expect to invest heavily in our operations to support anticipated future growth. As a result of these factors, we expect to incur annual net losses on a U.S. GAAP basis in the near term."[18]

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[15] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 16..

[16] Michael Herring, Q4 2014 Pandora Media, Inc. Earnings Conference Call (February 5, 2015), at 6.

[17] Pandora Media, Inc. Form 10-K for the transition period from February 1, 2013 to December 31, 2013, at 11.

[18] GAAP stands for Generally Accepted Accounting Principles. See footnote 61 and Section VI.B.1 for additional detail.

(22) Further, as Mr. Herring's own public statements show, Pandora consciously undertook this strategy, understanding the impact it would have on short-term margins:[19]

> "Growth is a headwind to monetization, which would say that the faster we're growing, the slower expansion in gross margin happens. But, that's a nice problem to have."

(23) The vast majority of Pandora's revenue comes from advertising. This means that Pandora faces a trade-off between attracting and retaining users and generating advertising revenue. Recognizing this trade-off, Michael Herring noted in mid-2014 that "one of the reasons" Pandora has strong listener engagement is because it "balance[s] the listening experience with the advertising experience."[20] Pandora has resolved this "balance" in favor of growth by limiting its advertising loads. As Mr. Herring explained, Pandora averaged "1 minute to 1.5 minutes of ads an hour" in mid-2014. By contrast, as Pandora's former CEO explained, terrestrial radio stations typically have 13 minutes of ads per hour.[21]

(24) To finance its explosive growth, Pandora raised over $750 million from outside investors between 2011 and today. Pandora's June 15, 2011 IPO raised $240 million from outside investors.[22] The IPO was priced far above expectations,[23] and share values increased 8.9% on the first day of trading.[24] In September 2013, Pandora executed a follow-on public equity offering, raising an additional $520 million from outside investors.[25] In the process, the price at which its stock was offered to the public increased by 56 percent[26] and Pandora has paid over $41 million in stock options to senior management.[27] Today, Pandora's market capitalization is $3.1 billion.[28]

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19 Michael Herring, Nomura's Digital Media Conference (September 4, 2014), at 10.

20 Michael Herring, Q2 2014 Pandora Media, Inc. Earnings Call (July 24, 2014), at 12.

21 Joseph Kennedy, Goldman Sachs Technology and Internet Conference (February 13, 2013), at 6.

22 This amount includes shares sold by insiders. The proceeds to Pandora were $101,610,912, including $11.1 million in transaction costs or $90.6 million net. *See* Pandora Media, Inc. Form 10-K for the year ended January 31, 2012, at 39.

23 Pham, Alex, "Pandora Media prices IPO at $16 a share, above expectations," *The Los Angeles Times*, June 15, 2011. Available at http://articles.latimes.com/2011/jun/15/business/la-fi-ct-pandora-ipo-20110615, accessed on February 18, 2015.

24 Spears, Lee, "Pandora rises in biggest internet IPO boom year since 2000," *BloombergBusiness*, June 15, 2011. Available at http://www.bloomberg.com/news/articles/2011-06-14/pandora-media-raises-234-9-million-in-ipo-after-pricing-stock-above-range, accessed on February 18, 2015.

25 This follow-up offering netted Pandora $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. *See* Pandora Media, Inc. Form 10-K for the transition period from February 1, 2013 to December 31, 2013, at 42.

26 The IPO was at $16.00 per share and the secondary offering at $25.00 per share.

27 Over the period January 31, 2010 to December 31, 2013. Data from Pandora's SEC Schedule 14A (Definitive Proxy Statements), filed on (1) April 25, 2012, (2) April 24, 2013, and (3) April 22, 2014. The 2014 proxy statement has not been filed as of the date of this report.

28 As of market close on February 17, 2015, per Yahoo Finance.

(25) These investments occurred despite the fact that Pandora at the time, while focusing on growth, had negative net income. This shows that Pandora's investors recognized the rationality of Pandora's strategy and, like Pandora itself, were willing to accept Pandora's short-term losses.

II.A.2. Pandora Shifts to a Monetization Strategy

(26) Having reached critical scale in 2013-2014, Pandora has switched its strategy from growth to monetizing its market dominance. For example, in its 2014 third quarter investor presentation, Pandora states that it has reached "an exciting point in Pandora's trajectory," where "growth in active listeners and listener hours," reaching "critical mass in local markets," and other factors have allowed it to achieve "significant growth potential" such that it can "reach engagement monetization."[29]

(27) Similarly, in early 2013 Pandora's CFO Michael Herring noted:[30]

> "Now that we have eight percent of radio, we really think we have the critical mass necessary to execute at the right level on a national scale . . . We think we can continue to expand our user hours over time, but really the story now is about monetizing and optimizing that user base."

(28) In the almost two years since Mr. Herring made those comments, Pandora's share of the overall radio market (terrestrial and Internet-based) has increased to 9.7% at the end of 2014.[31]

(29) Pandora's efforts to monetize have begun to show results. In 2014 Pandora approached $1 billion in sales, recorded a positive adjusted EBITDA of $58 million, and generated $21 million in net cash from operations.[32]

(30) On the subscription side of the business, Pandora recently increased the monthly price of Pandora One by 25%, from $3.99 to $4.99.[33] As for advertising, Pandora's revenue per thousand listening hours ("RPM") has increased dramatically, as seen in Figure 1.

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[29] Pandora Investor Presentation, Q3 CY2014, at 8.

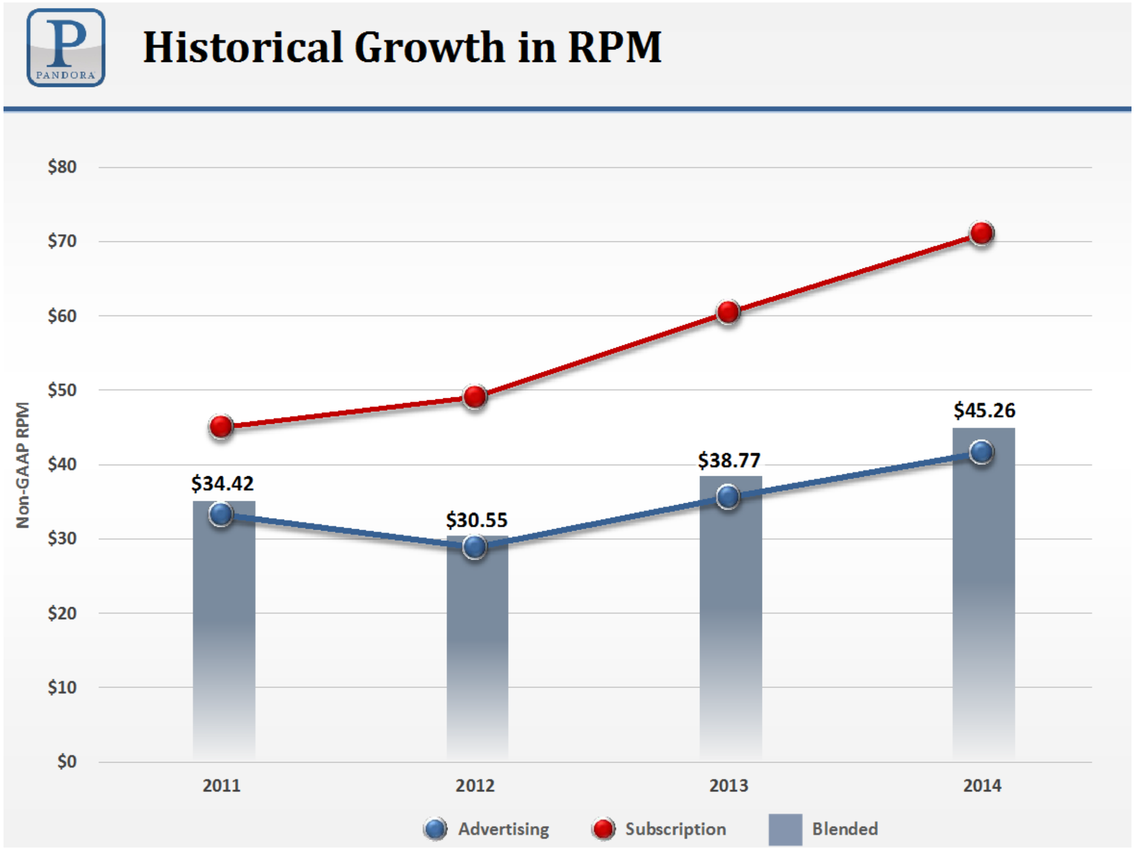
[30] Michael Herring, Piper Jaffrey Technology, Media and Telecommunications Conference (March 13, 2013), at 1.

[31] Pandora Historical Financial Results, December 31, 2014, at 9.

[32] Pandora Historical Financial Results, December 31, 2014. I discuss these categories in more detail later in the report.

[33] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 42.

Figure 1: Pandora's historical non-GAAP[34] RPM, by segment



Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report[35]

(31) According to Pandora's own projections, [redacted] as seen in Figure 2.[36]

[34] *See* footnote 61 and Section VI.B.1 for additional detail.

[35] Over time, Pandora has changed the level of detail it discloses in its financial reports. For example, Pandora's fiscal year ended on January 31 of each year until 2013, when the company switched to a calendar year basis. At that time, Pandora published restated financials on a calendar year basis. Similarly, Pandora does not directly disclose some of the backward looking statistics that I show in this report. Rather, analysts are able to interpolate certain metrics, such as RPM by segment, using the available information disclosed by Pandora. However, due to rounding, estimates sometimes differ immaterially. In this particular instance, the data for 2011 comes from information published in an October 24, 2014 J.P. Morgan analyst report, ("Pandora Media Inc., Mixed 3Q w/ Strong Mobile Ad RPM but Slowing Engagement; Remain OW & PT to $35," hereinafter "JP Morgan Report").

[36] Because of the poor quality of the reproduction of this source document, this figure is a recreation, prepared at my direction, of the original chart found in Pandora's original document. Appendix D contains both the original chart as well as my recreation, side-by-side.

Figure 2: [redacted]

[redacted]

(32) Pandora is leveraging its scale to drive improvements to its advertising RPM. Specifically, Pandora's scale and its ability to geographically target its advertising gives it a critical mass in local markets. [redacted][37] As CFO Michael Herring has explained:[38]

> "Two-thirds of all the radio ad buying in the United States is local. We think that not only can we achieve that over time that split. It could be even greater because we can access advertisers that are currently shut out of the radio world. Because they can't afford to reach over the air broadcast terrestrial radio. Because we can segment much more granularly and sell much smaller radio buys, I think we can expand the radio advertising market. Connected radio overall could really be a growth area in general for local advertising."

(33) Pandora has hired staff in 37 different local markets where it now competes for advertising revenue against local terrestrial radio stations.[39] This should yield additional increases to advertising revenue.[40]

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[37] *See* [redacted]].

[38] Michael Herring, Q2 2014 Pandora Media, Inc. Earnings Call, (July 24, 2014), at 15.

[39] Pandora Investor Presentation Q3 CY2014, at 24.

[40] Michael Herring, Q2 2014 Pandora Media, Inc. Earnings Call, (July 24, 2014), at 5:

> "Our investment in penetrating the local radio advertising market is paying off as local advertising revenue in the second quarter reached approximately 20% of total ad revenue to $35.3 million, an increase of 144% from

> "As we go into the back half of the year, we expect that local revenue will continue to accelerate... This year we have seen that the local advertising team really hit the ground running. I think we're better at -- we've learned a lot over the last two years of the first 27 markets. What to do, how to make them productive, how to get them up and running... Lots of benefits are increasing productivity and improving that ramp to full productivity. It's one of the reasons we're getting bullish about the back half of the year and raised our topline revenue target significantly for the second quarter."

(34) Pandora has significant upside potential in this regard because its ad penetration significantly lags that of terrestrial radio. Considering audio ads only,[41] Pandora is estimated to currently broadcast 3.18 30-second spots per hour (totaling a little over 90 seconds).[42] Morgan Stanley estimates that the company will be able to gradually keep increasing that advertising load and will more than double it to 6.57 30-second spots by 2022.[43] These expectations are in line with company projections, as expressed by Michael Herring:[44]

> "I believe ad load will grow over time. I can see us somewhere down the line having five, six, seven minutes or so of audio ads in an extreme case."

(35) Comparing Pandora's advertising load to terrestrial radio suggest that these projections are not unreasonable: Pandora is currently selling a little more than 90 seconds of advertising time per hour.[45] In comparison, terrestrial radio has 13 minutes of advertising per hour, as seen in Figure 3.[46, 47]

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approximately $14.5 million in the same period last year. We now have 109 local sellers in 37 markets and an inside sales force that addresses another 150 BMAs and we intend to invest to extend our market share for the foreseeable future."

[41] Pandora's advertising consists of audio ads (which its users hear) as well as display ads (which they see on their computer or mobile device screens). This allows Pandora to "double dip" as it can sell both types of ads simultaneously. For comparison purposes, in this section I discuss only audio ads. However, Pandora's ability to also sell display ads is a further comparative advantage it has over terrestrial radio.

[42] Morgan Stanley, "Pandora Media Inc., 3Q Results: A Transition from Defense to Offense," October 24, 2014, ("Morgan Stanley October Report"), Exhibit 12. Morgan Stanley published a more recent report, on February 6, 2015, which I utilize extensively. However, the February report provided far less detail than the October report, and did not disclose Morgan Stanley's more recent estimate of the expected intensity of Pandora's advertising.

[43] Morgan Stanley October Report, Exhibit 12. Morgan Stanley published a more recent report, on February 6, 2015, which I utilize extensively. However, the February report provided far less detail than the October report, and did not disclose Morgan Stanley's more recent estimate of the expected intensity of Pandora's advertising.

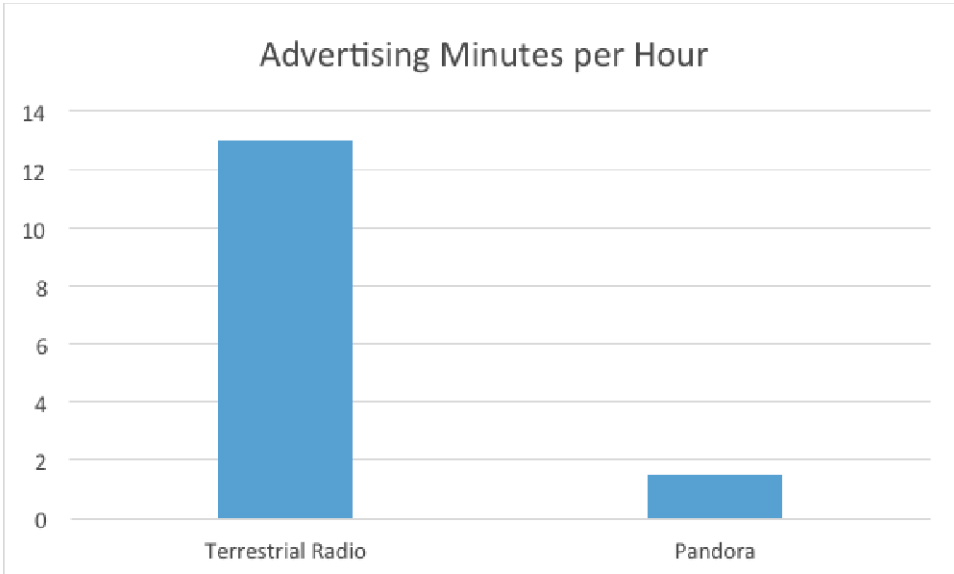
[44] Michael Herring, SunTrust Robinson Humphrey Internet & Digital Media Conference (May 14, 2014), at 7.

[45] 3.18 x 30 = 95 seconds.

[46] Sweeting, Andrew, "Coordination, differentiation and the timing of radio commercials," *Journal of Economic & Management Strategy* 15(6), Winter 2006, at 909-942.

[47] For example, at SunTrust Robinson Humphrey Internet & Digital Media Conference (May 14, 2014), Pandora CFO Michael Herring stated, "We are at a maximum of six ads per hour. That is approximately. The most it could be is 3 minutes per hour, so around your 4%. Terrestrial radio is much higher, 12 to 15 minutes per hour."

Figure 3: Comparison of advertising minutes between terrestrial radio and Pandora



Source: Morgan Stanley October report,[48] Pandora statements

(36) In keeping with these [redacted]

(37) Pandora is focused on this as an opportunity. The company's former CEO Joe Kennedy told a Goldman Sachs tech conference in 2013:[50]

> "The ad load on traditional radio is crushing. The standard model in AM-FM radio today is 13 minutes of advertising an hour. The typical consumer on Pandora today is probably much closer to a minute. We have focused on 15 and 30 second ad units, as the ad units that we offer. Traditional radio does a lot of 60 second ads…The great thing is our ads are so much more powerful for radio advertisers because they're targetable, because they're interactive, because they're measurable that we believe we can achieve the monetization required for our target model in a way that leaves us with far less ad load than the traditional model and serves advertisers much better and obviously serves consumers and our economics very well….the typically (sic.) consumer today probably gets between 1.5 and 2 ads per hour. We'll continue to very gradually raise that ad load and find where that proper equilibrium is with the consumer."

(38) Further, Pandora does not believe it is constrained in its ability to sell more advertising.[51]

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48 Morgan Stanley October Report, Exhibit 12. Morgan Stanley published a more recent report, on February 6, 2015, which I utilize extensively. However, the February report provided far less detail than the October report, and did not disclose Morgan Stanley's more recent estimate of the expected intensity of Pandora's advertising.

49 [redacted]

50 Joseph Kennedy, Goldman Sachs Technology and Internet Conference (February 13, 2013), at 6.

> "[F]rom a monetization perspective, we're not close to capacity constrained. We've made tremendous progress to date. We did increase our total maximum ad load, from an audio perspective, twice in 2013. We still have lots of room, from a sell-through perspective, and lots of opportunity, even optimizing the sell-through we have through targeting that allows us to drive revenue for some time without worrying about ad load or worrying about hours constraints from a revenue capacity perspective. That's not a big concern for this coming year."

(39) Similarly, Pandora can take advantage of its increased penetration in the automobile market and getting its service integrated in the consoles of new Internet-enabled vehicles, allowing it to compete directly with terrestrial as well as satellite radio (SiriusXM):[52]

> "So the efforts we have made to integrate into 135 models, 10 of the top 10 autos, a third of all cars sold in the United States last year and this year are paying fruit. But that is still -- because the rest of the business of Pandora is so big, it's still low single digits of our listening. But it's an important future of where we see Pandora's hours growing. There is great opportunity from an hours growth perspective. It has different monetization opportunities. Advertisers love the auto experience."

(40) In fact, the automobile market is viewed internally by Pandora as its greatest opportunity for growth:[53]

> "We see integration with the car as an important opportunity to shift listenership from terrestrial radio…The shift to the car also opens up potential opportunities for Pandora to further improve its monetization of listener hours, by continuing to develop its delivery of personalized and location-driven advertising in a new environment.…there is no doubt that in-car integrations, and the future of the connected car, are by far the biggest growth opportunity for Pandora over the next several years."

(41) In short, having achieved scale, Pandora has turned to leveraging that scale to "monetize" its potential and hence improve its profitability. As Pandora CEO Brian McAndrews recently put it:[54]

> "2015 is the year of action. We have spent the past few years building our monetization capabilities and infrastructure to a point where we are driving healthy gross margin and a profitable business closing in on $1 [billion] dollars in annual revenue."

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51 Michael Herring, Pandora Media, Inc. November and December 2013 Stub Period and Calendar Q4 2013 Financial Results Conference Call, (February 5, 2014), at 7.

52 Michael Herring, Pandora Media, Inc. at SunTrust Robinson Humphrey Internet & Digital Media Conference, (May 14, 2014), at 8-9.

53 Written Direct Testimony of Simon Fleming-Wood, submitted on October 6, 2014, at ¶ 27.

54 Brian McAndrews, Q4 2014 Pandora Media, Inc. Earnings Call (February 5, 2015), at 7.

II.B. Pandora's Strategy is Showing Results

(42) Pandora's strategy—to first focus on growth and to then turn to monetization—has resulted in dramatic growth. Pandora is now shifting towards monetizing its dominant position. In this section, I present Pandora's historical operating and financial performance in 2011-2014.[55] My analysis shows that Pandora is a fast growing company that has now switched to pursuing profitability. Pandora is already EBITDA[56] positive (on a pro-forma basis).[57] I also conclude that Pandora's gross margins are in line with those of its competitors.

(43) Pandora offers Internet-based music streaming under two distinct models:

1. Pandora's free service allows users to state listening preferences. These preferences are processed by Pandora's song selection algorithm—the Music Genome Project[58]—and the selected sound recordings are served to listeners on web platforms and through mobile devices along with visual and audio advertisements.

2. Pandora One is an ad-free subscription-based service where listeners are allowed more skips and fewer timeouts.[59]

(44) Pandora tracks its revenue and certain metrics separately for its "Advertising" segment and its "Subscription" segment.

(45) Listener hours is a critical metric for Pandora, as it represents the inventory against which it can sell advertising as well as the key driver of its content acquisition costs ("CAC"), which are paid on a per-performance basis. In Figure 4, I show the explosive growth in Pandora's listener hours.

[55] Unless otherwise noted, all financial data is presented on a calendar year basis. Pandora's fiscal year used to end on January 31 of each year but in 2013 the company aligned its fiscal year with the calendar year and restated old financials going back to 2011.

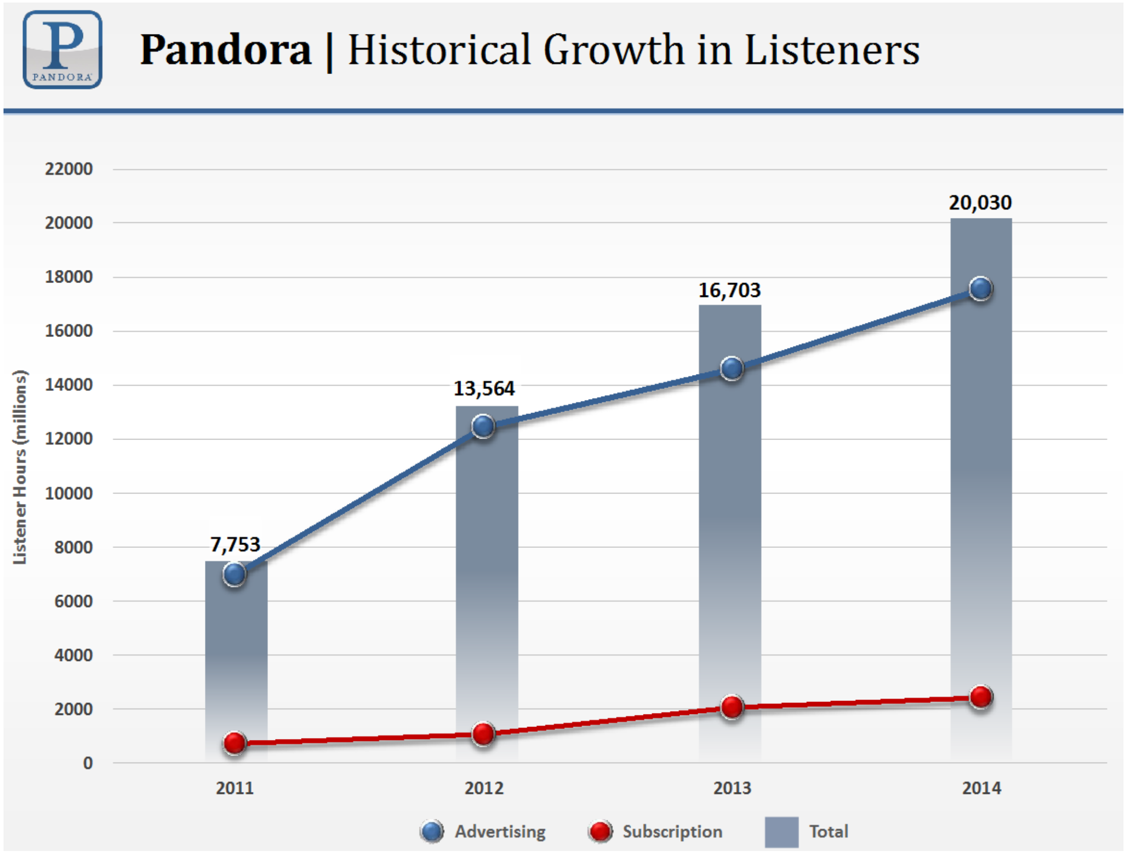
[56] EBITDA represents Earnings Before Interest Tax Depreciation and Amortization and is a common metric of operating profit.

[57] Pandora reports Adjusted EBITDA.

[58] *See* Pandora website on the Music Genome Project at http://www.pandora.com/about/mgp, accessed on February 18, 2015.

[59] *See* Pandora One FAQ, http://help.pandora.com/customer/portal/articles/84834-information-about-pandora-one, accessed on February 17, 2015.

Figure 4: Pandora's historical listener hours chart, by segment (in millions)



Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(46) In Figure 5, I present the same data in tabular format and calculate the compounded annual growth rate ("CAGR") between 2011-2014.

Figure 5: Pandora's historical listener hours table, by segment (in millions)

Listener hours (million)	2011	2012	2013	2014	CAGR 2011-14
Advertising	7,006	12,472	14,617	17,579	35.9%
Year-over-year growth	*n/a*	*78%*	*17%*	*20%*	
Subscription	747	1,092	2,086	2,451	48.6%
Year-over-year growth	*n/a*	*46%*	*91%*	*18%*	
TOTAL LISTENER HOURS	7,753	13,564	16,703	20,030	37.2%
Year-over-year growth	*n/a*	*75%*	*23%*	*20%*	

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(47) As Figure 4 and Figure 5 indicate, Pandora has experienced explosive growth in its listener hours: an overall 37% annual increase between 2011 and 2014. As Figure 6 shows, the advertising-supported segment is the largest overall segment of Pandora's business.

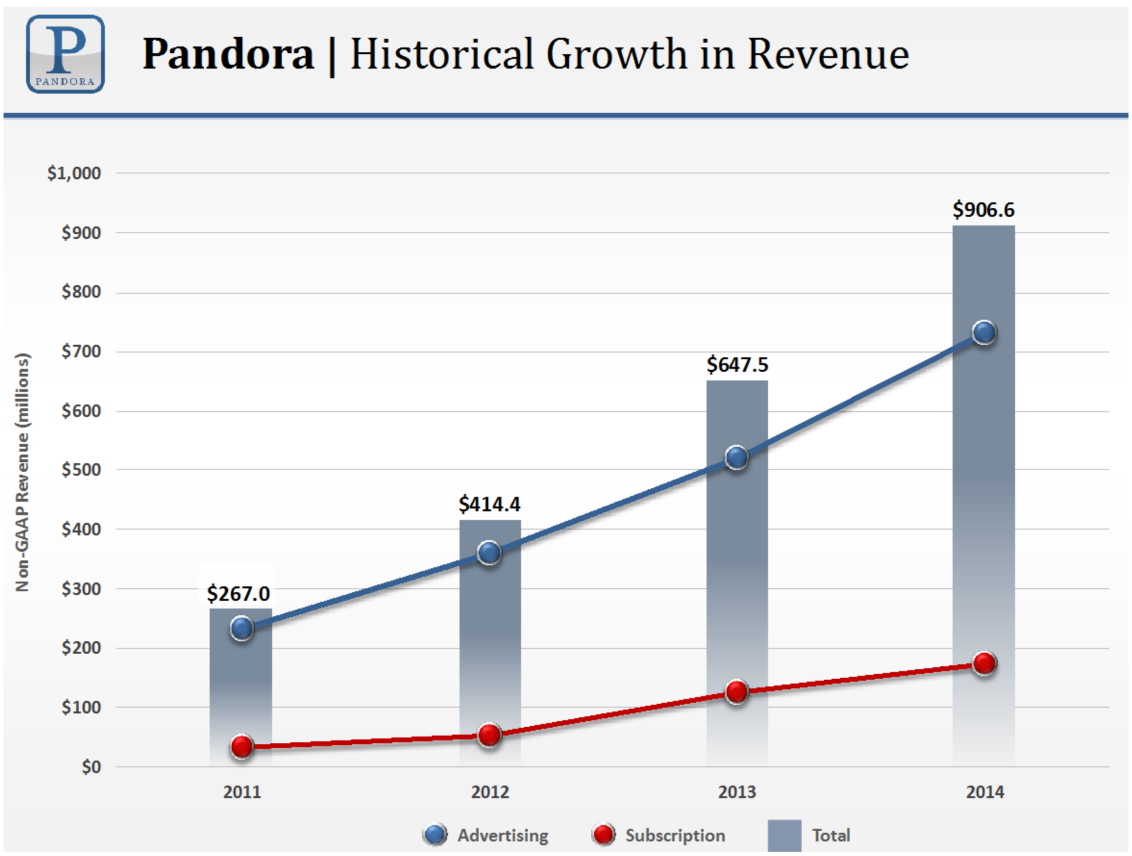
Figure 6: Relative size of Pandora's historical listener hours, by segment

Listener hours	2011	2012	2013	2014
Advertising	90%	92%	88%	88%
Subscription	10%	8%	12%	12%

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(48) Figure 7 shows Pandora's historical growth in revenue, on an non-GAAP basis.

Figure 7: Pandora's historical non-GAAP[60] revenue, by segment (in millions)



Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

60 *See* footnote 61 and Section VI.B.1 for more detail on Pandora's non-GAAP adjustments.

(49) In Figure 8, I present the same data in tabular format and calculate CAGR between 2011-2014. It shows Pandora's advertising revenue has grown by almost 50% annually between 2011 and 2014.

Figure 8: Pandora's historical revenue, by segment (in millions)

Revenue ($ million)	2011	2012	2013	2014	CAGR 2011-14
Advertising	$233.3	$360.7	$521.2	$732.3	46.4%
Year-over-year growth	*n/a*	*55%*	*45%*	*40%*	
Subscription	$33.7	$53.7	$126.3	$174.3	73.0%
Year-over-year growth	*n/a*	*59%*	*135%*	*38%*	
TOTAL REVENUE	$267.0	$414.4	$647.5	$906.6	50.3%
Year-over-year growth	*n/a*	*55%*	*56%*	*40%*	

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(50) Figure 9 below depicts the relative contribution of each segment to Pandora's overall revenue, indicating once again the strength of Pandora's advertising-supported segment.

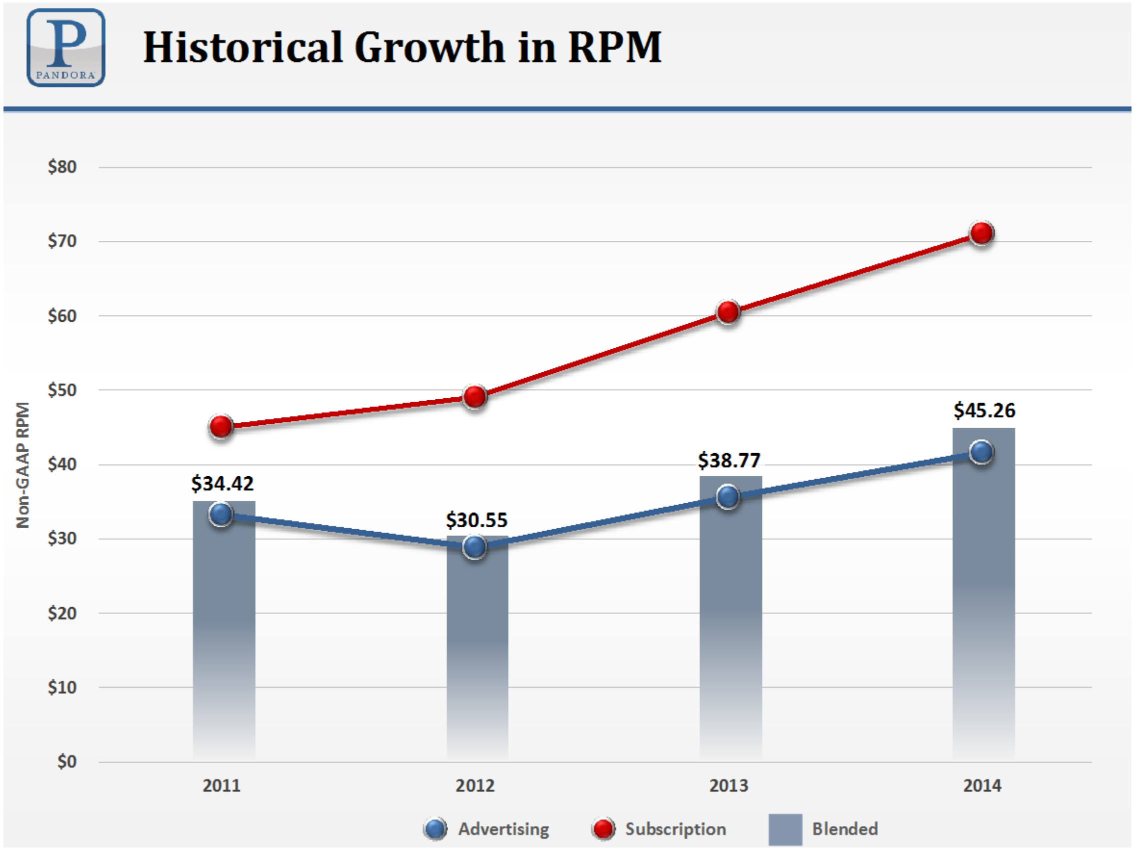
Figure 9: Relative size of Pandora's historical revenue, by segment

Revenue	2011	2012	2013	2014
Advertising	87%	87%	80%	81%
Subscription	13%	13%	20%	19%

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(51) Pandora has been able to grow revenues faster than underlying volume (listener hours) because of its increased ability to better monetize its listener hours. The key statistic Pandora uses to assess top-line performance is revenue per thousand listener hours, or RPM. Figure 10 below shows that Pandora's RPM has grown an average of 10% annually since 2011, to $45.26.

Figure 10: Pandora's historical RPM (chart), by segment



Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(52) Figure 11 presents the same data in tabular format.

Figure 11: Pandora's historical RPM (table), by segment

RPM	2011	2012	2013	2014	CAGR 2011-14
Advertising	$33.31	$28.92	$35.66	$41.66	7.7%
Year-over-year growth	*n/a*	*-13%*	*23%*	*17%*	
Subscription	$45.07	$49.15	$60.54	$71.10	16.4%
Year-over-year growth	*n/a*	*9%*	*23%*	*17%*	
TOTAL RPM	$34.42	$30.55	$38.77	$45.26	9.6%
Year-over-year growth	*n/a*	*-11%*	*27%*	*17%*	

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(53) The RPM trends seen above reflect Pandora's position as a market leader and demonstrate its expected ability to increase its revenue in the future.

(54) By contrast, Pandora's cost of revenue has grown at a slower pace than its revenue, leading to strong growth in the company's gross margin, as seen in Figure 12. In absolute terms, Pandora's gross margin has grown 58% per year since 2011, and the gross margin percentage has improved from 39.3% in 2011 to 44.8% in 2014. On a non-GAAP basis,[61] Pandora's gross margin has grown 57% per year since 2011, and the gross margin percentage has improved from 39.3% in 2011 to 44.5% in 2014.

Figure 12: Pandora's historical gross margin

Line item	2011	2012	2013	2014	CAGR 2011-14 %
Revenue	$266.8	$410.0	$637.9	$920.8	51%
Year-over-year growth	*n/a*	*54%*	*56%*	*44%*	
Cost of Revenue	$162.0	$279.4	$388.4	$508.0	46%
Year-over-year growth	*n/a*	*72%*	*39%*	*31%*	
Gross Margin	$104.7	$130.6	$249.5	$412.8	58%
Year-over-year growth	*n/a*	*25%*	*91%*	*65%*	
Gross Margin %	39.3%	31.8%	39.1%	44.8%	5%
Year-over-year growth	*n/a*	*-19%*	*23%*	*15%*	
Pandora non-GAAP adjustments					
Subscription return reserve	$0.2	$4.4	$9.6	-$14.2	
Stock-based compensation (COR)	$0.0	$1.2	$2.1	$4.4	
Non-GAAP Gross Margin	$105.0	$136.1	$261.2	$403.0	57%
Year-over-year growth	*n/a*	*30%*	*92%*	*54%*	
Non-GAAP Gross Margin %[62]	39.3%	32.8%	40.3%	44.5%	4%
Year-over-year growth	*n/a*	*-16%*	*23%*	*10%*	

Source: Pandora SEC Form 8-K, October 24, 2013, Exhibit 99.2; Pandora Historical Financial Results, December 31, 2014; JP Morgan Report.

(55) Pandora's gross margin is comparable to the gross margin of its competitors and other leading Internet media companies, as seen in Figure 13. In creating the relevant list of comparable companies I took into account the companies that Pandora identified as "competitors" in its most recent annual reports for 2013[63] and 2014.[64] I also considered other content distribution companies.

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61 Pandora reports its non-GAAP gross margin with two adjustments: (1) the subscription reserve it took between 2001-13 and that was reversed in 2014 for a net cumulative impact of zero, and (2) the portion of stock-based compensation that is attributable to cost of revenue, with a total cumulative impact of $7.6 million.

62 Calculated by dividing the non-GAAP gross margin by the non-GAAP Revenue, which for simplicity is not shown in this figure. Non-GAAP Revenue is calculated by subtracting the subscription return reserve from GAAP Revenue.

63 Pandora Form 10-K for the year ended December 31, 2013, at 9. Pandora identifies the following companies as its competitors for listeners: Apple, Spotify, Clear Channel, Slacker, Sirius XM, RDIO, Microsoft, Rhapsody, Google, Amazon, YouTube, Hulu and Vevo. Of these 13 companies 7 are private entities for which financial data is not available in the public domain (Spotify, Slacker, Rdio, Rhapsody, YouTube, Hulu and Vevo) and consequently I exclude them from my analysis.

64 Pandora Form 10-K for the year ended December 31, 2014, at 9. Pandora published a revised list of competitors: Facebook, Twitter, Netflix, Pinterest, Instagram, iHeartRadio, iTunesRadio, LastFM, Google Songza, Spotify and Slacker. Of these 11 companies, 5 are private entities for which standalone financial data is not available: Pinterest,

(56) I then narrowed down that list based on data availability and relevance. First, out of necessity I could only consider companies with publicly available financial data. Second, a number of the companies identified by Pandora are not truly comparable from a financial performance standpoint:

- Apple (iTunes Radio), Google (Songza, YouTube), and Microsoft are media and software conglomerates whose dominant business lines are unrelated to online content distribution.
- Facebook and Twitter have different cost structures. While Pandora may feel it competes for user attention and advertising dollars with them, these two companies' business models are different as they face virtually no content acquisition costs.
- Amazon is still predominantly a retailer with an extensive logistics network.
- Sirius XM offers a similar product to Pandora but has a materially different cost structure and a significant investment in expensive satellite technology. In addition, the statutory royalty rate for its satellite service differs from the rate paid by webcasters.
- Clear Channel / iHeart Radio is a media conglomerate with significant terrestrial radio station holdings, making it not comparable to Pandora.[65]

(57) Consequently, I find that Netflix is the most relevant comparable company to Pandora because it offers online content distribution to end users for which it faces content acquisition costs. I conclude that Pandora's gross margin of 44.8%[66] compares favorably to Netflix's gross margin of 31.8%.[67]

Instagram, LastFM, Spotify and Slacker.

65 I discuss Clear Channel in greater detail in Section IV.D.1.

66 For comparability, I present Pandora's 2014 gross margin percentage on a GAAP basis, per Figure 12.

67 The median gross margin of all ten companies considered is 54.5%.

Figure 13: Gross margin comparison, most recent fiscal year

Company	Ticker	Gross Margin %
Amazon	AMZN	29.5%
Apple (iTunes Radio)	AAPL	38.6%
Facebook	FB	82.7%
Google (Songza, YouTube)	GOOGL	61.1%
iHeartRadio	IHRT	59.3%
Microsoft	MSFT	69.0%
Netflix	NFLX	31.8%
Pandora	P	44.8%
Sirius XM	SIRI	49.7%
Twitter	TWTR	59.9%

Source: SEC filings (form 10-K).[68]

(58) EBITDA is a proxy for a company's operating cash flows and is widely used in valuation. It measures profitability before various non-cash (depreciation) and policy-driven (interest) adjustments. Pandora only started reporting its Adjusted EBITDA when it announced its results for 2014, on February 5, 2015.[69] At the same time, Pandora advised investors going forward it would only provide guidance on its expected future performance in Adjusted EBITDA terms.[70]

(59) Pandora's Adjusted EBITDA has grown exponentially since 2012, as seen in Figure 14. Pandora has enjoyed a positive and rapidly growing Adjusted EBITDA in every year for which publicly available financial statements are available, reaching $58 million in Adjusted EBITDA in 2014.

68 I used the most recently available financial data from SEC forms 10-K, year-ending December 31, 2014 for Amazon, Facebook, Google, Netflix, Pandora, and Sirius XM; September 27, 2014 for Apple; June 30, 2014 for Microsoft; and, December 31, 2013 for iHeart Radio and Twitter.

69 Pandora Reports Q4 and Full Year 2014 Financial Results, (February 5, 2015). In constructing the Adjusted EBITDA Pandora uses the following formula:

Operating income: as reported on Pandora's SEC statements, is my starting point;

+ Depreciation: non-cash expense imbedded in various categories of operating expenses, found on the statement of cash flows;

+ Amortization: non-cash expenses for amortizing the premium on investments and debt issuance costs and discounts, found on the statement of cash flows;

+ GAAP revenue adjustments: subscription revenue amounts Pandora was forced to defer under GAAP rules due to liberal refund policies and the absence of a track record;

+ Stock expense: reversal of non-cash stock-based compensation expenses Pandora recognized as expenses on its financial statements; and,

+ Provision for income taxes and other.

70 Pandora Reports Q4 and Full Year 2014 Financial Results, (February 5, 2015), at 3.

> "Starting in the first quarter 2015, the Company is shifting from providing guidance for non-GAAP EPS to adjusted EBITDA due to the complexities surrounding the non-GAAP effective tax rate. As a result of these complexities, management believes that adjusted EBITDA represents a better measure of the Company's core business results."

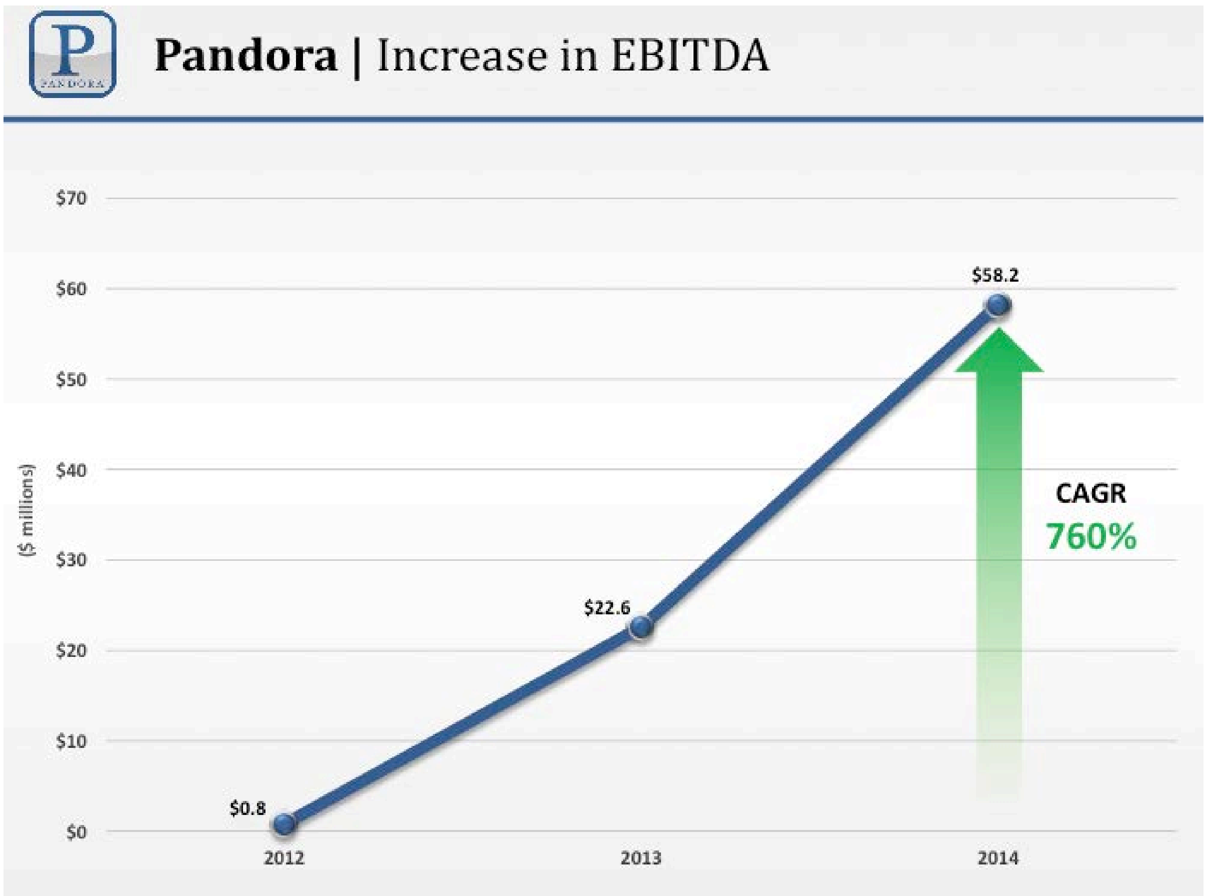
Figure 14: Pandora's historical Adjusted EBITDA (table)

Line item	2012	2013	2014	CAGR 2012-14
Adjusted EBITDA (in $ million)	$0.8	$22.6	$58.2	760%
Year-over-year growth		*2769%*	*158%*	

Source: Pandora Historical Financial Results, December 31, 2014.

(60) Figure 15 presents the same data in a graphical format.

Figure 15: Pandora's historical Adjusted EBITDA (chart)



Source: Pandora Historical Financial Results, December 31, 2014.

II.C. Pandora's Prospects Over the Next Rate Term

(61) Pandora's senior executives predict that Pandora's monetization strategy will continue to pay off and drive higher revenues. During Pandora's most recent earnings call, Pandora's Chairman and CEO Brian McAndrews assured analysts that he "could not be more bullish about the future of Pandora."[71]

(62) Mr. McAndrews elaborated on why he was so bullish (repeating the phrase):[72]

> "First off, we have a product that resonates deeply with our listeners and that impact continues to grow even stronger. Our listener base has grown to be a record 81.5 million and those users are more engaged than ever before. Pandora is the clear leader in Internet radio and a growing force in the broader radio industry with a nearly 10% market share. We will never stop investing in our industry leading music Genome Project that delivers the world's best lean back music experience, providing an effortless source of personalized music enjoyment and discovery.
>
> We are in the very early stages of developing new ways to engage our listeners with our recent launches and station personalization, station recommendation and notification, and we will be building on our early marketing momentum from our first ever off platform brand advertising campaign to critically acclaim some moments.
>
> Looking ahead we have the right vision and team to make our listening experience even more personalized, ubiquitous and effortless and we will continue to invest to bring that vision to life."

(63) Pandora's executives share this message of optimism about the future. Mr. Herring recently told investors that "this is the year to have courage in our conviction that Pandora will continue to be a leader in both the advertising and music industries for years to come."[73] Moments later, Mr. McAndrews echoed that sentiment, stating:[74]

> "Put simply, 2015 is not a year a (sic.) caution, it is the year of conviction. In the coming year you will see Pandora move decisively and assertively to capture the enormous market opportunity before us. We have already assembled the best combination of people, technology and content in our industry and we are entering 2015 from a position of strength."

(64) These statements show that Pandora executives believe that the company has achieved the scale it needs to execute its monetization strategy and Pandora is now changing its business strategy. As a result, historical profitability levels will not be an accurate predictor of its future results.

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[71] Brian McAndrews, Q4 2014 Pandora Media, Inc. Earnings Call (February 5, 2015), at, 7.

[72] Brian McAndrews, Q4 2014 Pandora Media, Inc. Earnings Call (February 5, 2015), at, 6.

[73] Brian McAndrews, Q4 2014 Pandora Media, Inc. Earnings Call (February 5, 2015), at, 6.

[74] Brian McAndrews, Q4 2014 Pandora Media, Inc. Earnings Call (February 5, 2015), at, 7.

Consequently, it is not surprising that contrary to his testimony in *Web IV*, Pandora's CFO Michael Herring has elsewhere concluded that the CRB rates are sustainable.[75]

> "In terms of incremental gross profit over the next four or five years, our target model says we get content costs about 40% of revenue. That's generally based on the trajectory of the CRB rates today and our ability to get RPMs in this $55 to $60 level, which is within striking distance of where we are today. In fact, our web business, which is about 20% of the business, already is north of $60 RPMs at the ad loads we're at today."

(65) Similarly, Pandora has told investors it can see itself surpassing terrestrial radio's ability to monetize its listening and reach $100 RPM,[76] [redacted]][78]

(66) [redacted] analysts predict that Pandora's strategy will continue to pay off. Not all analysts present data at the same level of disaggregation. Therefore, for a detailed review of Pandora's prospects across its key line items and business segments, I have chosen to utilize one report, prepared by Morgan Stanley on February 6, 2015 ("Morgan Stanley Report").[79,80]

(67) To assure that my reliance on the Morgan Stanley Report does not bias my results upwards, I show in Appendix B that the Morgan Stanley Report is not an outlier and is consistent with the consensus estimates across all years and all metrics.

(68) Morgan Stanley predicts continued growth in Pandora's listener hours.[81] Reflecting Pandora's shift to monetization, the growth in hours is less dramatic than the growth in 2011-2014. Figure 16 depicts Pandora's expected future listener hours, separately for the key market segments. I present the forecast for all available years, 2015-18.

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75 Michael Herring, Nomura's Digital Media Conference (September 4, 2014), at 10.

76 Dominic Paschel, Pandora Media, Inc. at Cowen Technology, Media & Telecom Conference (May 28, 2014), at 4: "And so you can see how easy it is to get to an RPM that could rival broadcast at $73, if not greater than $100 RPM."

77 [redacted]

78 [redacted]

79 Morgan Stanley, "Pandora Media Inc., Lower 4Q Results & Guide Highlight Slowing Usage Growth," (February 6, 2015).

80 The Morgan Stanley Report is an updated version of the Morgan Stanley October report. For the most part I rely on the more recent February report for all of my forward-looking estimates. However, the October report presented more granular detail so I occasionally make reference to that older report in instances where the new report did not provide the same information. I never use the same information from the older report if that same information, in an updated format, also appeared in the newer report.

81 The Morgan Stanley Report estimates are conservative compared to [redacted]

Figure 16: Pandora's expected listener hours, 2015-18, by segment (in millions)

Listener hours (million)	2015	2016	2017	2018	CAGR 2014-18
Advertising	19,461	21,226	22,737	23,790	7.9%
Year-over-year growth	*11%*	*9%*	*7%*	*5%*	
Subscription	2,633	2,869	3,076	3,220	7.1%
Year-over-year growth	*7%*	*9%*	*7%*	*5%*	
TOTAL LISTENER HOURS	22,094	24,095	25,813	27,010	7.8%
Year-over-year growth	*10%*	*9%*	*7%*	*5%*	

Source: Morgan Stanley Report.

(69) Figure 16 shows that Morgan Stanley predicts that Pandora's explosive historical growth in listener hours, while slowing down, is still impressive. This slowdown is understandable given Pandora's dominant market position: at an almost 80% market share[82] it is of course impossible to maintain the same acceleration in growth. Nevertheless, Pandora is expected to maintain a healthy 8% annual growth rate in listener hours over this extended six-year period.

(70) Figure 17 below provides a relative breakdown of listener hours by segment.

Figure 17: Relative size of Pandora's expected listener hours, 2015-18, by segment

Listener hours	2015	2016	2017	2018
Advertising	88%	88%	88%	88%
Subscription	12%	12%	12%	12%

Source: Morgan Stanley Report.

(71) As discussed earlier, Pandora's listener hours are directly tied to advertising revenue. Figure 18 demonstrates that Pandora's revenue is expected to grow faster than listener hours, indicating improved RPM, which I discuss later. Overall, Pandora's revenue is expected to grow 22% per year over the next four years.

Figure 18: Pandora's expected revenue, 2015-18, by segment (in millions)

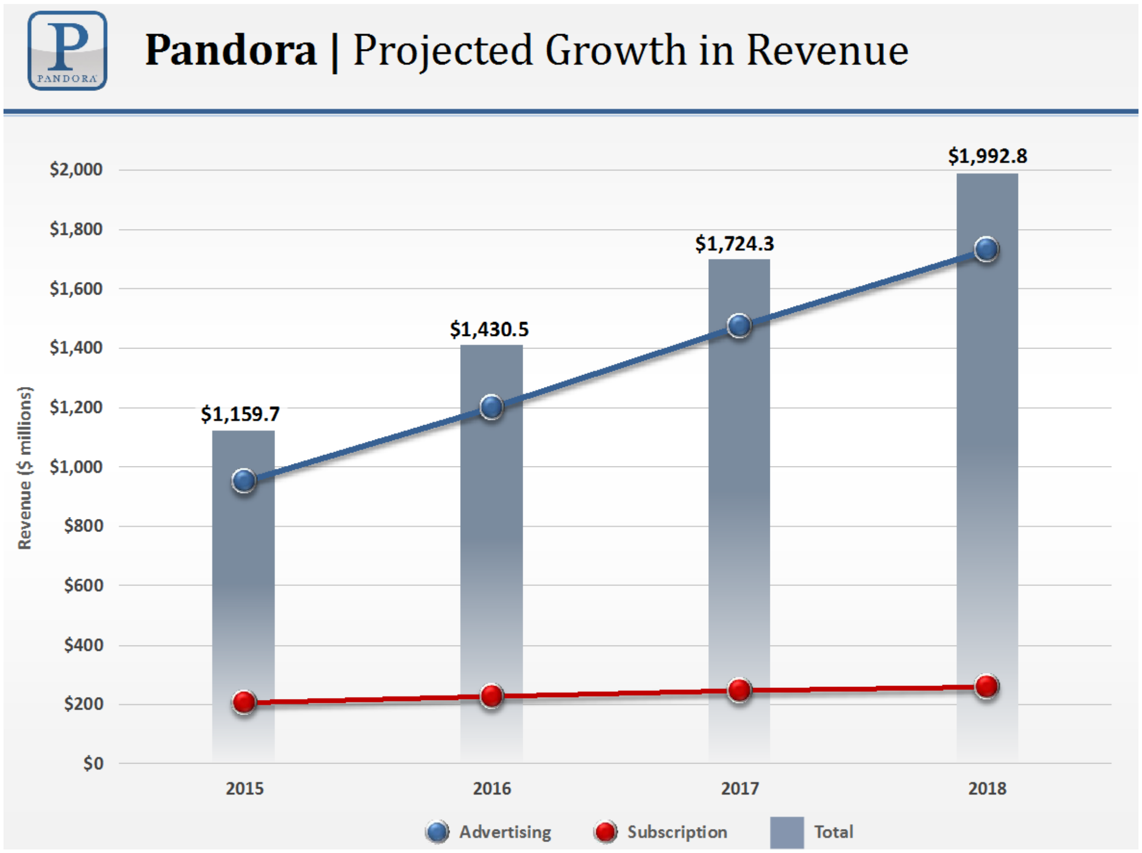
Revenue ($ million)	2015	2016	2017	2018	CAGR 2014-18
Advertising	$952.4	$1,201.6	$1,476.1	$1,732.6	24.0%
Year-over-year growth	*30%*	*26%*	*23%*	*17%*	
Subscription	$207.2	$228.9	$248.2	$260.2	10.5%
Year-over-year growth	*19%*	*10%*	*8%*	*5%*	
TOTAL REVENUE	$1,159.7	$1,430.5	$1,724.3	$1,992.8	21.8%
Year-over-year growth	*28%*	*23%*	*21%*	*16%*	

Source: Morgan Stanley Report.

82 Pandora, Historical Financial Results, December 31, 2014, at 9.

(72) Figure 19 presents the same data in a graphical format.

Figure 19: Pandora's expected revenue, 2015-18, by segment (in millions)



Source: Morgan Stanley Report.

(73) Thus, while the growth in Pandora's *listener hours* is slowing, the company's *total revenue* is expected to continue to grow at a double digit pace, meaning that Pandora is expected to increase both its advertising prices and its customer base.

(74) Figure 20 below depicts the expected relative contribution of each segment to Pandora's overall revenue.

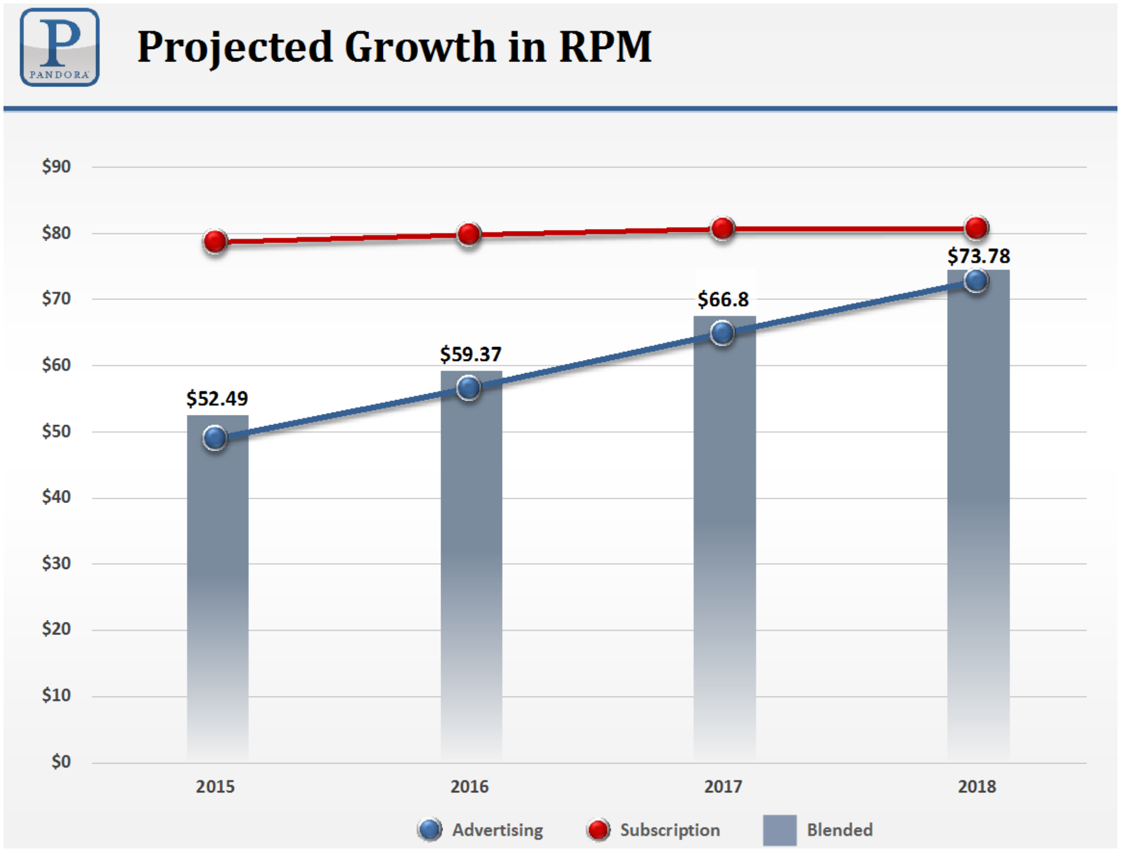
Figure 20: Relative size of Pandora's expected revenue, 2015-18, by segment

Revenue	2015	2016	2017	2018
Advertising	82%	84%	86%	87%
Subscription	18%	16%	14%	13%

Source: Morgan Stanley Report.

(75) Critical to understanding Pandora's future performance is its expected RPM, which is shown in Figure 21.

Figure 21: Pandora's expected RPM (chart), 2015-18, by segment



Source: Morgan Stanley Report.

(76) Pandora is expected to be able to grow revenues faster than underlying volume (listener hours) because of its increased ability to better monetize its inventory. Figure 22 below shows that Pandora's RPM is expected to continue its strong growth at an average of 13% annually between 2014-2018. This is an even faster rate of growth than Pandora has experienced in the past (10% between 2011-2014), indicating the company's ability to monetize its listener hours at a faster pace now that it has reached critical scale (market share approaching 80%).[83]

[83] Pandora, Historical Financial Results, December 31, 2014, at 9.

Figure 22: Pandora's expected RPM (table), 2015-18, by segment

RPM	2015	2016	2017	2018	CAGR 2014-20
Advertising	$48.94	$56.61	$64.92	$72.83	15.0%
Year-over-year growth	*17%*	*16%*	*15%*	*12%*	
Subscription	$78.69	$79.79	$80.70	$80.80	3.2%
Year-over-year growth	*11%*	*1%*	*1%*	*0%*	
TOTAL RPM	$52.49	$59.37	$66.80	$73.78	13.0%
Year-over-year growth	*16%*	*13%*	*13%*	*10%*	

Source: Morgan Stanley Report.

(77) The RPM trends seen above reflect Wall Street's realization that Pandora is the undisputed market leader in webcasting and demonstrates its expected ability to turn the corner and capitalize even more in the future.

(78) In sum, the analyst community expects that Pandora will see sustained revenue growth over the next period. In addition, the market anticipates—as does Pandora's management—that Pandora will be able to achieve an RPM of $60 early in the next rate period.

II.D. Pandora's Ability to Pay SoundExchange's Proposed Royalties

(79) As I discuss later in this report, determining a participant's ability to pay royalties while remaining profitable is not the appropriate standard for determining market-based royalty rates. However, because both Mr. Herring and other witnesses in this proceeding have articulated opinions supportive of this approach, in this section I demonstrate that even under such a misguided methodology Pandora is indeed able to afford paying the royalty rates proposed by SoundExchange.

(80) As an initial matter, I note that Pandora contends that it cannot afford higher rates and would not be a willing buyer at such rates. In particular, Mr. Herring claims that Pandora would not pay rates "anywhere comparable" to the *Web III* rates.[84]

(81) However, Mr. Herring's testimony is contradicted by his recent statement to investors in 2014 regarding the rate that Pandora could pay: [85]

> "I think the worst case scenario is [the Copyright Royalty Board's rates] go up by like 50% or something. That would be not great for us, but because the business model is so good, *I don't think it would be a problem*." (emphasis added).

84 Herring Written Direct Testimony, at ¶ 4.

85 Michael Herring, Nomura's Digital Media Conference (September 4, 2014), at 8.

(82) Pandora paid $0.00130 per advertising-supported performance in 2014.[86] As such, the 50% increase described by Mr. Herring would result in a rate of $0.00195 per advertising-supported performance. This calculated rate is plainly comparable to the *Web III* rates, which range from $0.00190 per performance at the beginning of the period[87] to $0.00230 per performance in 2014.[88] Since Mr. Herring previously concluded that a rate of $0.00195 "wouldn't be a problem," it seems surprising that Mr. Herring now claims that Pandora could not pay rates "anywhere comparable" to the *Web III* rates.

(83) Further, as I show below, [redacted] analyst reports confirm that Pandora can afford SoundExchange's rate proposal.

(84) First, I compare Pandora's forecasted RPM (revenue per thousand hours) to its LPM (cost per thousand hours) under the competing rate proposals. My review of the available information indicates that, assuming Pandora is able to obtain the RPM levels that [redacted][89] and the market[90] expect it to soon achieve, it will be able to afford to pay SoundExchange's proposed royalty rates while maintaining a gross margin of approximately 30%.[91] And, as Pandora's RPM levels continue to increase, so will its gross margin.

(85) With respect to RPM, [redacted] and the Morgan Stanley Report forecast that Pandora will achieve an RPM of $60 early in the next rate period.[92] As Mr. Herring recently explained, Pandora is within striking distance of an RPM of $60:[93]

> "In terms of incremental gross profit over the next four or five years, our target model says we get content costs about 40% of revenue. That's generally based on the trajectory of the CRB rates today and our ability to get RPMs in this $55 to $60 level, which is within striking distance of where we are today. In fact, our web business, which is about 20% of the business, already is north of $60 RPMs at the ad loads we're at today."

(86) These RPM levels are supported by [redacted]

86 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 7: *see* "Pureplay Rate (non-subscription)" in table.

87 Pandora Media, Inc. Form 10-K for the year ended January 31, 2012, at 9: *see* "CRB Rate" in table.

88 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 7: *see* "CRB Rates" in table.

89 *See* Figure 23.

90 *See* Figure 21.

91 *See* computations in Figure 28.

92 Morgan Stanley predicts an RPM of $59.37 for 2016 and $66.80 for 2017. *See* Morgan Stanley Report, Exhibit 2.

93 Michael Herring, Nomura's Digital Media Conference (September 4, 2014), at 10.

[redacted]

Figure 23: [redacted]

[redacted]

[Source: Lys analysis, based on [redacted]]

(87) For ad-supported revenues alone, RPM is expected to grow from ~$30 in 2012[95] to [redacted] For subscription revenues RPM is expected to grow from ~$50 in 2012[96] to [redacted]; it already surpassed $60 in 2013[97] and was at $71.10 in 2014.[98] Presently, advertising represents almost 88% of Pandora's listener hours.

(88) Similarly, [redacted] as seen in Figure 24.

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94 [redacted]

95 $28.92 per Figure 11.

96 $49.15, per Figure 11.

97 $60.54, per Figure 11.

98 *See* Figure 11.

Figure 24: [redacted]

[redacted]

(89) In sum, Pandora's public statements, [redacted] and the market's analysis all expect Pandora to achieve an RPM of $60 early in the upcoming rate period.

(90) LPM represents an alternative way to present content costs, expressed on a basis identical to RPM for ease of comparison. Pandora's LPM for the full year 2014 was $22.28.[99] Of this number, approximately 91% is paid to SoundExchange as royalties.[100]

(91) Because LPM and the royalty rate have a direct linear relationship, it is easy to calculate the effect of a rate change on LPM.[101] In Figure 25, I calculate the LPM for the first year of the *Web IV* term (2016) under Pandora's rate proposal as well as under SoundExchange's rate proposal.

[99] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 46.

[100] *See* Figure 41.

[101] *See* Appendix E.

Figure 25: Proposed per-performance royalty rates expressed in terms of LPM

Line item	Formula	Advertising	Subscription	TOTAL[102]
Pandora 2014 actuals				
Per-performance rate[103]	A	$0.00130	$0.00230	$0.00142
Corresponding LPM[104]	B	$20.31	$36.41	$22.26
Pandora proposed rates (2016 level)				
Per-performance rate[105]	C	$0.00110	$0.00215	$0.00123
LPM to royalty rate multiplier[106]	D	15,830.4	15,623.1	15,648.4
Corresponding LPM	E=C*D	$17.19	$34.04	$19.22
SoundExchange proposed rates (2016 level)				
Per-performance rate[107]	F	$0.00250	$0.00250	$0.00250
Corresponding LPM	G=F*D	$39.06	$39.58	$39.12

Source: Lys analysis, Pandora 2014 10-K, Pandora Rate Proposal, SoundExchange Rate Proposal.

(92) The difference between RPM and LPM is Pandora's gross profit for every 1,000 listener hours ("GPPM"). As Figure 26 shows, Pandora's GPPM is $23.71.[108] Pandora's gross margin for every 1,000 listener hours, expressed as a percentage of RPM, is 52%.

Figure 26: Pandora's current GPPM

Line item	Current
RPM	$45.97
LPM	$22.26
GPPM	$23.71
GPPM %	51.6%

Source: Lys analysis.

(93) Figure 27 shows the same information but assumes that Pandora is able to achieve an RPM of $60, and presents LPM under the Pandora and SoundExchange proposals for per-performance royalty rates in 2016, the first year of the *Web IV* regime. Both measures indicate sound profit in relation to listener activity.

[102] Assumes 2014 levels of advertising-supported and subscription hours at 87.7% advertising-supported.

[103] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 7.

[104] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 46. Also, per Appendix E, LPM = royalty rate * 15,648.4; thus, for example, $22.26 = $0.00142 * 15,648.4.

[105] Proposed Rates and Terms of Pandora Media, Inc. ("Pandora Rate Proposal"), at 7.

[106] *See* Figure 43.

[107] Proposed Rates and Terms of SoundExchange, Inc., submitted on October 7, 2014, at 3.

[108] On GAAP basis. On a non-GAAP basis, [redacted]], Pandora had a 2014 RPM of $45.26 for a non-GAAP GPPM of $23.00 and a non-GAAP GPPM margin of 50.8%. *See* footnote 61 for more detail on Pandora's non-GAAP adjustments.

Figure 27: Comparison of Pandora's GPPM under alternative royalty-rate regimes assuming RPM of $60

Line item	Current (2014)	Pandora Proposal (2016)	SoundExchange Proposal (2016)
RPM	$45.97	$60.00	$60.00
LPM	$22.26	$19.22	$39.12
GPPM	$23.71	$40.78	$20.88
GPPM %	51.6%	68.0%	34.8%

Source: Lys analysis.

(94) Accordingly, if the CRB adopted Pandora's rate proposal, Pandora would achieve an extremely favorable GPPM of 68% very early in the upcoming rate period. By contrast, under SoundExchange's proposal Pandora would still remain highly profitable with a GPPM of 35%. And, as Pandora's RPM increases in line with [redacted] and analyst expectations, this metric would improve further through the rate period.

(95) GPPM margin is not the same as the gross margin seen in Figure 12 because LPM only captures the content acquisition cost portion of cost of revenue and it excludes "Cost of revenue – other."[109] In order to reconcile GPPM with gross margin computations, I need to add back in "Cost of Revenue – other" presented in percentage of revenue terms. For the current time period (2014) that percentage is 6.7%.[110] For the earliest time period covered by the proposed rates (2016), Morgan Stanley is estimating that Cost of revenue – Other would equal 6.2% of revenue.[111] Figure 29 shows the reconciliation between GPPM and GM.

Figure 28: Reconciliation between Pandora's GPMM and GM

Line item	Current (2014)	Pandora Proposal (2016)	SoundExchange Proposal (2016)
GPPM %	51.6%	67.9%	34.8%
Cost of revenue – Other as a % of revenue	6.7%	6.2%	6.2%
GM %[112]	44.8%	61.8%	28.6%

Source: Lys analysis.

[109] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 51:

> "Cost of revenue—Other consists primarily of hosting and ad serving costs, employee-related costs and other costs of ad sales. Hosting and ad serving costs consist of content streaming, maintaining our internet radio service and creating and serving advertisements through third-party ad servers. We make payments to third-party ad servers for the period the advertising impressions are delivered or click-through actions occur, and accordingly, we record this as a cost of revenue in the related period. Employee-related costs include salaries and benefits associated with supporting hosting and ad serving functions. Other costs of ad sales include costs related to music events that are sold as part of advertising arrangements."

[110] 6.7% = $61,627 ÷ $920,802. Per Pandora Historical Financial Results, December 31, 2014, at 4.

[111] 6.2% = $88.7M ÷ $1,430.5M. See Morgan Stanley Report, Exhibit 7.

[112] GM% = GPPM % – (Cost of revenue - Other) %

(96) The 62% gross margin resulting from Pandora's proposed royalty rates exceeds prevailing industry norms, as seen in Figure 13. By contrast, under SoundExchange's proposal Pandora would still remain profitable and achieve a positive gross margin of 29%, in line with its most relevant comparable company Netflix, at 31.8%. This gross margin will likely continue to improve as Pandora achieves the RPM levels expected over the next rate term.

(97) Finally, I calculate that if Pandora reached an RPM target level of $60, it could maintain today's gross margin profitability levels even if its LPM rose to $36.29, which translates to a blended per-performance royalty rate of $0.00232,[113] as shown in Figure 29.

Figure 29: Maximum LPM levels enabling Pandora to earn current GPMM, assuming RPM of $60

Line item	Level
RPM	$60.00
Target GPPM	$23.71
Maximum LPM	$36.29
Royalty rate	$0.00232

Source Lys analysis.

(98) An alternate way to analyze Pandora's ability to pay is to quantify the impact of Pandora's and SoundExchange's proposed royalty rates on Pandora's expected performance. As before, I use the conservative Morgan Stanley forecast and assume that Pandora's future revenue will not be affected by different scenarios for royalty rates, and thus the only impact on EBITDA will be in the incremental difference in royalty payments. I apply that incremental difference in royalty payments to Morgan Stanley's EBITDA estimate to calculate the expected EBITDA under the alternative royalty rate proposals.

(99) My estimates show that by 2018, Pandora is expected to earn approximately $100 million in EBITDA under SoundExchange's proposed royalty rates.[114] By contrast, Pandora is expected to earn almost $650 million in EBITDA under its own royalty rate proposal.

(100) My analysis also shows that over the duration of the *Web IV* rate regime (2016-20) Pandora is expected to earn a quarter of a billion dollars in EBITDA under SoundExchange's proposed royalty rates, and $3.3 billion under Pandora's own proposed rates.[115]

(101) Consequently, Mr. Herring is incorrect in suggesting that Pandora "cannot afford rates comparable to the *Web III* rates," as demonstrated under SoundExchange's rate proposal.

[113] Per-performance rate of $0.00232 = LPM of $36.29 ÷ 15,648.4.

[114] My calculations are detailed in Appendix F..

[115] Because the Morgan Stanley Report only provides a forecast through 2018, I supplement my analysis with a different forecast, from Cowen and Company. *See* Appendix F and Figure 50.

II.E. The Relationship Between Current Profits and Market Rates

(102) Michael Herring's testimony attempts to justify Pandora's proposed royalty rates in the context of Pandora's profitability. According to Mr. Herring, "it defies logic" to suggest that Pandora would willingly accept rates that would cause it to "continue to sustain net losses."[116] In other words, Mr. Herring suggests that Pandora's current profitability and financial performance determine its ability to pay royalties, and that Pandora's ability to pay determines the rates the Judges should adopt. This argument is incorrect.

(103) Congress has prescribed the "willing buyer/willing seller" standard as the relevant standard in determining royalty rates in the *Web IV* proceedings. From the standpoint of economics, a company's ability to pay royalties while still remaining profitable and the "willing buyer/willing seller" standard are two very distinct concepts. A company's "ability to pay," while still remaining profitable in the short term, is a static analysis driven by that firm's observed financial performance. By contrast, the price that would be set between a willing buyer and a willing seller represents a dynamic market-based determination.

(104) Consider an airline that charges $100 per ticket and incurs $98 per ticket in costs. A static analysis of that airline's ability to pay would suggest that it could not afford to pay an additional $2 per ticket in fuel costs while still remaining profitable. But this analysis, which focuses only on current profitability, ignores many important factors. For instance, the airline may have been offering low priced fares to attract new business and, as a result, may be able to raise its prices to compensate for its increased costs. Similarly, the increase in fuel costs could force an inefficient rival airline out of the market, which would increase demand for the airline's tickets and allow it to increase its prices.

(105) In economic terms, it does not make sense to analyze a webcaster's ability to pay royalties and remain profitable by examining a fixed market equilibrium. Doing so will only provide a result for *that specific equilibrium*. But changes to the royalty rate *change the equilibrium*. For example, in response to changes in royalty rates, Pandora is likely to adjust its advertising and subscription rates, resulting in a new market equilibrium, with some of the royalty rate increases passed on to consumers and advertisers and/or some of the least efficient webcasters exiting the industry.

(106) In growth industries, it is particularly misleading to try to infer the market price for an input by focusing on the current or past profitability of market participants. Many industries experience negative or low profitability during their growth phase. Companies electing to focus on growth do so with the conscious understanding that profits can often take a long time to arrive. However, market-based pricing seldom accommodates the particular circumstances of growing companies or industries. In particular, other cost inputs, whose levels are also determined in the marketplace, are agnostic as to

[116] Herring Written Direct Testimony, at ¶ 10.

the financial position of the buyer. For instance, in an open market, a webcaster could not seek lower prices for servers or for network bandwidth based on its current profitability.[117]

(107) In sum, Mr. Herring is wrong to suggest that Pandora's current or past profitability should be used to determine the royalty rate a willing buyer and a willing seller would agree upon. But even if that were the standard (which it is not), my analysis shows that Pandora could "afford" the rates under *Web III* as well as those proposed by SoundExchange.

III. David Pakman's Testimony

(108) In his testimony, David Pakman describes the digital music industry as "faring poorly" due to excessively high royalty rates. To support his conclusion, Mr. Pakman (a) asserts a lack of profitable digital music companies, (b) provides anecdotal examples of webcaster failures, and (c) asserts a lack of venture capital investment in the digital music industry.[118] Mr. Pakman also compares the level of venture capital investment in digital music and other selected technology sectors, and argues that lower levels of investment and higher failure rates for digital music provide further evidence that royalty rates are too high.[119]

(109) I first note that Mr. Pakman's testimony does not distinguish between statutory webcasters and other digital music services. By arguing that *all* digital music services are currently unprofitable or face unattractive gross margins, Mr. Pakman implicitly accepts that buyers outside the sphere of the statutory rate are willing to accept royalty rates that do not guarantee or generate current profits.

(110) In other words, if Mr. Pakman is correct about the "high" royalty rates faced by the overall digital music industry, his testimony suggests that low statutory rates would provide statutory webcasters with a subsidy that they would not be able to obtain in the market.

(111) In addition, as I summarize here and explain in more detail in the following sections, Mr. Pakman's arguments suffer from a number of additional errors.

(112) Mr. Pakman incorrectly focuses on profitability. As a result, he implicitly assumes that copyright owners must assure the webcasting industry consistent profitability. Of course, under the willing

[117] In some cases, other inputs may consciously accept lower remuneration in the short-term for a higher pay-off in the long term. For example, labor may accept lower remuneration in exchange for stock options or a supplier may acquire equity in a firm in exchange for a lower rate. Such a mechanism does not exist with rate setting.

[118] Pakman Testimony, at ¶11.

> "I conclude that this industry has fared poorly due primarily to royalty rates that are too high. This is evidenced by, among other things, a high failure rate for webcasting services and a lack of investment in these services relative to other digital industries."

[119] Pakman Testimony, at ¶26b.

buyer/willing seller standard no such obligation exists and webcasters' current profitability is not the criterion for deciding the statutory royalties.

(113) In any event, Mr. Pakman's analysis of profitability and failures in the digital music industry is inconsistent with the readily available evidence. And Mr. Pakman fails to consider how webcasters' business strategies may lead to current observed levels of profitability.

(114) Moreover, the fact that many webcasters are currently voluntarily paying the statutory royalty rates (or, in some cases, similar negotiated rates) and the fact that many webcasters have entered the market contradicts Mr. Pakman's assertion that the current rates exceed what a willing buyer is willing to pay.

(115) In sum, Mr. Pakman does not offer any analysis to support his assertion that the royalty rates are too high. Rather, his assertion is simply based on his uncritical observation that since some webcasters are not profitable, their costs must be too high. From this he jumps to the conclusion that those excessive costs are caused by excessive royalties paid to copyright owners.

III.A. Mr. Pakman Applies the Wrong Criterion

(116) Mr. Pakman's argument is flawed because profitability in the webcasting industry does not indicate whether royalty rates correspond to what a willing buyer and a willing seller would agree to.[120] Indeed, the implicit premise underlying Mr. Pakman's approach is that the webcasting industry is entitled to earn profits today and that the royalty rate must be adjusted accordingly.

(117) Under a market-based approach, profitability does not determine the appropriate market price of an "input" purchased by a firm. Rather, profitability is the difference between what consumers are willing to pay for a firm's output and the costs of producing that output. Thus, even if the webcasting industry were in a "steady state" (which it is not), this would not allow one to infer whether the costs paid for the inputs reflect their fair market value, unless one adopts a notion that an industry has a "right to exist" in its current form. In other words, whether or not an industry is profitable is, at best, informative only to whether the firms currently in the market are likely to survive in a market economy, and is irrelevant in the determination of whether any of the inputs are priced too high.

(118) Moreover, even accepting Mr. Pakman's "profitability" framework for the sake of argument, he provides no evidence that under a different royalty rate structure webcasters would experience "acceptable" profitability.

[120] Digital Millennium Copyright Act, October 8, 1998, at 38-39:

> "In establishing rates and terms for transmissions by eligible nonsubscription services and new subscription services, the copyright arbitration royalty panel shall establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller."

(119) Basic economic theory teaches us that profitability in any industry depends on a combination of factors, including the nature and maturity of the industry, the specific business strategies currently employed by participants, the number of competitors in the industry, and other factors like the effect of music piracy. These are relevant factors that are completely ignored by Mr. Pakman.

(120) For example, accepting Mr. Pakman's claim that the webcasting industry is not profitable would mean that the industry is not in a steady state. This means that, in the long-term, changes will occur—either revenue will increase or efficiency gains will lead to a reduction in costs, including controllable costs such as executive compensation. Alternatively, the least efficient webcasters will be forced out of the market, which would eliminate excess capacity and improve the profitability of the surviving webcasters.

(121) Conversely, adopting a lower royalty rate—one designed to assure current profitability—could have the opposite effect. Webcasters would face a reduced incentive to improve revenue or efficiency and new participants would be drawn to the market, which would create excess capacity and depress the profitability of the market.

(122) Rather than providing a complete analysis of these dynamic factors, Mr. Pakman simply makes the tautological assertion that by paying copyrights owners less, webcasters' profits would increase, young webcasters would have an *incrementally* better *chance* of surviving, and venture capitalists would be *incrementally* more attracted to funding a webcasting entrepreneur.

(123) Thus Mr. Pakman's focus on current profitability is misguided for two reasons. First, it is simply the wrong standard to determine market rates. And, second, Mr. Pakman fails to consider that reducing royalty rates may not necessarily improve the profitability of the industry.

III.B. Mr. Pakman's Analysis of the Webcasting Industry is Incomplete and Inaccurate

(124) A fundamental assertion made by Mr. Pakman is that the webcasting industry is failing. Mr. Pakman claims that no standalone webcaster, including Pandora, has achieved profitability to date,[121] and presents this as evidence of failure in the industry. He goes so far as to say that Pandora is "unable to generate a profit" and quotes a research report[122] claiming that no current music service, including Pandora, "can *ever* be profitable, even if they execute perfectly."[123]

[121] Pakman Testimony, at ¶ 19: "Indeed, I am not aware of a single standalone webcaster that has achieved profitability to date."

[122] IHM_EXP-NAB_0000262, "Digital Music Subscription Services", Worldwide Market Analysis & Forecasts, November 12, 2013, at 11.

[123] Pakman Testimony, footnote 34.

(125) Mr. Pakman's analysis is factually incorrect. As described in my response to Michael Herring's testimony, Pandora, a participant in this proceeding, earned positive and increasing gross profits since 2010[124] and achieved a positive $12 million *net* income in the final quarter of 2014.[125] Similarly, AccuRadio, another participant in this proceeding is reportedly profitable.[126]

(126) Mr. Pakman's portrayal of Pandora's profitability as measured by its gross margins is particularly flawed. He complains that "Pandora . . . still only operates at about a 30%-45% gross margin,"[127] but he does not present a threshold number above which he would consider Pandora's gross margins sufficiently high. In fact, Pandora's 2014 gross margin of 44.8%[128] compares quite favorably to the companies that Mr. Pakman deems "successful."

(127) For example, Castlight Health, which Mr. Pakman explicitly describes as a successful investment,[129] generated a 32% gross margin[130] during the first nine months of 2014. Similarly, Apple's gross margins were below 44 percent for the past three fiscal years.[131] During 2014, Pandora's gross margins even exceed those of Amazon,[132] whose businesses Mr. Pakman characterize as "wildly profitable."[133] Clearly, Mr. Pakman's representation of Pandora's gross margins and profitability mischaracterizes webcasters' success and profitability.

(128) Moreover, short-term profitability is not an adequate measure of success in this nascent industry. It is not surprising that this industry would experience short-term lack of profitability as the participants battle for dominance, refine their business models, and achieve critical mass. I understand that Professor Marc Rysman is submitting testimony addressing this specific issue.

(129) Finally, observed entry into the webcasting industry demonstrates the potential for profits and the health of the industry. As stated by Professor Blackburn in his report: [134]

> "As an economic matter, unprofitable industries (or, more generally, industries that are expected to be unprofitable in the future) typically do not see extensive entry. Instead,

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[124] Pandora Media, Inc. Form 10-K for the fiscal year ending December 31, 2014, at 39.

[125] Pandora Historical Financial Results, December 31, 2014, at 4.

[126] Rain News, "Kurt Hanson's AccuRadio raises $2.5-million funding," (September 5, 2014). *See* http://rainnews.com/kurt-hansons-accuradio-raises-2-5-million-funding/, accessed on February 18, 2015. I am informed that AccuRadio failed to produce its financial records until February 17, 2015, less than one week before the filing date for my testimony. Accordingly, I have been unable to analyze the documents it produced.

[127] Pakman Testimony, at ¶ 31.

[128] *See* Figure 12; calculated based on data in Pandora Historical Financial Results, December 31, 2014, at 4.

[129] Pakman Testimony, at ¶ 13. The other investment Mr. Pakman describes in this paragraph was acquired by Google and therefore cannot be compared on a standalone basis.

[130] Castlight Health, Inc. Form 10-Q for the quarter ending September 30, 2014, at 2.

[131] Apple Inc. Form 10-K for the fiscal year ending September 29, 2014, at 32.

[132] *See* Figure 13.

[133] Pakman Testimony, at ¶28.

[134] Report of David Blackburn, Ph.D, October 6, 2014 ("Blackburn Report"), at ¶ 17.

> standard economic principles indicate that entry occurs when potential new firms recognize a profit opportunity in an industry and take steps to enter and grab a share of "excess" economic profits."

(130) If, as Mr. Pakman asserts, the lack of profitability in the webcasting industry indicates that it is a failing industry, one would expect to observe little to no entry in the industry. To the contrary, statutory webcasting has experienced consistent entry, which suggests that investors believe that the industry has great long-term prospects. As stated by Professor Blackburn: [135]

> "Further, among statutory webcasters, data from SoundExchange demonstrate the extent of this entry. In 2010, there were 1,806 statutory licensees, 1,781 of which were webcasters. By 2013, there were 2,547 statutory licensees, of which 2,516 were webcasters. Put differently, in just three years, the number of webcasters grew by more than 40 percent."

(131) Healthy entry into the webcasting industry demonstrates its potential for future profitability. In addition to several major entrants in the past decade,[136] examination of the number of webcasters operating under the statutory license over time provides evidence of the extent of entry into the webcasting industry.

III.C. Mr. Pakman's Analysis of Venture Capital Investments in Webcasting Firms is Unreliable and Irrelevant

(132) Mr. Pakman claims that venture capital firms have funded fewer digital music companies relative to companies in the mobile, software-as-a-service, and e-commerce sectors.[137] From this, he concludes that investment in webcasting companies is disfavored due to excessively high royalty rates.[138]

(133) This claim is unfounded for several reasons. First, evidence of significant entry in the webcasting market refutes the claim that webcasting is not an attractive investment.[139] Second, the digital music business is also not comparable to the other sectors Mr. Pakman examined. Finally, Mr. Pakman's analysis only considers investment by venture capital firms, ignoring all other forms of investment.

(134) In particular, Mr. Pakman incorrectly downplays the importance of digital investments made by large technology companies. For example, he claims that Google and Amazon "seem to be willing to

[135] Blackburn Report, at ¶ 22.

[136] *See* Blackburn Report, Table 1.

[137] Pakman Testimony, at ¶ 26b: "[T]hese figures demonstrate a dramatically lower level of venture investment into the digital music sector."

[138] Pakman Testimony, at ¶ 11: "I conclude that this industry has fared poorly due primarily to royalty rates that are too high. This is evidenced by, among other things… a lack of investment in these services relative to other digital industries."

[139] As I already discussed, Pandora alone came to the equity markets twice with successful equity offerings in the past 4 years.

operate break-even or unprofitable digital music services *because* their other companion businesses are wildly profitable and subsidize the music service . . . ."[140] (emphasis added). The notion that these companies are sponsoring music services as some sort of charitable endeavor is implausible and it fails to account for the value music brings to these companies' larger platforms. Amazon and Google clearly value music's contribution to their platforms in an amount *greater than* the royalty rates. Moreover, Mr. Packman offers no arguments why it is sub-optimal or undesirable for the digital music industry to be owned or integrated with other e-commerce firms. Thus, Mr. Pakman incorrectly disregards the value that sound recordings bring to digital platforms—a value that would be factored into the price agreed to between a willing buyer and a willing seller.

(135) Further, webcasting companies and digital music services have received a considerable amount of investment. According to Mr. Pakman's testimony, 175 digital music companies have been created and funded by venture investors.[141] As noted by Professor Blackburn: [142]

> "…investors continue to pour money into the webcasting industry. Last year, investors placed $2.4 billion in the music industry, with about $839 million going into "Internet Radio" or "On-demand streaming audio and video" companies, including stock offerings by Pandora and venture capital rounds from other streaming music services."

(136) Specific examples of digital music services and webcasters that have received significant investment include:

- Spotify raised $250 million in venture capital as of November 2013, and has landed investments from Jim Breyer of Accel Partners and Peter Thiel of Founders Fund (the first and third ranked venture capitalists in the world according to Forbes' 2013 "Midas List").[143]
- Pandora raised more than $50 million in venture capital.[144]
- TuneIn raised $25 million in venture capital.[145]
- Rdio raised $17.5 million in venture capital.[146]

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140 Pakman Testimony, at ¶ 28.

141 Pakman Testimony, at ¶ 26a: "[M]y research revealed that, since 1997, approximately 175 digital music companies were created and funded by venture investors."

142 Blackburn Report, at ¶ 21.

143 "Music service Spotify raises $250 million," Reuters, November 21, 2013. Available at http://www.reuters.com/article/2013/11/21/us-spotify-venture-fundraise-idUSBRE9AK1F720131121 (accessed on February 18, 2015). *See also*, Gustin, Sam, "Time Tech 40: The Most Influential Minds in Tech: Peter Thiel, Founders Fund," Time, May 29, 2013, available at http://business.time.com/2013/05/01/time-tech-40-the-ten-most-influential-tech-ceos/slide/peter-thiel-founders-fund/ (accessed on February 18, 2015). *See also* http://www.forbes.com/pictures/ehfk45efgjm/jim-breyer-2/ (accessed on February 18, 2015).

144 Cowan, Lynn, "Pandora IPO Prices at $16; Valued at $2.56 Billion," The Wall Street Journal, June 14, 2011, available at http://blogs.wsj.com/venturecapital/2011/06/14/pandora-ipo-prices-at-16-well-above-range/ (accessed on February 18, 2015).

145 "TuneIn Raises $25 Million and Surpasses One Billion Listening Hours in 2013," Institutional Venture Partners News, May 29, 2013. Available at http://www.ivp.com/news/press-release/tunein-raises--25-million-and-surpasses-one-billion-listening-hours-in-2013#.VMml52jF95t (accessed on February 18, 2015).

- AccuRadio recently raised $2.5 million in funding.[147]
- Goom Radio raised more than $16 million in venture capital.[148]
- Deezer received $130 million in funding.[149]
- Beats Music was recently purchased by Apple for $500 million.[150]
- iHeartMedia has invested in its iHeartRadio service.
- Apple has invested in its iTunes Radio service.
- In 2013, Pandora completed a $520 million secondary equity offering.[151]

(137) In his analysis of venture capital investing, Mr. Pakman compares venture investment in digital music to three other sectors: mobile, software-as-a-service, and ecommerce. Mr. Pakman's analysis is problematic on multiple levels.

(138) Unlike the other sectors examined, digital music companies do not provide a "new" product to the market. Rather, their innovation is in the manner that an existing product—music created by recording artists and record companies—is distributed. Variation in digital music distribution is therefore limited, by its nature, in comparison to the other sectors. This may explain Mr. Pakman's observed lower level of venture investing in this sector compared to the other technology sectors, yet he fails to consider this in his analysis. Using Mr. Pakman's software-as-a-service comparison as an example (there are 7,987 venture-backed software-as-a-service companies in his database), there is no conceivable state of the world where 7,987 unique online music delivery platforms generate the returns venture capitalists seek. Even if royalties were zero, I would not invest in the 7,987th webcasting business, and I doubt Mr. Pakman's firm, Venrock, would either.

(139) [redacted]

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[146] Wauters, Robin, "Exclusive: Social Music Startup Rdio Raises $17.5 Million, Adds Rob Cavallo To Board," TechCrunch News, February 8, 2014. Available at http://techcrunch.com/2011/02/03/exclusive-social-music-startup-rdio-raises-17-5-million-adds-rob-cavallo-to-board/ (accessed on February 18, 2015).

[147] Hill, Brad, "Kurt Hanson's AccuRadio raises $2.5-million funding," RainNews, September 5, 2014. Available at http://rainnews.com/kurt-hansons-accuradio-raises-2-5-million-funding/ (accessed on February 18, 2015).

[148] "Goom Radio Raises More Than $16 Million in Venture Capital to Launch Internet Radio Services," Business Wire, April 14, 2009. Available at http://www.businesswire.com/news/home/20090414005353/en/Goom-Radio-Raises-16-Million-Venture-Capital#.VOV_SfnF95s (accessed on February 18, 2015).

[149] Bryant, Martin, "Deezer confirms $130m funding round as it hits 2 million paid subscribers," TheNextWeb, October 8, 2012. Available at http://thenextweb.com/insider/2012/10/08/deezer-confirms-130m-funding-round-as-it-hits-2-million-paid-subscribers/ (accessed on February 18, 2015).

[150] Karp, Hannah, "Apple Paying Less Than $500 Million for Beats Music Streaming Service," Wall Street Journal (May 30, 2014), see: http://www.wsj.com/articles/apple-paying-just-under-500-million-for-beats-music-streaming-service-1401403287 (accessed on February 18, 2015).

[151] Pandora Media, Inc. Form 10-K for the year ending December 31, 2013, at 42.

[redacted]

(140) In my view, 175 funded digital music businesses is actually substantial. For those paying the statutory rate (a cost structure which is knowable in advance while other entrepreneurs must react to uncertain market forces), each investor and entrepreneur concluded that royalties do not prevent their chance for success and they moved forward with the new foray into music delivery. Professional investors and entrepreneurs would not have reached this conclusion anywhere near 175 times if the known-in-advance royalty structure actually caused "near-certain failure" as Mr. Pakman claims.[153]

(141) Furthermore, Mr. Pakman's analysis is misleading because it only considers investment by venture capital firms. Academic research has found that industries with little room for variation and innovation, such as webcasting, are less likely to attract venture capital funding.[154] Also, as seen in the examples listed above, investment in this industry takes other forms such as acquisition by another company or internal investment by an existing company.

III.D. Mr. Pakman's Anecdotal Evidence on Webcasting Failures Does Not Support His Conclusion that the Industry is Failing

(142) Mr. Pakman claims that the webcasting industry has an excessively high failure rate,[155] and attributes this to excessive royalty rates.[156] The evidence presented in Mr. Pakman's testimony regarding "excessive" failure in the industry includes naming approximately eleven webcasting companies that seemingly exited the business, [157] and comparing the failure rate of digital music companies supported by venture capital funding to that found in other Internet and technology segments.[158]

(143) This evidence does not support a conclusion of excessively high failure rates in the webcasting industry. Examples of webcasters that are no longer in business are meaningless without comparison to the number of surviving companies in the industry, and some notion of how many firms would be

152 [redacted].

153 Pakman Testimony, at ¶ 29.

154 Hellman, Thomas and Manju Puri, "The Interaction Between Product Market and Financing Strategy: The Role of Venture Capital," Winter 2000, The Review of Financial Studies, 13(4): at 959-984.

155 Pakman Testimony, at ¶ 11: "I conclude that this industry has fared poorly due primarily to royalty rates that are too high. This is evidenced by, among other things, a high failure rate for webcasting services…"

156 Pakman Testimony, at ¶ 19: "The high rates that have been set for the compulsory licenses for webcasting have resulted in widespread failure among webcasters."

157 Pakman Testimony, at ¶ 20-25.

158 Pakman Testimony, at ¶ 26.

present in steady state. Specifically, some industries are characterized by a large number of players (e.g., terrestrial radio) while others are characterized by very few (e.g., satellite radio).

(144) Data from SoundExchange show that at the end of 2013, 2,516 webcasters were operating under the statutory license.[159] Furthermore, analysis by Professor Blackburn indicates that the webcasting industry in fact exhibits a high survival rate. With the exception of 2008 and 2010, the number of statutory webcasters has increased each year, and survivor rates of firms in the industry are in line with survival rates for all industries in the private sector.[160] In light of this information, it is clear that the webcasting failures mentioned by Mr. Pakman do not indicate that the industry as a whole is failing. As stated by Professor Blackburn: [161]

> "If licensing rates were choking off growth, we would not likely see continued growth in the number of firms operating in the industry, or the historical success of firms to survive once they have entered."

(145) According to the Wall Street Journal, recent Harvard research on venture capital-backed failures finds that roughly 75 percent of startups fail in the United States, with 30 - 40 percent of "high potential U.S. start-ups" liquidating all assets and investors losing all of their money.[162] This failure rate exceeds previous rules-of-thumb and even the National Venture Capital Association's estimate that 25 - 30 percent of venture-backed businesses fail.[163] The Harvard researcher ascribed this difference to venture capitalists' tendency to "bury their dead quietly [by emphasizing] the successes but [not talking about] the failures at all,"[164] and thus understating failure rates in past measurements.

(146) Relying on the Pitchbook database, Mr. Pakman finds that venture-backed digital music companies experience a failure rate of 8.6 percent.[165] He concludes that this is an excessively high rate because it is higher than the failure rate found in the other market segments considered in his analysis.[166] However, when compared to objective failure benchmarks prepared outside the context of this proceeding, an 8.6 percent failure rate looks downright enviable.

(147) In any event, the 8.6 percent failure rate Mr. Pakman calculated falls dramatically short from supporting his conclusion that venture-backed webcasting failures are disproportionately high (in

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159 Blackburn Report, Figure 2.

160 Blackburn Report, Tables 3-4 and Figure 3.

161 Blackburn Report, at ¶ 27.

162 Gage, Deborah, "The Venture Capital Secret: 3 out of 4 Start-Ups Fail," The Wall Street Journal, September 20, 2012. Available at http://www.wsj.com/articles/SB10000872396390443720204578004980476429190 (accessed on February 18, 2015).

163 *Ibid.*

164 *Ibid.*

165 Pakman Testimony, at ¶ 26a: "[A]t least 15 companies have resulted in a distressed exit and/or filed for bankruptcy so far, for an 8.6% failure rate to date."

166 Pakman Testimony, at ¶ 26b.

absolute terms, let alone as a result of royalty rates). While I have not validated the Pitchbook dataset and am unaware of any published peer-review studies that rely on it, if one were to accept it alongside the Harvard study or the National Venture Capital Association's findings, the webcasting failure rate actually looks disproportionately *low*.[167]

(148) Beyond the reliability problems within his calculation, Mr. Pakman's framework must show that venture-backed digital music companies' failure rates should equal or fall below those of the industries he compares them to if the royalty structure were achieving its objectives. Despite the broad conclusion he attaches to the failure rate discussion, Mr. Pakman provides no evidence that the failure rates should be identical across industries. In truth it's perfectly reasonable that the failure rates are not equal given the unique nature and maturity of the webcasting industry.

(149) It is especially troubling that Mr. Pakman ignores obvious evidence that certain webcaster "failures" were explicitly unrelated to royalties, even when such evidence exists within his own cited sources. Mr. Pakman portrays Yahoo!'s exit from the simulcasting business as a "particularly telling" experience in "in the wake of the CARP proceeding," and ultimately states: "following the even higher royalties set in Web II, Yahoo! was forced to consider shutting down the Internet radio service in its entirety, and ultimately exited the market by selling the service to CBS."[168] However, as his own source material clearly states, "Yahoo's Mr. Sohn said the decision to shut down Yahoo Radio was unrelated to the new royalty rate."[169]

IV. EVA Analysis

(150) Professors Fischel and Lichtman[170] conducted an Economic Value Added ("EVA") analysis that they claim derives the maximum royalty rate that a "hypothetical simulcaster" could afford to pay. To calculate this purported maximum rate, Professors Fischel and Lichtman constructed a model based on the economic profits and listenership of the terrestrial radio industry. Although EVA analysis as a tool, has many useful applications, this is not one of them.

(151) Analyzing the terrestrial radio industry to determine the cost structure of the webcasting industry is like examining the horse and buggy industry to learn about the automobile industry. Webcasting and

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[167] Mr. Pakman finds that "only" four percent of venture-backed digital music companies achieved meaningful venture returns for their investors. This is a similar magnitude to the Harvard study, which found that under five percent of U.S. venture-backed start-ups meet the projected return on investment. Pakman Testimony, at ¶ 26a.

[168] Pakman Testimony, at ¶ 24-25.

[169] Wingfield, Nick and Anna Wilde Mathews, "Yahoo Plans to Shut Down Some Broadcast Services," The Wall Street Journal, June 26, 2002. Available at http://www.wsj.com/articles/SB1025052018485386440 (accessed on February 18, 2015).

[170] Professors Fischel and Lichtman submitted joint testimony, but indicated that Professor Fischel was primarily responsible for this EVA analysis.

terrestrial radio simply have too many differences in their cost structure, geographic scope, and the value proposition they offer consumers and advertisers. In addition, it is not realistic or appropriate to use the economic profits of an industry in decline, such as the terrestrial radio industry, to predict the economic profits of a high growth industry such as webcasting. To do so artificially depresses the pool of economic profits available to pay royalties.

(152) In addition, there are numerous methodological flaws in the way Professors Fischel and Lichtman apply their EVA analysis. These flaws make the entire exercise unreliable. For instance, simply eliminating a single significant outlier from their sample of terrestrial radio firms *doubles* the maximum royalty calculated under their approach.

IV.A. Professors Fischel & Lichtman's Approach

(153) Economic Value Added (EVA) is an approach that adjusts a firm's net income to account for the cost of that firm's capital. In other words, EVA measures a firm's profits after subtracting the amount the firm must pay for its capital.

(154) Thus, if EVA is positive, the firm's profits exceed what is necessary to provide investors with an adequate return on their capital (taking risk into account). In turn, a positive EVA attracts new capital and leads to a firm's growth. By contrast, when EVA is negative, investors do not earn an adequate return, resulting in the firm having to cut costs. If that proves to be unsuccessful, it results in a flight of capital and ultimately in the firm's shrinking or exiting the market.[171] This means that, when there are no barriers to exit or entry, in equilibrium expected EVA will be zero.

(155) Professors Fischel & Lichtman attempt to calculate the EVA, as a percentage of revenue, for a hypothetical simulcaster. They model this hypothetical simulcaster by starting with the revenues, expenses, and capital of twelve terrestrial broadcasters over a 10-year period, and then they attempt to "back out" certain expenses and capital items that would be inapplicable to a webcaster, such as FCC license costs.

(156) Once they have calculated EVA (as a percentage of revenue) for this hypothetical simulcaster, Professors Fischel and Lichtman return to the terrestrial radio industry once more. They assume that this hypothetical simulcaster earns the same revenues as the entire terrestrial radio industry and has the same listenership as the entire industry. Based on these assumptions they calculated the purported maximum royalty rate this hypothetical simulcaster could pay before EVA reduces to zero.

[171] Grant, James, *Foundations of Economic Value Added, 2nd Edition*, John Wiley & Sons (2003), at 17.

(157) Professor Fischel & Lichtman's analysis depends on the key assumption that their "hypothetical simulcaster," which is modeled on the terrestrial industry, has the same revenue and cost structure of a real webcaster. This assumption is completely unwarranted.

IV.B. Professors Fischel and Lichtman Ignore the Fundamental Differences Between Terrestrial Radio and Webcasters

(158) Professor Fischel & Lichtman's EVA analysis is fatally flawed because it is based on traditional (terrestrial) radio companies. The authors readily state that their goal was to model a "hypothetical simulcaster" (emphasis added).[172]

> "To build our model, we used data from a reasonable proxy for a hypothetical <u>simulcaster</u>, namely, publicly-traded companies that own and/or operate terrestrial radio stations. Besides being obviously related to webcasting in terms of the content and format, terrestrial radio has the advantage of being a mature industry in which there are many firms with publicly-available financial information. Terrestrial radio therefore provides a reasonable and well-documented basis for modeling a hypothetical simulcaster."

(159) In a related footnote, Professors Fischel & Lichtman concede that the analysis is only applicable to simulcasters (emphasis added).[173]

> "Although this evidence also *might* be relevant for custom webcasting stations, *such a conclusion is less certain* since custom stations typically do not provide the same complementary content, such as DJ commentary and weather and news updates, that terrestrial and simulcast stations do." (emphasis added).

(160) As such, the EVA analysis is not applicable across the full spectrum of potential users of statutory rates and is thus of limited value to the CRB.

(161) But even beyond the authors' acknowledgement that their EVA analysis is inapplicable to a broader universe of webcasters beyond simulcasters, my economic analysis also demonstrates why it is impossible to reach any relevant conclusions about the webcasting industry by analyzing the terrestrial radio industry. Simply put: the two industries are so fundamentally different that understanding the economics of one does not translate to learning anything meaningful about the other.

(162) Figure 30 lists some of the critical differences in economic characteristics between the terrestrial radio and webcaster industries.

[172] Fischel & Lichtman Amended Testimony, at ¶ 96.
[173] Fischel & Lichtman Amended Testimony, p. 48, footnote 99.

Figure 30: Key economic differences between webcasting and terrestrial radio

Economic characteristics	Terrestrial radio	Webcasting
Customization	No	Yes
Scale	Geographically Constrained	National Scope
Switching costs to users	No	Yes
Economic cycle	Steady State/Decline	Growth

Source: Lys analysis.

(163) Indeed, numerous witnesses put forward by the National Association of Broadcasters testify to their struggles in adapting their terrestrial radio business to simulcasting, highlighting the fundamental differences between the two business models. This alone suggests that the differences between the two industries do not permit a reasonable comparison. (I discuss the NAB testimony in greater detail in Section V.)

(164) In the following sections, I summarize some of the key differences between terrestrial radio and webcasting that make this EVA analysis unreliable and uninformative.

IV.B.1. Customization

(165) Customization is a critical competitive feature of webcasters that is essentially not replicable by terrestrial radio stations. A key value proposition of webcasters is that they offer a tailor-made listening experience unique to each individual user.

(166) There are only approximately 15,000 terrestrial radio stations in the United States.[174] Each of these stations is limited to its local geographic area, and each of these stations is almost exclusively tied to a particular format (e.g., country, classic rock, easy listening).[175] On the other hand, Pandora and other webcasters can offer an essentially limitless number of customer-specific stations that are customized and adjustable. If a user gets tired of listening to a specific type of country music, she does not have to "change" the station from Pandora but can rather adjust her stream within Pandora.

IV.B.2. Scale

(167) Terrestrial radio stations are geographically constrained. This means that they can only grow to a certain limited size and listenership. If a company wants to enter a new market, it must incur additional costs to enter that market. By contrast, webcasters can compete on a national level and face

[174] Federal Communications Commission, Broadcast Station Totals as of December 31, 2014, showing 15,432 radio stations, including 6,652 "FM commercial" stations that represent the bulk of terrestrial radio stations on which popular music is played.

[175] *See*, for example, the listing of the 20 stations owned by Greater Media, Inc., listing the different formats in Kocak Testimony, at ¶ 13.

low marginal costs to acquire each additional listener. Moreover, webcasters like Pandora can take advantage of their scale through targeted advertising and machine learning based on user preferences. Terrestrial radio does not have this option.

(168) Professors Fischel and Lichtman attempt to correct for *some* of these costs by "backing out" capital expenditures and expenses that are unique to terrestrial radio. But this does not account for the fact that terrestrial radio faces a drastically different competitive environment than webcasters.

(169) In fact, Professors Fischel and Lichtman recognize this fundamental flaw in their analysis when they state:[176]

> "Arguably, simulcasters could one day have an advantage over terrestrial radio if their advertisements could be targeted more precisely to specific listeners than are terrestrial radio advertisements. Even so, it is unclear that this advantage would translate into substantially higher prices for advertising, since webcasters do not face the same type of barriers to entry (in the form of scarce FCC licenses, major capital expenditures, and limitations on any station's geographic reach) that terrestrial radio broadcasters face."

(170) As the above quote demonstrates, although Professors Fischel and Lichtman recognize that it is "unclear" whether simulcasters have advantages over terrestrial radio, they throw up their hands instead of addressing this clear possibility.

IV.B.3. Switching Costs

(171) Switching costs, which measure a radio station's "stickiness" to its users, are low to nonexistent for terrestrial radio: most listeners can simply turn the dial once a block of advertisements start airing. There is no particular connection between a station and its listeners.

(172) Listeners have higher switching costs with respect to webcasting services. Because webcasting services can "learn" consumers' preferences over time and their algorithms can improve over time, this leads to a particularly tailor-made experience to the listener and results in escalating commitment. The "cost" of switching, expressed in the time it will take them to "teach" a competing webcaster's computers their own personal listening preferences, is higher than it is with terrestrial radio.

(173) As Professor Rubinfeld explained in his report:[177]

> "[L]isteners can become "locked" in to services such as Pandora after they have expressed their likes and dislikes for particular music genres or artists, resulting in highly customized stations or playlists. Because creating such

[176] Fischel & Lichtman Amended Testimony, at ¶ 75.

[177] Corrected Testimony of Daniel L. Rubinfeld, submitted on October 6, 2014 ("Rubinfeld Testimony"), at ¶ 49.

> stations and playlists may have taken considerable time and energy on the user's behalf – potentially over a multiyear period – the user may have little incentive to switch to a new service."

(174) I understand that Professor Marc Rysman is submitting testimony regarding switching costs and network effects in the webcasting industry.

(175) These switching costs suggest that the terrestrial radio industry and the webcasting industry are not comparable with respect to economic profits.

IV.B.4. Economic Cycle

(176) Terrestrial radio is a mature steady-state industry, as Professors Fischel & Lichtman freely admit,[178] while webcasting is characterized by rapid growth, as evidenced by the financial performance of the industry leader Pandora I discussed in Section II.

(177) In fact, the terrestrial radio industry is declining and webcasters are hoping to replace it with their business model. In a panel discussion on "The State of the Webcasting Industry," AccuRadio CEO Kurt Hanson (a witness in these proceedings) described terrestrial radio as on the decline due to listener fatigue from lack of variety, consolidation of ownership resulting in reductions in research, marketing, and programming, and the prevalence of the Internet. In addition, Mr. Hanson considers webcasting the "fourth golden age" of radio, characterized by personalization and control, inclusion of the entire distribution of listener tastes, low advertising loads, and ubiquity.[179] This transition to webcasting was slow to begin but is now accelerating dramatically due to increasing mobile connectivity and integration of mobile webcasting applications into automobiles. As opposed to terrestrial radio, webcasting is a nascent industry, and therefore comparison of these industries is grossly inappropriate.

(178) Many sources confirm Mr. Hanson's view of terrestrial radio's decline and the rise of webcasting as its replacement. For example:

- From VentureBeat News: "People in the U.S. seem to universally agree that FM radio is awful for music listening when compared to the various digital options available today. But somehow, the radio industry has managed keep annual ad spending at a respectable $44.5 billion annually. Thanks to the increased number of connected vehicles and continued growth of mobile listening, this is the year digital radio services start eating up those terrestrial ad dollars."[180]

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[178] Fischel & Lichtman Testimony, at ¶ 96: "[T]errestrial radio has the advantage of being a mature industry…"

[179] "The State of the Webcasting Industry," Panel Discussion at San Francisco MusicTech Summit, May 17, 2010. Available at https://archive.org/details/TheStateOfTheWebcastingIndustry (accessed on February 18, 2015).

[180] Cheredar, Tom, "9 media-tech trends to watch in 2015," VentureBeat News, January 11, 2015, available at http://venturebeat.com/2015/01/11/9-media-tech-predictions-to-watch-for-in-2015/, (accessed on February 18, 2015).

- From an NPD Group study: "[I]n fourth quarter (Q4) of 2012, Pandora and other subscription-based and free Internet radio services accounted for nearly one quarter (23 percent) of the average weekly music listening time among consumers between the ages of 13 and 35, an increase from a share of 17 percent the previous year. As Internet-radio listening rose among this age group, listening to AM/FM radio, which now accounts for 24 percent of music-listening time, declined 2 percentage points."[181]
- From a Pew Research Center study: "The vast majority of Americans still report listening to AM/FM radio weekly. But, as many as 40% percent of Americans now listen to audio on digital devices, and that is projected to double by 2015, while interest in traditional radio—even the HD option—is on the decline."[182]
- From Dominic Paschel, Pandora's VP of Corporate Finance and Investor Relations: "And when you think about it, people ask, well, why did it take so long for radio to go through this transition [from terrestrial to internet]? And part of that is it is just simple connectivity and ease of use really haven't gained critical mass and scale until the recent -- even the last five years. And the next three years will even have -- the next five years will have even multiples of that effect as well."[183]
- From Variety: "Insiders believe that there's no revolution in terrestrial radio because the owners know it's headed into the dumper. They're just milking it for all they can before it falls off a cliff."[184]
- From the Future of Music Coalition: "…there is mounting evidence that the traditional commercial radio model is broken."[185]

(179) Because terrestrial radio is an industry in decline, it is inappropriate to conclude, as Professors Fischel and Lichtman do, that the EVA for the terrestrial radio industry will match the economic profits in the webcasting industry.

181 "Streaming Music is Gaining on Traditional Radio Among Younger Music Listeners," NPD Group, April 2, 2013. Available at https://www.npd.com/wps/portal/npd/us/news/press-releases/streaming-music-is-gaining-on-traditional-radio-among-younger-music-listeners/ (accessed on February 18, 2015).

182 Santhanam, Laura, Amy Mitchell and Tom Rosensteil, "Audio: By the Numbers," The State of the News Media 2012, The Pew Research Center's Project for Excellence in Journalism. Available at http://www.stateofthemedia.org/2012/audio-how-far-will-digital-go/audio-by-the-numbers/ (accessed on February 18, 2015).

183 Dominic Paschel, Bernstein Future of Media Summit (June 25, 2014), at 1-2.

184 Lefsetz, Bob, "Radio Digs Its Own Grave as Cultural Currents Shift," Variety, June 21, 2013. Available at http://variety.com/2013/music/news/radio-digs-its-own-grave-as-cultural-currents-shift-1200500285/ (accessed on February 18, 2015).

185 Future of Music Coalition Testimony to House Small Business Committee on Webcasting Rules, June 27, 2007. Available at (https://futureofmusic.org/filing/fmc-testimony-submitted-house-small-business-committee-webcasting-rates (accessed on February 15, 2015).

IV.B.5. Targeted Advertising

(180) Terrestrial radio stations gather information about their listeners based on the genre of music played on the station, and via agencies such as Nielson that help target advertising.[186] However, this targeting is very limited in comparison to what webcasters, particularly webcasters with logged-in listeners, are capable of. For one, even though terrestrial radio may understand the demographics of its listeners, it is a one-to-many broadcast and all listeners hear the same ad at any given time. Webcasters can target advertising to the particular listener since they aren't restricted by the one-to-many format of broadcasters. In addition, webcasters can attain more specific information about their listeners than broadcasters are capable of. As Pandora's VP of Corporate Finance and Investor Relations Dominic Paschel told investors:[187]

> "[W]e have targeting data that has your age, your gender, your ZIP code, so your location. We have obviously that type of music you listen to as well. But we can marry that with third-party data. We can create inferential models that are upwards of 80%, 90% accurate."

(181) In addition to targeting, terrestrial radio differs from webcasting in the types of advertisements that may be used. Terrestrial radio is limited by its nature to audio advertising, whereas webcasters are capable of advertising not only with audio ads, but also with banner and video advertising.

(182) Professors Fischel & Lichtman do not consider these important differences between terrestrial radio and webcasting in their analysis. Assuming that the hypothetical company had these ad targeting capabilities, it could also presumably generate more advertising revenue as well because advertisers would be willing to pay a premium for more targeted ads relative to terrestrial radio.[188,189] This would result in increased EVA, and therefore increase the maximum royalty rate the company could pay.

IV.B.6. Cost Structure

(183) Terrestrial radio companies and webcasters have radically different financial profiles. While Fischel & Lichtman make certain adjustments to the historical financial performance of these companies in order to account for the different cost structures of FCC-licensed terrestrial stations and their simulcasting operations, they do not go far enough.

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[186] For example, *see* Dimick Testimony at ¶ 19, and Nielsen's "The Total Audience Report," (December 2014), available at http://ir.nielsen.com/files/doc_presentations/2014/The-Total-Audience-Report.pdf (accessed on February 18, 2015).

[187] Dominic Paschel, MKM Partners LLC Entertainment, Leisure & Internet Conference (September 18, 2014), at 8.

[188] For example, *see* [redacted]

[189] For example, during Pandora's Q4 2014 earnings call, CEO Brian McAndrews stated, at 9, in response to a question regarding whether Pandora's targeting capabilities would allow it to charge a premium to advertisers over terrestrial radio: "We definitely believe we can charge more than terrestrial radio and do so…"

(184) In their EVA analysis, Fischel & Lichtman adjust reported operating income for companies that own terrestrial radio stations as part of their calculations. Three adjustments are made:

1. Adjustments for non-recurring gains or losses;
2. Adjustments for recognized goodwill impairment; and,
3. Adjustments for expenses related to towers, transmitters, and FCC licenses.

(185) However, these three adjustments are inadequate in making this hypothetical company similar to a webcaster. Examination of the pure radio companies used in the analysis reveals direct station operating expenses equal to approximately 60 to 70 percent of total revenues. These expenses are largely fixed, and include items such as employee compensation, costs of programming (including composer royalties), engineering costs, promotional expenses, sales and marketing, and general and administrative expenses.[190]

(186) Although some of these expenses are comparable to webcasters' expenses, others either do not apply (such as engineering), or would be significantly smaller for a webcaster. For example, employee compensation costs for webcasters are likely to be significantly smaller, as terrestrial radio stations have to staff each station with DJs and other personnel to run the station, which is unnecessary for a webcaster.[191] General and administrative expenses are likely to be larger for terrestrial radio as compared to webcasting for the same reason. Terrestrial stations also must either own or lease the buildings in which the stations operate, thereby incurring additional depreciation and/or lease expenses as compared to webcasters.

(187) For example, the Bureau of Labor Statistics (BLS) reports that in the 2012-13 time period there were 92,530 people employed in the U.S. Radio Broadcasting industry that excludes Internet broadcasters.[192] On the other hand, at the end of 2012 Pandora reported 698 employees and a U.S. radio share of 7.58% – with only 0.75% of the industry workforce.[193] Put differently, Pandora is more than 10 times more efficient than the terrestrial industry.[194]

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[190] Regent Communications discloses that changes in station operating expenses are composed of changes in technical expense, programming expense, promotion expense, interactive expense, sales expense, administrative expense, and barter expense. See Regent Communications Form 10-K for the year ended December 31, 2009, at 40. Entercom Communications Corp. discloses that its most significant station operating expenses are employee compensation, programming, and promotional expenses. *See* Entercom Communications Corp. Form 10-K for the year ended December 31, 2013, at 20.

[191] *See*, for example, Kocak Testimony, at ¶ 19.

> "Of course, there are costs to a local, personality-driven approach. Talent can be costly, particularly when it has developed a large following in a market. Development of new talent, or the introduction of talent to a new market, can require a substantial investment of time and marketing expense."

[192] May 2013 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 515110 - Radio Broadcasting, accessed at: http://www.bls.gov/oes/current/naics5_515110.htm (accessed on February 18, 2015).

[193] This is a conservative, upper bound estimate that assumes the combined terrestrial radio and webcaster workforce is the sum of the terrestrial radio and Pandora workforces, or 93,228. 698 ÷ 93,228 = 0.749%. In reality, other webcasters who have a share of the total listenership also have employees that are not being counted here, so Pandora's real share of the

(188) Moreover, broadcasters may have obsolete cost structures or business models that are not readily adaptable to webcasting without additional upfront costs. For example, a broadcast network (like Clear Channel) has a significant presence in each local market and many redundant costs that a national webcaster – even a simulcaster – would not have to replicate. The recording industry should not have to subsidize this transition or subsidize obsolete business models.

(189) Professors Fischel & Lichtman do not adjust for any of these costs in their analysis, thereby underestimating income, EVA, and the maximum royalties a webcaster could pay.

IV.C. The Relationship Between EVA and Supply and Demand

(190) Professors Fischel and Lichtman claim that the maximum royalty rate that a "hypothetical simulcaster" could pay is the royalty rate at which its EVA equals zero. But even if Professors Fischel and Lichtman had modeled this hypothetical simulcaster to be comparable to the webcasting industry, their exercise would still have been useless. This is because applying an EVA analysis to calculate the maximum price of an input is contrary to the basic concepts of supply and demand in economics.

(191) As I explain below, in equilibrium, the EVA of the marginal firm is zero as long as the costs to entry are relatively small, a condition met in webcasting.[195] For example, as long as EVA is positive, new firms would have an incentive to enter. Conversely, when EVA is negative, marginal firms cannot provide an adequate return to their investors and are forced to exit.

(192) But of course, in equilibrium EVA will be zero for *any royalty rate* set by the CRB – lowering it will attract new firms and raising it will force marginal firms to exit. As a result, an EVA-based approach cannot offer any rate setting guidance unless one makes the additional stipulation that the current, marginal firm must survive and no other firm is allowed to enter. But of course, no such rule for setting royalty rates exists and the Fischel and Lichtman exercise is useless to the rate-setting process.

IV.C.1. Supply, Demand, and the Resulting EVA in Equilibrium

(193) The most basic concepts in economics are supply, demand, and equilibrium. A supply curve depicts the combinations of quantity and price that firms are willing to supply. Figure 31 shows an example

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combined workforce is necessarily even smaller.

[194] Measured by market share / employee.

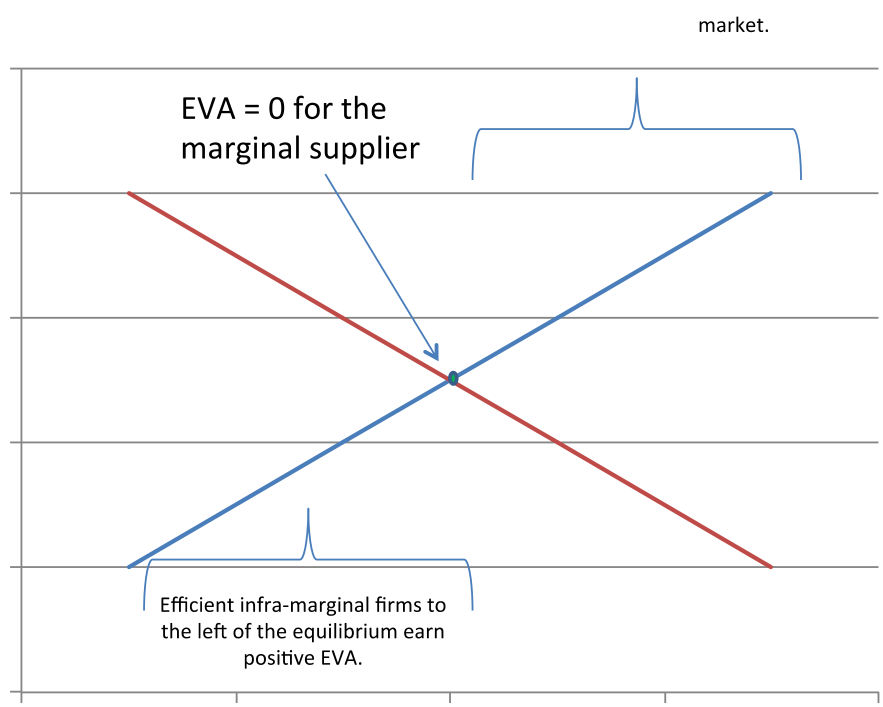
[195] *See* Blackburn Report, at ¶ 18:

> "In the statutory webcasting industry, however, there appear to be little to no significant barriers to entry. Instead, because of the compulsory licensing regime, any potential entrant which identified a potential profit opportunity can gain access to a content catalog, and, along with investments in the necessary infrastructure (sufficient internet and server bandwidth), would be able to launch a new webcasting service."

of a supply curve. As the price in the market rises, existing firms are willing to increase their supply and new firms are willing to enter the market.

(194) Equilibrium is the state where the marginal supplier is indifferent between staying in business and exiting. At equilibrium, less efficient suppliers (suppliers to the right of the equilibrium point) will not enter the market, because prices are too low. More efficient suppliers, called infra-marginal firms (suppliers to the left of the equilibrium point) earn economic profits because they are enjoying prices that are higher than the price that would induce them to enter the market. Thus, these infra-marginal firms earn economic profits (have positive EVAs.)[196] This situation is depicted in, Figure 31 which shows an upwards sloping supply curve and a downwards sloping demand curve.

Figure 31: EVA of the marginal supplier



Source: Lys analysis.

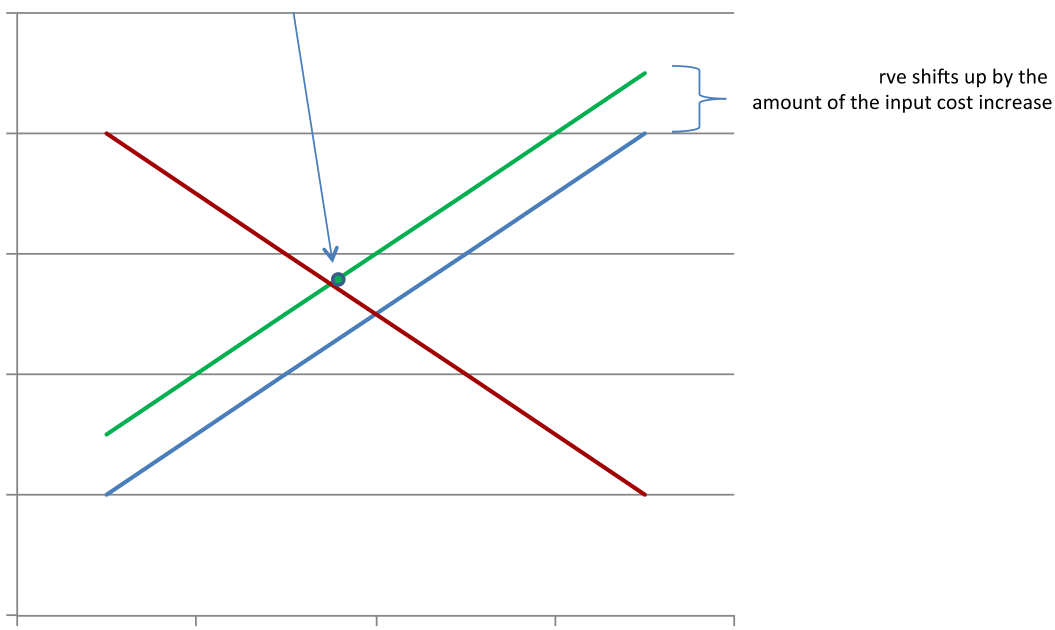
(195) An increase in the royalty rate shifts the supply curve upwards. Essentially, each supplier (in this case, webcaster) would need a slightly higher price (reflecting the higher royalties) to induce it to enter the market. The actual amount of this upwards shift depends on both the amount of the increase

[196] Varian, Hal, *Intermediate Microeconomics: A Modern Approach, 8th Edition*, W. W. Norton & Company (2010), at 419.

of the royalty and the webcasters' responses in terms of changes in their operations. The impact of an increase in the royalty rate from the base scenario (blue line) to the new royalty rate (green line) is depicted in Figure 32.

(196) At the new rate, the marginal webcaster from the original equilibrium point (Figure 32) now earns a negative economic profit/EVA and exits the market. A new equilibrium emerges, with a lower quantity, higher price and with a new marginal webcaster earning a zero economic profit, i.e., the marginal firm's EVA is again zero.[197]

Figure 32: Impact of royalty rate changes in the EVA of the marginal supplier



Source: Lys analysis.

(197) The point of this analysis is that it shows that there is not one single market equilibrium at which EVA is zero. Rather, a vast array of royalty rates is possible, each resulting in an equilibrium in the market place, each time the marginal supplier earning zero economic profit. Thus, at best, what

[197] Of course, increasing the royalty rate will also increase the price paid by subscribers and/or advertisers. The extent of that price increase depends on the impact of royalties on the supply curve and on the elasticity of the demand curve: the more elastic the demand curve, the smaller the impact on price.

Fischel & Lichtman derive is the royalty rate at which the hypothetical supplier they model is indifferent between staying in business or exiting, holding all other things constant.

(198) Most importantly, Figure 31 and Figure 32 demonstrate the fundamental flaws in the Fischel and Lichtman approach: First, their starting point has a positive EVA. As such, their analysis starts from a market in dis-equilibrium. Second, they ignore the industry's response to the new royalty rate. Thus, what they implicitly assume is that an increase or decrease in a production factor that constitutes approximately 50 percent of the industry's costs has no impact on its supply. Finally, their exercise does not imply that even their hypothetical supplier cannot afford higher royalty rates. Rather, all they can show is the highest royalty rate that their hypothetical supplier "can afford" at the current prices that consumers and advertisers are willing to pay given the quantity of suppliers in the market place. But even that conclusion is questionable because absent a rate increase, the positive EVA will attract additional entrants, putting pressure on prices and driving the incomes of their representative supplier to zero.

(199) In summary, these fundamental flaws render the Fischel & Lichtman analysis meaningless in assisting the CRB in setting the royalty rates in the current proceedings.

IV.D. Technical Criticisms of Fischel & Lichtman's Computations

IV.D.1. Outliers

(200) Professors Fischel & Lichtman's EVA computations are based on data for 12 firms collected over a ten-year period. However, their statistical procedures are methodologically flawed.

(201) Professors Fischel & Lichtman include their client Clear Channel in the sample despite the fact that radio is only one part of Clear Channel's business. However, although they collected relevant data for a similar company, CBS, they exclude it from their computations, arguing that radio only represents a portion of that company's revenues. But at the same time, Fischel & Lichtman go through great lengths to identify the radio portion of Clear Channel.

(202) More significantly, Clear Channel is a dramatic outlier in their sample, having by far the lowest EVA at 1.06%. Indeed, Clear Chanel's EVA is so low that simply excluding it from the sample more than *doubles* the sample's EVA from 7.37% to 16.34%. This, of course, would have the effect of more than doubling the royalty rate calculated by Professors Fischel and Lichtman (Figure 33). For example, merely using the sample median instead of the sample mean has the same effect.

Figure 33: EVA as percentage of revenue

Company	EVA %
Beasley Broadcast Group, Inc.	20.14%
CCME – Implied	1.06%
Citadel Broadcast Corp.	3.55%
Cox Radio Inc.	27.89%
Cumulus Media, Inc.	13.19%
Emmis Communications Corp.	9.19%
Entercom Communication Corp.	25.52%
Radio One, Inc.	24.08%
Saga Communications, Inc.	11.50%
Salem Communications Corp.	19.66%
Spanish Broadcasting System, Inc.	16.24%
TownSquare (f/k/a/ Regent Comm. Inc.)	17.49%
Average	7.37%
Average excluding Clear Channel	16.34%

Source: Fischel & Lichtman Amended Testimony, Appendix D – Exhibit 4D-1.

(203) Guarding against the impact of outliers is the most fundamental element of any careful statistical analysis, taught in even the most basic course of statistical inference.[198] Thus, this fundamental flaw alone is enough to completely dismiss the Fischel & Lichtman exercise.

(204) Based on this, I conclude that this model is completely unreliable and uninformative. If excluding a single outlier more than *doubles* the royalty calculation we cannot trust that this model has any accuracy.

IV.D.2. Sample Selection

(205) Professors Fischel & Lichtman's sample selection also undermines the relevance of their results.

(206) All 12 sample companies are old-school stable terrestrial radio companies, which inherently have a very different risk profile compared to the webcasting industry. Similarly, the terrestrial radio stations have massive debt loads (as one would expect from capital-intensive industries) that result in an average debt-to-capital ratio of 51% at the end of 2013. Pandora, on the other hand, is virtually debt free.[199] Despite reducing invested capital to account for the terrestrial-specific capital outlays, Fischel & Lichtman did not adjust debt loads when computing the debt-to-capital ratios, which affects the composition of WACC.

[198] James, Gareth, Daniela Witten, Trevor Hastie, and Robert Tibshirani, An Introduction to Statistical Learning, Springer (2013), at 92: "Most common among these [data problems] are the following: … 4. Outliers … "

[199] At the end of 2014 Pandora reported $16.8 million in debt ("other long-term liabilities"). This represents 2.2% of total assets and less than 0.5% of market capitalization of $3.1 billion, as of February 17, 2015. *See* Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 64.

(207) A number of the selected companies did not remain in operation as standalone publicly traded companies for the full 10 years – some declared bankruptcy and ceased operating, while others underwent mergers and acquisitions.

(208) By the end of the 10-year window, during the period that should have the most relevance to an analysis of what the immediate future holds, Fischel & Lichtman only have data for 7 companies. And for the purposes of computing their key input of Weighted Average Cost of Capital ("WACC") their sample size is only six, because they exclude Clear Channel's parent entity. Overall, in 2013 Fischel & Lichtman's sample only covers 33% of the overall terrestrial radio industry revenues.

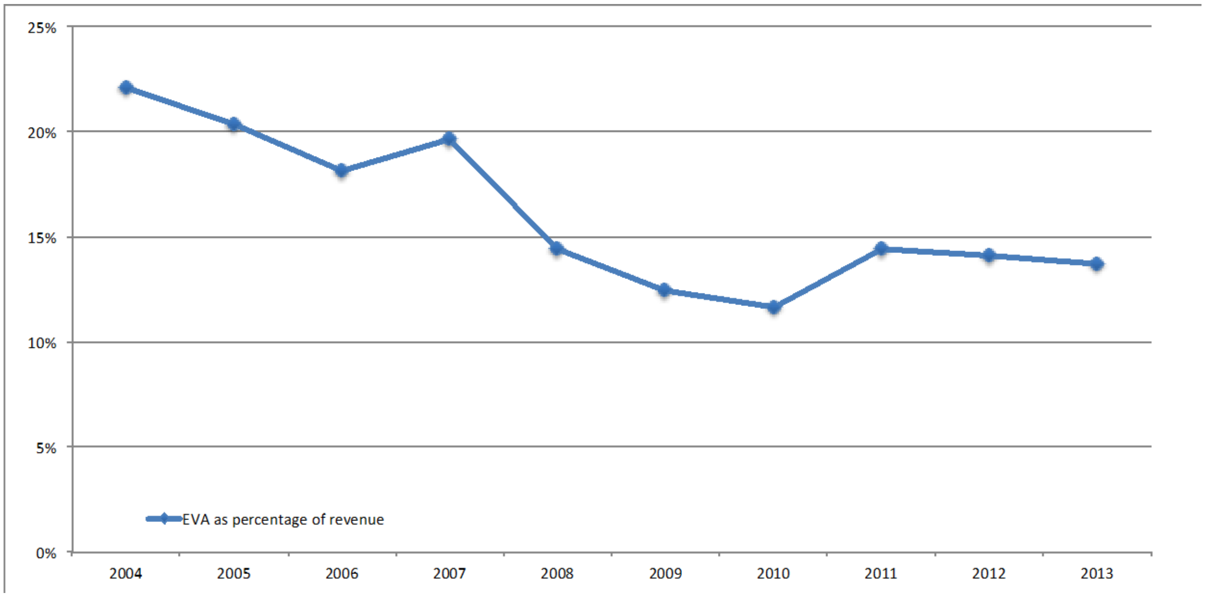
(209) In addition, the Fischel & Lichtman model is not consistent in terms of applying simple or weighted averages in their calculations, or the selection of which companies to consider: all 12, pure-radio only, or only those with available data. These inconsistencies call their model into question.

(210) I also find Fischel & Lichtman's argument for selecting a 10-year look-back window unpersuasive. Fischel & Lichtman claim that they selected a long horizon in order to capture the full effects of a complete business cycle.

(211) Fischel & Lichtman base their analysis by computing the EVA for this "terrestrial radio industry sans towers and FCC licenses," ignoring all other differences between terrestrial and Internet radio. As such, this approach is fundamentally flawed and it is not clear what that EVA represents, much less how it is indicative for the representative simulcaster. Be that as it may, the key output of their calculation, EVA as a percentage of revenue, is in steady decline, as shown in Figure 34.

(212) This is, of course, not surprising. The rise of Internet and satellite radio has exerted significant pressures on the terrestrial radio industry. For example, the terrestrial radio industry had very little competition in the early 2000s, with Internet radio and satellite radio in their infancy. The most plausible explanation for the decline in the EVA documented in Figure 34 is the impact of these new technologies on the terrestrial radio industry.

Figure 34: Weighted average EVA as percentage of revenue for Fischel & Lichtman's sample[200]



Source: Fischel & Lichtman Amended Testimony, Appendix D – Exhibit 4D-1

V. NAB

V.A. NAB's Witnesses' Testimony

(213) I was asked to review testimony submitted on behalf of the National Association of Broadcasters ("NAB") by

- John Dimick (Senior Vice President of Programming & Operations at Lincoln Financial Media Group),
- Ben Downs (Vice President and General Manager of Bryan Broadcasting),
- Robert Francis Kocak (Vice President of Program Development at Greater Media, Inc.), and
- Julie Koehn (President and General Manager of Lenawee Broadcasting Company, the licensee of WLEN Radio in Adrian, Michigan).

(214) All of these witnesses are executives of terrestrial radio stations that claim they have been trying to or would like to set up a profitable simulcasting service but are unable to do so due to licensing costs.

200 Excludes the outlier Clear Channel (iHeartMedia), per my discussion in Section IV.D.1.

(215) These four witnesses each make one or more of the following arguments: (1) the streaming services offered by terrestrial radio stations are unprofitable on a stand-alone basis,[201] (2) streaming is an ancillary activity to enhance listener experience,[202] (3) advertisers are not willing to pay for streaming.[203]

(216) Based on one or more of those arguments, each of the four NAB witnesses concludes that the current royalty rates are too high and should be reduced. There are three main reasons why the testimony offered by these witnesses is unpersuasive.

(217) First, as I already discussed at greater length in the section of this report on Pandora,[204] a particular firm's claim that it cannot profitably pay certain royalty rates is *not* the appropriate standard for determining royalty rates because it is not an appropriate proxy for a market-based determination of royalty rates. Therefore, the arguments put forward by these NAB witnesses are irrelevant as they do not address the fundamental willing buyer/willing seller principle that guides rate-setting in these proceedings.

(218) Second, the testimonies themselves indicate that the profitability of terrestrial radio's simulcasting activities should not be considered on a "stand-alone" basis. The NAB's witnesses appear to be ignoring the full value being created by streaming sound recordings. For example, John Dimick, a witness for Lincoln Financial Media Company ("LFMC") noted that "[p]art of the value we provide as a broadcaster is enabling our listeners to hear our programming in the car, at work, in their home, and wherever else they may be."[205] Yet these benefits are not accounted for in Mr. Dimick's computations.

(219) Mr. Dimick's company simulcasts its streams with only "minor commercial changes."[206] Yet, as Mr. Dimick's testimony makes clear, LFMC does not assign *any* portion of the value of these simulcast advertisements to its simulcast operations. Instead, LFMC's simulcast revenue is comprised solely of pre-roll advertisements ("advertisements that precede the stream once a listener clicks on the 'listen now' button") and ad-insertions for listeners outside LFMC's geographical market.[207]

(220) Excluding these benefits from simulcasting necessarily depresses the simulcasters' stand-alone profits and provides a misleading picture of the economic impact of simulcasting on broadcasters.

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[201] Dimick Testimony, at ¶ 2; Downs Testimony, at ¶ 2; Koehn Testimony, at ¶ 22.
[202] Dimick Testimony, at ¶ 14; Downs Testimony, at ¶ 23.
[203] Dimick Testimony, at ¶ 18; Downs Testimony, at ¶ 22.
[204] *See* Section II.
[205] Dimick Testimony, at ¶ 14.
[206] Dimick Testimony, at ¶ 11.
[207] Dimick Testimony, at ¶ 23.

(221) Third, these terrestrial radio stations claim to be unable to sell sufficient (or *any*) Internet-based advertising to support the royalty fees that their simulcasting would expose them to. However, the existence of many pure-play webcasters demonstrates that there are more efficient market participants that are able to sell advertising based on their streaming content alone. Pandora, for example, has earned $732 million in advertising revenue in 2014 alone.[208]

(222) To the extent these witnesses are correct about their inability to secure advertising revenue, this amounts to an admission that the classic terrestrial business model may not be suited to compete in the webcasting market. (I also note that this is an additional example and *prima facie* evidence of why the Fischel/Lichtman EVA approach[209] of using terrestrial radio stations to model webcaster (simulcaster) behavior is misguided: the business models are sufficiently different.)

(223) In the context of market-based negotiations, it is hard to imagine why a content owner would be willing to provide lower rates to simulcasters when their unprofitable listener hours would displace more profitable listener hours at webcasters with more efficient business models. As the Judges have noted in the past: [210]

> It must be emphasized that, in reaching a determination, the Copyright Royalty Judges cannot guarantee a profitable business to every market entrant. Indeed, the normal free market processes typically weed out those entities that have poor business models or are inefficient. To allow inefficient market participants to continue to use as much music as they want and for as long a time period as they want without compensating copyright owners on the same basis as more efficient market participants trivializes the property rights of copyright owners.

V.B. Late Payment Fee

(224) Currently, webcasters that submit late payments or statements of account must pay a late fee “of 1.5% per month, or the highest lawful rate.” 37 C.F.R. §§ 380.4, 380.13. As my written direct testimony states, this rate is the most common rate for late payments that appears in voluntary agreements negotiated between record companies and streaming services.[211]

(225) The National Association of Broadcasters (“NAB”) proposes changing the applicable late fee to “the underpayment rate identified in 26 U.S.C. § 6621.” NAB Rates and Terms at 5. The law identified in

[208] Pandora, Historical Financial Results, December 31, 2014.

[209] *See* Section IV.B.

[210] Digital Performance Right in Sound Recordings and Ephemeral Recordings – Final Rule and Order, 72 Fed. Reg. No. 83 at 24088 n.8 (May 1, 2007).

[211] Written Direct Testimony of Thomas Lys (“Lys Testimony”), submitted on October 6, 2014, at ¶¶ 36-39.

this proposal—26 U.S.C. § 6621—is the law that establishes the rate for underpayment of federal taxes. No justification or evidence whatsoever is presented in support of this proposal.

(226) By definition, the rate established by Congress for the underpayment of income taxes is a statutory rate that accordingly reflects Congress's own political judgments and policy decisions. This is clear from the face of the statute, which establishes an increased rate for "large corporate underpayments." 26 U.S.C. § 6621(c). Nothing in that statute says that the prescribed rate is a reflection of what willing buyers and willing sellers would agree to.

(227) In addition, the rate prescribed by 26 U.S.C. § 6621 is *in addition* to the other penalties that can be imposed by the government for those who fail to pay their taxes. For example, 26 U.S.C. § 7203 makes it a federal crime to intentionally fail to pay taxes, further decreasing taxpayers' incentives to unilaterally "borrow" from the government. No such penalties are present in the statutory rate context and the late-payment fee serves as the sole deterrent against such unilateral borrowings. Therefore, if the interest rate were set low, a webcaster could rationally decide to delay payments.

(228) In sum, the NAB has not provided any evidence that the interest rate for tax underpayments has any relevance to the determination of the interest rate that would be adopted between a willing buyer and a willing seller. By contrast, my opening report in this matter shows that the current rate for late fees is supported by the agreements between willing buyers and willing sellers.

VI. Pandora's Terms

VI.A. Definition of Revenue

(229) The definition of the term "revenue" is relevant for the purposes of calculating total royalty payments under the "percentage of revenue" prong being proposed by both Pandora and SoundExchange, albeit at different levels (rates).

(230) Pandora is proposing that only two explicitly-defined revenue streams should count in compiling total revenue:[212]

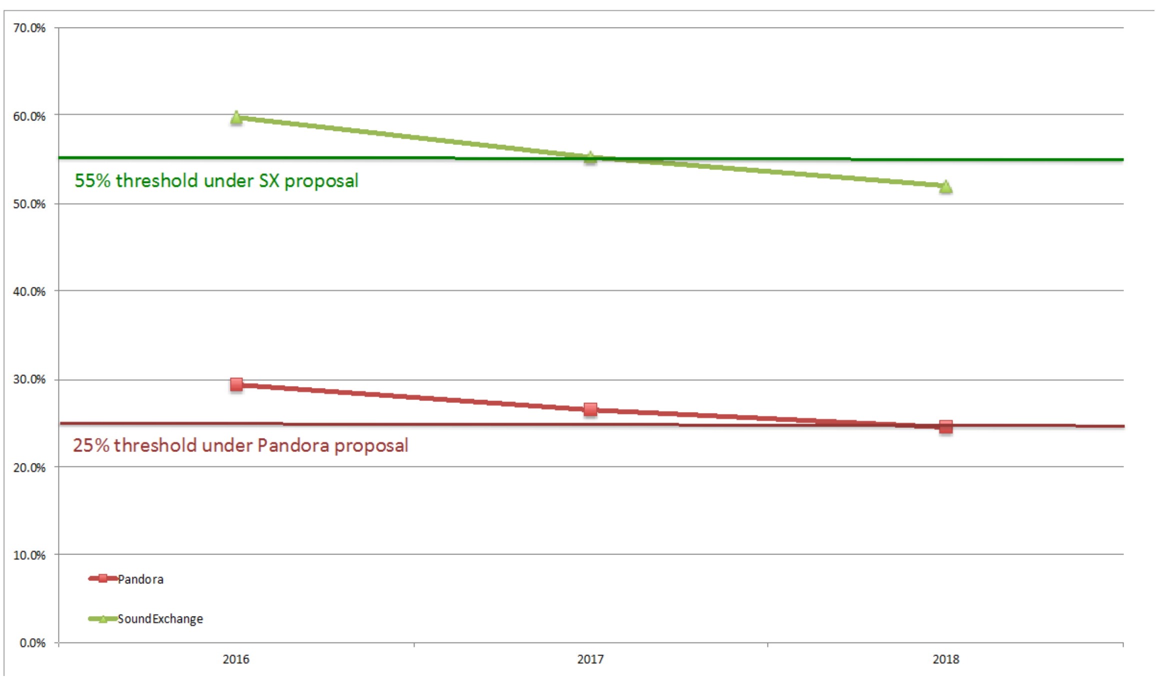
> "Revenue is all money earned by Licensee consistent with Generally Accepted Accounting Principles ("GAAP") which is derived by the Licensee from making Eligible Transmissions in the United States, and shall be comprised of the following:
>
> > (a) Subscription revenue earned by Licensee directly from U.S. subscribers for making Eligible Transmissions; and

[212] Pandora Rate Proposal, at 7.

> (b) Licensee's advertising revenues, or other monies received from sponsors, if any, attributable to advertising on channels making Eligible Transmissions, other than those that use only incidental performances of sound recordings, less advertising agency and sales commissions.
>
> For the avoidance of doubt, Revenue shall exclude revenue from activities other than making Eligible Transmissions."

(231) First, I note that although most of my report thus far was devoted to discussing per-performance rates, the definition of revenue is important for the percentage of revenue prong. My analysis, based on the Morgan Stanley forecast of Pandora's expected future performance, indicates that by 2018 under both the Pandora rate proposal and the SoundExchange proposal Pandora may be paying royalties under the percentage of revenue prong, as indicated in Figure 35. In other words, overall payments under the per-performance prong dip to the 55% of revenue threshold by 2017 using SoundExchange's rates and to below 25% of revenue by 2018 using Pandora's rates – which would under both proposals trigger the percentage of revenue prong.

Figure 35: Percentage of revenue threshold



Source: Lys analysis.

(232) On the face of it, Pandora's proposal may carry an illusion of reasonableness because it covers the only two substantial revenue streams that Pandora currently has: subscriptions and advertising revenue. However, when considered in the context of a statutory setting, which demands universal applicability, Pandora's proposal is insufficient because it artificially excludes other potential sources

of revenue that a webcaster might have. The proposal thus creates opportunities for webcasters to artificially shield portions of their revenue earned as a consequence of performing sound recordings from the obligation to pay appropriate royalties on such revenue.

(233) As I discussed in more detail in the Initial Lys Report,[213] streaming services have the opportunity to:

1. Recognize revenue in ways that defeat the percentage-of-revenue approach;
2. Transfer revenues to affiliates; and,
3. Use sound recordings to promote other products in circumstances that make it hard to capture that promotional value in streaming service revenues.

(234) For example, a hypothetical webcaster that offers streaming music as well as connected products (e.g., telephones, music players, etc.) would likely choose to define its combined revenue streams as disproportionally belonging to the portion of the stream (e.g., sale of hardware, mobile subscription plan) that is not subject to royalty payment obligations under this proposal.

(235) Thus, Pandora's revenue proposal is not equitable because it would allow the possibility of certain relevant revenue streams being artificially excluded from consideration. Considering Pandora's current business model, accepting instead a broad revenue definition without explicit references to subscription and advertising revenue would have no incremental impact on Pandora's expected financial performance.

(236) In addition, Pandora's proposal is ostensibly based on a single privately negotiated agreement (with MERLIN). By contrast, my analysis of revenue-definition items presented in my October 6, 2014 report was based on reviewing 62 voluntary streaming agreements.[214] While economists may disagree over what sample size would be considered representative of a market experience, I am reasonably certain the consensus would be higher than one.

(237) [redacted]

[213] Lys Written Direct Testimony, Section III.A.

[214] Lys Written Direct Testimony, at ¶2 5 and more generally Section II.

[215] Agreement between Pandora Media, Inc. ("Pandora") and Music and Entertainment Rights Licensing Independent Network (B.V. ("MERLIN"), ("MERLIN Agreement.")

[216] [redacted]

[217] [redacted]

[redacted]

(238) Put differently, irrespective of the specific agreement language, [redacted] It is this principle that should guide the panel's interpretation of the Pandora-MERLIN agreement, and not the specific limited definition of revenue contained within it, because that definition is only applicable to the specific circumstances of Pandora. If, for example, MERLIN had been negotiating an agreement with a hypothetical mobile phone provider that sells devices as well as subscription plans that contain music streaming, it is a virtual certainty that the revenue definition in that contract would look different from its agreement with Pandora.

VI.B. Other Issues with Pandora's Proposed Rates and Terms

VI.B.1. GAAP Revenue

(239) Pandora's definition of revenue makes reference to GAAP.[218]

> "Revenue is all money earned by Licensee consistent with Generally Accepted Accounting Principles ("GAAP") which is derived by the Licensee from making Eligible Transmissions in the United States"

(240) While such language may have some initial appeal because it carries the aura of GAAP-provided legitimacy, in reality it would likely have the net effect of reducing and/or delaying payments legitimately owed to content owners.

(241) Net revenues are reduced by various reserve accounts whose amounts are largely at the discretion of management. Pandora offers a perfect example. Between 2011-13 Pandora reserved $14.2 million of its subscription revenues because it did not have sufficiently long operating history to properly estimate potential refunds it would have to offer customers who requested refunds. Consequently, Pandora delayed the formal recognition of subscription revenues so long as customers had contractual rights to request refunds. In 2014, having established an operating history, Pandora reversed all $14.2 million of its reserves.[219]

(242) On a nominal basis, the impact was negligible. However, in practical terms, Pandora delayed the formal recognition of income by up to three years. Had Pandora been paying royalties under the percentage-of-revenue prong, the net effect would have been an up to three-year delay in paying

[218] Pandora Rate Proposal, at 7.

[219] Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 50.

artists, even though Pandora had collected the cash from its customers. Even at Pandora's proposed 25% threshold of revenue-sharing, this amounts to a non-trivial $3.5 million[220] payment that the artists would not have received in a timely fashion.

(243) Whether or not the justification for creating a reserve account was legitimate in this instance, reserve accounts are notoriously difficult to oversee and are to a large extent at management's discretion. Permitting webcasters this level of discretion opens the door to intentional as well as inadvertent accounting manipulation.

(244) A more equitable proposal would be to require revenue-sharing based on gross revenues, adjustable only by actual returns and not reserve accounts.

VI.B.2. Limits on Advertising Agency Fees

(245) Pandora's revenue definition proposal includes an allowance for subtracting "advertising agency and sales commissions" from advertising revenues without any limitations.[221]

(246) My review of voluntary agreements shows that, while allowances for advertising commissions are sometimes found in private contracts, they are often capped. Figure 36 provides a breakdown of voluntary agreements and shows that the median cap on commissions is 15%.

[220] $14.2 million x 25% ≈ $3.5 million

[221] Pandora Rate Proposal, at 7.

Figure 36: Analysis of private agreements' caps on advertising agency and sales commissions

Term	No. of Occurrences	Percent of All Agreements
Ad commission cap quantified	33	53%
Ad commission cap not quantified	3	5%
Ad commission not mentioned	26	42%
TOTAL	62	100%
Mean cap when quantified	16.06%	
Median cap when quantified	15.0%	
Mode cap when quantified	15.0%	
Min cap when quantified	5.0%	
Max cap when quantified	40.0%	

Source: Lys analysis of voluntary agreements between labels and streaming services.[222]

(247) While the contracts do not explicitly state why advertising and sales commissions are excluded, economic intuition indicates two reasons why advertising revenue and sales commissions should not be deducted when computing Attributable Revenue.

(248) First, advertising and sales commissions are expenses, not different than any other expenses (say payments for electricity usage) incurred by webcasters in the regular course of business.

(249) Second, allowing deductions—especially uncapped deductions—from revenue opens the door to both intentional and inadvertent structuring of business arrangements to maximize the size of such deductions. For instance, webcasters could create affiliates that charge relatively large commissions for advertising placement. In the free market context, a webcaster that structured its affiliates in an effort to avoid recognizing revenue could be refused a future license or any future license could be conditioned on a new revenue recognition rule. By contrast, in the statutory setting, a content owner has no meaningful way to prevent such tactics.

(250) Moreover, from an economic perspective, the royalty rate cannot be viewed independently from the definition of attributable revenue, and allowing an uncapped deduction of advertising and sales commission simply necessitates an increase in the royalty from one that is based on contracts that cap advertising and sales commissions.

[222] I reviewed the same set of 62 agreements as in the Lys Testimony, *see* Appendix B.

VI.B.3. Directly Licensed Recordings and Recordings Not Covered by the Statutory License

(251) My initial report provides a simple method for dealing with performances of sound recordings that are directly licensed or that otherwise do not require a statutory license: [223]

> "First, with respect to the per-play rate component, the per-play fees should not apply to recordings that are not being performed under the statutory license.
>
> With respect to the revenue share rate component, the royalty calculated under that component should be reduced by the percentage of performances that are directly licensed or that otherwise do not require a license."

(252) I have reviewed Pandora's proposed rates and terms, which appear to attempt to make a similar adjustment. But I am concerned that some drafting issues make the effect of their proposal unclear with respect to the percentage of revenue calculation.

(253) In its proposed rates and terms, Pandora proposes accounting for pre-1972 recordings and directly licensed recordings as follows:[224]

> "If [a] . . . Licensee is subject to [a per-performance based royalty], it need not make a payment under this Section for any directly licensed Performances or Performances of sound recordings fixed before February 15, 1972.
>
> If [the] . . . Licensee is subject to [a revenue-based royalty], the fee owed may, prior to payment, be reduced by a percentage referred to herein as the "Direct License Share," which is the result of dividing Licensee's Performances of directly-licensed recordings by the total number of Licensee's Performances of all sound recordings during the payment period."

(254) Because pre-1972 recordings may well be directly licensed by a webcaster, the above language may suggest that Pandora could take a reduction for such recordings. The problem is that earlier in its proposal, Pandora has *already* permitted a reduction for such sound recordings. Pandora's definition of Revenue encompasses money earned by a webcaster "from making Eligible Transmissions" and it "exclude[s] revenue from activities other than making Eligible Transmissions." And the definition of "Eligible Transmissions" is explicitly limited to performances "subject to licensing under 17 U.S.C. §114(d)(2)."

Based on the above language, one might conclude that Pandora's Revenue definition *already excludes* sound recordings that do not require a statutory license and are, instead, directly licensed. This would mean that such recordings would be deducted twice: first, in calculating revenue and then,

[223] Lys Testimony, Section VI ("Adjustments").

[224] Pandora Rate Proposal, at 7-8.

again, in performing Pandora's "Direct License Share" deduction. Therefore, I respectfully suggest that the approach in my opening report be adopted to prescribe the adjustment to Attributable Revenue for directly licensed recordings and recordings not covered by the statutory license.

VII. NRBNMLC Proposal on Special Terms for Non-commercial Services

(255) I have reviewed the National Religious Broadcasters Noncommercial Music License Committee's (NRBNMLC) rate proposal that calls for raising the listening hours threshold for eligibility for the minimum fee and proposes a "tiered" flat fee structure. I find the NRBNMLC's arguments unpersuasive.

(256) First, from a functional perspective, there is no real difference between a noncommercial and a commercial broadcaster. For example, both Pandora and iHeartRadio have Gospel/Christian music of the type that would be offered by a noncommercial devotional service. From an end-user's perspective, the listeners are likely to be indifferent as to whether their music is being streamed by a noncommercial or commercial webcaster is. It therefore defies economic logic that one class of webcaster would be treated differently from the other.

(257) Second, there is no market-based reason to provide a competitive advantage to small noncommercial broadcasters versus small commercial broadcasters, particularly considering the fact that noncommercial broadcasters are already enjoying tax benefits. Enforcing such an arbitrary distinction would only have the net effect of making it hard for small commercial services to survive because they would have to compete with noncommercial services with subsidized content costs. By the very nature of it, this proposal therefore forces non-market forces upon the process – the very opposite of the Congressional mandate given to CRB to promulgate market-based rates.

(258) Finally, there is no valid economic reason to raise the listening cap that allows a service to qualify for the minimum fee. A raise in the cap effectively results in a discount to these services and a lowering of their rates. The NRBNMLC claims that this would provide its members additional "breathing room," but they don't present any economic evidence supporting this proposal. Significantly, they present no evidence as to how and why such an outcome would be in keeping with the mandate of developing market-based rates. Had Congress intended to carve out special classes of privileged and subsidized users of statutory rates it could have included such directions in the controlling legislation. Instead, the very clear mandate provided to the CRB is diametrically opposite of the goals and effects of NRBNMLC's proposal.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: February 22, 2015

Thomas Lys

Thomas Z. Lys

Appendix A. Curriculum vitae

A.1. Prof. Thomas Z. Lys

A.2. Education

- Ph.D. Graduate School of Management, University of Rochester, 1982 (Accounting and Finance).
- Lic. Rer. Pol. University of Berne, Switzerland, 1976 (Economics & Operations Research, summa cum laude).

A.3. Academic appointments

- Kellogg Graduate School of Management, Northwestern University (1981–present)
    - 2006–present: Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management
    - 1999–2006: Gary A. Rosenberg Distinguished Professor of Real Estate Management, Professor of Accounting and Information Management, and Director, Guthrie Center for Real Estate Research
    - 1997–1999: Gary A. Rosenberg Distinguished Associate Professor of Real Estate Management, Associate Professor of Accounting and Information Systems, and Director, Guthrie Center for Real Estate Research
    - 1995–1997: John L. and Helen Kellogg Distinguished Associate Professor of Accounting and Information Systems
    - 1989–1995: Associate Professor of Accounting and Information Systems
    - 1981–1989: Assistant Professor of Accounting and Information Systems
- Northwestern School of Law, Northwestern University
    - 2000–present: Professor of Law (courtesy appointment)
- Graduate School of Business, Stanford University (January–August, 1997): Visiting Associate Professor of Accounting
- Graduate School of Business, University of Chicago (1986–1987): Visiting Assistant Professor of Accounting

A.4. Publications—articles

(For recent articles, visit http://ssrn.com/author=23037)

34) Corporate Governance Reform and Executive Incentives: Implications for Investments and Risk-Taking (with Daniel Cohen and Aiyesha Dey), Forthcoming 2013 *Contemporary Accounting Research.*

33) An Examination of the Impact of the Sarbanes-Oxley Act on the Attractiveness of US Capital Markets for Foreign Firms (with Peter Hostak, N. Emre Karaoglu, and Yong (George) Yang), forthcoming, *Review of Accounting Studies*, Volume 18, Issue 2 (June 2013), pp. 522-559.

32) Earnings Management and the Predictive Ability of Accruals with Respect to Future Cash Flows (with Brad Badertscher and Daniel W. Collins), Volume 53, Issues 1–2, Pages 1-488 (February–April 2012), *Journal of Accounting and Economics*.

31) The Financial Reporting Environment: Review of the Recent Literature (with Anne Beyer, Daniel Cohen, and Beverly Walther), *Journal of Accounting and Economics*, December 2010, 50(2-3): 296-343.

30) Real and Accrual-based Earnings Management in the Pre- and Post-Sarbanes Oxley Periods (with Daniel Cohen and Aiyesha Dey), *The Accounting Review*, May 2008, 82(3): 757–787.

29) Endogenous Entry/Exit as an Alternative Explanation for the Disciplining Role of Independent Analysts (with Jayanthi Sunder), *Journal of Accounting and Economics,* August 2008, 45(2–3): 317–323.

28) Earnings Announcement Premia and the Limits to Arbitrage (with Daniel Cohen, Aiyesha Dey, and Shyam Sunder), *Journal of Accounting and Economics*, July 2007, 43(2–3): 153–180 (lead article).

27) Weighing the Evidence on the Relation between External Corporate Financing Activities, Accruals and Stock Returns (with Daniel A. Cohen), *Journal of Accounting and Economics*, October 2006, 42(1–2): 87–105.

26) Significant Clinical Practice Cost Savings through Downsizing Office Supply Inventory and Just in Time Ordering (with C. M. Gonzalez, T. Jang, M. Raines, and A. J. Schaeffer), *Journal of Urology*, 2006 176(1).

25) A Note on Analysts' Earnings Forecast Errors Distribution (with Daniel A. Cohen), *Journal of Accounting and Economics*, December 2003, 36(1–3): 147–164.

24) The internet downturn: finding valuation factors in spring 2000 (with Elizabeth K. Keating and Robert P. Magee), *Journal of Accounting and Economics*, January 2003, 34(1–3): 189–236.

23) The effect of accounting information on corporate financing choices: an examination of security issuances in the banking industry (with Marguerite Bishop), *Contemporary Accounting Research*, Fall 2001, 18(3): 397–423.

22) Empirical research on accounting choice (with Thomas Fields and Linda Vincent), *Journal of Accounting and Economics*, September 2001, 31(1–3): 255–307.

21) The Ohlson model, contribution to valuation theory, limitations, and empirical applications (with Kin Lo), *Journal of Accounting, Auditing, and Finance*, Summer 2000, 15(3): 337–367.

20) Auto-correlation structure of forecast errors from time-series models: Implications for post-earnings announcement drift studies (with John Jacob and Jowell Sabino), *Journal of Accounting and Economics*, December 1999, 28: 329–358.

19) Use of R^2 in accounting research: measuring changes in value relevance over the last four decades (with Stephen Brown and Kin Lo), *Journal of Accounting and Economics*, December 1999, 28: 83–115.

18) Expertise in forecasting performance of security analysts (with John Jacob and Margaret Neale), *Journal of Accounting and Economics*, November 1999, 28: 51–82.

17) A closer look at post earnings announcement drift: the role of the dissemination of predictable information (with Leonard Soffer), *Contemporary Accounting Research*, Summer 1999, 16: 305–31.

16) Abandoning the transactions-based accounting model: weighing the evidence, *Journal of Accounting and Economics*, July/September/November 1996, 22: 155–176.

15) An analysis of the value destruction in AT&T's acquisition of NCR (with Linda Vincent), *Journal of Financial Economics*, October-November 1995, 39: 353–378.

14) Analysts' forecast precision as a response to competition (with Lisa Gilbert Soo), *Journal of Accounting, Auditing, and Finance*, March 1995, 10: 751–765.

13) Lawsuits against auditors under the security acts (with Ross L. Watts), *Journal of Accounting Research*, Supplement 1994, 32: 65–93.

12) The evolution of lawsuits against auditors—determinants, consequences, and solutions, *Journal of Economics and Management Strategy*, Fall 1993, 2: 427–434.

11) Research design issues in grouping-based tests (with Jowell S. Sabino), *Journal of Financial Economics*, December 1992, 32: 355–387.

10) The association between revisions of financial analysts' earnings forecasts and security price changes (with Sungkyu Sohn), *Journal of Accounting and Economics*, December 1990, 13: 341–364.

9) The market for audit services: evidence from voluntary auditor changes (with W. Bruce Johnson), *Journal of Accounting and Economics*, January 1990, 12: 281–309.

8) Earnings expectations and capital restructuring: the case of equity for debt swaps (with Konduru Sivaramakrishnan), *Journal of Accounting Research*, Autumn 1988, 26: 273–299.

7) Auditor liability and information disclosure (with S.P. Kothari, Clifford W. Smith and Ross L. Watts), *Journal of Accounting, Auditing and Finance*, Fall 1988, 3: 307–340.

6) An empirical analysis of the incentives to engage in costly information acquisition: the case of risk arbitrage (with David F. Larcker), *Journal of Financial Economics*, March 1987, 18: 111–126.

5) Labor participation in private business making decisions: the German experience with code-termination (with Giuseppe Benelli and Claudio F. Loderer), *Journal of Business*, October 1987, 60: 553–575.

4) Daily monetary impulses and security prices (with Claudio F. Loderer and Urs Schweizer), *Journal of Monetary Economics*, July 1986, 18: 33–48.

3) Auditor changes following big eight takeover of non big eight audit firms (with Paul Healy), *Journal of Accounting and Public Policy*, Winter 1986, 5: 251–265.

2) Discussion of: Capital analysis of reserve recognition accounting, *Journal of Accounting Research*, Supplement 1986, 24: 109–111.

1) Mandated accounting changes and debt covenants: the case of oil and gas accounting, *Journal of Accounting and Economics*, April 1984, 6: 39–65, reprinted in *The Economics of Accounting Policy Choice*, Ray Ball and Clifford W. Smith JR., editors, McGraw-Hill, Inc.: New York, 1992: 681–707.

A.5. Publications—books, book chapters and other publications

- Getting more of what you want, (with Margaret Neale), Basic Books forthcoming.
- Financing Decisions by Company (Net Stock Anomalies), (with Daniel Cohen and Tzachi Zach) in *Conceptual Foundations of Capital Market Anomalies – Handbook of Investment Anomalies*, (Ed. Leonard Zacks). John Wiley Publishing, 2011
- Monetary theory and monetary policy—The collected essays of Karl Brunner, volume two, (editor), Edward Elgar Publishing Ltd: Cheltenham, UK, 1997
- Economic analysis and political ideology—The collected essays of Karl Brunner, volume one (editor), Edward Elgar Publishing Ltd: Cheltenham, UK, 1996
- Discretion in financial reports: communicating in a less-than-rational world (with Margaret Neale), *CEO Magazine*, December 1996, 119: 72–73.
- The real value of takeovers to shareholders, in *The Handbook of Communications in Corporate Restructuring and Takeovers*, Clarke L. Caywood and Raymond P. Ewing, editors, Prentice Hall: Englewood Cliffs, 1992: 86–89

A.6. Papers under review

- Signaling Through Corporate Accountability Reporting (with James P. Naughton and Clare Wang), 2012.
- The Nature and Implications of Acquisition Goodwill (with Linda Vincent and Nir Yehuda), 2012.
- Conservatism and analyst earnings forecast bias (with Henock Louis and Amy X. Sun), 2012.
- Are Private Targets Better Buys? (with Nir Yehuda), 2012.

A.7. Working papers

- How Much Silence is Too Much? An Empirical Analysis of Firms Ceasing Guidance of Different Frequencies (with Gary Chen and Jie Zhou), 2011.

- Motives for and Risk-Incentive Implications of CEO Severance (with Tjomme Rusticus and Ewa Sletten), 2008.
- Exceptions do not Change the Rule: Substance Overrules Form in US GAAP (with N. Emre Karaoglu), 2008.
- Optimal structure of the consideration in mergers and acquisitions (with Thomas Fields), 2002.
- Bridging the Gap between Value Relevance and Information Content (with Kin Lo), 2001.
- Determinants and implications of the serial-correlation in analysts' earnings forecast errors (with John Jacob), 2000.
- Estimating auto-correlation coefficients in small samples (with Jowell S. Sabino and John Jacob), 2000.
- The role of earnings levels vs earnings changes in explaining stock returns: implications from the time series properties of earnings (with K. Ramesh and S. Ramu Thiagarajan), 1999.
- Addressing recognition issues in accounting: an evaluation of alternative research approaches (with Patricia Dechow and Jowell Sabino), 1998.

A.8. Editorial positions

- Consulting Editor, Journal of Accounting and Economics, 2010-2011.
- Editor, Journal of Accounting and Economics, 1999-2010
- Associate Editor, Journal of Accounting and Economics, 1988–1999
- Editorial Board, The Accounting Review, 1986–1989

A.9. Teaching

- MBA level:
  - Financial Accounting
  - Security Analysis
  - Financial Statement Analysis
  - Mergers and Acquisitions
- Executive MBA level:
  - Financial Accounting
  - Security Analysis
  - Mergers and Acquisitions
- Executive non-degree:
  - Strategies for Improving Directors' Effectiveness (Academic Director)
  - Women's Director Development Program

- Minority Director Development Program
- Merger Week—Creating Value through Strategic Acquisitions and Alliances
- Biotechnology—Strategies for Growth

- Lecture capabilities in English, French, German, and Polish

A.10. Honors and awards

- Outstanding Professor Award, Executive Masters' Program – KR 12, 2009
- Sidney J. Levy Teaching Award, Master of Management Program 2001–2002
- Outstanding Professor Award, Executive Masters' Program—46, 2000
- Outstanding Professor Award, Executive Masters' Program—44, 2000
- Sidney J. Levy Teaching Award, Master of Management Program 1998–1999
- Outstanding Professor Award, Executive Masters' Program—38, 1998
- Outstanding Professor Award, Executive Masters' Program—35, 1997
- Outstanding Professor Award, Executive Masters' Program—32, 1996
- State Farm Companies Foundation Business Doctoral Dissertation Awards Selection Committee 1996–2007
- Peat Marwick and Mitchell Research Grant (jointly with Ross Watts), 1987
- Notable Contribution to Accounting Literature Award Screening Committee 1987–1988
- Beatrice Foods Research Chair 1984–1985
- Ernst & Whinney Research Fellow 1983–1984

A.11. Chaired Dissertation committees

- Mark Kim (Co-chair, Accounting), in progress
- Spencer Pierce (Accounting), in progress
- Gary Chen (Accounting), in progress
- Jingjing Zang (Accounting), 2012, McGill
- Rafael Rogo (Accounting), 2012, University of British Columbia
- Jie Zhou (Accounting), 2012 Singapore Management University
- Liang Tan (Accounting), 2011, George Washington University
- Dora Altschuler (Accounting), 2011, Loyola University Chicago
- Ewa Sletten (Accounting), 2007, Massachusetts Institute of Technology
- Peter Hostak (Accounting), 2006, University of Massachusetts at Dartmouth

- Yong (George) Yang (Accounting), 2006, The Chinese University of Hong Kong
- Aiyesha Dey (Accounting), 2005, University of Chicago
- Xiaohui (Gloria) Liu (Accounting), 2004, University of Houston
- Daniel Cohen, (Accounting), 2004, University of Southern California
- Nuri Emre Karaoglu, (Accounting), 2003, University of Southern California
- Elizabeth Eccher (Accounting), 1996, Massachusetts Institute of Technology
- John Jacob (Accounting), 1995, University of Colorado, Denver
- Marguerite Bishop (Accounting), 1995, New York University
- Linda Vincent (Accounting), 1994, University of Chicago
- Sungkyu Sohn, (Accounting), 1992, CUNY, Baruch College

A.12. Dissertation committees

- Ann Beyer (Accounting), 2006, Stanford University
- Thomas Fields (Accounting), 2004, Harvard University
- Yan (Rock) Gao (Finance), 2002
- Xiaoquin Hu (Finance), 2002, University of Illinois, Chicago
- Stephen Brown (Accounting), 2000, Emory University
- Kin Lo (Accounting), 1999, University of British Columbia
- Rita Czaja, 1995 (Accounting), Michigan State University
- Jowell Sabino (Accounting), 1994, University of Pennsylvania
- Susan Wolcott (Accounting), 1993, University of Denver
- Byong Ho Kim (Accounting), 1992, Kook-min University, Seoul, Korea
- Billy Soo, 1991 (Accounting), Boston College
- Paula Koch, 1989 (Accounting), University of Illinois, Chicago
- Young Ho Lee (Finance), 1989, Hanwha Group, Seoul, Korea
- Naveen Khanna (Finance), 1986, University of Michigan, Ann Arbor

A.13. Service at Kellogg

- Chair EMBA Curriculum Review Committee (2013)
- Product Portfolio Review Team (2011-2012)
- Research Cluster Committee (2011-2012)
- Personnel Committee (2001–2005; 2009-2011)

- Chair Ph.D. Committee, Department of Accounting and Information Systems (1990–1996)
- Chair Recruiting Committee, Department of Accounting and Information Systems (1993–1995 and 2002–2006)
- Research Computing Committee, Kellogg Graduate School of Management (1989-2000; Chair 1989–1992)

A.14. Invited talks and presentations (last ten years)

- 2012-2013 University of California at Davis Sustainability and Finance Symposium
  Harvard University Conference on Corporate Social Responsibility
- 2011-2012 University of Colorado at Boulder Conference
  CAR Conference
  NBER Conference (Discussant)
- 2010-2011 University of British Columbia
  Stanford Summer Camp
- 2009-2010 *Journal of Accounting and Economics* Conference
  Stanford Summer Camp
- 2008–2009 University of Washington at Seattle
  Massachusetts Institute of Technology
- 2007–2008 Washington University Conference
  Accounting Symposium, London Business School
- 2006–2007 *Journal of Accounting Research* Conference
  Pennsylvania State University
  Journal of Accounting and Economics Conference (Discussant)
  University of Oklahoma Research Conference, featured speaker
  Hong Kong University of Science and Technology Summer Symposium on Accounting Research, featured speaker
  Harvard University, 2007 Information, Markets, and Organizations Conference
- 2005–2006 Leventhal School of Accounting, University of Southern California
  Columbia School of Business, Columbia University
- 2004–2005 *Journal of Accounting and Economics* Conference (Discussant)
  Jerusalem School of Business Administration, Hebrew University
  American Accounting Association Annual Meeting, Orlando, Florida
  Olin School of Business, Washington University Corporate Governance Conference
- 2003–2004 Massachusetts Institute of Technology

University of Colorado at Boulder

Georgetown University

Harvard University

London Business School

- 2002–2003 *Journal of Accounting and Economics* Conference (Discussant)

A.15. Expert witness assignments (last four years)

- Testifying expert for Plaintiffs in Anderson News LLC and Lloyd Whitaker, as the Assignee under an Assignment for the Benefit of Creditors for Anderson Services, LLC v. American media Inc., Bauer Publishing Co., LP, Curtis Circulation Company, Distribution Services, Inc., Hachette Filipacchi Media US, Inc., Hearst Communications Inc., Hudson news Distributors LLC, Kable Distribution Services, Inc., Rodale Inc., Time Inc. and Time/Warner Retail Sales & Marketing, Inc., in the United States District Court, Southern District of New York, 09-CIV-2227 PAC.
- Testifying expert for Defendants in Philip Morris Asia Limited v. Commonwealth of Australia; Arbitration Under the 2010 Arbitration Rules of the United Nations Commission on International Trade Law, PCA Case No. 2012-12
- Testifying Expert for Plaintiffs in Casino Guichard-Perrachon, et al. v. Abilio Dos Santos Diniz, et al.; Arbitration Pursuant to The Rules of Arbitration of the International Chamber of Commerce, ICC Case No. 17977/CA (C-18055/CA)
- Testifying Expert for Defendants in Re Rural Metro Corporation Shareholders Litigation in the Court Of Chancery Of The State of Delaware Consolidated C.A. No. 6350-VCL.
- Testifying Expert for plaintiff in Millennium Import, LLC v. Reed Smith LLP, Douglas J. Wood and Darren B. Cohen, Supreme Court of the State of New York, County of New York, Index No. 603350-07.
- Testifying Expert for plaintiffs in Salem Financial, Inc. as Successor-in-Interest to Branch Investments LLC v. United States of America, in the United States Court of Federal Claims Case No. 10-192.
- Testifying Expert for plaintiffs in Santander Holdings USA, Inc. & Subsidiaries v. United States of America, United States District Court District of Massachusetts, Case No. 09-cv-11043
- Testifying Expert for SoundExchange before the United States Copyright Royalty Judges Washington, D.C. In the Matter of Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services. Docket No. 2011-1 CRB PSS/Satellite II.
- Testifying Expert for plaintiffs in Oracle America, Inc. v. Micron Technology, Inc. and Micron Semiconductor Products, Inc., United States District Court For the Northern District of California, Docket No. 10-cv-4340.
- Testifying expert for plaintiffs in Option Care of New York Inc. v. William H. McMichael, John P. Mullen, Michael Breslin, Ezra Dottino, Veronica Terranova, Steve Kopp, Roy Larson, James McNally, John F. Mullen, Catherine Mullen, Karen Lorentzen, Robert Steinmetz, Jay Valentine,

Nancy Lynn Lynch, and Laura McMichael, individuals, in arbitration before ADR systems, INC. Chicago, Illinois.

- Testifying expert for defendant in John Hancock Life Insurance Company v. Commissioner of Internal Revenue, United States Tax Court, Docket Nos. 6404-09, 7083-10, 7084-10
- Testifying expert for defendant in Hulley Enterprises Limited v. The Russian Federation; Yukos Universal Limited v. The Russian Federation; and Veteran Petroleum Limited v. The Russian Federation, in the arbitrations pursuant to the rules of the United Nations Commission on International Trade Law, Permanent Court of Arbitration, Cases Nos. AA226/AA227/AA228
- Testifying expert for defendant Potash Corporation of Saskatchewan Inc. v. BHP Billiton Ltd., BHP Billiton Plc and BHP Billiton Development 2 (Canada) Ltd., United States District Court for the Northern District of Illinois, Eastern Division Civil Action No. 1:10-CV-06024.
- Testifying expert for defendant in Santa Clara Valley Housing Group, Inc. and Kristen M. Bowes v. United States of America, United States District Court Northern District of California, Complaint for Refund of Internal Revenue Taxes, Case No. C08 05097.
- Testifying expert for defendants in Napoleon Perdis Cosmetics, Inc. v. Sephora USA, Inc.; and DOES 1-50, Superior Court Of The State of California, County of Los Angeles, Central District; Case No.: Bc391382.
- Testifying expert for plaintiff in Advanced Micro Devices, Inc., and AMD International Sales & Service, Ltd. v. Intel Corporation, and Intel Kabushiki Kaisha, United States District Court for the District Of Delaware, Civil Action No. 05-441.
- Testifying expert for plaintiff in Ventas, Inc. v. HCP, INC., United States Court for the Western District of Kentucky at Louisville; Civil Action No. 3:07−cv−238−H.
- Testifying expert for defendant in Wells Fargo & Company and Subsidiaries v. United States of America, United States Court of Federal Claims, Fed. Cl. No. 1:06-CV-628.
- Testifying expert for plaintiff in Richard G. Tatum v. R. J. R. Reynolds Tobacco Company, et al., United States District Court for the Middle District of North Carolina, No. 1:02-CV-00373

Appendix B. Materials Relied On

#	Document
1	Agreement between Pandora Media, Inc. and Music and Entertainment Rights Licensing Independent Network B.V.
2	Amazon Form 10-K for the year ended December 31, 2014
3	Amended Testimony of Daniel R. Fischel & Douglas G. Lichtman (with Exhibits A-F and Appendices A-E), submitted on January 12, 2015
4	Apple Inc. Form 10-K for the year ended September 27, 2014
5	Asquith, Paul, Michael Mikhail and Andrea Au, "Information content of equity analyst reports," Journal of Financial Economics, February 2005, Volume 75(2)
6	Beyer, Anne, Daniel Cohen, Thomas Lys and Beverly Walther, "The financial reporting environment: Review of the recent literature," December 2010, Journal of Accounting and Economics 50
7	Bloomberg, "Pandora rises in biggest internet IPO book year since 2000," (June 15, 2011)
8	BLS_Radio Broadcasting - May 2013 OES Industry-Specific Occupational Employment and Wage Estimates
9	Bryant, Martin, "Deezer confirms $130m funding round as it hits 2 million paid subscribers," TheNextWeb, (October 8, 2012)
10	Business Wire, "Goom Radio Raises More Than $16 Million in Venture Capital to Launch Internet Radio Services," (April 14, 2009)
11	Castlight Health, Inc., Q3-2014 Form 10-Q
12	Cheredar, Tom, "9 media-tech trends to watch in 2015," VentureBeat News, (January 11, 2015)
13	Clear Channel Form 10-K for the year ended December 31, 2013
14	Corrected Testimony of Daniel L. Rubinfeld, submitted on October 6, 2014
15	Cowan, Lynn, "Pandora IPO Prices at $16; Valued at $2.56 Billion," The Wall Street Journal, (June 14, 2011)
16	Cowen and Company, "Pandora Media, 4Q14 Results and '15 Guide miss Expectations," (February 6, 2015)
17	Digital Millennium Copyright Act, (October 8, 1998)
18	Digital Performance Right in Sound Recordings and Ephemeral Recordings – Final Rule and Order, 72 Fed. Reg. No. 83 at 24088 n.8 (May 1, 2007)
19	Entercom Communications Corp. Form 10-K for the year ended December 31, 2013
20	Facebook Form 10-K for the year ended December 31, 2014
21	Federal Communications Commission, Broadcast Station Totals as of December 31, 2014
22	Forbes, "Midas List 2013: The Top 10, Jim Breyer"
23	Future of Music Coalition Testimony to House Small Business Committee on Webcasting Rules, (June 27, 2007)
24	Gage, Deborah, "The Venture Capital Secret: 3 out of 4 Start-Ups Fail," The Wall Street Journal, (September 20, 2012)
25	Google Form 10-K for the year ended December 31, 2014
26	Grant, James, Foundations of Economic Value Added, 2nd Edition, John Wiley & Sons (2003)
27	Gu, Zhaoyang and Joanna Shuang Wu, "Earnings Skewness and Analyst Forecast Bias," Journal of Accounting and Economics, (2003)
28	Gustin, Sam, "Time Tech 40: The Most Influential Minds in Tech: Peter Thiel, Founders Fund," Time, (May 29, 2013)
29	Hellman, Thomas and Manju Puri, "The Interaction Between Product Market and Financing Strategy: The Role of Venture Capital," Winter 2000, The Review of Financial Studies, 13(4)
30	Herring, Michael, Nomura's Digital Media Conference (September 4, 2014)
31	Herring, Michael, Piper Jaffrey Technology, Media and Telecommunications Conference (March 13, 2013)
32	Herring, Michael, SunTrust Robinson Humphrey Internet & Digital Media Conference (May 14, 2014)

#	Document
33	Hill, Brad, "Kurt Hanson's AccuRadio raises $2.5-million funding," RainNews, (September 5, 2014)
34	IHM_EXP_NAB_0000262, "Digital Music Subscription Services", Worldwide Market Analysis & Forecasts, (November 12, 2013)
35	IHM_EXP_NAB_0000272
36	IHM_EXP_NAB_000532
37	IVP, "TuneIn Raises $25 Million and Surpasses One Billion Listening Hours in 2013," (May 29, 2013)
38	J.P. Morgan, "Pandora Media Inc., Mixed 3Q w/ Strong Mobile Ad RPM but Slowing Engagement; Remain OW & PT to $35," (October 24, 2014)
39	James, Gareth, Daniela Witten, Trevor Hastie, and Robert Tibshirani, An Introduction to Statistical Learning, Springer (2013)
40	Karp, Hannah, "Apple Paying Less Than $500 Million for Beats Music Streaming Service," Wall Street Journal (May 30, 2014)
41	Kennedy, Joseph, Goldman Sachs Technology and Internet Conference (February 13, 2013)
42	Lefsetz, Bob, "Radio Digs Its Own Grave as Cultural Currents Shift," Variety, (June 21, 2013)
43	Lys Rebuttal Testimony in SDARS
44	Microsoft Form 10-K for the year ended June 30, 2014
45	Morgan Stanley, "Pandora Media Inc., 3Q Results: A Transition from Defense to Offense," (October 24, 2014)
46	Morgan Stanley, "Pandora Media Inc., Lower 4Q Results & Guide Highlight Slowing Usage Growth," (February 6, 2015)
47	Netflix Form 10-K for the year ended December 31, 2014
48	Nielsen, "The Total Audience Report", (December 2014)
49	NPD Group, "Streaming Music is Gaining on Traditional Radio Among Younger Music Listeners," (April 2, 2013)
50	PAN_CRB_00032275, "Pandora Strategy Update Q2FY14"
51	PAN_CRB_00065198, "LTV Model 08.26.2014"
52	PAN_CRB_00066213, "Pandora 2015 Base Financials September 9, 2014"
53	PAN-CRB_00038797, "Pandora Corporate Presentation Q1FY2014"
54	Pandora Form 10-K for the transition period from February 1, 2013 to December 31, 2013
55	Pandora Form 10-K for the year ended December 31, 2014
56	Pandora Form 10-K for the year ended Janaury 31, 2012
57	Pandora Form 8-K, October 24, 2013, Exhibit 99.2
58	Pandora Historical Financial Results, December 31, 2014
59	Pandora Investor Presentation, Q3 CY2014
60	Pandora market cap_Yahoo
61	Pandora November and December 2013 Stub Period and Calendar Q4 2013 Financial Results Conference Call, February 5, 2014
62	Pandora Q2-2014 Earnings Call, (July 24, 2014)
63	Pandora Q4-2014 Earnings Call transcript, (February 6, 2015)
64	Pandora Reports Q4 and Full Year 2014 Financial Results, (February 5, 2015)
65	Pandora Schedule 14A (Definitive Proxy Statement), filed April 22, 2014.
66	Pandora Schedule 14A (Definitive Proxy Statement), filed April 24, 2013.
67	Pandora Schedule 14A (Definitive Proxy Statement), filed April 25, 2012.
68	Pandora web site: Music Genome Project
69	Pandora web site: Pandora One
70	Paschel, Dominic, "Pandora Media Inc. at Bernstein Future of Media Summi," (June 25, 2014)

#	Document
71	Paschel, Dominic, "Pandora Media Inc. at MKM Partners LLC Entertainment, Leisure & Internet Conference," (September 18, 2014)
72	Paschel, Dominic, Cowen Technology, Media & Telecom Conference, (May 28, 2014)
73	Pham, "Pandora Media prices IPO at $16 a share, above expectation," LA Times (June 15, 2011)
74	Proposed Rates and Terms of Pandora Media, Inc.
75	Proposed Rates and Terms of SoundExchange, Inc.
76	Regent Communications Form 10-K for the year ended December 31, 2009
77	Report of David Blackburn, submitted on October 6, 2014
78	Reuters, Music service Spotify raises $250 million, (November 21, 2013)
79	San Francisco MusicTech Summit, "The State of the Webcasting Industry," Panel Discussion at San Francisco MusicTech Summit, (May 17, 2010)
80	Santhanam, Laura, Amy Mitchell and Tom Rosensteil, "Audio: By the Numbers," The State of the News Media 2012, The Pew Research Center's Project for Excellence in Journalism
81	Service-Label pair agreements (62 considered, per Lys Testimony, Appendix B)
82	Sirius XM Form 10-K for the year ended December 31, 2014
83	Sweeting, Andrew, "Coordination, differentiation and the timing of radio commercials," Journal of Economic & Management Strategy 15(6), (Winter 2006)
84	Testimony of Ben Downs, submitted on October 6, 2014
85	Testimony of David B. Pakman, submitted on October 7, 2014
86	Testimony of John Dimick, submitted on October 7, 2014
87	Testimony of Julie Koehn, submitted on October 6, 2014
88	Testimony of Michael Herring, submitted on October 6, 2014
89	Testimony of Robert Francis Kocak, submitted on October 3, 2014
90	Testimony of Simon Fleming-Wood, October 6, 2014
91	Testimony of Thomas Z. Lys, submitted on October 6, 2014
92	Thomson One: EBITDA consensus
93	Thomson One: Revenue consensus
94	Twitter Form 10-K for the year ended December 31, 2013
95	Varian, Hal, Intermediate Microeconomics: A Modern Approach, 8th Edition, W. W. Norton & Company (2010)
96	Wauters, Robin, "Exclusive: Social Music Startup Rdio Raises $17.5 Million, Adds Rob Cavallo To Board," TechCrunch News, (February 8, 2014)
97	Wingfield, Nick and Anna Wilde Mathews, "Yahoo Plans to Shut Down Some Broadcast Services," The Wall Street Journal, (June 26, 2002)

Appendix C. Verifying the Reasonableness of the Morgan Stanley Forecast

(259) In this Appendix, I show that the Morgan Stanley forecast[225] of Pandora's expected future performance is an appropriate proxy for overall market expectations by demonstrating that the Morgan Stanley estimates in line with the consensus estimates formed by Wall Street analysts. An independent data-gathering service called Thomson One tracks the estimates of all analysts and tabulates their results to form what is commonly referred to as the "consensus" estimate. This is a widely used tool in the financial community. [redacted]

(260) I start with the presentation of expected revenue in Figure 37 and show that Morgan Stanley's forecast of Pandora's revenue is slightly below the median consensus estimate for all but one year.[227] For 2018, Morgan Stanley is just slightly above the median forecast.

Figure 37: Consensus and Morgan Stanley forecast of Pandora's revenue, 2015-2018 (in $ million)

Revenue	2015	2016	2017	2018
Morgan Stanley	$1,159.7	$1,430.5	$1,742.3	$1,992.8
Consensus				
Number of reports	31	27	16	6
Mean	$1,156.4	$1,438.3	$1,724.1	$1,880.2
Median	$1,161.3	$1,442.1	$1,748.5	$1,982.5
Morgan Stanley vs. median forecast	-0.1%	-0.8%	-0.4%	0.5%

Source: Thomson One, Morgan Stanley Report.

(261) Similarly, Figure 38 shows that Morgan Stanley's forecast of Pandora's EBITDA is up to 33% lower than the median consensus forecast.

[225] Morgan Stanley Report.

[226] [redacted]

[227] Research shows that median figures are more relevant than mean (average) figures. *See*: Gu, Zhaoyang and Joanna Shuang Wu, "Earnings Skewness and Analyst Forecast Bias," Journal of Accounting and Economics, 2003, at 5, 14-15 and Table 1.

Figure 38: Consensus and Morgan Stanley forecast of Pandora's EBITDA, 2015-2018 (in $ million)

EBITDA	2015	2016	2017	2018
Morgan Stanley	$79.0	$106.1	$224.6	$347.6
Consensus				
Number of reports	30	26	16	7
Mean	$74.3	$148.4	$248.9	$340.3
Median	$76.0	$159.4	$245.8	$348.0
Morgan Stanley vs. median forecast	4.0%	-33.4%	-8.6%	-0.1%

Source: Thomson One, Morgan Stanley Report.

(262) Although Morgan Stanley is estimating an EBITDA greater than the market consensus in 2015, this is of limited relevance because the conclusions I draw based on this forecast are limited to the *Web IV* period that starts in 2016. Over that time period Morgan Stanley is more conservative relative to the market consensus.

(263) The above analysis demonstrates that my decision to utilize the Morgan Stanley forecast is conservative because its expectations of Pandora's future performance are below those of most other stock analysts covering the company. Moreover, while comparisons on a more granular level (additional line items projected into the future) are not possible because few analysts provide sufficient details, I note that all of the granular data aggregate into the summary statistics such as Revenue and EBITDA. As a result, having shown that Morgan Stanley's forecasts are conservative at the aggregate level is indicative that, on average, the disaggregate measures must also be conservative.

Appendix D. Pandora RPM Growth Charts

(264) Figure 39 [redacted]

Figure 39: [redacted]

[redacted]

[redacted]

(265) Figure 40 presents the copy of the chart prepared at my direction.

Figure 40: [redacted]

[redacted]

Appendix E. LPM to Per-Performance Rates

(266) There is a direct mathematical relationship between per-performance rates and LPM. To show the relevant equations, I first define the following terms.

LPM = Total content costs for every 1000 hours
PPH = Performances per hour[228]
RR = Royalty rate
SX = SoundExchange proportion of Pandora's content acquisition costs

(267) Using those definitions, the equation below shows the relationship between LPM, the SoundExchange proportion of LPM, the royalty rate, and performances. Essentially, LPM multiplied by the SoundExchange proportion yields the portion of LPM that is attributable to the sound recording royalty rate.

$$LPM \times SX = PPH \times RR \times 1{,}000$$

(268) Accordingly:

$$LPM = (PPH \times RR \times 1{,}000) \div SX$$

(269) Because Pandora publishes all the data for the above equation, including LPM, Royalty Rate, and information sufficient to determine the SoundExchange proportion of LPM, it is straightforward to calculate Performances Per Hour as Pandora records this information. As I show below, that number is currently 14.2. Other analysts have reached similar conclusions about the average number of performances per hour by Pandora.[229] I note that this computed number may not reflect the actual number of tracks that a Pandora listener hears in an hour and instead represents the average number of "royalty events" Pandora incurs for every hour of time it reports.

(270) I start by calculating the SoundExchange portion of Pandora's Content Acquisition Costs for 2014, which is 91% per Figure 41. In previous years Pandora has disclosed this figure but such data is not yet available for 2014.[230]

[228] *See* footnote 239 for the description of what constitutes a performance.

[229] The Morgan Stanley October Report, Exhibit 15, estimated the 2014 "tracks per hour" at 14.3. (The more recent Morgan Stanley Report does not provide the same level of detail and the "tracks per hour" figure is not reported.)

[230] This estimate is broadly consistent with Pandora's previously disclosed ratios of SoundExchange CAC to total CAC of 93% for 2013 (Pandora Investor Presentation Q3 CY2014, at 37) and [redacted] As of February 18, 2015, Pandora has not published a Q4 2014 "Investor Presentation."

Figure 41: Computation of the proportion of Pandora's 2014 CAC paid to SoundExchange

Line item	Formula	2014 Value
Total revenue[231]	A	$920.8
Percentage of CAC payable to Sound Exchange[232]	B	44%
SoundExchange CAC	C=A*B	$405.2
Total CAC[233]	D	$446.4
SoundExchange portion of Total CAC	E=C÷D	90.76%

Source: Pandora 2014 10-K, Lys analysis.

(271) Next, I estimate Pandora's 2014 Performances Per Hour using disclosed data on listener hours, LPM, and CAC, as seen in Figure 42.

Figure 42: Estimating Pandora's performances per hour

Line item	Formula	Advertising	Subscription	TOTAL
Listener hours[234]	A	17,580	2,450	20,030
LPM[235]	B	$20.31	$36.41	$22.28
CAC	C=A*B÷1,000	$357.0	$89.2	$446.3
SoundExchange portion of Total CAC[236]	D	90.76%	90.76%	90.76%
SoundExchange CAC	E=C*D	$324.1	$81.0	$405.1
Pandora royalty rates for 2014[237]	F	$0.00130	$0.00230	
Number of performances	G=E÷F	249,289	35,203	284,491
Performances per hour	H=G÷A	14.180	14.368	14.203

Source: Pandora 2014 10-K, Lys analysis.

(272) Finally, Figure 43 computes the effective multiplier for the formula presenting LPM in terms of the per-performance royalty rate.

Figure 43: Computation of the multiplier between the LPM and the royalty rates

Line item	Formula	Advertising	Subscription	TOTAL
Performances per hour	A	14.180	14.368	14.203
Multiplier	B=A*1,000÷90.76%	15,623.1	15,830.4	15,648.4

Source: Lys analysis.

231 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 65.
232 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 12.
233 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 65.
234 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 45.
235 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 46.
236 Per Figure 41.
237 Pandora Media, Inc. Form 10-K for the year ended December 31, 2014, at 7.

(273) Because all of the values in the equation above are constants except for the royalty rate, the equation can be simplified to present the relationship between LPM and per-performance royalty rates, on a blended basis (combining advertising and subscription) as:

LPM = RR × 15,648.4[238]

(274) And consequently:

RR = LPM ÷ 15,648.4

[238] 15,648.4 = 14.203 x 1,000 ÷ 90.76%.

Appendix F. Expected Pandora EBITDA During *Web IV* Assuming Royalty Rates Proposed by Pandora and SoundExchange

(275) In this Appendix I provide the detail behind the calculations of Pandora's projected EBITDA using the Morgan Stanley forecast as the basis but assuming different *Web IV* per-performance royalty rate regimes (Pandora's proposal and SoundExchange's proposal).

(276) I start with the calculation of the expected number of performances,[239] by segment.

Figure 44: Expected number of performances per Morgan Stanley forecast, by segment

Line item	Formula	2016	2017	2018
Advertising				
Hours[240]	A	21,226	22,737	23,790
Performances per hour[241]	B	14.180	14.180	14.180
Advertising performances	C=A*B	300,989	322,419	337,343
Subscription				
Hours[242]	D	2,869	3,076	3,220
Performances per hour[243]	E	14.368	14.368	14.368
Subscription performances	F	41,219	44,192	46,272
TOTAL PERFORMANCES	G=C+F	342,208	366,612	383,615

Source: Morgan Stanley Report, Lys estimate of performances per hour.

(277) Next, in Figure 45 I compute the resulting CAC to SoundExchange under Pandora's proposed royalty rates. Pandora proposed a bifurcated rate regime with different rates for advertising and subscription performance.

239 I use the term "performance" to denote the mathematical number of royalty-triggering events, based on Pandora's self-reported historical performance. I offer no opinion on what constitutes a performance. All of my forward-looking conclusions assume that the number of such defined performances per hour remains unchanged.

240 Morgan Stanley Report, Exhibit 2.

241 *See* Figure 42.

242 Morgan Stanley Report, Exhibit 2.

243 *See* Figure 42.

Figure 45: Pandora's expected CAC to SoundExchange under different royalty rate scenarios

Line item	Formula	2016	2017	2018
Advertising				
Pandora proposed royalty rate[244]	H[245]	$0.00110	$0.00112	$0.00114
SX CAC on Advertising	I=H×C	$331.1	$361.1	$384.6
Subscription				
Pandora proposed royalty rate[246]	J	$0.00215	$0.00218	$0.00222
SX CAC on Subscription	K=J×F	$88.6	$96.3	$102.7
TOTAL SX CAX under Pandora's proposed rates	L=I+K	$419.7	$457.4	$487.3

Source: Morgan Stanley Report; Lys analysis.

(278) Figure 46 provides the same calculations under SoundExchange's rate proposal. Because SoundExchange proposed a single set of rates it is not necessary to provide a separate calculation for the advertising and subscription segments.

Figure 46: Pandora's expected CAC to SoundExchange under the SoundExchange proposed royalty rates

Line item	Formula	2016	2017	2018
SX proposed royalty rate[247]	M	$0.0025	$0.0026	$0.0027
TOTAL SX CAX under SoundExchange's proposed rates	N=M×G	$855.5	$953.2	$1,035.8

Source: Morgan Stanley Report; Lys analysis.

(279) Next, in Figure 47, I calculate Morgan Stanley's estimate of the portion of the total CAC that is payable to SoundExchange, a metric that I label "SX CAC."[248]

[244] Pandora Rate Proposal, at 7.

[245] For ease of following, in this section I keep continuous labeling of values between the different figures.

[246] Pandora Rate Proposal, at 7.

[247] Proposed Rates and Terms of SoundExchange, Inc., submitted on October 7, 2014, at 3.

[248] For avoidance of doubt, this metric is unrelated to the SoundExchange proposed royalty rates, as it simply tabulates what portion of overall CAC Pandora will pay to SoundExchange.

Figure 47: Calculation of Morgan Stanley's expected CAC payable to SoundExchange

Line item	Formula	2016	2017	2018
Morgan Stanley CAC[249]	O	$694.8	$787.3	$865.9
Portion of CAC attributable to Sound Exchange[250]	P	90.76%	90.76%	90.76%
Morgan Stanley's SX CAC	Q=O×P	$630.6	$714.6	$785.9

Source: Morgan Stanley Report, Lys analysis.

(280) Next, I calculate the incremental CAC payments to SoundExchange relative to Morgan Stanley's baseline forecast, assuming the Pandora and SoundExchange proposed rates, as seen in Figure 48.

Figure 48: Incremental CAC to SoundExchange relative to Morgan Stanley's baseline forecast under alternative rate regimes

Line item	Formula	2016	2017	2018
Incremental SX CAC under Pandora proposal	R=L-Q	-$210.9	-$257.1	-$298.6
Incremental SX CAC under SoundExchange proposal	S=N-Q	$224.9	$238.6	$249.8

Source: Morgan Stanley Report; Lys analysis.

(281) Next, in Figure 49, I apply the incremental CAC to SoundExchange under the different rate proposals to Morgan Stanley's baseline EBITDA in order to compute the EBITDA expected under the Pandora and SoundExchange-proposed royalty rates during the *Web IV* period.

Figure 49: Pandora's expected EBITDA under the Pandora and SoundExchange-proposed royalty rates

Line item	Formula	2016	2017	2018
Morgan Stanley EBITDA[251]	T	$106.1	$224.6	$347.6
EBITDA under Pandora Proposal	U=T-R	$317.0	$481.7	$646.2
EBITDA under SoundExchange proposal	V=T-S	-$118.8	-$14.0	$97.8

Source: Morgan Stanley Report; Lys analysis.

(282) The analysis based on the Morgan Stanley Report necessarily ends in 2018 because of data limitations. Therefore, in order to provide the Judges an estimate of the total EBITDA Pandora is expected to earn over the duration of the *Web IV* regime, I supplement the analysis with additional

249 Morgan Stanley Report, Exhibit 7.

250 *See* Figure 49.

251 Morgan Stanley Report, Exhibit 7.

data and utilize an analyst report from Cowen and Company where data is presented through 2020.[252] Specifically, in order to estimate 2019 and 2020 EBITDA, I take the 2018 values (as calculated in Figure 49 based on the Morgan Stanley Report) and grow them by the expected EBITDA growth rates for 2019 (30.6%) and 2020 (23.4%), per the Cowen and Company Report. These growth figures are reasonable and consistent with the Morgan Stanley overall EBITDA growth assumptions, showing an average annual growth in Pandora's EBITDA between 2013 and 2018[253] of 73%. Figure 50 details my computations of Pandora's expected EBITDA over the full Web IV time period of 2016 through 2020.

Figure 50: Pandora's expected EBITDA during the full *Web IV* period

Line item	2016	2017	2018	2019	2020	Total *Web IV*
EBITDA under Pandora Proposal	$317.0	$481.7	$646.2	$843.8	$1,041.4	$3,330.2
EBITDA under SoundExchange proposal	-$118.8	-$14.0	$97.8	$127.7	$157.6	$250.2

Source: Morgan Stanley Report; Cowen and Company Report; Lys analysis.

[252] Cowen and Company, "Pandora Media, 4Q14 Results and '15 Guide miss Expectations," (February 6, 2015) ("Cowen and Company Report"). While this forecast does extend data through 2020, it does not contain a detailed breakdown of listener hours, revenue and RPM by segment and as such was not suitable as the primary source of my forward-looking analysis.

[253] *See* Morgan Stanley Report, Exhibit 7, showing growth from $22.6 in 2013 to $347.6 in 2018. This is the maximum data range provided in the Morgan Stanley Report; I did not arbitrarily select the data-points.

Exhibits Sponsored By Thomas Z. Lys, Ph.D.

Exhibit No.	Sponsored By	Description
SX EX. 089- RP	Thomas Lys	Ex. 1 - Pandora 2014 10-K
SX EX. 090- RP	Thomas Lys	Ex. 2 - Pandora 2013 10-K
SX EX. 091- RP	Thomas Lys	Ex. 3 - Transcript of Pandora 2014 Earnings Call
SX EX. 092- RP	Thomas Lys	Ex. 4 - Transcript of Pandora Statement at Nomura's Digital Media Conference, September 4, 2014
SX EX. 093- RR	Thomas Lys	Ex. 5 - Morgan Stanley, "Pandora Media Inc., Lower 4Q Results & Guide Highlight Slowing Usage Growth," (February 6, 2015)
SX EX. 094- RR	Thomas Lys	Ex. 6 - Cowen & Company, Pandora Media, 4Q14 Results and '15 Guide Miss Expectations," (February 6, 2015)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2014

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission File Number: 001-35198

Pandora Media, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**94-3352630**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2101 Webster Street, Suite 1650 Oakland, CA	**94612**
(Address of principal executive offices)	(Zip Code)

(510) 451-4100
(Registrant's telephone number, including area code)

Securities registered pursuant to section 12(g) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, $0.0001 par value	The New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by a check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting common stock held by non-affiliates of the registrant as of June 30, 2014 (the last business day of the registrant's most recently completed second quarter), based on the closing price of such stock on The New York Stock Exchange on such date was approximately $4,656 million. This calculation excludes the shares of common stock held by executive officers, directors and stockholders whose ownership exceeds 5% outstanding at June 30, 2014. This calculation does not reflect a determination that such persons are affiliates for any other purposes.

On February 6, 2015 the registrant had 209,120,360 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the registrant’s 2015 Annual Meeting of Stockholders (the “Proxy Statement”), to be filed within 120 days of the end of the fiscal year ended December 31, 2014, are incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, the Definitive Proxy Statement is not deemed to be filed as part of this Annual Report on Form 10-K.

Pandora Media, Inc.
Form 10-K
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SX EX. 089-3-RP

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Annual Report on Form 10-K contains "forward-looking statements" that involve substantial risks and uncertainties. The statements contained in this Annual Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including, but not limited to, statements regarding our expectations, beliefs, intentions, strategies, future operations, future financial position, future revenue, projected expenses and plans and objectives of management. In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "estimate," "expect," "intend," "may," "might," "plan," "project," "will," "would," "should," "could," "can," "predict," "potential," "continue," "objective," or the negative of these terms, and similar expressions intended to identify forward-looking statements. However, not all forward-looking statements contain these identifying words. These forward-looking statements reflect, in our current views about future events and involve known risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievement to be materially different from those expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included in this Annual Report on Form 10-K. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements. We qualify all of our forward-looking statements by these cautionary statements. In addition, the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors including those described in the section entitled "Risk Factors." These and other factors could cause our results to differ materially from those expressed in this Annual Report on Form 10-K.

Some of the industry and market data contained in this Annual Report on Form 10-K are based on independent industry publications, including those generated by Triton Digital Media or "Triton" and International Data Corporation or "IDC" or other publicly available information. This information involves a number of assumptions and limitations. Although we believe that each source is reliable as of its respective date, we have not independently verified the accuracy or completeness of this information.

As used herein, "Pandora," the "Company," "we," "our," and similar terms refer to Pandora Media, Inc., unless the context indicates otherwise.

"Pandora" and other trademarks of ours appearing in this report are our property. This report contains additional trade names and trademarks of other companies. We do not intend our use or display of other companies' trade names or trademarks to imply an endorsement or sponsorship of us by such companies, or any relationship with any of these companies.

EXPLANATORY NOTE REGARDING THE ANNUAL REPORT

We changed our fiscal year from the twelve months ending January 31 to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. As a result of this change, our prior fiscal year was an eleven-month transition period ended on December 31, 2013.

When financial results for the 2014 annual period are compared to financial results for the prior year period, the results compare the twelve-month period ended December 31, 2014 and the eleven-month period ended December 31, 2013. When financial results for the eleven-month period ended December 31, 2013 are compared to financial results for the prior year period, the results compare the eleven-month period ended December 31, 2013 and the eleven-month period ended December 31, 2012. The results for the eleven month period ended December 31, 2012 are unaudited. The following tables show the months included within the various comparison periods:

Calendar 2014 (12-month) Results Compared With Calendar 2013 (11-month)	
Calendar 2013 (11-month)	**Calendar 2014 (12-month)**
February 2013 - December 2013	January 2014 - December 2014

Calendar 2013 (11-month) Results Compared With Calendar 2012 (11-month recast, unaudited)	
Calendar 2012 (11-month recast, unaudited)	**Calendar 2013 (11-month)**
February 2012 - December 2012	February 2013 - December 2013

PART I

ITEM 1. BUSINESS

Overview

Pandora is the leader in internet radio in the United States, offering a personalized experience for each of our listeners wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, computers and car audio systems, as well as a range of other internet-connected devices. Our vision is to be the effortless source of personalized music entertainment and discovery for billions. The majority of our listener hours occur on mobile devices, with the majority of our revenue generated from advertising on these devices. We have pioneered a new form of radio—one that uses intrinsic qualities of music to initially create stations and then adapts playlists in real-time based on the individual feedback of each listener. We offer local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements.

As of December 31, 2014, we had more than 250 million registered users, which we define as the total number of accounts that have been created for our service at period end. As of December 31, 2014, more than 225 million registered users had accessed Pandora through smartphones and tablets. For the twelve months ended December 31, 2014, we streamed 20.03 billion hours of internet radio, and as of December 31, 2014, we had 81.5 million active users during the prior 30 day period. Since we launched our free, advertising-supported radio service in 2005 our listeners have created over 7 billion stations.

Our Service

Unlike traditional radio stations that broadcast the same content at the same time to all of their listeners, we enable each of our listeners to create up to 100 personalized stations. The Music Genome Project and our playlist generating algorithms power our ability to predict listener music preferences, play music content suited to the tastes of each individual listener and introduce listeners to music we think they will love. When a listener enters a single song, artist, comedian or genre to start a station—a process we call seeding—the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we pick, we further tailor the station to match the listener's preferences. Listeners also have the ability to add variety to and rename stations, which further allows for the personalization of our service.

We currently provide the Pandora service through two models:

- *Free Service.* Our free service is advertising-based and allows listeners access to our music and comedy catalogs and personalized playlist generating system for free across all of our delivery platforms.

- *Pandora One.* Pandora One is a paid subscription service without any advertising. Pandora One also enables listeners to have more daily skips, enjoy higher quality audio on supported devices and enjoy longer timeout-free listening.

Beyond song delivery, listeners can discover more about the music they hear by reading the history of their favorite artists, viewing artist photos and buying albums and songs from Amazon or iTunes. Our service also incorporates community social networking features. Our music feed feature enables a real-time, centralized stream for listeners to view the music that their social connections are experiencing and to provide and receive recommendations for songs, albums and artists. Listeners can also share their stations across other social media outlets and through email by using our share feature or by distributing our individualized station URLs.

Our Technologies

At the core of our service is our set of proprietary personalization technologies, including the Music Genome Project and our playlist generating algorithms. When a listener enters a single song, artist or genre to start a station, the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we stream, we further tailor the station to match the listener's preferences in real-time.

Music Genome Project

The Music Genome Project is a database of over 1,000,000 uniquely analyzed songs from over 125,000 artists, spanning over 600 genres and sub-genres, which we develop one song at a time by evaluating and cataloging each song's particular attributes. Once we select music to become part of our catalog, our music analysts genotype the music by examining up to 450 attributes including objectively observable metrics such as tone and tempo, as well as subjective characteristics, such as lyrics, vocal texture and emotional intensity. We employ rigorous hiring and training standards for selecting our music analysts, who typically have four-year degrees in music theory, composition or performance, and we provide them with intensive training in the Music Genome Project's precise methodology.

Comedy Genome Project

Our Comedy Genome Project leverages similar technology to that underlying the Music Genome Project, allowing a listener to choose a favorite comedian or a genre as a seed to start a station and then give feedback to personalize that station. Our comedy collection includes content from more than 2,000 comedians with more than 30,000 tracks.

Our Other Core Innovations

In addition to the Music Genome Project, we have developed other proprietary technologies to improve delivery of the Pandora service, enhance the listener experience and expand our reach. Our other core innovations include:

Playlist Generating Algorithms. We have developed complex algorithms that determine which songs play and in what order on each personalized station. Developed since 2004, these algorithms combine the Music Genome Project with the individual and collective feedback we receive from our listeners in order to deliver a personalized listening experience.

Pandora User Experience. We have invested in ways to enable us to reach our audience anytime, anywhere that they enjoy music. To this end, we have developed a number of innovative approaches, including our autocomplete station creation feature, which predicts and generates a list of the most likely musical starting points as a listener begins to enter a favorite station, song or artist.

Pandora Mobile Streaming. We have designed a sophisticated system for streaming music content to mobile devices. This system involves a combination of music coding programs that are optimized for mobile devices as well as algorithms designed to address the intricacies of reliable delivery over diverse mobile network technologies. For example, these algorithms are designed to maintain a continuous stream to a listener even in circumstances where the mobile data network may be unreliable.

Automotive Protocol. We have developed an automotive protocol to facilitate increased availability of the Pandora service in automobiles. Through the automotive protocol, certain automobile manufacturers, their suppliers and makers of aftermarket audio systems can easily connect dash-mounted interface elements to the Pandora app running on a smartphone. This allows us to deliver the Pandora service to listeners via their existing smartphone, while leveraging the automobile itself for application command, display and control functionalities.

Pandora API. As part of our effort to make the Pandora service available everywhere our listeners want it, we have developed an application programming interface, which we call the Pandora API. Through our partnerships with manufacturers of consumer electronics products, we have used this technology to bring the Pandora experience to connected devices throughout the home.

Tv.pandora.com. We have developed a standards-based HTML5 website called tv.pandora.com that allows users to stream music content on next generation TV, game consoles and set top box architectures that support open web standards. Tv.pandora.com features streamlined navigation with controls and displays designed specifically for larger screens.

Distribution and Partnerships

A key element of our strategy is to make the Pandora service available everywhere that there is internet connectivity. To this end, we make the Pandora service available through a variety of distribution channels. In addition to streaming our service to computers, we have developed Pandora mobile device applications or “apps” for smartphones such as iPhone, phones running the Android operating system, the Windows Phone and for tablets including the iPad and tablets running the Android operating system. We distribute those mobile apps free to listeners via app stores.

Pandora is now integrated with more than 1,000 connected devices, including automobiles, automotive aftermarket devices and consumer electronic devices. Currently, most automobile integrations rely on smartphones for internet connectivity, which has enabled Pandora to be available in the ten best-selling passenger vehicles in the United States. Some automobiles are now using built-in modems to deliver internet connectivity that powers the Pandora experience, which we call a native integration. These native automotive integrations allow drivers to control the service via in-dash entertainment systems. As of

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December 31, 2014, more than 9 million unique users have activated Pandora through a native automotive integration in 26 major automobile brands and 8 automotive aftermarket manufacturers. We view the integration of the Pandora service into automobiles as key area of potential growth for the service, as a large portion of terrestrial radio listening occurs in automobiles.

Advertising Revenue

We derive the substantial majority of our revenue from the sale of audio, display and video advertising for delivery across our computer, mobile and other connected device platforms. We generate the majority of our revenue from mobile and other connected devices, which presents an opportunity for us to reach our audience anytime, anywhere that they enjoy music and therefore offer additional distribution channels to current and potential advertisers for delivery of their advertising messages.

Our advertising strategy focuses on developing our core suite of audio, display and video advertising products and marketing these products to advertisers for delivery across computer and mobile and other connected device platforms. Our advertising products allow both local and national advertisers to target and connect with listeners based on attributes including age, gender, zip code and content preferences using multi-platform ad campaigns to target their advertising messages to listeners anytime and anywhere. As listenership on our mobile platforms has grown more rapidly than on our other platforms, we have sought to improve our mobile advertising products to better enable us to market multi-platform advertising solutions. In the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, advertising revenue accounted for approximately 88%, 88%, 82% and 80% of our total revenue, respectively, and we expect that advertising will comprise a substantial majority of revenue for the foreseeable future.

Audio Advertising. Our audio advertising products allow custom audio messages to be delivered between songs during short ad interludes. Audio ads are available across all of our delivery platforms. On supported platforms, the audio ads can be accompanied by display ads to further enhance advertisers' messages.

Display Advertising. Our display advertising products offer opportunities to maximize exposure to our listeners through our desktop and mobile service graphical interfaces, which are divided between our tuner containing our player and "now playing" information, and the information space surrounding our tuner. Our display ads include industry standard banner ads of various sizes and placements depending on platform and listener interaction.

Video Advertising. Our video advertising products allow delivery of rich branded messages to further engage listeners through in-banner click-initiated videos, videos that automatically play when a listener changes stations or skips a song and opt-in videos that pause the music and cover the tuner.

Native Advertising. Our audio, display and video advertising products can be designed and modified by us and advertisers to tailor advertising campaigns to fit specific advertiser needs. Our advertisers can create custom "branded" stations from our music library that can be accessed by our listeners, as well as engage listeners by allowing them to personalize the branded stations through listener-controlled variables. In addition to branded stations, we offer advertisers our sponsored listening product, in which advertisers sponsor ad-free listening for consumers in exchange for the consumer’s active brand interaction, such as watching a video advertisement, interacting with rich media or visiting the advertiser's landing page.

Additionally, advertisers can also benefit from our proprietary ad targeting capabilities. Our proprietary targeting segments leverage listener-submitted profile information, enabling advertisers to precisely reach sought-after consumers across the web and connected devices without needing third-party cookies.

In 2013, we integrated Pandora's advertising inventory into the leading radio media buying platforms, Mediaocean and STRATA, and we are continuing to enhance the ability of radio advertisers to purchase media on these platforms which incorporate Triton measurements of our radio audience reach side-by-side with terrestrial radio metrics.

In January 2014, we introduced in-car advertising solutions, offering advertisers the opportunity to reach in-car audiences through audio ads running on vehicle models and aftermarket automotive devices with native Pandora automotive integrations.

In addition, we have invested in building a local advertising sales force in major radio markets. As of December 31, 2014, we have 111 local sellers in 37 markets in the United States and we intend to continue investing to extend our local market presence for the foreseeable future.

Our integration into standard radio media-buying processes and measurement, our in-car advertising solutions and our local advertising sales force are key elements of our strategy to expand our penetration of the radio advertising market. Our success in executing this strategy is subject to numerous risks and uncertainties, including those described in "Risk Factors."

Subscription and Other Revenue

Subscription and other revenue is generated primarily through the sale of Pandora One, a premium version of the Pandora service, which currently includes advertisement-free access and higher audio quality on the devices that support it. Pandora One is primarily available for purchase through major app stores and through the Pandora website. For the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, subscription and other revenue accounted for 12%, 12%, 18% and 20% of our total revenue, respectively.

Content, Copyrights and Royalties

To secure the rights to stream music content over the internet, we must obtain licenses from, and pay royalties to, copyright owners, or their agents, for the sound recordings that we perform, as well as the musical works embodied in each of those sound recordings, subject to certain exclusions. These licensing and royalty arrangements strongly influence our business operations. We stream spoken word comedy content pursuant to a federal statutory license, as described under the section captioned "Sound Recordings" below, which in some instances we have opted to augment with direct agreements with the licensors of such sound recordings. For spoken word comedy, the underlying literary works are not currently entitled to eligibility for licensing by any performing rights organization ("PRO") for the United States. Rather, pursuant to industry-wide custom and practice, this content is performed absent a specific license from any such PRO or the copyright owner of such content.

Sound Recordings

The number of sound recordings we transmit to users of the Pandora service, as generally reflected by our listener hours, drives the vast majority of our content acquisition costs. We obtain performance rights licenses and pay performance rights royalties for the benefit of the copyright owners of such sound recordings and the recording artists, both featured and non-featured, on such recordings, mainly pursuant to the Digital Performance Right in Sound Recordings Act of 1995 (the "DPRA") and the Digital Millennium Copyright Act of 1998 (the "DMCA"). Under federal statutory licenses created by the DPRA and the DMCA, we are permitted to stream any lawfully released sound recordings and to make reproductions of these recordings on our computer servers, without having to separately negotiate and obtain direct licenses with each individual sound recording copyright owner. These statutory licenses are granted to us on the condition that we operate in compliance with the rules of the statutory licenses and pay the applicable royalty rates to SoundExchange, the non-profit organization designated by the Copyright Royalty Board (the "CRB"), a tribunal established within the U.S. Library of Congress, to collect and distribute royalties under these statutory licenses.

The rates we pay pursuant to the federal statutory licenses can be established by either negotiation or through a rate proceeding conducted by the CRB. In 2009, certain webcasters reached a settlement agreement with SoundExchange establishing alternative rates and rate structures to those eventually established by the CRB for services not qualifying for the settlement rates. This settlement agreement is commonly known as the "Pureplay Settlement" that applies through the end of 2015. We have elected since 2009 to avail ourselves of the Pureplay Settlement. Proceedings to establish rates that will be applicable to our service for the 2016-2020 period, known as the Webcasting IV proceedings, were commenced in January 2014. There can be no assurances that the Webcasting IV proceedings will not result in significantly higher royalties than we currently pay. Further, federal copyright law does not recognize a public performance right for sound recordings created prior to February 15, 1972, and we face additional risks related to pre-1972 sound recording licensing. For additional details on risks related to the rate-setting process and pre-1972 sound recordings, please refer to the section entitled "Risk Factors."

The royalties we pay to SoundExchange for the streaming of sound recordings are calculated using a per performance rate and are subject to audit. The table below sets forth the per performance rates for the calendar years 2014 to 2015 as (i) established by the CRB, which we have opted not to pay, (ii) under the Pureplay Settlement applicable to our non-subscription, ad-supported service and (iii) under the Pureplay Settlement applicable to our subscription service:

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Year		CRB Rate		Pureplay Rate (non-subscription)*		Pureplay Rate (subscription)
2014	$	0.00230	$	0.00130	$	0.00230
2015	$	0.00230	$	0.00140	$	0.00250

* The rate applicable to our non-subscription service is the greater of the per performance rates set forth in this column or 25% of all of our U.S. gross revenue, including revenue from subscriptions.

As reflected in the table above, we pay per-performance rates for streaming of sound recordings via our Pandora One subscription service that are higher than the per-performance rates for our free, non-subscription service. As a result, we may incur higher royalty expenses to SoundExchange for a listener that subscribes to Pandora One as compared to a listener that uses our free, non-subscription service, even if both listeners listen to the same number of performances.

In addition to our federal statutory licenses for sound recording rights under the DPRA and DMCA, Pandora has recently negotiated direct licenses with labels for such rights. In August 2014, we announced an agreement to partner with Music and Entertainment Rights Licensing Independent Network ("Merlin"), the global rights agency for the independent label sector. This partnership is designed to help independent labels and artists increase the audiences they reach. Participating labels, and the artists they represent, can also take advantage of the marketing capabilities of our connected platform by obtaining direct access to our metadata to help make data-driven business decisions. We do not expect this partnership to have a material effect on our consolidated financial condition or operating results.

Musical Works

Our content costs are also comprised of the royalties we pay for the public performance of musical works embodied in the sound recordings that we stream. Copyright owners of musical works, typically, songwriters and music publishers, have traditionally relied on PROs to negotiate so-called "blanket" licenses with copyright users, collect royalties under such licenses, and distribute them to copyright owners. We have obtained public performance licenses from, and pay license fees to, the three major PROs in the United States: the American Society of Composers, Authors and Publishers ("ASCAP"), Broadcast Music, Inc. ("BMI") and SESAC, Inc. ("SESAC").

ASCAP and BMI each are governed by a consent decree with the United States Department of Justice. The rates we pay ASCAP and BMI can be established by either negotiation or through a rate court proceeding conducted by the United States District Court for the Southern District of New York. We elected to terminate our prior agreements with ASCAP as of December 31, 2010 and with BMI as of December 31, 2012 because, among other things, we believed that the royalty rates sought by ASCAP and BMI were in excess of rates paid by our largest radio competitors, broadcast radio stations and satellite radio. Notwithstanding our termination of these agreements, the musical works administered by each of ASCAP and BMI continued to be licensed to us pursuant to the provisions of their respective consent decrees. In November 2012, we filed a petition requesting that the ASCAP rate court determine reasonable license fees and terms for the ASCAP consent decree license applicable to the period January 1, 2011 through December 31, 2015. In June 2013, BMI filed a petition requesting that the BMI rate court determine reasonable license fees and terms for the BMI consent decree license applicable to the period January 1, 2013 through December 31, 2017. A trial to determine the royalty rates we will pay ASCAP concluded in February 2014 and the court issued its opinion establishing final fees in March 2014, but ASCAP has appealed the decision and such appeal is pending. The BMI rate court proceeding commenced on February 10, 2015. Pending the Court's determination of final fees for Pandora's BMI license, Pandora is operating under an interim license with BMI. For additional details regarding such proceedings, please see the sections entitled "Risk Factors" and "Legal Proceedings."

We currently operate under an agreement with SESAC, which automatically renews yearly, but is subject to termination by either party in accordance with its terms at the end of each yearly term. The SESAC rate is subject to small annual increases.

In some cases, we pay royalties directly to music publishers. Music publishers own or administer copyrights in musical works and license those copyrights to third parties that use music, such as record labels, filmmakers, television and radio stations. Publishers also collect license fees from these third parties and distribute the fees to the writers or composers of the musical works. Between 2012 and 2014, certain publishers purported to partially withdraw portions of their repertoires from each of ASCAP and BMI with the intent that each performing rights organization would be unable to license the withdrawn musical works to new media licensees such as Pandora. Our position is that attempted partial withdrawals violate the ASCAP and BMI consent decrees. However, from time to time, we have entered, and will continue to enter, into agreements with some purported withdrawing publishers to enable Pandora to continue to perform those publishers' works amidst the current legal uncertainty. For additional details regarding such purported withdrawals, please see the sections entitled "Risk Factors" and

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"Legal Proceedings."

In July 2014, we signed a multi-year agreement with BMG Rights Management US LLC ("BMG") for a U.S. license for BMG's complete catalogs of musical works. We do not expect this agreement to have a material effect on our consolidated financial condition or operating results.

In June 2013, we entered into a local marketing agreement to program KXMZ-FM, a Rapid City, South Dakota-area terrestrial radio station. In addition, we entered into an agreement to purchase the assets of KXMZ-FM for a total purchase price of approximately $0.6 million in cash, subject to certain closing conditions. These agreements were made in part to allow us to qualify for certain settlement agreements concerning royalties for the public performance of musical works between the Radio Music Licensing Committee ("RMLC") and ASCAP and BMI. We believe that we qualify for the RMLC royalty rates, which have provided and will continue to provide us with savings of less than 1% of revenue in cost of revenue—content acquisition costs compared with the latest contractual rates.

As of December 31, 2014, we have paid $0.4 million of the purchase price, which is included in the other long-term assets line item of our balance sheets. Completion of the KXMZ-FM acquisition is subject to various closing conditions. These include, but are not limited to, regulatory approval by the Federal Communications Commission.

Non-U.S. Licensing Regimes

In addition to the copyright and licensing arrangements described above for our use of sound recordings and musical compositions in the United States, other countries have various copyright and licensing regimes, including in some cases performing rights organizations and copyright collection societies from which licenses must be obtained. We have obtained licenses to operate in Australia and New Zealand for the communication of sound recordings and the musical compositions embodied in those sound recordings, which have not had a material effect on our results of operations to date.

Government Regulation

As a company conducting business on the internet, we are subject to a number of foreign and domestic laws and regulations relating to consumer protection, information security and data protection, among other things. Many of these laws and regulations are still evolving and could be interpreted in ways that could harm our business. In the area of information security and data protection, the laws in several states require companies to implement specific information security controls to protect certain types of information. Likewise, all but a few states have laws in place requiring companies to notify users if there is a security breach that compromises certain categories of their information. We are also subject to federal and state laws regarding privacy of listener data, among other things. Our privacy policy and terms of use describe our practices concerning the use, transmission and disclosure of listener information and are posted on our website.

Sales and Marketing

We organize our sales force into multiple geographically-based teams that are each focused on selling advertising across our computer, mobile and other connected device platforms. Teams are located in our Oakland, California headquarters, in regional sales offices in Chicago, New York and Santa Monica and local sales offices throughout the United States, in Sydney, Australia and in Auckland, New Zealand.

Our marketing team is charged with amplifying Pandora's brand message to grow awareness and drive listener hours. We organize the marketing team into three groups focused on communications, marketing analytics and brand marketing. While we have historically relied on the success of viral marketing to expand consumer awareness of our service, in 2014 we began to launch marketing campaigns to increase consumer awareness and expand our listener base. We anticipate that we will continue to utilize these types of marketing campaigns in the future.

Artist Relations

Pandora Artist Marketing Platform ("Pandora AMP"). In October 2014, we launched Pandora AMP, a free online service that gives artists and their managers a detailed view of their audience on our service. Pandora AMP provides data and insights to the more than 125,000 artists played on our service. Derived from tens of billions of hours of personalized listening, Pandora AMP is designed to help artists with many critical decisions such as tour routing, single selection, set lists, audience targeting and more.

Music Industry Group. In October 2014, to consolidate all of our music industry initiatives into a single product suite,

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and to help drive connections with fans across all channels at Pandora, we brought the teams across the business that work most directly with the music industry together into a single group known as the Music Industry Group. Our vision is to ensure artists can promote and market their music to fans, drive engagement with experiences from live events to original content and understand all of the benefits of these interactions via our analytics tools.

Competition

Competition for Listeners

We compete for the time and attention of our listeners with other content providers on the basis of a number of factors, including quality of experience, relevance, acceptance and perception of content quality, ease of use, price, accessibility, perceptions of ad load, brand awareness and reputation. We also compete for listeners on the basis of our presence, branding and visibility as compared with other providers that deliver content through the internet, mobile devices and consumer products. We believe that we compete favorably on these factors. For additional details on risks related to competition for listeners, please refer to the section entitled "Risk Factors."

Many of our current and potential future competitors enjoy competitive advantages, such as greater name recognition, legacy operating histories and larger marketing budgets, as well as greater financial, technical and other resources. We compete with many forms of media for the time and attention of our listeners, such as Facebook, Twitter, Netflix, Pinterest and Instagram. Our direct competitors, however, include iHeartRadio, iTunes Radio, LastFM, Google Songza and other companies in the traditional broadcast and internet radio market. We also directly compete with the non-interactive, Internet radio offerings from providers such as Spotify and Slacker.

We compete for listeners with broadcast radio providers, including terrestrial radio providers. Many broadcast radio companies own large numbers of radio stations or other media properties. Many terrestrial radio stations have begun broadcasting digital signals, which provide high quality audio transmission. In addition, unlike participants in the emerging internet radio market, terrestrial and satellite radio providers, as aggregate entities of their subsidiary providers, generally enjoy larger established audiences and legacy operating histories. Broadcast and satellite radio companies enjoy a significant cost advantage because they pay a much lower percentage of revenue for transmissions of sound recordings. Broadcast radio pays no royalties for its terrestrial use of sound recordings, and satellite radio paid only 9.5% of revenue in 2014 and only 10% of revenue in 2015 for its satellite transmissions of sound recordings. By contrast, Pandora incurred content acquisition costs representing 44% of revenue for our internet transmissions of sound recordings during the twelve months ended December 31, 2014. We also compete directly with other emerging non-interactive internet radio providers, which may offer more extensive content libraries than we offer and some of which may be accessed internationally. We could face additional competition if known incumbents in the digital media space choose to enter the internet radio market.

We face competition from providers of interactive on-demand audio content and pre-recorded entertainment that allow listeners to select the audio content that they stream or purchase. This interactive on-demand content is accessible in automobiles and homes, using portable players, mobile phones and other wireless and consumer electronic devices. The audio entertainment marketplace continues to rapidly evolve, providing our listeners with a growing number of alternatives and new media platforms.

We compete for the time and attention of our listeners with providers of other forms of in-home and mobile entertainment. To the extent existing or potential listeners choose to watch cable television, stream video from on-demand services or play interactive video games on their home-entertainment system, computer or mobile phone rather than listen to the Pandora service, these content services pose a competitive threat.

Competition for Advertisers

We compete with other content providers for a share of our advertising customers' overall marketing budgets. We compete on the basis of a number of factors, including perceived return on investment, effectiveness and relevance of our advertising products, pricing structure and ability to deliver large volumes or precise types of ads to targeted demographics. We believe that our ability to deliver targeted and relevant ads across a wide range of platforms allows us to compete favorably on the basis of these factors and justify a long-term profitable pricing structure. However, the market for online advertising solutions is intensely competitive and rapidly changing, and with the introduction of new technologies and market entrants, we expect competition to intensify in the future. Our competitors include Facebook, Google, MSN, Yahoo!, ABC, CBS, FOX, NBC, The New York Times and the Wall Street Journal. We directly compete against iHeartRadio, Entercom, Cumulus and other companies of the traditional broadcast radio market. For additional details on risks related to competition for advertisers, please refer to the section entitled "Risk Factors."

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The market for online advertising is becoming increasingly competitive as advertisers are allocating increasing amounts of their overall marketing budgets to online advertising. We compete for online advertisers with other internet companies, including major internet portals, search engine companies and social media sites. Large internet companies with greater brand recognition have significant numbers of direct sales personnel, more advanced programmatic advertising capabilities and substantial proprietary advertising inventory and web traffic that provide a significant competitive advantage and have a significant impact on pricing for internet advertising and web traffic.

Terrestrial broadcast, and to a lesser extent satellite radio, are significant sources of competition for advertising dollars. These radio providers deliver ads across platforms that are more familiar to traditional advertisers than the internet might be.

We compete for advertising dollars with other traditional media companies in television and print. These traditional outlets present us with a number of competitive challenges in attracting advertisers, including large established audiences, longer operating histories, greater brand recognition and a growing presence on the internet.

Seasonality

Our results reflect the effects of seasonal trends in listener and advertising behavior. We expect to experience both higher advertising sales due to greater advertiser demand during the holiday season and increased usage due to the popularity of holiday music during the last three months of each calendar year. In addition, we expect to experience lower advertising sales in the first three months of each calendar year due to reduced advertiser demand and increased usage due to increased use of media-streaming devices received as gifts during the holiday season. See the section entitled "Business Trends" in Item 7 of this Annual Report on Form 10-K for a more complete description of the seasonality of our financial results.

We changed our fiscal year to the calendar twelve months ended December 31 to align with the advertising industry's business cycle, effective beginning with the period ended on December 31, 2013. The results of our fiscal quarters prior to 2014 (three months ended April 30, July 31, October 31 and January 31 of each year) reflect the same effects of the seasonal trends on advertising revenue discussed above for calendar periods, except that the impact of these advertising sales-related trends on our fiscal results was not as pronounced due to the inclusion of January instead of October in our fourth fiscal quarter.

Intellectual Property

Our success depends in part upon our ability to protect our technologies and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks, contractual restrictions, technological measures and other methods. We enter into confidentiality and proprietary rights agreements with our employees, consultants and business partners, and we control access to and distribution of our proprietary information.

We have 11 patents that have been issued in the United States and 11 that have been issued outside of the United States, and we continue to pursue additional patent protection, both in the United States and abroad where appropriate and cost effective. In December 2014, we purchased certain patents covering technologies used in internet radio from Allied Security Trust. In June 2013, we purchased certain patents covering technologies used in internet radio from Yahoo! Inc. for $8.0 million in cash. We intend to hold these patents purchased from Allied Security Trust and Yahoo! Inc. as part of our strategy to protect and defend Pandora in patent-related litigation.

Our registered trademarks in the United States include "Pandora" and the "Music Genome Project," in addition to a number of Pandora logos and other Pandora marks. "Pandora" is also registered in Australia, Canada, Chile, the European Union, India, Israel, Korea, Mexico, New Zealand, Switzerland, Taiwan and other countries. "Music Genome Project" is also registered in Australia, Canada, China and New Zealand. We have pending trademark applications in the United States and other countries for Pandora names and marks.

We are the registrant of the internet domain name for our website, pandora.com, as well as pandora.eu, pandora.fm, pandora.co.in, pandora.co.uk, pandora.uk, pandora.co.nz, pandora.de, pandora.tw, and pandora.rocks, among others. We own rights to proprietary processes and trade secrets, including those underlying the Pandora service.

In addition to the foregoing protections, we generally control access to and use of our proprietary software and other confidential information through the use of internal and external controls, including contractual protections with employees, contractors, customers and partners.

Customer Concentration

For the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, we had no customers that accounted for 10% or more of total revenue.

Employees

As of December 31, 2014, we had 1,414 employees. None of our employees are covered by collective bargaining agreements, and we consider our relations with our employees to be good.

Corporate and Available Information

We were incorporated as a California corporation in January 2000 and reincorporated as a Delaware corporation in December 2010. Our principal executive offices are located at 2101 Webster Street, Suite 1650, Oakland, California 94612 and our telephone number is (510) 451-4100. Our website is located at www.pandora.com and our Investor Relations website is located at investor.pandora.com.

We changed our fiscal year to the calendar twelve months ending December 31, effective beginning with the period ended on December 31, 2013. As a result, our prior fiscal year was shortened from twelve months to an eleven-month transition period ended December 31, 2013. In this Annual Report on Form 10-K, all references to a fiscal year prior to December 31, 2013 refer to the twelve months ended January 31 of such year, and references to the first, second, third and fourth fiscal quarters ended prior to November 1, 2013 refer to the three months ended April 30, July 31, October 31 and January 31, respectively.

We file reports with the Securities and Exchange Commission ("SEC"), including Annual and Transition Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any other filings required by the SEC. We make available on our Investor Relations website, free of charge, our Annual and Transition Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information on our website is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document we file with the SEC.

The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

ITEM 1A. RISK FACTORS

The risks and uncertainties set forth below, as well as other factors described elsewhere in this Annual Report on Form 10-K or in other filings by us with the SEC, could adversely affect our business, financial condition, results of operations and the trading price of our common stock. Additional risks and uncertainties that are not currently known to us or that are not currently believed by us to be material may also harm our business operations and financial results. Because of the following factors, as well as other factors affecting our financial condition and operating results, past financial performance should not be considered to be a reliable indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods.

Risks Related to Our Business

We operate under and pay royalties pursuant to statutory and third-party licenses for the reproduction and public performance of sound recordings that could change or cease to exist, which would adversely affect our business.

We currently operate under statutory and third-party licenses that may change or cease to exist. We must pay performance rights royalties for the digital audio transmission of sound recordings. Subject to our ongoing compliance with numerous statutory conditions and regulatory requirements for a non-interactive service, we are permitted to operate our radio service under federal statutory licenses that allow the streaming in the U.S. of any sound recording lawfully released to the public. Pandora offers a small number of ancillary services (e.g., “Pandora Premieres”) that allows users to more directly engage with a limited amount of content for which we secure rights directly from copyright owners. We are also permitted to make reproductions of sound recordings on computer servers pursuant to these statutory licenses designed to facilitate the making of transmissions. For the twelve months ended December 31, 2014 we incurred SoundExchange related content acquisition costs representing 44% of our total revenue for that period.

There is no guarantee that Congress will not amend the Copyright Act to eliminate the availability of these licenses or that we will continue to be eligible to operate under these statutory licenses. For example, if copyright owners objected, and a court agreed, that we operate an "interactive" streaming service, that we make reproductions of sound recordings not covered by the statutory license, or that the functionality or transmission methods of our service extend beyond what is allowed under the statutory license, we could be subject to significant liability for copyright infringement and, absent making technological changes, lose our eligibility to operate under the statutory license. In that event, we would have to negotiate license agreements with sound recording copyright owners individually, a time-consuming and expensive undertaking that could jeopardize our ability to stream a significant percentage of the music currently in our library and result in royalty costs that are prohibitively expensive.

As described in "Business—Content, Copyrights and Royalties—Sound Recordings", we currently elect to avail ourselves of the Pureplay Settlement, which provides the rates and terms of statutory licenses for the reproduction and public performance of sound recordings for commercial webcasters through 2015, and we intend to continue to avail ourselves of this settlement through 2015. We presently do not know what rates will be available to us commencing January 1, 2016. There can be no assurance that we will be able to reach a new agreement with SoundExchange for commercially reasonable rates. The CRB, which has rate-making authority over us upon expiration of the Pureplay Settlement, has consistently established royalty rates, including those established for the years 2011 through 2015 that would, if paid by us, consume a significantly greater portion of our revenue and negatively impact our ability to achieve and sustain profitability. There can be no assurance that the per performance rates established by the CRB for periods following 2015 will not exceed the rates currently paid by us under the Pureplay Settlement. If we are unable to reach a new agreement for commercially reasonable rates with SoundExchange and the CRB sets performance rates for post-2015 periods that exceed the Pureplay Settlement, our content acquisition costs may significantly increase, which could materially harm our financial condition and inhibit the implementation of our business plans.

Outside the statutory framework, we have entered into a partnership with Merlin, the global rights agency for the independent label sector, pursuant to which we directly negotiated performance royalties for sound recordings with Merlin and its members. There is no guarantee that any licenses we directly negotiate would continue to be available to us in the future or that such licenses would be available at the royalty rates initially established.

We depend upon third-party licenses for the right to publicly perform musical works and a change to these licenses could materially increase our content acquisition costs.

Our content costs, in part, are comprised of the royalties we pay for the public performance of musical works embodied in the sound recordings that we stream. As described in “Business—Content, Copyrights and Royalties—Musical Works”, to secure the rights to publicly perform musical works embodied in sound recordings over the internet, we obtain licenses from or for the benefit of copyright owners and pay royalties to copyright owners or their agents. Copyright owners of musical works are vigilant in protecting their rights and currently are seeking substantial increases in the rates applicable to the public performance of such works. There is no guarantee that the licenses available to us now will continue to be available in the future or that such licenses will be available at the royalty rates associated with the current licenses. If we are unable to secure and maintain rights to publicly perform musical works or if we cannot do so on terms that are acceptable to us, our ability to perform music content to our listeners, and consequently our ability to attract and retain both listeners and advertisers, will be adversely impacted. For the twelve months ended December 31, 2014, we incurred content acquisition costs for the public performance of musical works representing approximately 4% of our total revenue for that period.

We currently operate under a license with ASCAP and an interim license with BMI. ASCAP and BMI each are governed by a consent decree with the United States Department of Justice. The rates we pay ASCAP and BMI can be established by either negotiation or through a rate court proceeding conducted by the United States District Court for the Southern District of New York. We elected to terminate our prior agreements with ASCAP as of December 31, 2010 and with BMI as of December 31, 2012 because, among other things, we believed that the royalty rates sought by ASCAP and BMI were in excess of rates paid by our largest radio competitors, broadcast radio stations and satellite radio. Notwithstanding our termination of these agreements, the musical works administered by each of ASCAP and BMI continued to be licensed to us pursuant to the provisions of their respective consent decrees. In November 2012, we filed a petition requesting that the ASCAP rate court determine reasonable license fees and terms for the ASCAP consent decree license applicable to the period January 1, 2011 through December 31, 2015. In June 2013, BMI filed a petition requesting that the BMI rate court determine reasonable license fees and terms for the BMI consent decree license applicable to the period January 1, 2013 through December 31, 2017. A trial to determine the royalty rates we will pay ASCAP concluded in February 2014 and the court issued its opinion establishing final fees in March 2014, but ASCAP has appealed the decision and such appeal is pending. The BMI rate court proceeding commenced in February 2015. Pending the Court's determination of final fees for Pandora's BMI license, Pandora is operating under an interim license with BMI. For additional details regarding such proceedings, please see the section entitled "Legal Proceedings." Each of these proceedings has been, and is expected to continue to be, protracted, expensive and uncertain in outcome. It is likely that trial level outcomes will be appealed and the final resolution may not be known for years. In the event that these matters are resolved adversely to us, our content acquisition costs could increase significantly, which would adversely affect our operating results. Notwithstanding the ASCAP court decision, there is no guarantee that final rates established by mutual agreement or by a rate court determination would establish royalty rates more favorable to us than those we previously paid pursuant to our terminated agreements with ASCAP and/or BMI or those that we pay pursuant to our interim arrangements with ASCAP and/or BMI.

We also currently operate under an agreement with SESAC, which automatically renews yearly, but is subject to termination by either party in accordance with its terms at the end of each yearly term. The SESAC rate is subject to small annual increases. There is no guarantee that either the license or the associated royalty rate available to us now with respect to SESAC will be available to us in the future.

In certain cases, we have also directly negotiated royalty agreements with publishers. There is no guarantee that any directly negotiated licenses with publishers available to us now will continue to be available in the future or that such licenses will be available at the royalty rates associated with such licenses.

We do not currently pay so-called "mechanical royalties" to music publishers for the reproduction and distribution of musical works embodied in server copies or transitory copies used to make streams audible to our listeners. Although not currently a matter of dispute, if music publishers were to retreat from the publicly stated position of their trade association that non-interactive streaming does not require the payment of a mechanical royalties, and a court entered final judgment requiring that payment, our royalty obligations could increase significantly, which would increase our operating expenses and harm our business and financial conditions. While we would vigorously challenge such mechanical royalties as not required by law, our challenge may be unsuccessful and would in any case involve commitment of substantial time and resources. In addition, we stream spoken word comedy content, for which the underlying literary works are not currently entitled to eligibility for licensing by any performing rights organization in the United States. Rather, pursuant to industry-wide custom and practice, this content is performed absent a specific license from any such performing rights organization or individual rights owners, although royalties are paid to SoundExchange for the public performance of the sound recordings in which such literary works are embodied. There can be no assurance that this industry custom will not change or that we will not otherwise become subject to additional licensing costs for spoken word comedy content imposed by performing rights organizations or individual copyright owners in the future or be subject to damages for copyright infringement.

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Changes in third-party licenses for the right to publicly perform musical works may reduce the sound recordings that we perform on the service or materially increase our content acquisition costs.

The number of works administered by SESAC, ASCAP and BMI may fluctuate over time and may be subject to the withdrawal of certain rights by individual SESAC, ASCAP and BMI-affiliated music publishers for certain types of transmissions by certain types of services, such as Pandora, or the loss of repertory entirely in the event of a publisher's complete withdrawal from any of SESAC, ASCAP or BMI. The decrease in the works licensed by SESAC, ASCAP and BMI may require more direct licensing by Pandora with individual music publishers and individual publishers not subject to a mandatory licensing obligations who could withhold the rights to all of the musical works which they own or administer. Between 2012 and 2014, certain publishers purported to partially withdraw portions of their repertoires from each of ASCAP and BMI with the intent that each performing rights organization would be unable to license the withdrawn musical works to new media licensees such as Pandora. Our position is that these attempted partial withdrawals were a violation of the ASCAP and BMI consent decrees, and we moved for summary judgment in both the ASCAP and BMI rate courts to clarify the issue.

The ASCAP rate court granted our summary motion in September 2013, which is subject to appeal, determining that the publishers' attempted partial withdrawals from ASCAP would place ASCAP in violation of its consent decree and, therefore, were ineffectual. The BMI rate court agreed that the attempted partial withdrawals would place BMI in violation of its consent decree; however, it also determined that any publisher seeking to partially withdraw from BMI would be deemed to have totally withdrawn from BMI. Based on the ASCAP court decision, we believe that Pandora remains able to perform works that were the subject of such attempted partial withdrawals. Based on the BMI court decision, however, there is some doubt regarding our ability under the BMI license to perform works that have been the subject of attempted partial publisher withdrawals. From time to time, in light of the legal uncertainties, we have entered into agreements with some purported withdrawing publishers to enable Pandora to continue to perform those publishers' works while we continue to pursue other legal remedies.

If music publishers effectuate withdrawals of all or a portion of their catalogs from ASCAP, BMI or SESAC, we may no longer be able to obtain licenses for such publisher's withdrawn catalogs from ASCAP, BMI or SESAC. Under these circumstances, we would either need to enter into direct licensing arrangements with such music publishers or remove those musical works from the service, including any sound recordings in which such musical works are embodied. Although we continue to be licensed by the performing rights organizations, it is unclear what specific effect a publisher's purported limited or prospective complete withdrawal of rights to public performances by means of digital transmissions from a performing rights organization would have on us. If we are unable to reach an agreement with respect to the repertoire of any music publisher which successfully withdraws all or a portion of its catalog(s) from a performing rights organization, or if we are forced to enter into direct licensing agreements with such publishers at rates higher than those currently set by the performing rights organizations, or higher than those set by the U.S. District Court having supervisory authority over ASCAP and BMI, for the performance of musical works, or if there is uncertainty as to what rights are administered by any particular performing rights organization or publisher, the number of sound recordings that we perform on our service may be reduced, our content acquisition costs may increase and our ability to retain and expand our listener base could be adversely affected, any of which could adversely affect our business, financial condition and results of operations.

Our inability to obtain accurate and comprehensive information to identify the ownership of a musical work may impact our ability to remove musical works or decrease the number of performances of a particular musical work, subjecting us to potential copyright infringement and difficulties in controlling content acquisition costs.

Comprehensive and accurate rightsholder information for the musical works that we publicly perform is not presently available to us. Without the ability to identify which composers, songwriters or publishers own or administer musical works, and an ability to determine which musical works correspond to specific sound recordings, it may be difficult to remove from our service musical works for which we have not obtained a license, which may subject us to significant liability for copyright infringement.

In addition, we have historically relied on the provisions of blanket licenses from ASCAP and BMI pursuant to certain consent decrees, and if the consent decrees no longer provide for such blanket licenses, our lack of ownership information for the musical works we stream may make it difficult to identify the appropriate rightsholders from which to obtain a license, which could also lead to a reduction of musical works performed on our service, adversely impacting our ability to retain and expand our listener base.

Internet radio is an evolving industry, which makes it difficult to evaluate our current business and future prospects.

Internet radio continues to develop as an industry and our current business and future prospects are difficult to evaluate. The marketplace for internet radio has undergone rapid and dramatic changes in its relatively short history and is subject to significant challenges. As a result, the future revenue, income and growth potential of our business is uncertain. Investors should consider our business and prospects in light of the risks and difficulties we encounter in this rapidly evolving business, which risks and difficulties include, among others:

- our relatively new, evolving and unproven business model;
- our ability to retain our current listenership, build our listener base and increase listener hours;
- our ability to effectively monetize listener hours, particularly with respect to listener hours on mobile devices, by growing our sales of advertising inventory created from growing listener hours and developing compelling ad product solutions that successfully deliver advertisers' messages across the range of our delivery platforms while maintaining our listener experience in continually evolving industries;
- our ability to attract new advertisers, retain existing advertisers and prove to advertisers that our advertising platform is effective enough to justify a pricing structure that is profitable for us;
- our ability to maintain relationships with makers of mobile devices, consumer electronic products and automobiles;
- our operation under an evolving music industry licensing structure including statutory and consent decree licenses that may change or cease to exist, which in turn may result in a significant increase in our operating expenses; and
- our ability to continue to secure the rights to music that attracts listeners to the service on fair and reasonable economic terms.

Failure to successfully address these risks and difficulties and other challenges associated with operating in an evolving marketplace, could inhibit the implementation of our business plan, significantly harm our financial condition, operating results and liquidity and prevent us from achieving or sustaining profitability.

Advertising on mobile devices, such as smartphones, is an emerging phenomenon, and if we are unable to increase revenue from our advertising products delivered to mobile devices, our results of operations will be materially adversely affected.

Our number of listener hours on mobile devices has surpassed listener hours on computers, and we expect that this trend will continue. Our mobile listenership has experienced significant growth since we introduced the first mobile version of our service in May 2007. Listener hours on mobile and other connected devices constituted approximately 77%, 76%, 80% and 83% of our total listener hours for the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, respectively. Digital advertising on mobile devices is an emerging phenomenon, and the percentage of advertising spending allocated to digital advertising on mobile devices has historically been lower than that allocated to traditional online advertising. According to eMarketer, the percentage of U.S. advertising spending allocated to advertising on mobile devices was approximately 11% in 2014, compared to approximately 30% for all online advertising. We must therefore convince advertisers of the capabilities of mobile digital advertising opportunities so that they migrate their advertising spend toward demographics and ad solutions that more effectively utilize mobile inventory.

We are still at an early stage of building our sales capability to penetrate local advertising markets, which we view as a key challenge in monetizing our listener hours, including listener hours on mobile and other connected devices. In addition, while a substantial amount of our revenue has traditionally been derived from display ads, some display ads may not be currently optimized for use on certain mobile or other connected devices. For example, standard display ads may not be well-suited for use on smartphones due to the size of the device screen and may not be appropriate for smartphones connected to or integrated in automobiles due to safety considerations. Further, some display ads may not be optimized to take advantage of the multimedia capabilities of connected devices. Our audio and video advertising products are relatively new and have not been as widely accepted by advertisers as our traditional display ads. In addition, the introduction of audio advertising places us in more direct competition with terrestrial radio, as many advertisers that purchase audio ads focus their spending on terrestrial radio stations who traditionally have strong connections with local advertisers.

We have plans that, if successfully implemented, would increase our number of listener hours on mobile and other connected devices, including efforts to expand the reach of our service by making it available on an increasing number of devices, such as smartphones and devices connected to or installed in automobiles. In order to effectively monetize such increased listener hours, we must, among other things, convince advertisers to migrate spending to nascent advertising markets, penetrate local advertising markets and develop compelling ad product solutions. We cannot guarantee you that we will be able

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to effectively monetize inventory generated by listeners using mobile and connected devices, or the time frame on which we may do so.

Advertising spending is increasingly being placed through new data-driven channels, such as the programmatic buying ecosystem, where mobile offerings are not as mature as their web-based equivalents. Because a large percentage of listeners use our service via mobile devices, our growth prospects and revenue may be adversely impacted if the advertising ecosystem is slow to adopt data-driven mobile advertising offerings.

As new advertising channels, such as programmatic buying, develop around data-driven technologies and advertising products, an increasing percentage of advertising spend is likely to shift to such channels and products. These data-driven advertising products and programmatic buying channels allow publishers to use data to target advertising toward specific groups of consumers who are more likely to be interested in the advertising message delivered. These advertising products and programmatic channels are currently more developed in terms of ad technology and industry adoption on the web than they are on mobile. However, the majority of our listeners currently access our service through mobile devices. Therefore, our ability to attract advertising spend, and ultimately our ad revenue, may be negatively impacted by this shift. We have no reliable way to predict how significantly or how quickly advertisers will shift buying to programmatic channels and data-driven advertising products on the web.

We are developing new data-driven, programmatic advertising capabilities for mobile, in an effort to take advantage of this trend. However, we have no reliable way to predict how significantly or how quickly advertisers will shift buying toward these data-driven ad products and programmatic channels on mobile. If advertising spend continues to be reallocated to web-based programmatic channels, and mobile programmatic adoption lags, our ability to grow revenue may be impacted and our business could be materially and adversely affected.

Emerging industry trends in digital advertising measurement and pricing may pose challenges for our ability to forecast and optimize our advertising inventory which may adversely impact our advertising revenue.

The digital advertising marketplace is currently introducing new mechanisms by which to measure and price advertising inventory. Specifically, the Media Ratings Council released the Viewable Ad Impression Measurement Guidelines in 2014 pursuant to which web display and web video advertising inventory will be transacted upon based on the number of “viewable” impressions delivered in connection with an applicable advertising campaign (instead of the number of ads served by the applicable ad server). The industry is in the early stages of this transition and we are still determining its potential impact on our inventory, operational resources, pricing, and revenue. In addition, the current measurement solutions are limited to web display and web video inventory and do not include mobile and audio inventory. Nonetheless, advertisers have been aggressively pushing to transact advertising purchases on a measured “viewable” basis. As these trends in the industry continue to evolve, our advertising revenue may be impacted by the availability, accuracy and utility of the available analytics and measurement technologies.

We have incurred significant operating losses in the past and may not be able to generate sufficient revenue to be profitable.

Since our inception in 2000, we have incurred significant net operating losses and, as of December 31, 2014, we had an accumulated deficit of $197.0 million. A key element of our strategy is to increase the number of listeners and listener hours to increase our industry penetration, including the number of listener hours on mobile and other connected devices. However, as our number of listener hours increases, the royalties we pay for content acquisition also increase. In addition, we have adopted a strategy to invest in our operations in advance of, and to drive, future revenue growth. As a result of these trends, we have not in the past generated, and may not in the future generate, sufficient revenue from the sale of advertising and subscriptions to offset our expenses. In addition, we plan to continue to invest heavily in our operations to support anticipated future growth. As a result of these factors, we expect to incur annual net losses on a U.S. GAAP basis in the near term.

Our revenue increased rapidly in each of the twelve months ended January 31, 2007 through January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014; however, we do not expect to sustain our high revenue growth rates in the future as a result of a variety of factors, including increased competition and the maturation of our business, and we cannot guarantee you that our revenue will continue to grow or will not decline. Investors should not consider our historical revenue growth or operating expenses as indicative of our future performance. If revenue growth is lower than our expectations, or our operating expenses exceed our expectations, our financial performance will be adversely affected. Further, if our future growth and operating performance fail to meet investor or analyst expectations, it could have a materially negative effect on our stock price.

In addition, in our efforts to increase revenue as the number of listener hours has grown, we have expanded and expect to continue to expand our sales force. If our hiring of additional sales personnel does not result in a sufficient increase in revenue, the cost of this additional headcount will not be offset, which would harm our operating results and financial condition.

Our failure to convince advertisers of the benefits of our service in the future could harm our business.

For the twelve months ended December 31, 2014 we derived 80% of our revenue from the sale of advertising and expect to continue to derive a substantial majority of our revenue from the sale of advertising in the future. Our ability to attract and retain advertisers, and ultimately to sell our advertising inventory to generate advertising revenue, depends on a number of factors, including:

- increasing the number of listener hours, particularly within desired demographics;
- keeping pace with changes in technology and our competitors;
- competing effectively for advertising dollars from other online marketing and media companies;
- penetrating the industry for local radio advertising;
- demonstrating the value of advertisements to reach targeted audiences across all of our delivery platforms, including the value of mobile digital advertising;
- continuing to develop and diversify our advertising platform, which currently includes delivery of display, audio and video advertising products through multiple delivery channels, including computers, mobile and other connected devices; and
- coping with ad blocking technologies that have been developed and are likely to continue to be developed that can block the display of our ads.

Our agreements with advertisers are generally short-term or may be terminated at any time by the advertiser. Advertisers that are spending only a small amount of their overall advertising budget on our service may view advertising with us as experimental and unproven and may leave us for competing alternatives at any time. We may never succeed in capturing a greater share of our advertisers' core advertising spending, particularly if we are unable to achieve the scale and industry penetration necessary to demonstrate the effectiveness of our advertising platforms, or if our advertising model proves ineffective or not competitive when compared to alternatives. Failure to demonstrate the value of our service would result in reduced spending by, or loss of, existing or potential future advertisers, which would materially harm our revenue and business.

If our efforts to attract prospective listeners and to retain existing listeners are not successful, our growth prospects and revenue will be adversely affected.

Our ability to grow our business and generate advertising revenue depends on retaining and expanding our listener base and increasing listener hours. We must convince prospective listeners of the benefits of our service and existing listeners of the continuing value of our service. The more listener hours we stream, the more ad inventory we have to sell. Further, growth in our listener base increases the size of demographic pools targeted by advertisers, which improves our ability to deliver advertising in a manner that maximizes our advertising customers' return on investment and, ultimately, to demonstrate the effectiveness of our advertising solutions and justify a pricing structure that is profitable for us. If we fail to grow our listener base and listener hours, particularly in key demographics such as young adults, we will be unable to grow advertising revenue, and our business will be materially and adversely affected.

Our ability to increase the number of our listeners and listener hours will depend on effectively addressing a number of challenges. Some of these challenges include:

- providing listeners with a consistent high quality, user-friendly and personalized experience;
- successfully penetrating the connected car and non-U.S. markets;
- continuing to build our catalogs of music and comedy content that our listeners enjoy;
- continuing to innovate and keep pace with changes in technology and our competitors;

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- maintaining and building our relationships with makers of consumer products such as mobile devices, other consumer electronic products and automobiles to make our service available through their products;
- maintaining positive listener perception of our service while managing ad-load to optimize inventory utilization; and
- minimizing listener churn and attracting lapsed listeners back to the service.

In addition, we have historically relied heavily on the success of viral marketing to expand consumer awareness of our service. In addition to our viral marketing strategy, we are beginning to launch more costly marketing campaigns and this increase in marketing expenses could have an adverse effect on our results of operations. We cannot guarantee you that we will be successful in maintaining or expanding our listener base and failure to do so would materially reduce our revenue and adversely affect our business, operating results and financial condition.

Further, although we use our number of registered users and our number of active users as indicators of our brand awareness and the growth of our business, the number of registered users and number of active users exceeds the number of unique individuals who register for, or actively use, our service. We define registered users as the total number of accounts that have been created for our service at period end and we define active users as the number of distinct registered users that have requested audio from our servers within the trailing 30 days from the end of each calendar month. To establish an account, a person does not need to provide personally unique information. For this reason a person may have multiple accounts. If the number of actual listeners does not result in an increase in listener hours, then our business may not grow as quickly as we expect, which may harm our business, operating results and financial condition.

If our efforts to attract and retain subscribers are not successful, our business may be adversely affected.

Our ability to continue to attract and retain subscribers will depend in part on our ability to consistently provide our subscribers with a quality experience through Pandora One. If Pandora One subscribers do not perceive that offering to be of value, or if we introduce new or adjust existing features or pricing in a manner that is not favorably received by them, we may not be able to attract and retain subscribers. Subscribers may cancel their subscription to our service for many reasons, including a perception that they do not use the service sufficiently, the need to cut household expenses, competitive services provide a better value or experience or as a result in changes in pricing, if any. If our efforts to attract and retain subscribers are not successful, our business, operating results and financial condition may be adversely affected.

If we fail to accurately predict and play music or comedy content that our listeners enjoy, we may fail to retain existing and attract new listeners.

We believe that a key differentiating factor between the Pandora service and other music content providers is our ability to predict music that our listeners will enjoy. Our personalized playlist generating system, based on the Music Genome Project and our proprietary algorithms, is designed to enable us to predict listener music preferences and select music content tailored to our listeners' individual music tastes. We have invested, and will continue to invest, significant resources in refining these technologies; however, we cannot guarantee you that such investments will yield an attractive return or that such refinements will be effective. The effectiveness of our personalized playlist generating system depends in part on our ability to gather and effectively analyze large amounts of listener data and listener feedback and we have no assurance that we will continue to be successful in enticing listeners to give a thumbs-up or thumbs-down to enough songs for our database to effectively predict and select new and existing songs. In addition, our ability to offer listeners songs that they have not previously heard and impart a sense of discovery depends on our ability to acquire and appropriately categorize additional tracks that will appeal to our listeners' diverse and changing tastes. While we have more than 1,000,000 songs in our catalog, we must continuously identify and analyze additional tracks that our listeners will enjoy and we may not effectively do so. Further, many of our competitors currently have larger catalogs than we offer and they may be more effective in providing their listeners with a more appealing listener experience.

We also provide comedy content on Pandora, an offering that is designed to predict what our listeners will enjoy using technology similar to the technology that we use to generate personalized playlists for music. The risks that apply to predicting our listeners' musical tastes apply to comedy to an even greater extent, particularly as we lack experience with content other than music, do not yet have as large a data set on listener preferences for comedy, and have a much smaller comedy catalog as compared to music. Our ability to predict and select music or comedy content that our listeners enjoy is critical to the perceived value of our service among listeners and failure to make accurate predictions would adversely affect our ability to attract and retain listeners, increase listener hours and sell advertising.

If we fail to effectively manage our growth, our business and operating results may suffer.

Our rapid growth has placed, and will continue to place, significant demands on our management and our operational and financial infrastructure. In order to attain and maintain profitability, we will need to recruit, integrate and retain skilled and experienced sales personnel who can demonstrate our value proposition to advertisers and increase the monetization of listener hours, particularly on mobile devices, by developing relationships with both national and local advertisers to convince them to migrate advertising spending to online and mobile digital advertising markets and utilize our advertising product solutions. Continued growth could also strain our ability to maintain reliable service levels for our listeners, effectively monetize our listener hours, develop and improve our operational, financial and management controls, enhance our reporting systems and procedures and recruit, train and retain highly skilled personnel. If our systems do not evolve to meet the increased demands placed on us by an increasing number of advertisers, we may also be unable to meet our obligations under advertising agreements with respect to the timing of our delivery of advertising or other performance obligations. As our operations grow in size, scope and complexity, we will need to improve and upgrade our systems and infrastructure, which will require significant expenditures and allocation of valuable management resources. If we fail to maintain the necessary level of discipline and efficiency and allocate limited resources effectively in our organization as it grows, our business, operating results and financial condition may suffer.

We face, and will continue to face, competition with other content providers for listener hours.

We compete for the time and attention of our listeners with other content providers on the basis of a number of factors, including quality of experience, relevance, acceptance and perception of content quality, ease of use, price, accessibility, perception of ad load, brand awareness and reputation.

Many of our competitors may leverage their existing infrastructure, brand recognition and content collections to augment their services by offering competing internet radio features to provide listeners with more comprehensive music service delivery choices. We face increasing competition for listeners from a growing variety of businesses that deliver audio media content through mobile phones and other wireless devices. We compete with many forms of media for the time and attention of our listeners, such as Facebook, Twitter, Netflix, Pinterest and Instagram. Our direct competitors, however, include iHeartRadio, iTunes Radio, LastFM, Google Songza and other companies in the traditional broadcast and internet radio market. We also directly compete with the non-interactive, Internet radio offerings such as Spotify and Slacker.

Our competitors include terrestrial radio, satellite radio and internet radio. Terrestrial radio providers offer their content for free, are well-established and accessible to listeners and offer content, such as news, sports, traffic, weather and talk that we currently do not offer. In addition, many terrestrial radio stations have begun broadcasting digital signals, which provide high-quality audio transmission. Satellite radio providers may offer extensive and oftentimes exclusive news, comedy, sports and talk content, national signal coverage and long-established automobile integration. In addition, terrestrial radio pays no royalties for its use of sound recordings and satellite radio pays a much lower percentage of revenue, 9.5% in 2014 and 10% in 2015, than internet radio providers for use of sound recordings, giving broadcast and satellite radio companies a significant cost advantage. We also compete directly with other emerging non-interactive internet radio providers, which may offer more extensive content libraries than we offer and some of which may be accessed internationally.

On-demand audio media and entertainment which are purchased or available for free and playable on mobile devices, automobiles and in the home, provide listeners with an interactive experience. These forms of media may be purchased, downloaded and owned as iTunes audio files, MP3s, CDs, or accessed from subscription or free online on-demand offerings by music providers.

We compete for the time and attention of our listeners with providers of other forms of in-home and mobile entertainment. To the extent existing or potential listeners choose to watch cable television, stream video from on-demand services or play interactive video games on their home-entertainment system, computer or mobile phone rather than listen to the Pandora service, these content services pose a competitive threat.

We believe that companies with a combination of financial resources, technical expertise and digital media experience also pose a significant threat of developing competing internet radio and digital audio entertainment technologies. For example, Apple, Amazon and Google have recently launched competing services, and they may devote greater resources than we have available, have a more accelerated time frame for deployment and leverage their existing user base and proprietary technologies to provide products and services that our listeners and advertisers may view as superior. Our current and future competitors may have more well-established brand recognition, more established relationships with music publishing companies and consumer product manufacturers, greater financial, technical and other resources, more sophisticated technologies or more

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experience in the markets, both domestic and international, in which we compete.

We also compete for listeners on the basis of the presence and visibility of our web tuner and app as compared with other businesses and software that deliver audio and other content through the internet, mobile devices and consumer products. We face significant competition for listeners from companies promoting their own digital music and content online or through app stores, including Apple, Amazon and Google. Search engines and app stores rank responses to search queries based on the popularity of a website or mobile application, as well as other factors that are outside of our control. Additionally, app stores often offer users the ability to browse applications by various criteria, such as the number of downloads in a given time period, the length of time since a mobile app was released or updated, or the category in which the application is placed. The websites and mobile applications of our competitors may rank higher than our website and our Pandora app, and our app may be difficult to locate in app stores, which could draw potential listeners away from our service and toward those of our competitors. In addition, our competitors' products may be pre-loaded or integrated into consumer electronics products or automobiles, creating an initial visibility advantage. If we are unable to compete successfully for listeners against other digital media providers by maintaining and increasing our presence and visibility online, in app stores and in consumer electronics products and automobiles, our listener hours may fail to increase as expected or decline and our advertising sales may suffer.

To compete effectively, we must continue to invest significant resources in the development of our service to enhance the user experience of our listeners. There can be no assurance that we will be able to compete successfully for listeners in the future against existing or new competitors, and failure to do so could result in loss of existing or potential listeners, reduced revenue, increased marketing expenses or diminished brand strength, any of which could harm our business.

We face, and will continue to face, competition with other content providers for advertising spending.

We compete for a share of advertisers' overall marketing budgets with other content providers on a variety of factors including perceived return on investment, effectiveness and relevance of our advertising products, pricing structure and ability to deliver large volumes or precise types of ads to targeted demographics. Our competitors include Facebook, Google, MSN, Yahoo!, ABC, CBS, FOX, NBC, The New York Times and the Wall Street Journal, among others. We directly compete against iHeartRadio, Entercom, Cumulus and other companies of the traditional broadcast radio market.

Although advertisers are allocating an increasing amount of their overall marketing budgets to web and mobile-based ads, such spending lags behind growth in internet and mobile usage, and the market for online and mobile advertising is intensely competitive. As a result, we compete for advertisers with a range of internet companies, including major internet portals, search engine companies and social media sites. Large internet companies with greater brand recognition have significant numbers of direct sales personnel, more advanced programmatic advertising capabilities and substantial proprietary advertising inventory and web traffic that provide a significant competitive advantage and have a significant impact on pricing for internet advertising and web traffic. The trend toward consolidation among online marketing and media companies may also affect pricing and availability of advertising inventory.

We also face significant competition for advertising dollars from terrestrial and, to a lesser extent, satellite radio providers. As many of the advertisers we target, particularly local advertisers, have traditionally advertised on terrestrial radio and have less experience with internet radio providers, they may be reluctant to spend for advertising on computers, mobile or other connected device platforms.

In addition, terrestrial radio providers as well as other traditional media companies in television and print, cable television channel providers, national newspapers and some regional newspapers enjoy a number of competitive advantages over us in attracting advertisers, including large established audiences, longer operating histories, greater brand recognition and a growing presence on the internet.

In order to compete successfully for advertisers against new and existing competitors, we must continue to invest resources in developing and diversifying our advertisement platform, harnessing listener data and ultimately proving the effectiveness and relevance of our advertising products. Failure to compete successfully against our current or future competitors could result in loss of current or potential advertisers or a reduced share of our advertisers' overall marketing budget, which could adversely affect our pricing and margins, lower our revenue, increase our research and development and marketing expenses and prevent us from achieving or maintaining profitability.

Our ability to increase the number of our listeners will depend in part on our ability to establish and maintain relationships with automakers, automotive suppliers and consumer electronics manufacturers with products that integrate our service.

A key element of our strategy to expand the reach of our service and increase the number of our listeners and listener hours is to establish and maintain relationships with automakers, automotive suppliers and consumer electronics manufacturers that integrate our service into and with their products. Working with certain third-party distribution partners, we currently offer listeners the ability to access our service through a variety of consumer electronics products used in the home and devices connected to or installed in automobiles. We intend to broaden our ability to reach additional listeners, and increase current listener's hours, through other platforms and partners over time, including through direct integration into connected cars. However, reaching agreements with automobile manufacturers and other distribution partners can be time consuming, and once an agreement is reached, product design cycles can be lengthy. If we are not successful in maintaining existing and creating new relationships, or if we encounter technological, content licensing or other impediments, our ability to grow our business could be adversely impacted.

Our existing agreements with partners in the automobile and consumer electronics industries generally do not obligate those partners to offer our service in their products. In addition, some automobile manufacturers or their supplier partners may terminate their agreements with us for convenience. Our business could be adversely affected if our automobile partners and consumer electronics partners do not continue to provide access to our service or are unwilling to do so on terms acceptable to us. If we are forced to amend the business terms of our distribution agreements as a result of competitive pressure, our ability to maintain and expand the reach of our service and increase listener hours would be adversely affected, which would reduce our revenue and harm our operating results.

Additionally, we distribute our app via app stores managed by Apple, Google, Amazon and Microsoft, and such distribution is subject to an application developer license agreement in each case. Should any of these parties reject our app from their application store or amend the terms of their license in such a way that inhibits our ability to distribute the Pandora apps via their application store, or negatively impacts our economics in such distribution, our ability to increase listener hours and sell advertising would be adversely affected, which would reduce our revenue and harm our operating results.

If we are unable to continue to make our technology compatible with the technologies of third-party distribution partners who make our service available to our listeners through mobile devices, consumer electronic products and automobiles, we may not remain competitive and our business may fail to grow or decline.

In order to deliver music everywhere our listeners want to hear it, our service must be compatible with mobile, consumer electronic, automobile and website technologies. Our service is accessible in part through Pandora-developed or third-party developed apps that hardware manufacturers embed in, and distribute through, their devices. Connected devices and their underlying technologies are constantly evolving. As internet connectivity of automobiles, mobile devices and other consumer electronic products expands and as new internet-connected products are introduced, we must constantly adapt our technology. It is difficult to keep pace with the continual release of new devices and technological advances in digital media delivery and predict the problems we may encounter in developing versions of our apps for these new devices and delivery channels. It may become increasingly challenging to do so in the future. In particular, the technology used for streaming the Pandora service in automobiles remains at an early stage and may not result in a seamless customer experience. If automobile and consumer electronics makers fail to make products that are compatible with our technology or we fail to adapt our technology to evolving requirements, our ability to grow or sustain the reach of our service, increase listener hours and sell advertising could be adversely affected.

Consumer tastes and preferences can change in rapid and unpredictable ways and consumer acceptance of these products depends on the marketing, technical and other efforts of third-party manufacturers, which is beyond our control. If consumers fail to accept the products of the companies with whom we partner or if we fail to establish relationships with makers of leading consumer products, our business could be adversely affected.

Unavailability of, or fluctuations in, third-party measurements of our audience may adversely affect our ability to grow advertising revenue.

Selling ads, locally and nationally, requires that we demonstrate to advertisers that our service has substantial reach and usage. Third-party measurements may not reflect our true listening audience and their underlying methodologies are subject to change at any time. In addition, the methodologies we apply to measure the key metrics that we use to monitor and manage our business may differ from the methodologies used by third-party measurement service providers. For example, we calculate listener hours based on the total bytes served for each track that is requested and served from our servers, as measured by our internal analytics systems, whether or not a listener listens to the entire track. By contrast, certain third-party measurement service providers may calculate and report the number of listener hours using a client-based approach, which measures time elapsed during listening sessions. Measurement technologies for mobile and consumer electronic devices may be even less reliable in quantifying the reach, usage and location of our service, and it is not clear whether such technologies will integrate with our systems or uniformly and comprehensively reflect the reach, usage and location of our service. While we have been working with third-party measurement service providers and certain of their measurements have now earned Media Ratings Council accreditation, some providers have not yet developed uniform measurement systems that comprehensively measure the reach, usage and location of our service. In order to demonstrate to potential advertisers the benefits of our service, we supplement third-party measurement data with our internal research, which may be perceived as less valuable than third-party numbers. If third-party measurement providers report lower metrics than we do, or if there is wide variance among reported metrics, our ability to convince advertisers of the benefits of our service could be adversely affected.

The lack of accurate cross-platform measurements for internet radio and broadcast radio may adversely affect our ability to grow advertising revenue.

We have invested substantial resources to create accurate cross-platform measurements for internet radio and broadcast radio in the major automated media-buying platforms, creating a one-stop shop that enables media buyers to compare internet radio audience reach with terrestrial radio audience reach using traditional broadcast radio metrics. To achieve this result, we currently rely on third parties such as Triton to quantify the reach and usage of our service and on media buying agencies to provide Internet radio metrics side-by-side with terrestrial radio metrics in media-buying platforms.

We have also partnered with media buying agencies that show internet radio measurements alongside terrestrial metrics in the media buying systems that media buyers use to purchase advertising. Media buying agencies receive measurement metrics from third parties, such as Triton for internet radio and Nielsen for more traditional media like terrestrial radio and television. Media buying agencies may choose not to show, or may be prohibited by third-party measurement services that measure terrestrial radio and other traditional media from showing, internet radio metrics alongside traditional terrestrial metrics. Our ability to realize our long-term potential will be significantly affected by our success in these advertising initiatives, and there is no assurance we will achieve substantial penetration of these advertising markets.

Our success depends upon the continued acceptance of online advertising as an alternative or supplement to offline advertising.

The percentage of the advertising industry allocated to online advertising lags the percentage of consumer online consumption by a significant degree. Growth of our business will depend in large part on the reduction or elimination of this gap between online and offline advertising spending, which may not happen in a way or to the extent that we currently expect. Many advertisers still have limited experience with online advertising and may continue to devote significant portions of their advertising budgets to traditional, offline advertising media. Accordingly, we continue to compete for advertising dollars with traditional media, including broadcast radio. We believe that the continued growth and acceptance of our online advertising products will depend on the perceived effectiveness and the acceptance of online advertising models generally, which is outside of our control. Any lack of growth in the industry for online advertising could result in reduced revenue or increased marketing expenses, which would harm our operating results and financial condition.

Assertions by third parties of violations under state law with respect to the public performance and reproduction of pre-1972 sound recordings could result in significant costs and substantially harm our business and operating results.

As described in “Business—Content, Copyrights and Royalties—Sound Recordings”, sound recordings made on or after February 15, 1972 fall within the scope of federal copyright protection. Subject to our ongoing compliance with numerous federal statutory conditions and regulatory requirements for a noninteractive service, we are permitted to operate our radio service under a statutory license that allows the streaming in the U.S. of any such sound recording lawfully released to the public and permits us to make reproductions of such sound recordings on computer servers pursuant to a separate statutory license designed to facilitate the making of such transmissions.

By contrast, protection of sound recordings created prior to February 15, 1972 (“pre-1972 sound recordings”) remains governed by a patchwork of state statutory and common laws. Copyright owners of pre-1972 sound recordings have commenced litigation against us, alleging violations of New York and California state statutory and common laws with respect to the unauthorized reproduction and public performance of pre-1972 sound recordings, seeking, among other things, restitution, disgorgement of profits, and punitive damages as well as injunctive relief prohibiting further violation of those copyright owners’ alleged exclusive rights. Litigation has been brought previously against Sirius XM Radio Inc. (“Sirius”) for similar claims, and a federal district court and a state court in California recently ruled against Sirius for violating exclusive public performance rights in California. In addition, a federal district court in New York has found Sirius liable for similar claims in New York. Those same plaintiffs have initiated litigation against us, alleging similar violations of exclusive rights under California and New York law. If we are found liable for the violation of the exclusive rights of any pre-1972 sound recording copyright owners, then we could be subject to liability, the amount of which could be significant. If we are required to obtain licenses from individual sound recording copyright owners for the reproduction and public performance of pre-1972

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sound recordings, then the time, effort and cost of securing such licenses directly from all owners of sound recording used on our service could be significant and could harm our business and operating results. If we are required to obtain licenses for pre-1972 sound recordings to avoid liability and are unable to secure such licenses, then we may have to remove pre-1972 sound recordings from our service, which could harm our ability to attract and retain users.

Our royalty payments are subject to audits and certain royalty calculation methods involve significant judgment.

The royalties that we pay to SoundExchange for the streaming of sound recordings are calculated using a per performance rate. While we believe that the mechanisms we use to track performances are sufficient to ensure that we are accurately reporting and paying royalties, our ability to do so depends in part on our ability to maintain these mechanisms as new devices are introduced and technologies evolve. Any understatement or overstatement of performances could result in our paying lower or higher royalties to SoundExchange than we actually owed, which could in turn affect our financial condition and results of operations. SoundExchange informed us in December 2013 that it intends to audit our payments for the years 2010, 2011, and 2012. As of December 31, 2014, we are in the process of coordinating this audit with SoundExchange. In addition, performing rights organizations and musical work copyright owners with whom we have entered into direct licenses have or may have the right to audit our royalty payments, and any such audit could result in disputes over whether we have paid the proper royalties. If such a dispute were to occur, we could be required to pay additional royalties and audit fees. The amounts involved could be material.

Rate court proceedings, the attempted and/or purported withdrawal of certain music publishers or the rights to certain of their works for certain purposes from ASCAP and BMI, and our entry into a local marketing agreement to program KXMZ-FM have highlighted uncertainties for the royalty rates that we pay for the public performance of musical works. For example, we could be liable for both increased royalty rates going forward and a potential true-up of royalty payments in excess of any interim royalties paid (i) for the period following December 31, 2010 with respect to ASCAP if ASCAP successfully appeals the rate court’s March 2014 ruling, and (ii) for the period following December 31, 2012 with respect to BMI. We record a liability for public performance royalties based on our best estimate of the amount owed to each organization based on historical rates, third-party evidence and legal developments. For each quarterly period, we evaluate our estimates to assess the adequacy of recorded liabilities. If actual royalty rates differ from estimates, revisions to the estimated royalty liabilities may be required, which could materially affect our results of operations. Any royalty audit could result in disputes over whether we have paid the proper royalties.

Expansion of our operations into non-music content, including our launch of comedy, subjects us to additional business, legal, financial and competitive risks.

Expansion of our operations into delivery of non-music content stations involves numerous risks and challenges, including increased capital requirements, new competitors and the need to develop new strategic relationships. Growth into this new area may require changes to our existing business model and cost structure, modifications to our infrastructure and exposure to new regulatory and legal risks, including infringement liability, any of which may require expertise in which we have little or no experience. There is no guarantee that we will be able to generate sufficient revenue from advertising sales associated with comedy content to offset the costs of maintaining comedy stations or the royalties paid for such comedy stations. Further, we have established a reputation as a music format internet radio provider and our ability to gain acceptance and listenership for comedy content stations, and thus our ability to attract advertisers on comedy stations, is not certain. Failure to obtain or retain rights to comedy content on acceptable terms, or at all, to successfully monetize and generate revenues from such content, or to effectively manage the numerous risks and challenges associated with such expansion could adversely affect our revenues and profitability. To the extent we choose, in the future, to offer additional types of content beyond music and comedy, such as news, talk and sports programming, we will be subject to many of these same risks.

Loss of agreements with the makers of mobile operating systems and devices, renegotiation of such agreements on less favorable terms, or other actions these third parties may take could harm our business.

Most of our agreements with makers of mobile operating systems and devices through which our service may be accessed, including Apple, Google and Microsoft, are short-term or can be canceled at any time with little or no prior notice or penalty. The loss of these agreements, or the renegotiation of these agreements on less favorable economic or other terms, could limit the reach of our service and its attractiveness to advertisers. Some of these mobile device makers, including Apple, are now, or may in the future become, competitors of ours, and could stop allowing or supporting access to our service through their products for competitive reasons. Furthermore, because devices providing access to our service are not manufactured and sold by us, we cannot guarantee that these companies will ensure that their devices perform reliably, and any faulty connection between these devices and our service may result in consumer dissatisfaction toward us, which could damage our brand.

We rely upon an agreement with DoubleClick, which is owned by Google, for delivering and monitoring our ads. Failure to renew the agreement on favorable terms, or termination of the agreement, could adversely affect our business.

We use DoubleClick's ad-serving platform to deliver and monitor ads for our service. There can be no assurance that our agreement with DoubleClick, which is owned by Google, will be extended or renewed upon expiration, that we will be able to extend or renew our agreement with DoubleClick on terms and conditions favorable to us or that we could identify another alternative vendor to take its place. Our agreement with DoubleClick also allows DoubleClick to terminate our relationship before the expiration of the agreement on the occurrence of certain events, including material breach of the agreement by us, and to suspend provision of the services if DoubleClick determines that our use of its service violates certain security, technology or content standards.

If we are unable to implement and maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to furnish a report by our management on our internal control over financial reporting. The report contains, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of year-end, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management.

While we have determined that our internal control over financial reporting was effective as of December 31, 2014, as indicated in our Management's Annual Report on Internal Control over Financial Reporting included in this Annual Report on Form 10-K for the twelve months ended December 31, 2014, we must continue to monitor and assess our internal control over financial reporting. If our management identifies one or more material weaknesses in our internal control over financial reporting and such weakness remains uncorrected at year-end, we will be unable to assert that such internal control is effective at year-end. If we are unable to assert that our internal control over financial reporting is effective at year-end, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls or concludes that we have a material weakness in our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which could have a material adverse effect on our business and the price of our common stock.

Our business and prospects depend on the strength of our brand and failure to maintain and enhance our brand would harm our ability to expand our base of listeners, advertisers and other partners.

Maintaining and enhancing the "Pandora" brand is critical to expanding our base of listeners, advertisers and other partners. Maintaining and enhancing our brand will depend largely on our ability to continue to develop and provide an innovative and high quality experience for our listeners and attract advertisers, content owners and automobile, mobile device and other consumer electronic product manufacturers to work with us, which we may not do successfully.

Our brand may be impaired by a number of other factors, including service outages, data privacy and security issues, listener perception of ad load and exploitation of our trademarks by others without permission. In addition, if our partners fail to maintain high standards for products that integrate our service, fail to display our trademarks on their products in breach of our agreements with them, or use our trademarks incorrectly or in an unauthorized manner or if we partner with manufacturers of products that our listeners reject, the strength of our brand could be adversely affected. Further, our efforts to achieve a more equitable royalty structure for our business may have an adverse impact on our relationship with songwriters, performers, and other artists, which could in turn diminish the perception of our brand. In addition, there is a risk that the word "Pandora" could become so commonly used that we lose protection for this trademark, which could result in other people using the word "Pandora" to refer to their own products, thus diminishing the strength of our brand.

We have not historically incurred significant expenses to establish and maintain our brand. However, if we are unable to maintain the growth rate in the number of our listeners, we may be required to expend greater resources on advertising, marketing and other brand-building efforts to preserve and enhance consumer awareness of our brand which would adversely affect our operating results and may not be effective.

We depend on key personnel to operate our business, and if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

We believe that our future success is highly dependent on the contributions of our executive officers as well as our ability to attract and retain highly skilled and experienced sales, technical and other personnel. All of our employees, including our executive officers, are free to terminate their employment relationship with us at any time, and their knowledge of our business and industry may be difficult to replace. Qualified individuals are in high demand, particularly in the digital media industry, and we may incur significant costs to attract them. In addition, competition for qualified personnel is particularly intense in the San Francisco Bay Area, where our headquarters are located. If we are unable to attract and retain our executive officers and key employees, we may not be able to achieve our strategic objectives, and our business could be harmed. In addition, we believe that our key executives have developed highly successful and effective working relationships. If one or more of these individuals leave, we may not be able to fully integrate new executives or replicate the current dynamic and working relationships that have developed among our executive officers and other key personnel, and our operations could suffer.

Interruptions or delays in service arising from our own systems or from our third-party vendors could impair the delivery of our service and harm our business.

We rely on systems housed in our own facilities and upon third-party vendors, including bandwidth providers and data center facilities located in the United States and New Zealand, to enable listeners to receive our content in a dependable, timely and efficient manner. We have experienced and expect to continue to experience periodic service interruptions and delays involving our own systems and those of our third-party vendors. In the event of a service outage at our main site, we maintain a backup site that can function in read-only capacity. We do not currently maintain live fail-over capability that would allow us to instantaneous switch our streaming operations from one facility to another in the event of a service outage. In the event of an extended service outage at our main site, we do maintain and test fail-over capabilities that should allow us to switch our live streaming operations from one facility to another. Both our own facilities and those of our third-party vendors are vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures and similar events. They also are subject to break-ins, hacking, denial of service attacks, sabotage, intentional acts of vandalism, terrorist acts, natural disasters, human error, the financial insolvency of our third-party vendors and other unanticipated problems or events. The occurrence of any of these events could result in interruptions in our service and to unauthorized access to, or alteration of, the content and data contained on our systems and that these third-party vendors store and deliver on our behalf.

We exercise no control over our third-party vendors, which makes us vulnerable to any errors, interruptions, or delays in their operations. Any disruption in the services provided by these vendors could have significant adverse impacts on our business reputation, customer relations and operating results. Upon expiration or termination of any of our agreements with third-party vendors, we may not be able to replace the services provided to us in a timely manner or on terms and conditions, including service levels and cost, that are favorable to us, and a transition from one vendor to another vendor could subject us to operational delays and inefficiencies until the transition is complete.

Our operating results may fluctuate, which makes our results difficult to predict and could cause our results to fall short of expectations.

Our revenue and operating results could vary significantly from quarter to quarter and year to year due to a variety of factors, many of which are outside our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful. In addition to other risk factors discussed in this "Risk Factors" section, factors that may contribute to the variability of our quarterly and annual results include:

- costs associated with defending any litigation, including intellectual property infringement litigation;
- our ability to pursue, and the timing of, entry into new geographic or content markets and, if pursued, our management of this expansion;
- the impact of general economic conditions on our revenue and expenses; and
- changes in government regulation affecting our business.

Seasonal variations in listener and advertising behavior may also cause fluctuations in our financial results. We expect to experience some effects of seasonal trends in listener behavior due to higher advertising sales during the fourth quarter of each calendar year due to greater advertiser demand during the holiday season and lower advertising sales in the first three months of the following calendar year due to reduced advertiser demand. Expenditures by advertisers tend to be cyclical and discretionary in nature, reflecting overall economic conditions, the economic prospects of specific advertisers or industries, budgeting constraints and buying patterns and a variety of other factors, many of which are outside our control. In addition, we expect to experience increased usage during the fourth quarter of each calendar year due to the holiday season, and in the first quarter of each calendar year due to increased use of media-streaming devices received as gifts during the holiday season.

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While we believe these seasonal trends have affected and will continue to affect our quarterly results, our trajectory of rapid growth may have overshadowed these effects to date.

Failure to protect our intellectual property could substantially harm our business and operating results.

The success of our business depends, in part, on our ability to protect and enforce our trade secrets, trademarks, copyrights and patents and all of our other intellectual property rights, including our intellectual property rights underlying the Pandora service. We attempt to protect our intellectual property under trade secret, trademark, copyright and patent law, and through a combination of employee and third-party nondisclosure agreements, other contractual restrictions, technological measures and other methods. These afford only limited protection. Despite our efforts to protect our intellectual property rights and trade secrets, unauthorized parties may attempt to copy aspects of our song selection technology or obtain and use our trade secrets and other confidential information. Moreover, policing our intellectual property rights is difficult, costly and may not always be effective.

We have filed, and may in the future file, patent applications and we have purchased portfolios of internet radio-related patents from third parties. It is possible, however, that these innovations may not be protectable. In addition, given the cost, effort, risks and downside of obtaining patent protection, including the requirement to ultimately disclose the invention to the public, we may choose not to seek patent protection for certain innovations. However, such patent protection could later prove to be important to our business. Furthermore, there is always the possibility that our patent applications may not issue as granted patents, that the scope of the protection gained will be insufficient or that an issued patent may be deemed invalid or unenforceable. We also cannot guarantee the following:

- that any of our present or future patents or other intellectual property rights will not lapse or be invalidated, circumvented, challenged or abandoned;
- that our intellectual property rights will provide competitive advantages to us;
- that our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will not be limited by our relationships with third parties;
- that any of our pending or future patent applications will have the coverage originally sought;
- that our intellectual property rights will be enforced in jurisdictions where competition may be intense or where legal protection may be weak; or
- that we will not lose the ability to assert our intellectual property rights against or to license our technology to others and collect royalties or other payments.

We have registered "Pandora," "Music Genome Project" and other marks as trademarks in the United States. Nevertheless, competitors may adopt service names similar to ours, or purchase our trademarks and confusingly similar terms as keywords in internet search engine advertising programs, thereby impeding our ability to build brand identity and possibly leading to confusion among our listeners or advertising customers. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of the term Pandora or our other trademarks. Any claims or customer confusion related to our trademarks could damage our reputation and brand and substantially harm our business and operating results.

We currently own the www.pandora.com internet domain name and various other related domain names. Domain names are generally regulated by internet regulatory bodies. If we lose the ability to use a domain name in a particular country, we would be forced either to incur significant additional expenses to market our service within that country. Either result could harm our business and operating results. The regulation of domain names in the United States and in foreign countries is subject to change. Regulatory bodies could establish additional top-level domains, appoint additional domain name registrars or modify the requirements for holding domain names. As a result, we may not be able to acquire or maintain the domain names that utilize our brand names in the United States or other countries in which we may conduct business in the future.

In order to protect our trade secrets and other confidential information, we rely in part on confidentiality agreements with our employees, consultants and third parties with whom we have relationships. These agreements may not effectively prevent disclosure of trade secrets and other confidential information and may not provide an adequate remedy in the event of misappropriation of trade secrets or any unauthorized disclosure of trade secrets and other confidential information. In addition, others may independently discover our trade secrets and confidential information, and in some such cases we might not be able to assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our trade secret rights and related confidentiality and nondisclosure provisions, and failure to obtain or maintain trade secret protection, or our competitors' obtainment of our trade secrets or independent development of unpatented technology similar to ours or competing technologies, could adversely affect our competitive business position.

Litigation or proceedings before the U.S. Patent and Trademark Office or other governmental authorities and administrative bodies in the United States and abroad may be necessary in the future to enforce our intellectual property rights, to protect our patent rights, trademarks, trade secrets and domain names and to determine the validity and scope of the proprietary rights of others. Our efforts to enforce or protect our proprietary rights may be ineffective and could result in substantial costs and diversion of resources and management time, each of which could substantially harm our operating results.

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

Internet, technology and media companies are frequently subject to litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. Some internet, technology and media companies, including some of our competitors, own large numbers of patents, copyrights, trademarks and trade secrets, which they may use to assert claims against us. In addition, we encourage third parties to submit content for our catalogue and we cannot be assured that artist representations made in connection with such submissions accurately reflect the legal rights of the submitted content. Third parties have asserted, and may in the future assert, that we have infringed, misappropriated or otherwise violated their intellectual property rights. In addition, various federal and state laws and regulations govern the intellectual property and related rights associated with sound recordings and musical works. Existing laws and regulations are evolving and subject to different interpretations, and various federal and state legislative or regulatory bodies may expand current or enact new laws or regulations. We cannot guarantee you that we are not infringing or violating any third-party intellectual property rights.

We cannot predict whether assertions of third-party intellectual property rights or any infringement or misappropriation claims arising from such assertions will substantially harm our business and operating results. If we are forced to defend against any infringement or misappropriation claims, we may be required to expend significant time and financial resources on the defense of such claims, even if without merit, settled out of court, or determined in our favor. Furthermore, an adverse outcome of a dispute may require us to: pay damages, potentially including treble damages and attorneys' fees, if we are found to have willfully infringed a party's intellectual property; cease making, licensing or using products or services that are alleged to infringe or misappropriate the intellectual property of others; expend additional development resources to redesign our services; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies, content or materials; or to indemnify our partners and other third parties. Royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. In addition, we do not carry broadly applicable patent liability insurance and any lawsuits regarding patent rights, regardless of their success, could be expensive to resolve and would divert the time and attention of our management and technical personnel.

We may require additional capital to pursue our business objectives and respond to business opportunities, challenges or unforeseen circumstances. If capital is not available to us, our business, operating results and financial condition may be harmed.

We may require additional capital to operate or expand our business. In addition, some of our current or future strategic initiatives, including entry into non-music content channels, such as comedy, or international markets, may require substantial additional capital resources before they begin to generate revenue. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. For example, our current credit facility contains restrictive covenants relating to our capital raising activities and other financial and operational matters, and any debt financing secured by us in the future could involve further restrictive covenants, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. In addition, volatility in the credit markets may have an adverse effect on our ability to obtain debt financing. If we do not have funds available to enhance our solutions, maintain the competitiveness of our technology and pursue business opportunities, we may not be able to service our existing listeners, acquire new listeners or attract or retain advertising customers, each of which could inhibit the implementation of our business plan and materially harm our operating results.

We may acquire other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

We may in the future seek to acquire or invest in businesses, products or technologies that we believe could complement or expand our service, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated.

In addition, we have limited experience acquiring other businesses. If we acquire additional businesses, we may not be able to integrate the acquired personnel, operations and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits from the acquired business due to a number of factors, including:

- unanticipated costs or liabilities associated with the acquisition;
- incurrence of acquisition-related costs;
- diversion of management's attention from other business concerns;
- regulatory uncertainties;
- harm to our existing business relationships with business partners and advertisers as a result of the acquisition;
- harm to our brand and reputation;
- the potential loss of key employees;
- use of resources that are needed in other parts of our business; and
- use of substantial portions of our available cash to consummate the acquisition.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process.

Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial condition may suffer.

We face many risks associated with our long-term plan to further expand our operations outside of the United States, including difficulties obtaining rights to music and other content on favorable terms.

Expanding our operations into international markets is an element of our long-term strategy. For example, in June 2012 we began providing our service in New Zealand, Australia and their associated territories. However, offering our service outside of the United States involves numerous risks and challenges. Most importantly, while United States copyright law provides a statutory licensing regime for the public performance of sound recordings to listeners within the United States, there is no equivalent statutory licensing regime available outside of the United States, and many of the other licensing alternatives currently available in other countries are not commercially viable. Currently, the licensing terms offered by rights organizations and individual copyright owners in most countries outside the United States are prohibitively expensive. Addressing licensing structure and royalty rate issues in the United States required us to make very substantial investments of time, capital and other resources, and our business could have failed if such investments had not succeeded. Addressing these issues in foreign jurisdictions may require a commensurate investment by us, and there can be no assurance that we would succeed or achieve any return on this investment.

In addition, international expansion exposes us to other risks such as:

- the need to modify our technology and sell our solutions in non-English speaking countries;
- the need to localize our service to foreign customers' preferences and customs;
- the need to conform our marketing and advertising efforts with the laws and regulations of foreign jurisdictions, including, but not limited to, the use of any personal information about our listeners;

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- the need to amend existing agreements and to enter into new agreements with automakers, automotive suppliers, consumer electronics manufacturers with products that integrate our service, and others in order to provide that service in foreign countries;
- difficulties in managing operations due to language barriers, distance, staffing, cultural differences and business infrastructure constraints and domestic laws regulating corporations that operate internationally;
- our lack of experience in marketing, and encouraging viral marketing growth without incurring significant marketing expenses, in foreign countries;
- application of foreign laws and regulations to us;
- fluctuations in currency exchange rates;
- reduced or ineffective protection of our intellectual property rights in some countries; and
- potential adverse tax consequences associated with foreign operations and revenue.

Furthermore, in most international markets, we would not be the first entrant, and our competitors may be better positioned than we are to succeed. In addition, in jurisdictions where copyright protection has been insufficient to protect against widespread music piracy, achieving market acceptance of our service may prove difficult as we would need to convince listeners to stream our service when they could otherwise download the same music for free. As a result of these obstacles, we may find it impossible or prohibitively expensive to enter or sustain our presence in foreign markets, or entry into foreign markets could be delayed, which could hinder our ability to grow our business.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

At December 31, 2014, we had federal net operating loss carryforwards of approximately $447 million and tax credit carryforwards of approximately $7.9 million. At December 31, 2014, we had state net operating loss carryforwards of approximately $496 million and tax credit carryforwards of approximately of $8.3 million. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, ("the Code"), if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income may be limited. In general, an "ownership change" will occur if there is a cumulative change in our ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. As a result of prior equity issuances and other transactions in our stock, we have previously experienced "ownership changes" under section 382 of the Code and comparable state tax laws. We may also experience ownership changes in the future as a result of future transactions in our stock. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards or other pre-change tax attributes to offset United States federal and state taxable income is subject to limitations.

We could be subject to additional income tax liabilities.

We are subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating and estimating our worldwide provision for income taxes and accruals for these taxes. For example, our effective tax rates could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated in countries where we have higher statutory tax rates, by losses incurred in jurisdictions for which we are not able to realize the related tax benefit, by changes in foreign currency exchange rates, by changes in the valuation of our deferred tax assets and liabilities, or by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations. We are also subject to tax audits in various jurisdictions, and such jurisdictions may assess additional income tax liabilities against us.

If we cannot maintain our corporate culture as we grow, we could lose the innovation, teamwork and focus that contribute crucially to our business.

We believe that a critical component of our success is our corporate culture, which we believe fosters innovation, encourages teamwork, cultivates creativity and promotes focus on execution. We have invested substantial time, energy and resources in building a highly collaborative team that works together effectively in a non-hierarchical environment designed to promote openness, honesty, mutual respect and pursuit of common goals. As we continue to develop the infrastructure of a public company and grow, we may find it difficult to maintain these valuable aspects of our corporate culture. Any failure to preserve our culture could negatively impact our future success, including our ability to attract and retain employees, encourage innovation and teamwork and effectively focus on and pursue our corporate objectives.

Federal, state and industry regulations as well as self-regulation related to privacy and data security concerns pose the threat of lawsuits and other liability, require us to expend significant resources, and may hinder our ability and our advertisers' ability to deliver relevant advertising.

We collect and utilize demographic and other information, including personally identifiable information, from and about our listeners and artists as they interact with our service. For example, to register for a Pandora account, our listeners must provide the following information: age, gender, zip code and e-mail address. Listeners must also provide their credit card or debit card numbers and other billing information in connection with additional service offerings. We also may collect information from our listeners when they enter information on their profile page, post comments on other listeners' pages, use other community or social networking features that are part of our service, participate in polls or contests or sign up to receive e-mail newsletters. Further, we and third parties use tracking technologies, including "cookies" and related technologies, to help us manage and track our listeners' interactions with our service and deliver relevant advertising. We also collect information from and track artists' activity on our Pandora Artist Marketing Platform ("Pandora AMP"). Third parties may, either without our knowledge or consent, or in violation of contractual prohibitions, obtain, transmit or utilize our listeners' or artists' personally identifiable information, or data associated with particular users, devices or artists.

Various federal and state laws and regulations, as well as the laws of foreign jurisdictions in which we may choose to operate, govern the collection, use, retention, sharing and security of the data we receive from and about our listeners. Privacy groups and government authorities have increasingly scrutinized the ways in which companies link personal identities and data associated with particular users or devices with data collected through the internet, and we expect such scrutiny to continue to increase. Alleged violations of laws and regulations relating to privacy and data security, and any relevant claims, may expose us to potential liability and may require us to expend significant resources in responding to and defending such allegations and claims. Claims or allegations that we have violated laws and regulations relating to privacy and data security have resulted and could in the future result in negative publicity and a loss of confidence in us by our listeners and our advertisers.

Existing privacy-related laws and regulations are evolving and subject to potentially differing interpretations, and various federal and state legislative and regulatory bodies, as well as foreign legislative and regulatory bodies, may expand current or enact new laws regarding privacy and data security-related matters. We may find it necessary or desirable to join self-regulatory bodies or other privacy-related organizations that require compliance with their rules pertaining to privacy and data security. We also may be bound by contractual obligations that limit our ability to collect, use, disclose and leverage listener data and to derive economic value from it. New laws, amendments to or re-interpretations of existing laws, rules of self-regulatory bodies, industry standards and contractual obligations, as well as changes in our listeners' expectations and demands regarding privacy and data security, may limit our ability to collect, use and disclose, and to leverage and derive economic value from listener data. We may also be required to expend significant resources to adapt to these changes and to develop new ways to deliver relevant advertising or otherwise provide value to our advertisers. In particular, government regulators have proposed "do not track" mechanisms, and requirements that users affirmatively "opt-in" to certain types of data collection that, if enacted into law or adopted by self-regulatory bodies or as part of industry standards, could significantly hinder our ability to collect and use data relating to listeners. Restrictions on our ability to collect, access and harness listener data, or to use or disclose listener data or any profiles that we develop using such data, could in turn limit our ability to stream personalized music content to our listeners and offer targeted advertising opportunities to our advertising customers, each of which are critical to the success of our business.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols imposed by law, regulation, self-regulatory bodies, industry standards and contractual obligations. Increased regulation of data utilization and distribution practices, including self-regulation and industry standards, could increase our cost of operation, limit our ability to grow our operations or otherwise adversely affect our business.

If our security systems are breached, we may face civil liability and public perception of our security measures could be diminished, either of which would negatively affect our ability to attract and retain listeners and advertisers.

Techniques used to gain unauthorized access to corporate data systems are constantly evolving, and we may be unable to anticipate or prevent unauthorized access to data pertaining to our listeners, including credit card and debit card information and other personally identifiable information. Like all internet services, our service, which is supported by our own systems and those of third-party vendors, is vulnerable to computer malware, Trojans, worms, break-ins, phishing attacks, attempts to overload servers with denial-of-service, attempts to access our servers to stream music or acquire playlists, or other attacks and disruptions from unauthorized use of our and third-party vendor computer systems, any of which could lead to system interruptions, delays, or shutdowns, causing loss of critical data or the unauthorized access to personally identifiable information. If an actual or perceived breach of security occurs on our systems or a vendor's systems, we may face civil liability and reputational damage, either of which would negatively affect our ability to attract and retain listeners, which in turn would harm our efforts to attract and retain advertisers. We also would be required to expend significant resources to mitigate the breach of security and to address related matters. Unauthorized access to music or playlists would potentially create additional royalty obligations with no corresponding revenue.

We cannot control the actions of third parties who may have access to the listener data we collect. The integration of the Pandora service with apps provided by third parties represents a significant growth opportunity for us, but we may not be able to control such third parties' use of listeners' data, ensure their compliance with the terms of our privacy policies, or prevent unauthorized access to, or use or disclosure of, listener information, any of which could hinder or prevent our efforts with respect to growth opportunity. In addition, these third-party vendors may become the victim of security breaches, or have practices that may result in a breach and we may be responsible for those third-party acts or failures to act.

Any failure, or perceived failure, by us to maintain the security of data relating to our listeners and employees, to comply with our posted privacy policy, laws and regulations, rules of self-regulatory organizations, industry standards and contractual provisions to which we may be bound, could result in the loss of confidence in us, or result in actions against us by governmental entities or others, all of which could result in litigation and financial losses, and could potentially cause us to lose listeners, artists, advertisers, revenue and employees.

We are subject to a number of risks related to credit card and debit card payments we accept.

We accept subscription payments through credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in those fees would require us to either increase the prices we charge for our products, which could cause us to lose subscribers and subscription revenue, or absorb an increase in our operating expenses, either of which could harm our operating results.

If we or any of our processing vendors have problems with our billing software, or the billing software malfunctions, it could have an adverse effect on our subscriber satisfaction and could cause one or more of the major credit card companies to disallow our continued use of their payment products. In addition, if our billing software fails to work properly and, as a result, we do not automatically charge our subscribers’ credit cards on a timely basis or at all, or there are issues with financial insolvency of our third-party vendors or other unanticipated problems or events, we could lose subscription revenue, which would harm our operating results.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, which could change or be reinterpreted to make it more difficult for us to comply. We are currently accredited against, and in compliance with, the Payment Card Industry Data Security Standard, or PCI DSS, the payment card industry’s security standard for companies that collect, store or transmit certain data regarding credit and debit cards, credit and debit card holders and credit and debit card transactions. Currently we comply with PCI DSS version 2.0 as a Level 3 merchant. In our subsequent PCI DSS compliance cycle, we will comply against PCI DSS version 3.0 as a Level 2 merchant. Although Pandora is PCI DSS compliant, there is no guarantee that we will maintain PCI DSS compliance. Our failure to comply fully with PCI DSS in the future could violate payment card association operating rules, federal and state laws and regulations and the terms of our contracts with payment processors and merchant banks. Such failure to comply fully also could subject us to fines, penalties, damages and civil liability, and could result in the loss of our ability to accept credit and debit card payments. Further, there is no guarantee that PCI DSS compliance will prevent illegal or improper use of our payment systems or the theft, loss, or misuse of data pertaining to credit and debit cards, credit and debit card holders and credit and debit card transactions.

If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures and significantly higher credit card-related costs, each of which could adversely affect our business, financial condition and results of operations. If we are unable to maintain our chargeback rate or refund rates at acceptable levels, credit card and debit card companies may increase our transaction fees or terminate their relationships with us. Any increases in our credit card and debit card fees could adversely affect our results of operations, particularly if we elect not to raise our rates for our service to offset the increase. The termination of our ability to process payments on any major credit or debit card would significantly impair our ability to operate our business.

If we fail to detect click fraud or other invalid clicks on ads, we could lose the confidence of our advertisers, which would cause our business to suffer.

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Our business relies on delivering positive results to our advertising customers. We are exposed to the risk of fraudulent and other invalid clicks or conversions that advertisers may perceive as undesirable. A major source of invalid clicks could result from click fraud where a listener intentionally clicks on ads for reasons other than to access the underlying content of the ads. If fraudulent or other malicious activity is perpetrated by others and we are unable to detect and prevent it, or if we choose to manage traffic quality in a way that advertisers find unsatisfactory, the affected advertisers may experience or perceive a reduced return on their investment in our advertising products, which could lead to dissatisfaction with our advertising programs, refusals to pay, refund demands or withdrawal of future business. This could damage our brand and lead to a loss of advertisers and revenue.

Some of our services and technologies may use "open source" software, which may restrict how we use or distribute our service or require that we release the source code of certain services subject to those licenses.

Some of our services and technologies may incorporate software licensed under so-called "open source" licenses, including, but not limited to, the GNU General Public License and the GNU Lesser General Public License. Such open source licenses typically require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. Few courts have interpreted open source licenses, and the manner in which these licenses may be interpreted and enforced is therefore subject to some uncertainty. We rely on multiple employee and non-employee software programmers to design our proprietary technologies, and since we do not exercise complete control over the development efforts of all such programmers we cannot be certain that they have not incorporated open source software into our proprietary products and technologies or that they will not do so in the future. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce the value of our services and technologies and materially and adversely affect our ability to sustain and grow our business.

Government regulation of the internet is evolving, and unfavorable developments could have an adverse effect on our operating results.

We are subject to general business regulations and laws, as well as regulations and laws specific to the internet. Such laws and regulations cover taxation, user privacy, data collection and protection, copyrights, electronic contracts, sales procedures, automatic subscription renewals, credit card processing procedures, consumer protections, broadband internet access and content restrictions. We cannot guarantee that we have been or will be fully compliant in every jurisdiction, as it is not entirely clear how existing laws and regulations governing issues such as privacy, taxation and consumer protection apply to the internet. Moreover, as internet commerce continues to evolve, increasing regulation by federal, state and foreign agencies becomes more likely. The adoption of any laws or regulations that adversely affect the popularity or growth in use of the internet, including laws limiting internet neutrality, could decrease listener demand for our service offerings and increase our cost of doing business. Future regulations, or changes in laws and regulations or their existing interpretations or applications, could also hinder our operational flexibility, raise compliance costs and result in additional historical or future liabilities for us, resulting in adverse impacts on our business and our operating results.

We could be adversely affected by regulatory restrictions on the use of mobile and other electronic devices in motor vehicles and legal claims arising from use of such devices while driving.

Regulatory and consumer agencies have increasingly focused on distraction to drivers that may be associated with use of mobile and other devices in motor vehicles. In 2010, the U.S. Department of Transportation identified driver distraction as a top priority, and in April 2013, the National Highway Traffic Safety Administration (the "NHTSA") released new voluntary guidelines for visual-manual devices not related to the driving task that are integrated into motor vehicles. NHTSA also intends to propose guidelines applicable to after-market and portable devices that may be used in motor vehicles. Regulatory restrictions and enforcement actions related to how drivers and passengers in motor vehicles may engage with devices on which our service is broadcast could inhibit our ability to increase listener hours and generate ad revenue, which would harm our operating results. In addition, concerns over driver distraction due to use of mobile and other electronic devices to access our service in motor vehicles could result in product liability or personal injury litigation and negative publicity.

We rely on third parties to provide software and related services necessary for the operation of our business.

We incorporate and include third-party software into and with our apps and service offerings and expect to continue to do so. The operation of our apps and service offerings could be impaired if errors occur in the third-party software that we use. It may be more difficult for us to correct any defects in third-party software because the development and maintenance of the

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software is not within our control. Accordingly, our business could be adversely affected in the event of any errors in this software. There can be no assurance that any third-party licensors will continue to make their software available to us on acceptable terms, to invest the appropriate levels of resources in their software to maintain and enhance its capabilities, or to remain in business. Any impairment in our relationship with these third-party licensors could harm our ability to maintain and expand the reach of our service, increase listener hours and sell advertising each of which could harm our operating results, cash flow and financial condition.

The impact of worldwide economic conditions, including the effect on advertising budgets and discretionary entertainment spending behavior, may adversely affect our business and operating results.

Our financial condition is affected by worldwide economic conditions and their impact on advertising spending. Expenditures by advertisers generally tend to reflect overall economic conditions, and reductions in spending by advertisers could have a serious adverse impact on our business. In addition, we provide an entertainment service, and payment for our Pandora One subscription service may be considered discretionary on the part of some of our current and prospective subscribers or listeners who may choose to use a competing free service or to listen to Pandora without subscribing. To the extent that overall economic conditions reduce spending on discretionary activities, our ability to retain current and obtain new subscribers could be hindered, which could reduce our subscription revenue and negatively impact our business.

Our business is subject to the risks of earthquakes, fires, floods and other natural catastrophic events and to interruption by man-made problems such as computer viruses or terrorism.

Our systems and operations are vulnerable to damage or interruption from earthquakes, fires, floods, power losses, telecommunications failures, terrorist attacks, acts of war, human errors, break-ins or similar events. For example, a significant natural disaster, such as an earthquake, fire or flood, could have a material adverse impact on our business, operating results and financial condition, and our insurance coverage may be insufficient to compensate us for losses that may occur. Our principal executive offices are located in the San Francisco Bay Area, a region known for seismic activity. In addition, acts of terrorism could cause disruptions in our business or the economy as a whole. Our servers may also be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data or the unauthorized disclosure of confidential customer data. We currently have very limited disaster recovery capability, and our business interruption insurance may be insufficient to compensate us for losses that may occur. As we rely heavily on our servers, computer and communications systems and the internet to conduct our business and provide high quality service to our listeners, such disruptions could negatively impact our ability to run our business, result in loss of existing or potential listeners and advertisers and increased maintenance costs, which would adversely affect our operating results and financial condition.

Risks Related to Owning Our Common Stock

Our stock price has been and will likely continue to be volatile, and the value of an investment in our common stock may decline.

The trading price of our common stock has been and is likely to continue to be volatile. In addition to the risk factors described in this section and elsewhere in this Annual Report on Form 10-K, factors that may cause the price of our common stock to fluctuate include, but are not limited to:

- our actual or anticipated operating performance and the operating performance of similar companies in the internet, radio or digital media spaces;
- our actual or anticipated achievement of non-financial key operating metrics;
- general economic conditions and their impact on advertising spending;
- the overall performance of the equity markets;
- the number of shares of our common stock publicly owned and available for trading;
- threatened or actual litigation;
- changes in laws or regulations relating to our service;

- any major change in our board of directors or management;
- publication of research reports about us or our industry or changes in recommendations or withdrawal of research coverage by securities analysts; and
- sales or expected sales of shares of our common stock by us, and our officers, directors and significant stockholders.

In addition, the stock market has experienced extreme price and volume fluctuations that often have been unrelated or disproportionate to the operating performance of those affected companies. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. Such litigation, if instituted against us, could result in substantial costs, divert our management's attention and resources and harm our business, operating results and financial condition.

If securities or industry analysts cease publishing research, publish inaccurate or unfavorable research about our business or make projections that exceed our actual results, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If securities or industry analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline. Furthermore, such analysts publish their own projections regarding our actual results. These projections may vary widely from one another and may not accurately predict the results we actually achieve. Our stock price may decline if we fail to meet securities and industry analysts' projections.

Our charter documents, Delaware law and certain terms of our music licensing arrangements could discourage takeover attempts and lead to management entrenchment.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change in control of the Company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our president, our secretary, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66$^{2}/3$% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our certificate of incorporation relating to the issuance of preferred stock and management of our business or our bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend the bylaws, which may allow our board of directors to

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take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquiror to amend the bylaws to facilitate an unsolicited takeover attempt; and

- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

Section 203 of the Delaware General Corporation Law governs us. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time. In addition, if we are acquired, certain terms of our music licensing arrangements, including favorable royalty rates that currently apply to us, may not be available to an acquiror. These terms may discourage a potential acquiror from making an offer to buy us or may reduce the price such a party may be willing to offer.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our principal executive offices are located in Oakland, California in an office building with 134,308 square-feet, under a lease expiring on September 30, 2020. We also lease regional offices in Chicago, Illinois; Santa Monica, California; and New York, New York and local sales offices at various locations throughout the United States and in Australia and New Zealand.

Our data centers are located in colocation facilities operated by Equinix in San Jose, California and Ashburn, Virginia as well as by Digital Realty Trust in Chicago, Illinois and are designed to be fault-tolerant and operate at maximum uptime. Backup systems in California and Virginia can be brought online in the event of a failure at the other data centers. These redundancies enable fault tolerance and will also support our continued growth.

The data centers host the Pandora.com website and intranet applications that are used to manage the website content. The websites are designed to be fault-tolerant, with a collection of identical web servers connecting to an enterprise database. The design also includes load balancers, firewalls and routers that connect the components and provide connections to the internet. The failure of any individual component is not expected to affect the overall availability of our website.

We believe that our current facilities are adequate to meet our needs for the near future and that suitable additional or alternative space will be available on commercially reasonable terms to accommodate our foreseeable future operations.

ITEM 3. LEGAL PROCEEDINGS

The material set forth in Note 6 of Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on The New York Stock Exchange ("NYSE") under the symbol "P." The following table sets forth the range of high and low intra-day sales prices per share of our common stock for the periods indicated, as reported by the NYSE.

PRICE RANGE OF OUR COMMON STOCK

Our common stock has traded on the NYSE since June 15, 2011. Our initial public offering was priced at $16.00 per share on June 14, 2011.

	High	Low
Twelve Months Ended December 31, 2014		
First quarter (January 1, 2014 - March 31, 2014)	$ 39.43	$ 26.76
Second quarter (April 1, 2014 - June 30, 2014)	$ 31.74	$ 22.17
Third quarter (July 1, 2014 - September 30, 2014)	$ 29.82	$ 24.16
Fourth quarter (October 1, 2014 - December 31, 2014)	$ 24.70	$ 16.90
Eleven Months Ended December 31, 2013		
First quarter (February 1, 2013 - April 30, 2013)	$ 14.27	$ 11.36
Second quarter (May 1, 2013 - July 31, 2013)	$ 20.52	$ 13.94
Third quarter (August 1, 2013 - October 31, 2013)	$ 28.17	$ 18.16
Fourth quarter (November 1, 2013 - December 31, 2013) (1)	$ 31.56	$ 25.67

(1) The fourth quarter of calendar 2013 (11 months) included two months (November 1, 2013 - December 31, 2013) as a result of the change in our fiscal year-end.

On December 31, 2014, the closing price per share of our common stock as reported on the NYSE was $17.83. As of December 31, 2014, there were approximately 60 holders of record of our common stock. The number of beneficial stockholders is substantially greater than the number of holders of record because a large portion of our common stock is held through brokerage firms.

Dividend Policy

We have not declared or paid any cash dividends on our common stock and currently do not anticipate paying any cash dividends in the foreseeable future. Instead, we intend to retain all available funds and any future earnings for use in the operation and expansion of our business. Any future determination relating to dividend policy will be made at the discretion of our board of directors and will depend on our future earnings, capital requirements, financial condition, future prospects, applicable Delaware law, which provides that dividends are only payable out of surplus or current net profits, and other factors that our board of directors deems relevant. In addition, our credit facility restricts our ability to pay dividends. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Our Indebtedness-Credit Facility" and Note 8 to our financial statements included elsewhere in this Annual Report on Form 10-K.

Equity Compensation Plan Information

For equity compensation plan information refer to Item 12 in Part III of this Annual Report on Form 10-K.

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Stock Price Performance Graph

This performance graph shall not be deemed to be "soliciting material" or "filed" or incorporated by reference in future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act except as shall be expressly set forth by specific reference in such filing.

The following graph shows a comparison from June 15, 2011, the date our common stock commenced trading on the NYSE, through December 31, 2014 of the total cumulative return of our common stock with the total cumulative return of the New York Stock Exchange Composite Index (the "NYA Composite"), the Global X Social Media Index (the "SOCL") and the SPDR Morgan Stanley Technology MTK Index (the "MTK"). The figures represented below assume an investment of $100 in our common stock at the closing price of $17.42 on June 15, 2011 and in the NYA Composite and MTK on the same date. The SOCL was modeled from the inception of the index on November 15, 2011. Data for the NYA Composite, MTK and SOCL assume reinvestment of dividends. The comparisons in the graph are historical and are not intended to forecast or be indicative of possible future performance of our common stock.

Comparison of Cumulative Total Return Among Pandora Media, Inc., New York Stock Exchange Composite Index, Global X Social Media Index and SPDR Morgan Stanley Technology MTK Index

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ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial and other data should be read in conjunction with, and are qualified by reference to, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our audited consolidated financial statements and the accompanying notes included elsewhere in this report. The consolidated statement of operations data for the twelve months ended January 31, 2011 and 2012 and the consolidated balance sheet data as of January 31, 2011, 2012 and 2013 were derived from our audited consolidated financial statements not included in this report. The consolidated statements of operations data for the twelve months ended January 31, 2013, for the eleven months ended December 31, 2013 and for the twelve months ended December 31, 2014 and the consolidated balance sheet data as of December 31, 2013 and 2014 were derived from our audited consolidated financial statements included in this report. The consolidated statement of operations data for the eleven months ended December 31, 2012 is unaudited. Our unaudited consolidated financial statements were prepared on a basis consistent with our audited consolidated financial statements and include, in our opinion, all adjustments, consisting of normal recurring adjustments that we consider necessary for a fair presentation of the financial information set forth in those statements included elsewhere in this report.

The historical results presented below are not necessarily indicative of financial results to be achieved in future periods.

	Twelve months ended January 31,			Eleven months ended December 31,		Twelve months ended December 31,
	2011	2012	2013	2012	2013	2014
	(in thousands, except per share data)					
Total revenue	$ 137,764	$ 274,340	$ 427,145	$ 389,484	$ 600,233	$ 920,802
Net loss attributable to common stockholders	(11,042)	(19,865)	(38,148)	(24,462)	(27,017)	(30,406)
Net loss per share, basic and diluted	(1.03)	(0.19)	(0.23)	(0.15)	(0.15)	(0.15)
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	10,761	105,955	168,294	167,956	180,968	205,273

Key Metrics (unaudited):(1)

	Twelve months ended January 31,			Eleven months ended December 31,		Twelve months ended December 31,
	2011	2012	2013	2012	2013	2014
	(in billions)					
Listener hours	3.83	8.23	14.01	12.56	15.31	20.03

	As of January 31,			As of December 31,	
	2011	2012	2013	2013	2014
	(in millions)				
Active users	29.3	47.6	65.6	76.2	81.5

(1) Listener hours and active users are defined in the section entitled "Key Metrics" in Item 7 of this Annual Report on Form 10-K.

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	As of January 31,			As of December 31,	
	2011	2012	2013	2013	2014
			(in thousands)		
Balance Sheet Data:					
Cash and cash equivalents	$ 43,048	$ 44,126	$ 65,725	$ 245,755	$ 175,957
Working capital	36,715	89,218	82,644	362,777	439,254
Total assets	99,209	178,015	218,832	673,335	749,290
Long-term liabilities	3,496	2,568	3,873	9,098	16,773
Preferred stock warrant liability	1,027	—	—	—	—
Convertible preferred stock	126,662	—	—	—	—
Common stock and additional paid-in capital	2,309	205,971	238,569	675,123	781,030
Total stockholders' equity (deficit)	(83,010)	104,540	98,989	508,231	583,357

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes thereto included elsewhere in this Annual Report on Form 10-K. The following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ substantially from those referred to herein due to a number of factors, including but not limited to those discussed below and elsewhere in this report, particularly in the sections entitled "Special Note Regarding Forward-Looking Statements and Industry Data" and "Risk Factors."

We changed our fiscal year from the twelve months ending January 31 to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. As a result of this change, our prior fiscal year was an eleven-month transition period ended on December 31, 2013.

In this MD&A, when financial results for the 2014 annual period are compared to financial results for the prior year period, the results compare the twelve-month period ended December 31, 2014 and the eleven-month period ended December 31, 2013. When financial results for the eleven-month period ended December 31, 2013 are compared to financial results for the prior year period, the results compare the eleven-month period ended December 31, 2013 and the eleven-month period ended December 31, 2012. The results for the eleven month period ended December 31, 2012 are unaudited. The following tables show the months included within the various comparison periods in our MD&A:

Calendar 2014 (12-month) Results Compared With Calendar 2013 (11-month)	
Calendar 2013 (11-month)	**Calendar 2014 (12-month)**
February 2013 - December 2013	January 2014 - December 2014

Calendar 2013 (11-month) Results Compared With Calendar 2012 (11-month recast, unaudited)	
Calendar 2012 (11-month recast, unaudited)	**Calendar 2013 (11-month)**
February 2012 - December 2012	February 2013 - December 2013

Overview

Pandora is the leader in internet radio in the United States, offering a personalized experience for each of our listeners wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, computers and car audio systems, as well as a range of other internet-connected devices. The majority of our listener hours occur on mobile devices, with the majority of our revenue generated from advertising on these devices. We have pioneered a new form of radio—one that uses intrinsic qualities of music to initially create stations and then adapts playlists in real-time based on the individual feedback of each listener. We offer local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements.

As of December 31, 2014, we had more than 250 million registered users, which we define as the total number of accounts that have been created for our service at period end. As of December 31, 2014, more than 225 million registered users had accessed Pandora through smartphones and tablets. For the twelve months ended December 31, 2014, we streamed 20.03 billion hours of internet radio, and as of December 31, 2014, we had 81.5 million active users during the prior 30 day period. Since we launched our free, advertising-supported radio service in 2005 our listeners have created over 7 billion stations.

At the core of our service is our set of proprietary personalization technologies, including the Music Genome Project and our playlist generating algorithms. The Music Genome Project is a database of over 1,000,000 uniquely analyzed songs from over 125,000 artists, spanning over 600 genres and sub-genres, which we develop one song at a time by evaluating and cataloging each song's particular attributes. When a listener enters a single song, artist, comedian or genre to start a station, the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we pick, we further tailor the station to match the listener's preferences. Listeners also have the ability to add variety to and rename stations, which further allows for the personalization of our service.

We currently provide the Pandora service through two models:

- *Free Service.* Our free service is advertising-based and allows listeners access to our music and comedy catalogs and personalized playlist generating system for free across all of our delivery platforms.

- *Pandora One.* Pandora One is a paid subscription service without any advertising. Pandora One also enables listeners to have more daily skips, enjoy higher quality audio on supported devices and enjoy longer timeout-free listening.

A key element of our strategy is to make the Pandora service available everywhere that there is internet connectivity. To this end, we make the Pandora service available through a variety of distribution channels. In addition to streaming our service to computers, we have developed Pandora mobile device applications ("apps") for smartphones such as iPhone, Android and the Windows Phone and for tablets including the iPad and Android tablets. We distribute those mobile apps free to listeners via app stores. In addition, Pandora is now integrated with more than 1,000 connected devices, including automobiles, automotive aftermarket devices and consumer electronic devices.

Recent Events

In August 2014, we announced an agreement to partner with Music and Entertainment Rights Licensing Independent Network ("Merlin"), the global rights agency for the independent label sector. This partnership is designed to help independent labels and artists increase the audiences they reach. Participating labels, and the artists they represent, can also take advantage of the marketing capabilities of our connected platform by obtaining direct access to our metadata to help make data-driven business decisions. We do not expect this partnership to have a material effect on our consolidated financial condition or operating results.

In July 2014, we signed a multi-year agreement with BMG Rights Management US LLC ("BMG") for a U.S. license for BMG's complete Broadcast Music, Inc. ("BMI") and American Society of Composers, Authors and Publishers ("ASCAP") catalog of musical works. We do not expect this agreement to have a material effect on our consolidated financial condition or operating results.

Effective in March 2014, we implemented a change in the pricing structure for Pandora One under which the $36 annual subscription option was eliminated. In addition, effective in May 2014, the monthly pricing option for Pandora One was increased to $4.99 per-month for new subscribers. Existing monthly subscribers who did not lapse maintained the $3.99 per-month pricing structure, and existing annual subscribers who did not lapse were migrated to the $3.99 per-month monthly pricing structure. Effective in December 2014, we reinstated the annual subscription option at $54.89 per year.

An important element of our strategy to achieve greater penetration of the local radio advertising industry is to have Pandora's audience data presented in a manner consistent with similar data on terrestrial radio stations so that advertisers and advertising agencies can better evaluate the relative value proposition of advertising on Pandora. In February 2014, Triton received Media Rating Council ("MRC") accreditation for its Webcast Metrics Local ("WCML") product, which allows agencies and advertisers to evaluate Pandora's relative audience scale using broadcast metrics in specific advertising markets. Also in February 2014, we completed the WCML publisher audit of our user-declared geographic and demographic listener data. We believe this accreditation validates that our local audience metrics are reliable and effective.

Factors Affecting our Business Model

As our mobile listenership increases, we face new challenges in optimizing our advertising products for delivery on mobile and other connected device platforms and monetizing inventory generated by listeners using these platforms. The mobile digital advertising industry is at an early stage of development, with lower overall spending levels than traditional online advertising markets, and faces technical challenges due to fragmented platforms and a lack of standard audience measurement protocols. As a greater share of our listener hours is consumed on mobile devices, our ability to monetize increased mobile streaming may not achieve the levels of monetization of streaming we have achieved on computers.

In addition, our monetization strategy includes increasing the number of ad campaigns for computer, mobile and other connected device platforms sold to local advertisers, placing us in more direct competition with broadcast radio for advertiser spending, especially for audio advertisements. By contrast, historically our display advertisers have been predominantly national brands. To successfully monetize our growing listener hours, a key strategy is to convince a substantial base of local advertisers of the benefits of advertising on the Pandora service including demonstrating the effectiveness and relevance of our advertising products, and in particular, audio advertising products, across the range of our delivery platforms.

Growth in our active users and distribution platforms has fueled a corresponding growth in listener hours. Our total number of listener hours is a key driver for both revenue generation opportunities and content acquisition costs, which are the largest component of our expenses.

- *Revenue.* Listener hours define the number of opportunities we have to sell advertisements, which we refer to as inventory. Our ability to attract advertisers depends in large part on our ability to offer sufficient inventory within desired demographics. In turn, our ability to generate revenue depends on the extent to which we are able to sell the inventory we have.

- *Cost of Revenue—Content Acquisition Costs.* The number of sound recordings we transmit to users of the Pandora service, as generally reflected by listener hours, drives substantially all of our content acquisition costs, although certain of our licensing agreements require us to pay fees for public performances of musical works based on a percentage of revenue.

We pay content acquisition costs, or royalties, to the copyright owners, or their agents, of each sound recording that we stream and to the copyright owners, or their agents, for the sound recordings that we perform, as well as the musical works embodied in each of those sound recordings, subject to certain exclusions. Royalties for sound recordings are negotiated with and paid to record labels, rights organizations or to SoundExchange. Royalties for musical works are most often negotiated with and paid to performing rights organizations ("PROs") such as ASCAP, BMI and SESAC, Inc. ("SESAC") or directly to publishing companies. Royalties are calculated based on the number of sound recordings streamed, revenue earned or other usage measures.

We stream spoken word comedy content pursuant to a federal statutory license, for which the underlying literary works are not currently entitled to eligibility for licensing by any PRO for the United States. Rather, pursuant to industry-wide custom and practice, this content is performed absent a specific license from any such PRO or the copyright owner of such content. However, we pay royalties to SoundExchange at rates negotiated between representatives of online music services and SoundExchange for the right to stream this spoken word comedy content.

In June 2013, we entered into a local marketing agreement to program KXMZ-FM, a Rapid City, South Dakota-area terrestrial radio station. In addition, we entered into an agreement to purchase the assets of KXMZ-FM for a total purchase price of approximately $0.6 million in cash, subject to certain closing conditions. These agreements were made in part to allow us to qualify for certain settlement agreements concerning royalties for the public performance of musical works between the Radio Music Licensing Committee ("RMLC") and ASCAP and BMI. We believe that we qualify for the RMLC royalty rates, which have provided and will continue to provide us with savings of less than 1% of revenue in cost of revenue—content acquisition costs compared with the latest contractual rates.

As of December 31, 2014, we have paid $0.4 million of the purchase price, which is included in the other long-term assets line item of our balance sheets. Completion of the KXMZ-FM acquisition is subject to various closing conditions. These include, but are not limited to, regulatory approval by the Federal Communications Commission. Upon completion of these conditions, we expect to account for this transaction as a business combination.

Given the current royalty structures in effect through the end of 2015 with respect to the public performance of sound recordings in the United States, our content acquisition costs increase with each additional listener hour, regardless of whether we are able to generate more revenue. As such, our ability to achieve and sustain profitability and operating leverage depends on our ability to increase our revenue per hour of streaming through increased advertising revenue across all of our delivery platforms.

In March 2013, we instituted a 40 hour per month listening limit for our advertising supported service on certain mobile and other connected devices. Listeners who reached this limit could continue to use our ad supported service on these devices by paying $0.99 for the remainder of the month, could listen to our ad supported service on their computers, or could purchase Pandora One annual subscriptions for $36 per year or monthly subscriptions for $4 per month, which were the rates then in effect. Effective September 2013, we eliminated this limit primarily due to our improved ability to monetize mobile listener hours. Although we have removed the broad 40 hour per month mobile listening limit, we have implemented other more precise measures that we believe will allow us to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, such as adjusting the number of times users can skip songs during a given listening session, as well as optimizing time-based thresholds whereby music will stop playing after a certain length of user inactivity with the service.

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We expect to invest heavily in our operations to support anticipated future growth. One of our key objectives is furthering our industry leadership in internet radio, which we believe will strengthen our brand and help us to convince advertisers to allocate spending towards our ad products. As such, a central focus is adding, retaining and engaging listeners to build market share and grow our listener hours. As our business matures, we expect that our revenue growth will exceed the growth in our listener hours. However, we expect to incur annual net losses on a U.S. GAAP basis in the near term because our current strategy is to leverage improvements in gross profit by investing in broadening distribution channels, developing innovative and scalable advertising products, increasing utilization of advertising inventory and building our sales force. These investments are intended to drive further growth in our business through both increased listener hours and monetization of those hours, and as a result we are targeting gradual improvements in gross profit over time. Our planned reinvestment of the resulting incremental gross profit will continue to depress the growth of our bottom line profitability.

Key Metrics

Listener Hours

We track listener hours because it is a key indicator of the growth of our business. We calculate listener hours based on the total bytes served for each track that is requested and served from our servers, as measured by our internal analytics systems, whether or not a listener listens to the entire track. To the extent that third-party measurements of listener hours are not calculated using a similar server-based approach, the third-party measurements may differ from our measurements.

The table below sets forth our total listener hours for the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014.

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012	2013	2014
	(in billions)			
Listener hours	14.01	12.56	15.31	20.03

Active Users

We track the number of active users as an additional indicator of the breadth of audience we are reaching at a given time. Active users are defined as the number of distinct registered users, including subscribers, that have requested audio from our servers within the trailing 30 days to the end of the final calendar month of the period. The number of active users may overstate the number of unique individuals who actively use our service within a month as one individual may register for, and use, multiple accounts.

The table below sets forth our total active users as of December 31, 2013 and 2014.

	As of December 31,	
	2013	2014
	(in millions)	
Active users	76.2	81.5

Advertising-based active users ("ad-based active users") are defined as the number of users, excluding subscribers, that have requested audio from our servers within the trailing 30 days to the end of the final calendar month of the period. Subscribers are defined as the number of distinct users at the end of the period that have subscribed to our service. Inactive subscribers are included as they contribute towards revenue per thousand listener hours ("RPMs"), which are described in further detail below.

The table below sets forth our users on an advertising and subscription basis as of December 31, 2013 and 2014.

User type	As of December 31, 2013	As of December 31, 2014
	Users (in millions)	
Ad-based active users	73.4	78.5
Subscribers*	3.3	3.6
Total	76.7	82.1

* Includes subscribers that have not used our service within the trailing 30 days to the end of the final calendar month of the period.

The table below sets forth our listener hours on an advertising and subscription basis for the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014.

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012	2013	2014
User type	Listener hours (in billions)			
Ad-based active users	12.88	11.55	13.34	17.58
Subscribers	1.13	1.01	1.97	2.45
Total	14.01	12.56	15.31	20.03

Advertising Revenue per Thousand Listener Hours (“ad RPMs”)

We track ad RPMs for our free, advertising-supported service because it is a key indicator of our ability to monetize advertising inventory created by our listener hours. We focus on ad RPMs across all of our delivery platforms. We believe ad RPMs to be the central top-line indicator for evaluating the results of our monetization efforts. Ad RPMs are calculated by dividing advertising revenue by the number of thousands of listener hours of our advertising-based service.

Subscription and Other Revenue per Thousand Listener Hours (“subscription RPMs”)

We track subscription RPMs because it is a key indicator of the performance of our subscription service. We focus on subscription RPMs across all of our delivery platforms. Subscription RPMs are calculated by dividing subscription and other revenue by the number of thousands of listener hours of our subscription service.

Total Revenue per Thousand Listener Hours (“total RPMs”)

We track total RPMs for our service, which includes ad and subscription RPMs, because it is a key indicator of our ability to monetize our listener hours. Total RPMs compare advertising and subscription and other revenue in a given period to total listener hours in the period. We calculate total RPMs by dividing the total revenue by the number of thousands of listener hours.

Licensing Costs per Thousand Listener Hours (“LPMs”)

We track LPMs and analyze them in combination with our analysis of RPMs as they provide a key indicator of our profitability. LPMs are relatively fixed licensing costs with scheduled annual rate increases that drive period-over-period changes in LPMs. As such, the margin on our business varies principally with variances in ad RPMs and subscription RPMs.

Estimated RPMs and LPMs by Platform

We also provide estimates of disaggregated ad RPMs, subscription RPMs, total RPMs and related LPMs for our computer platform as well as our mobile and other connected devices platforms, which we calculate by dividing the estimated revenue and costs generated through the respective platforms by the number of thousands of listener hours of our services delivered through such platforms. While we believe that such disaggregated data provides directional insight for evaluating our efforts to monetize our service, we do not validate such disaggregated data to the level of financial statement reporting. Such data should be seen as indicative only and as management's best estimate.

Period-to-period results should not be regarded as precise nor can they be relied upon as indicative of results for future periods. In addition, as our business matures and in response to technological evolutions, we anticipate that the relevant indicators we monitor for evaluating our business may change.

The table below sets forth our RPMs and LPMs, including total, computer and mobile and other connected devices, on an advertising ("ad"), subscription and total basis for the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014.

	Twelve months ended January 31,		Eleven months ended December 31,				Twelve months ended December 31,	
	2013		2012		2013		2014	
	RPM	LPM*	RPM	LPM*	RPM	LPM*	RPM	LPM*
Advertising								
Computer	$ 53.73	$ 18.11	$ 54.51	$ 17.98	$ 56.79	$ 18.94	$ 62.00	$ 20.76
Mobile and other connected devices	22.53	17.35	22.80	17.17	31.97	18.63	37.84	20.23
Total advertising	$ 29.13	$ 17.51	$ 29.60	$ 17.35	$ 36.70	$ 18.69	$ 41.66	$ 20.31
Subscription								
Computer	$ 45.52	$ 29.74	$ 45.39	$ 29.49	$ 52.38	$ 31.83	$ 60.56	$ 33.37
Mobile and other connected devices	46.52	29.03	45.77	28.72	57.77	33.87	82.25	37.41
Total subscription	$ 46.03	$ 29.37	$ 45.59	$ 29.10	$ 56.27	$ 33.30	$ 76.89	$ 36.41
Total								
Total computer	$ 52.36	$ 20.05	$ 52.98	$ 19.90	$ 56.01	$ 21.23	$ 61.74	$ 23.02
Total mobile and other connected devices	23.83	17.98	24.03	17.79	34.98	20.41	42.77	22.14
Total	$ 30.49	$ 18.47	$ 30.88	$ 18.30	$ 39.22	$ 20.57	$ 45.97	$ 22.28

* Under the Pureplay Settlement, we pay per-performance rates for the streaming of sound recordings for our Pandora One subscription service that are higher than the per-performance rates for our free, advertising-supported service.

Total ad RPMs

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, total ad RPMs increased primarily due to an increase in ad RPMs on the mobile and other connected devices platform. Ad RPMs on the mobile and other connected devices platform increased as advertising revenue growth outpaced the growth in advertising listener hours as a result of an increase in the average price per ad sold on that platform, due in part to our increase in relative volume of local ad sales.

For the eleven months ended December 31, 2013 compared to 2012, total ad RPMs increased compared to the respective prior year period as advertising sales growth outpaced the growth in advertising-supported listener hours primarily due to an increase in the number of ads delivered, as well as an increase in the average price per ad. In addition, total ad RPMs benefited from measures we implemented in 2013 to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience.

Total subscription RPMs

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, total subscription RPMs increased as the growth in subscription and other revenue outpaced the growth in subscription listener hours on both the computer and the mobile and other connected devices platforms, primarily due to an increase in the average price per subscriber as a result of the increase in the Pandora One pricing structure. In addition, the changes in subscription RPMs for the twelve months ended December 31, 2014 reflect a $14.2 million increase in subscription revenue in connection with the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores. Refer to "Deferred Revenue" below for further details regarding these mobile subscriptions.

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For the eleven months ended December 31, 2013 compared to 2012, total subscription RPMs increased as the growth in subscription and other revenue outpaced the growth in subscription listener hours on both the computer and the mobile and other connected devices platforms.

Total ad LPMs

Total ad LPMs in the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013 increased primarily due to scheduled rate increases for sound recording royalties paid to SoundExchange.

Total ad LPMs in the eleven months ended December 31, 2013 compared to 2012 increased primarily due to scheduled rate increases for sound recording royalties paid to SoundExchange.

Total subscription LPMs

Total subscription LPMs in the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013 increased primarily due to scheduled rate increases for sound recording royalties paid to SoundExchange.

Total subscription LPMs in the eleven months ended December 31, 2013 compared to 2012 increased primarily due to scheduled rate increases for sound recording royalties paid to SoundExchange.

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Basis of Presentation and Results of Operations

The following table presents our results of operations for the periods indicated as a percentage of total revenue. The period-to-period comparisons of results are not necessarily indicative of results for future periods.

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012	2013	2014
Revenue				
Advertising	88 %	88 %	82 %	80 %
Subscription and other	12	12	18	20
Total revenue	100	100	100	100
Cost of revenue				
Cost of revenue—Content acquisition costs	61	59	52	48
Cost of revenue—Other(1)	8	7	7	7
Total cost of revenue	68	67	59	55
Gross profit	32	33	41	45
Operating expenses				
Product development(1)	4	4	5	6
Sales and marketing(1)	25	24	28	30
General and administrative(1)	11	11	12	12
Total operating expenses	41	39	45	48
Loss from operations	(9)	(6)	(4)	(3)
Other income (expense), net	—	—	—	—
Loss before provision for income taxes	(9)	(6)	(4)	(3)
Provision for income taxes	—	—	—	—
Net loss	(9)%	(6)%	(5)%	(3)%

(1) Includes stock-based compensation as follows:				
Cost of revenue—Other	0.3%	0.3%	0.3%	0.5%
Product development	1.1	1.1	1.5	1.9
Sales and marketing	2.9	2.9	3.4	4.6
General and administrative	1.7	1.8	1.5	2.5

Note: Amounts may not recalculate due to rounding

Revenue

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
	(in thousands)			(in thousands)		
Revenue						
Advertising	$ 343,318	$ 489,340	$ 146,022	$ 489,340	$ 732,338	$ 242,998
Subscription and other	46,166	110,893	64,727	110,893	188,464	77,571
Total revenue	$ 389,484	$ 600,233	$ 210,749	$ 600,233	$ 920,802	$ 320,569

Advertising revenue

We generate advertising revenue primarily from audio, display and video advertising, which is typically sold on a cost-per-thousand impressions, or CPM, basis. Advertising campaigns typically range from one to twelve months, and advertisers generally pay us based on the number of delivered impressions or the satisfaction of other criteria, such as click-throughs. We also have arrangements with advertising agencies under which these agencies sell advertising inventory on our service directly to advertisers. We report revenue under these arrangements net of amounts due to agencies. For the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, advertising revenue accounted for 88%, 88%, 82% and 80%, of our total revenue, respectively. We expect that advertising will comprise a substantial majority of revenue for the foreseeable future.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, advertising revenue increased $243.0 million or 50%, primarily due to an approximate 25% increase in the average price per ad sold, due in part to our increase in relative volume of local ad sales and our focus on monetizing mobile inventory, and an approximate 15% increase in the number of ads sold, primarily due to an increase in advertising listener hours. In addition, the remaining increase in advertising revenue was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, advertising revenue increased by $146.0 million or 43%, primarily due to an approximate 30% increase in the number of ads delivered, as well as an increase in the average price per ad of approximately 10%. The increase in the number of ads delivered was primarily due to an increase in total advertising listener hours of approximately 15%, which increased the volume of advertising inventory, as well as an increase in our sales force year-over-year to sell such advertising inventory and an increase in ad capacity per hour of approximately 10%. The increase in the average price per ad was due primarily to changes in the sales distribution mix amongst direct sales, third-party network sales, and other channels and the platform mix between computer and mobile and other connected devices.

Subscription and other revenue

Subscription and other revenue is generated primarily through the sale of Pandora One, a premium version of the Pandora service, which currently includes advertisement-free access and higher audio quality on the devices that support it. Subscription revenue is recognized on a straight-line basis over the duration of the subscription period. For the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014, subscription and other revenue accounted for 12%, 12%, 18% and 20% of our total revenue, respectively.

Effective in March 2014, we implemented a change in the pricing structure for Pandora One under which the $36 annual subscription option was eliminated. In addition, effective in May 2014, the monthly pricing option for Pandora One was increased to $4.99 per-month for new subscribers. Existing monthly subscribers who did not lapse maintained the $3.99 per-month pricing structure, and existing annual subscribers who did not lapse were migrated to the $3.99 per-month monthly pricing structure. Effective in December 2014, we reinstated the annual subscription option at $54.89 per year.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, subscription revenue increased $77.6 million or 70%, primarily due to an approximate 25% increase in the average price per subscription as a result of the change in the Pandora One pricing structure and due to an approximate 10% increase in the number of subscribers. The increase in subscription revenue for the twelve months ended December 31, 2014 was also due to a $14.2 million increase in subscription revenue in connection with the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores. Refer to "Deferred Revenue" below for further details regarding these mobile subscriptions. In addition, the remaining increase in subscription revenue was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, subscription and other revenue increased by $64.7 million, or 140%, due to an increase in the number of subscribers, partially driven by the implementation of the mobile listening limit, which was implemented in March 2013 and eliminated in September 2013.

Deferred revenue

Our deferred revenue consists principally of both prepaid but unrecognized subscription revenue and advertising fees received or billed in advance of the delivery or completion of the delivery of services. Deferred revenue is recognized as revenue when the services are provided and all other revenue recognition criteria have been met.

In addition, subscription revenue derived from sales through certain mobile devices may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when services have been provided and the rights lapse or when we have developed sufficient transaction history to estimate a return reserve.

We were required to defer revenue for certain subscriptions purchased through mobile app stores that contained refund rights until the refund rights lapsed or until we developed sufficient operating history to estimate a return reserve. As of December 31, 2013, we had deferred all revenue related to these mobile subscriptions subject to refund rights totaling approximately $14.2 million, as we did not have sufficient transaction history to estimate a return reserve. Beginning in January 2014, we had sufficient transaction history that enabled us to estimate future returns. Accordingly, in January 2014, we began recording revenue related to these mobile subscriptions net of estimated returns. This resulted in a one-time increase in subscription revenue in the three months ended March 31, 2014 of approximately $14.2 million, as the previously deferred revenue was recognized. As of December 31, 2014, the deferred revenue related to the return reserve was not significant.

Deferred revenue in our consolidated balance sheet as of December 31, 2014 decreased as compared to December 31, 2013 in connection with the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores in the three months ended March 31, 2014. In addition, deferred revenue also decreased due to the elimination of the annual pricing option from March through December 2014, as we collected less cash upfront under the one-month subscription period as opposed to the twelve-month subscription period under the annual subscription option.

Costs and Expenses

Cost of revenue consists of cost of revenue—content acquisition costs and cost of revenue—other. Our operating expenses consist of product development, sales and marketing and general and administrative costs. Cost of revenue—content acquisition costs are the most significant component of our costs and expenses, followed by employee-related costs, which include stock-based compensation expenses. We expect to continue to hire additional employees in order to support our anticipated growth and our product development initiatives. In any particular period, the timing of additional hires could materially affect our cost of revenue and operating expenses, both in absolute dollars and as a percentage of revenue. We anticipate that our costs and expenses will increase in the future.

Cost of revenue—Content acquisition costs

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	**2013**	**$ Change**	**2013**	**2014**	**$ Change**
	(in thousands)			(in thousands)		
Cost of revenue—Content acquisition costs	$ 230,731	$ 314,866	$ 84,135	$ 314,866	$ 446,377	$ 131,511

Content acquisition costs as a percentage of advertising revenue by platform

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	**2012**	**2013**	**2014**
Computer	35%	34%	34%	34%
Mobile and other connected devices	76%	75%	58%	53%

Cost of revenue—Content acquisition costs principally consist of royalties paid for streaming music or other content to our listeners. Royalties are currently calculated using negotiated rates documented in agreements. The majority of our royalties are payable based on a fee per public performance of a sound recording, while in other cases our royalties are payable based on a percentage of our revenue or a formula that involves a combination of per performance and revenue metrics. For royalty arrangements under negotiation, we accrue for estimated royalties based on the available facts and circumstances and adjust these estimates as more information becomes available. The results of any finalized negotiation may be materially different from our estimates.

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We estimate our advertising-based content acquisition costs attributable to specific platforms by allocating costs from royalties payable based on a fee per track to the platform for which the track is served and by allocating costs from royalties based on a percentage of our revenue in accordance with the overall percentage of our revenue estimated to be attributable to such platforms. While we believe that comparing disaggregated content acquisition costs and revenues across our delivery platforms may provide directional insight for evaluating our efforts to monetize the rapid adoption of our service on mobile and other connected devices, we do not validate such disaggregated metrics to the level of financial statement reporting. We continue to refine our systems and methodologies used to categorize such metrics across our delivery platforms and the period-to-period comparisons of results are not necessarily indicative of results for future periods.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, content acquisition costs increased $131.5 million or 42%, primarily due to an approximate 20% increase in listener hours and scheduled royalty rate increases of 8%. In addition, the remaining increase in content acquisition costs was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013. Content acquisition costs as a percentage of total revenue decreased from 52% to 48%, primarily due to an increase in advertising revenue and a $14.2 million increase in subscription revenue in connection with the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores. Refer to “Deferred Revenue” above for further details regarding these mobile subscriptions. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our computer platform were 34% in both the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, primarily due to an increase in advertising revenue on the computer platform as a result of an increase in the average price per ad sold, offset by scheduled rate increases. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our mobile and other connected devices platform decreased from 58% to 53%, primarily due to an increase in advertising revenue on the mobile and other connected devices platform as a result of an increase in the average price per ad sold and an increase in the number of ads sold. The decrease in estimated content acquisition costs as a percentage of the advertising revenue attributable to our mobile and other connected devices platform was also due to the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, such as adjusting the number of times users can skip songs during a given listening session, as well as optimizing time-based thresholds whereby music will stop playing after a certain length of user inactivity with the service, partially offset by scheduled rate increases.

For the eleven months ended December 31, 2013 compared to 2012, content acquisition costs increased by $84.1 million or 36%, due to increased listener hours, higher royalty rates due to scheduled rate increases and increased revenue. Content acquisition costs as a percentage of total revenue decreased from 59% to 52%, primarily due to an increase in advertising sales and the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, partially offset by scheduled rate increases. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our computer platform were 34% in both the eleven months ended December 31, 2012 and 2013, primarily due to increases in advertising sales on that platform that were offset by scheduled rate increases. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our mobile and other connected devices platforms decreased from 75% to 58%, primarily due to an increase in advertising sales on those platforms and the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, partially offset by scheduled rate increases.

Cost of revenue—Other

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
	(in thousands)			(in thousands)		
Cost of revenue—Other	$ 28,988	$ 42,217	$ 13,229	$ 42,217	$ 61,627	$ 19,410

Cost of revenue—Other consists primarily of hosting and ad serving costs, employee-related costs and other costs of ad sales. Hosting and ad serving costs consist of content streaming, maintaining our internet radio service and creating and serving advertisements through third-party ad servers. We make payments to third-party ad servers for the period the advertising impressions are delivered or click-through actions occur, and accordingly, we record this as a cost of revenue in the related period. Employee-related costs include salaries and benefits associated with supporting hosting and ad serving functions. Other costs of ad sales include costs related to music events that are sold as part of advertising arrangements.

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For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, cost of revenue—other increased $19.4 million or 46%, primarily due to a $5.6 million increase in employee-related costs and a $1.7 million increase in facilities and equipment expenses, both of which were driven by an approximate 20% increase in headcount, a $4.2 million increase in ad serving and hosting costs driven by an increase in listener hours and a $2.3 million increase in other costs of ad sales related to events sold as part of advertising arrangements. In addition, the remaining increase in cost of revenue—other was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, cost of revenue—other increased by $13.2 million or 46%, primarily due to an $8.5 million increase in ad serving costs and hosting costs driven by an increase in advertising revenue and listener hours, a $2.8 million increase in employee-related costs and a $2.2 million increase in facilities and equipment expenses, both of which were driven by an increase in headcount.

Gross profit

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
		(in thousands)			(in thousands)	
Gross profit						
Total revenue	$ 389,484	$ 600,233	$ 210,749	$ 600,233	$ 920,802	$ 320,569
Total cost of revenue	259,719	357,083	97,364	357,083	508,004	150,921
Gross profit	$ 129,765	$ 243,150	$ 113,385	$ 243,150	$ 412,798	$ 169,648
Gross margin	33%	41%		41%	45%	

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, gross profit increased by $169.6 million or 70%, primarily due to an increase in advertising revenue as a result of an increase in the average price per ad sold and an increase in the number of ads sold. In addition, the remaining increase in gross profit was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013. Gross margin increased from 41% to 45% as the growth in revenue outpaced the growth in content acquisition costs primarily due to an increase in advertising revenue and the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, such as adjusting the number of times users can skip songs during a given listening session, as well as optimizing time-based thresholds whereby music will stop playing after a certain length of user inactivity with the service. The increase in gross margin was also due to an increase in subscription and other revenue driven by a $14.2 million increase in connection with the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores. Refer to “Deferred Revenue” above for further details regarding these mobile subscriptions.

For the eleven months ended December 31, 2013 compared to 2012, gross profit increased by $113.4 million or 87%, primarily due to an increase in advertising revenue as a result of an increase in the number of ads delivered. Gross margin increased from 33% to 41% as the growth in advertising revenue outpaced the growth in content acquisition costs primarily due to an increase in the number of ads delivered and the effect of the measures we adopted to manage the growth of mobile content acquisition costs.

Product development

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
		(in thousands)			(in thousands)	
Product development	$ 16,901	$ 31,294	$ 14,393	$ 31,294	$ 53,153	$ 21,859

Product development consists primarily of employee-related costs, including salaries and benefits related to employees in software engineering, music analysis and product management departments, facilities-related expenses, information technology and costs associated with supporting consumer connected-device manufacturers in implementing our service in their products.

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We incur product development expenses primarily for improvements to our website and the Pandora app, development of new advertising products and development and enhancement of our personalized station generating system. We have generally expensed product development as incurred. Certain website development and internal use software development costs are capitalized when specific criteria are met. In such cases, the capitalized amounts are amortized over the useful life of the related application once the application is placed in service. We intend to continue making significant investments in developing new products and enhancing the functionality of our existing products.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, product development expenses increased $21.9 million or 70%, primarily due to a $17.0 million increase in employee-related costs and a $1.1 million increase in facilities and equipment expenses, both of which were driven by an approximate 35% increase in headcount. In addition, the remaining increase in product development expenses was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, product development expenses increased by $14.4 million or 85%, primarily due to a $13.2 million increase in employee-related costs and a $1.3 million increase in facilities and equipment expenses, both of which were driven by an increase in headcount.

Sales and marketing

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
	(in thousands)			(in thousands)		
Sales and marketing	$ 94,212	$ 169,005	$ 74,793	$ 169,005	$ 277,330	$ 108,325

Sales and marketing consists primarily of employee-related costs, including salaries, commissions and benefits related to employees in sales, sales support and marketing departments. In addition, sales and marketing expenses include transaction processing commissions on subscription purchases through mobile app stores, external sales and marketing expenses such as brand marketing and customer acquisition costs, public relations expenses, costs related to music events, agency platform and media measurement expenses, facilities-related expenses and infrastructure costs. We expect sales and marketing expenses to increase as we hire additional personnel to build out our sales and sales support teams, particularly as we continue to build out our local market sales team. While we have historically relied on the success of viral marketing to expand consumer awareness of our service, in 2014 we began to launch marketing campaigns to increase consumer awareness and expand our listener base. We anticipate that we will continue to utilize these types of marketing campaigns in the future.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, sales and marketing expenses increased $108.3 million or 64%, primarily due to a $61.0 million increase in employee-related costs and a $3.5 million increase in facilities and equipment expenses, both of which were driven by an approximate 30% increase in headcount, a $10.3 million increase in brand marketing and customer acquisition costs, a $9.0 million increase in transaction processing commissions on subscription purchases through mobile app stores, a $2.3 million increase in agency platform and media measurement expenses, a $1.9 million increase in music events expenses and a $1.2 million increase in public relations expenses. In addition, the remaining increase in sales and marketing expenses was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, sales and marketing expenses increased by $74.8 million or 79%, primarily due to a $44.9 million increase in employee-related costs and a $5.0 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount, a $16.1 million increase in transaction processing fees for subscription purchases through mobile app stores and a $9.1 million increase in marketing expenses.

General and administrative

	Eleven months ended December 31,			Eleven months ended December 31,	Twelve months ended December 31,	
	2012	2013	$ Change	2013	2014	$ Change
	(in thousands)			(in thousands)		
General and administrative	$ 42,716	$ 69,300	$ 26,584	$ 69,300	$ 112,443	$ 43,143

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General and administrative consists primarily of employee-related costs, including salaries and benefits for finance, accounting, legal, internal information technology and other administrative personnel. In addition, general and administrative expenses include professional services costs for outside legal and accounting services, facilities-related expenses, infrastructure costs and credit card fees. We expect general and administrative expenses to increase in future periods as we continue to invest in corporate infrastructure, including adding personnel and systems to our administrative functions.

For the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, general and administrative expenses increased $43.1 million or 62%, primarily due to a $23.1 million increase in employee-related costs and a $3.3 million increase in facilities and equipment expenses, both of which were driven by an approximate 40% increase in headcount, a $5.5 million increase in professional services costs primarily due to royalty-related legal matters, a $1.2 million increase in credit card fees and a $1.0 million increase in infrastructure costs. In addition, the remaining increase in general and administrative expenses was due to the twelve months ended December 31, 2014 having one additional month as compared to the eleven months ended December 31, 2013.

For the eleven months ended December 31, 2013 compared to 2012, general and administrative expenses increased by $26.6 million or 62%, primarily due to an $11.7 million increase in professional fees, a $10.5 million increase in employee-related costs and a $2.1 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount.

Provision for (benefit from) income taxes

We have historically been subject to income taxes only in the United States. As we expand our operations outside the United States, we become subject to taxation based on the foreign statutory rates and our effective tax rate could fluctuate accordingly.

Our provision for (benefit from) income taxes is computed using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted statutory income tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized.

Liquidity and Capital Resources

As of December 31, 2014, we had cash, cash equivalents and investments totaling $458.8 million, which consisted of cash and money market funds held at major financial institutions, commercial paper, investment-grade corporate debt securities and U.S. government and government agency debt securities.

In September 2013, we completed a follow-on public equity offering in which we sold an aggregate of 15,730,000 shares of our common stock, inclusive of 2,730,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of $25.00 per share. In addition, another 5,200,000 shares were sold by certain selling stockholders. We received aggregate net proceeds of $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. We did not receive any of the proceeds from the sales of shares by the selling stockholders.

Our principal uses of cash during the twelve months ended December 31, 2014 were funding our operations, as described below, and capital expenditures.

Sources of Funds

We believe, based on our current operating plan, that our existing cash and cash equivalents and available borrowings under our credit facility will be sufficient to meet our anticipated cash needs for at least the next twelve months.

From time to time, we may explore additional financing sources and means to lower our cost of capital, which could include equity, equity-linked and debt financing. In addition, in connection with any future acquisitions, we may require additional funding which may be provided in the form of additional debt, equity or equity-linked financing or a combination thereof. There can be no assurance that any additional financing will be available to us on acceptable terms.

Our Indebtedness

In May 2011, we entered into a $30.0 million credit facility with a syndicate of financial institutions. In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million, extended the maturity date from May 12, 2015 to September 12, 2018 and decreased the interest rate on borrowings. Refer to Note 8 "Debt Instruments" in the Notes to Consolidated Financial Statements for further details regarding our credit facility.

In July 2013, we borrowed approximately $10.0 million from the credit facility to enhance our working capital position. This amount was paid off in full in August 2013. We had no outstanding borrowings as of December 31, 2014.

Capital Expenditures

Consistent with previous periods, future capital expenditures will primarily focus on acquiring additional hosting and general corporate infrastructure. Our access to capital is adequate to meet our anticipated capital expenditures for our current plans.

Historical Trends

The following table summarizes our cash flow data for the twelve months ended January 31, 2013, the eleven months ended December 31, 2012 and 2013 and the twelve months ended December 31, 2014.

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012	2013	2014
	(in thousands)			
Net cash provided by (used in) operating activities	$ (250)	$ 1,702	$ (2,986)	$ 21,029
Net cash provided by (used in) investing activities	15,185	8,235	(211,919)	(112,200)
Net cash provided by financing activities	6,669	5,877	394,997	21,661

Operating activities

In the twelve months ended December 31, 2014, net cash provided by operating activities was $21.0 million and primarily consisted of non-cash charges of $105.3 million, primarily related to $87.1 million in stock-based compensation charges, offset by an increase in accounts receivable of $54.4 million driven by an increase in revenue and our net loss of $30.4 million. Net cash provided by operating activities also included a $28.2 million decrease in deferred revenue from December 31, 2013, primarily due to the one-time recognition of the accumulation of deferred revenue related to certain subscriptions purchased through mobile app stores of $14.2 million and due to a decrease in deferred revenue as a result of the elimination of the annual subscription option from March through December 2014, as we collected less cash upfront under the one-month subscription period as opposed to the twelve-month subscription period under the annual subscription option. Cash provided by operating activities increased $24.0 million from the eleven months ended December 31, 2013, primarily due to a $47.0 million increase in stock-based compensation expense as a result of an increase in headcount, offset by a $3.4 million increase in our net loss.

In the eleven months ended December 31, 2013, net cash used in operating activities was $3.0 million, including our net loss of $27.0 million, which was offset by non-cash charges of $50.6 million primarily related to $40.0 million in stock-based compensation expense. Net cash used in operating activities benefited from a $13.4 million increase in deferred revenue from the prior period primarily due to an increase in subscriptions, partially driven by the temporary implementation of the mobile listening limit and an increase in accrued royalties of $13.0 million due to schedule rate increases, offset by a $60.6 million increase in accounts receivable driven by an increase in revenue.

In the eleven months ended December 31, 2012, net cash provided by operating activities was $1.7 million, primarily due to non-cash charges of $31.5 million primarily related to $23.3 million in stock-based compensation expense, offset by our net loss of $24.5 million. Net cash provided by operating activities benefited from an increase in accrued royalties of $17.5 million due to schedule rate increases and a $10.3 million increase in deferred revenue primarily due to an increase in customers purchasing subscriptions for Pandora One, offset by an increase in accounts receivable of $43.5 million driven by an increase in revenue.

In the twelve months ended January 31, 2013, net cash used in operating activities was $0.3 million, including our net loss of $38.1 million, offset by non-cash charges of $33.2 million primarily related to stock-based compensation expense. Net cash used in operating activities benefited an increase in accrued royalties of $19.3 million due to schedule rate increases and an increase in deferred revenue of $10.0 million primarily due to an increase in customers purchasing subscriptions for Pandora One, offset by an increase in accounts receivable of $36.7 million driven by an increase in revenue.

Investing activities

In the twelve months ended December 31, 2014, net cash used in investing activities was $112.2 million, primarily due to $340.7 million of purchases of investments and $30.0 million of capital expenditures for leasehold improvements and server equipment, partially offset by $258.5 million in maturities of investments.

In the eleven months ended December 31, 2013, net cash used in investing activities was $211.9 million, primarily due to $224.5 million for purchases of investments, $21.2 million for capital expenditures for server equipment and leasehold improvements and $8.0 million for the purchase of patents, offset by $42.2 million in maturities of short-term investments.

In the eleven months ended December 31, 2012, net cash provided by investing activities was $8.2 million, primarily consisting of $79.6 million in maturities of short-term investments offset by $59.6 million for the purchases of investments.

In the twelve months ended January 31, 2013, net cash provided by investing activities was $15.2 million, primarily consisting of $87.9 million in maturities of short-term investments, offset by $65.2 million for the purchases of investments.

Financing activities

In the twelve months ended December 31, 2014, net cash provided by financing activities was $21.7 million, primarily consisting of $16.9 million in proceeds from the exercise of stock options and $6.4 million in proceeds from our employee stock purchase plan.

In the eleven months ended December 31, 2013, net cash provided by financing activities was $395.0 million, primarily consisting of net proceeds from the follow-on public equity offering of $378.7 million and cash proceeds from the issuance of common stock of $16.8 million.

In the eleven months ended December 31, 2012, net cash provided by financing activities was $5.9 million, primarily consisting of proceeds from the issuance of common stock.

In the twelve months ended January 31, 2013, net cash provided by financing activities was $6.7 million, primarily consisting of proceeds from the issuance of common stock.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of December 31, 2014:

	Payments Due by Period				
	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	More Than 5 Years
	(in thousands)				
Purchase obligations	$ 9,950	$ 8,050	$ 1,900	$ —	$ —
Operating lease obligations	72,837	11,130	22,048	19,119	20,540
Total	$ 82,787	$ 19,180	$ 23,948	$ 19,119	$ 20,540

Purchase Obligation

Our purchase obligations represent a non-cancelable royalty-related contractual obligation at December 31, 2014 which

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is recoupable against future royalty payments in the amount of $5.0 million and a non-cancelable royalty-related contractual obligation at December 31, 2014, which is not recoupable against future royalty payments in the amount of $5.0 million.

Operating Lease Obligation

Subsequent to December 31, 2014, we entered into a sublease agreement to increase our leased space at our corporate headquarters in Oakland, California. This agreement is expected to result in an additional operating lease obligation of approximately $7.6 million through 2020. This obligation is not included in the table above.

Off-Balance Sheet Arrangements

As of December 31, 2013 and 2014, we did not have any off-balance sheet arrangements.

Business Trends

Our operating results fluctuate from quarter to quarter as a result of a variety of factors. We expect our operating results to continue to fluctuate in future quarters.

Our results reflect the effects of seasonal trends in listener and advertising behavior. We expect to experience both higher advertising sales due to greater advertiser demand during the holiday season and increased usage due to the popularity of holiday music during the last three months of each calendar year. In addition, we expect to experience lower advertising sales in the first three months of each calendar year due to reduced advertiser demand and increased usage due to increased use of media-streaming devices received as gifts during the holiday season. We believe these seasonal trends have affected, and will continue to affect our operating results, particularly as increases in content acquisition costs from increased usage are not offset by increases in advertising sales in the first calendar quarter.

In addition, expenditures by advertisers tend to be cyclical and discretionary in nature, reflecting overall economic conditions, the economic prospects of specific advertisers or industries, budgeting constraints and buying patterns and a variety of other factors, many of which are outside our control. As a result of these and other factors, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

We changed our fiscal year to the calendar twelve months ended December 31 to align with the advertising industry's business cycle, effective beginning with the period ended on December 31, 2013. The results of our fiscal quarters prior to 2014 (three months ended April 30, July 31, October 31 and January 31 of each year) reflect the same effects of the seasonal trends on advertising revenue discussed above for calendar periods, except that the impact of these advertising sales-related trends on our fiscal results was not as pronounced due to the inclusion of January instead of October in our fourth fiscal quarter.

The growth in listener hours on mobile and other connected devices was tempered in the eleven months ended December 31, 2013 by the implementation of the mobile listening limit for our advertising supported service on certain mobile and other connected devices. Effective September 2013, we eliminated this limit primarily due to our improved ability to monetize mobile listener hours. Although we have removed the broad 40 hour per month mobile listening limit, we have implemented other more precise measures that we believe will allow us to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience. In addition, the mobile listening limit drove significant growth in subscribers to our ad-free service, and since removing the limit we do not expect to experience similar growth in subscriptions in the near term. To the extent we take steps such as these to affect usage on a particular platform, trends in usage may be obscured or changed and comparisons across periods may not be meaningful.

We have invested in building a local advertising sales force in major radio markets and as of December 31, 2014, we had 111 local sellers in 37 markets in the United States. As a result, we experienced an increase in local advertising revenue as a percentage of total advertising revenue in the twelve months ended December 31, 2014 compared to the eleven months ended December 31, 2013, and we intend to continue investing to extend our local market presence for the foreseeable future.

Critical Accounting Policies and Estimates

Our discussion and analysis of our consolidated financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and the related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Our estimates form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

An accounting policy is considered to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimate that are reasonably likely to occur, could materially impact the consolidated financial statements. We believe that our critical accounting policies reflect the most significant estimates and assumptions used in the preparation of the consolidated financial statements.

We believe that the assumptions and estimates associated with our royalties for performance rights of musical works, advertising revenue, subscription and other revenue and stock based compensation and the valuation of stock option grants have the greatest potential impact on our financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

Royalties for Performance Rights of Musical Works

We incur royalty expenses from our public performance of musical works. This includes royalties that we pay for public performance rights to the owners of those musical works or their agents, such as ASCAP, BMI, SESAC and individual publishers. In 2010 and 2012, we elected to terminate our agreements with ASCAP and BMI, respectively. Ongoing rate court proceedings, the purported withdrawal of certain performance rights with respect to certain musical works by certain music publishers from the ASCAP and BMI catalogs, and our entry into a local marketing agreement to program KXMZ-FM, in part to allow Pandora to qualify for the current ASCAP and BMI license agreements available to owners of one or more commercial radio stations, have highlighted uncertainties for the royalty rates payable to these organizations and to musical copyright owners. We record a liability for public performance royalties based on our best estimate of the amount owed to each licensor, PROs or individual copyright owners, based on historical rates, third-party evidence and legal developments consistent with our past practices. For each quarterly period, we evaluate our estimates to assess the adequacy of recorded liabilities. If actual royalty rates differ from estimates, revisions to the estimated royalty liabilities may be required, which could materially affect our results of operations.

Revenue Recognition

We recognize revenue when four basic criteria are met: (1) persuasive evidence exists of an arrangement with the customer reflecting the terms and conditions under which the products or services will be provided; (2) delivery has occurred or services have been provided; (3) the fee is fixed or determinable; and (4) collection is reasonably assured. We consider a signed agreement, a binding insertion order or other similar documentation to be persuasive evidence of an arrangement. Collectability is assessed based on a number of factors, including transaction history and the creditworthiness of a customer. If it is determined that collection is not reasonably assured, revenue is not recognized until collection becomes reasonably assured, which is generally upon receipt of cash. We record cash received in advance of revenue recognition as deferred revenue.

Advertising revenue

We generate advertising revenue primarily from audio, display and video advertising. We generate the majority of our advertising revenue through the delivery of advertising impressions sold on a cost per thousand, or CPM, basis. In determining whether an arrangement exists, we ensure that a binding arrangement, such as an insertion order or a fully executed customer-specific agreement, is in place. We generally recognize revenue based on delivery information from our campaign trafficking systems.

We also generate advertising revenue pursuant to arrangements with advertising agencies and brokers. Under these arrangements, we provide the agencies and brokers the ability to sell advertising inventory on our service directly to advertisers. We report this revenue net of amounts due to agencies and brokers because we are not the primary obligor under these arrangements, we do not set the pricing and do not establish or maintain the relationship with the advertisers.

Subscription and other revenue

Subscription and other revenue is generated primarily through the sale of a premium version of the Pandora service which currently includes advertisement-free access and higher audio quality on supported devices. Subscription revenue derived from direct sales to listeners is recognized on a straight-line basis over the duration of the subscription period. Subscription revenue derived from sales through some mobile operating systems may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when services have been provided and the rights lapse or when we have developed sufficient transaction history to estimate a reserve.

We were required to defer revenue for certain subscriptions purchased through mobile app stores that contained refund rights until the refund rights lapsed or until we developed sufficient operating history to estimate a return reserve. As of December 31, 2013, we had deferred all revenue related to these mobile subscriptions subject to refund rights totaling approximately $14.2 million, as we did not have sufficient history to estimate a return reserve. Beginning in January 2014, we had sufficient historic transactional information which enabled us to estimate future returns. Accordingly, in January 2014, we began recording revenue related to these mobile subscriptions net of estimated returns. This change resulted in a one-time increase in subscription revenue in the three months ended March 31, 2014 of approximately $14.2 million, as the previously deferred revenue was recognized. As of December 31, 2014, the deferred revenue related to the return reserve was not significant.

Stock-Based Compensation

Stock-based compensation expenses are classified in the statement of operations based on the department to which the related employee reports. We measure stock-based compensation expense for employees at the grant date fair value of the award, and recognize expense on a straight-line basis over the requisite service period, which is generally the vesting period, net of estimated forfeitures.

We generally estimate the grant date fair value of stock options using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model is affected by our stock price on the date of grant, the expected stock price volatility over the expected term of the award, which is based on projected employee stock option exercise behaviors, the risk-free interest rate for the expected term of the award and expected dividends.

Stock-based compensation expense is recorded net of estimated forfeitures in the statement of operations for only those stock-based awards that we expect to vest. We estimate the forfeiture rate based on historical forfeitures of equity awards and adjust the rate to reflect changes in facts and circumstances, if any. We will revise our estimated forfeiture rate if actual forfeitures differ from our initial estimates.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business, including interest rate and inflation risks.

Interest Rate Fluctuation Risk

Our exposure to interest rates relates to the increase or decrease in the amount of interest we must pay on our outstanding debt instruments. In May 2011, we entered into a $30 million credit facility with a syndicate of financial institutions. In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million, extended the maturity date from May 12, 2015 to September 12, 2018 and decreased the interest rate on borrowings. Refer to Note 8 "Debt Instruments" in the Notes to Consolidated Financial Statements for further details regarding our credit facility. Any outstanding borrowings under the credit facility bear a variable interest rate and therefore the interest we pay as well as the fair value of our outstanding borrowings will fluctuate as changes occur in certain benchmark interest rates. As of December 31, 2014, we had no amounts drawn under the credit facility and had $1.1 million in outstanding letters of credit.

The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. Approximately 27% of our portfolio consists of cash and cash equivalents that have a relatively short maturity, and a fair value relatively insensitive to interest rate changes. Our available-for-sale investments consist of corporate debt securities, commercial paper and U.S. government and government agency debt securities which may be subject to market risk due to changes in prevailing interest rates that may cause the fair values of our investments to fluctuate. Based on a sensitivity analysis, we have determined that a hypothetical 100 basis points increase in interest rates would have resulted in a decrease in the fair values of our investments of approximately $2.3 million as of December 31, 2014. Such losses would only be realized if we sold the investments prior to maturity. In future periods, we will continue to evaluate our investment policy in order to ensure that we continue to meet our overall objectives.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

PANDORA MEDIA, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pandora Media, Inc.

We have audited the accompanying consolidated balance sheets of Pandora Media, Inc. as of December 31, 2013 and 2014, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Pandora Media, Inc. at December 31, 2013 and 2014, and the consolidated results of its operations and its cash flows for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Pandora Media, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 11, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Francisco, California
February 11, 2015

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pandora Media, Inc.

We have audited Pandora Media, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Pandora Media, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Pandora Media, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the 2014 consolidated financial statements of Pandora Media, Inc. and our report dated February 11, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Francisco, California
February 11, 2015

Pandora Media, Inc.
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	As of December 31, 2013	As of December 31, 2014
Assets		
Current assets		
Cash and cash equivalents	$ 245,755	$ 175,957
Short-term investments	98,662	178,631
Accounts receivable, net of allowance of $1,272 at December 31, 2013 and $1,218 at December 31, 2014	164,023	218,437
Prepaid expenses and other current assets	10,343	15,389
Total current assets	518,783	588,414
Long-term investments	105,686	104,243
Property and equipment, net	35,151	42,921
Other long-term assets	13,715	13,712
Total assets	$ 673,335	$ 749,290
Liabilities and stockholders' equity		
Current liabilities		
Accounts payable	$ 14,413	$ 10,825
Accrued liabilities	14,881	15,754
Accrued royalties	66,110	73,693
Deferred revenue	42,650	14,412
Accrued compensation	17,952	34,476
Total current liabilities	156,006	149,160
Other long-term liabilities	9,098	16,773
Total liabilities	165,104	165,933
Stockholders' equity		
Common stock, $0.0001 par value, 1,000,000,000 shares authorized: 195,395,940 shares issued and outstanding at December 31, 2013 and 209,071,488 at December 31, 2014	20	21
Additional paid-in capital	675,103	781,009
Accumulated deficit	(166,591)	(196,997)
Accumulated other comprehensive loss	(301)	(676)
Total stockholders' equity	508,231	583,357
Total liabilities and stockholders' equity	$ 673,335	$ 749,290

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.
Consolidated Statements of Operations
(in thousands, except per share amounts)

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012	2013	2014
		(unaudited)		
Revenue				
Advertising	$ 375,218	$ 343,318	$ 489,340	$ 732,338
Subscription and other	51,927	46,166	110,893	188,464
Total revenue	427,145	389,484	600,233	920,802
Cost of revenue				
Cost of revenue—Content acquisition costs	258,748	230,731	314,866	446,377
Cost of revenue—Other	32,282	28,988	42,217	61,627
Total cost of revenue	291,030	259,719	357,083	508,004
Gross profit	136,115	129,765	243,150	412,798
Operating expenses				
Product development	18,901	16,901	31,294	53,153
Sales and marketing	107,373	94,212	169,005	277,330
General and administrative	47,543	42,716	69,300	112,443
Total operating expenses	173,817	153,829	269,599	442,926
Loss from operations	(37,702)	(24,064)	(26,449)	(30,128)
Other income (expense), net	(441)	(401)	(474)	306
Loss before provision for (benefit from) income taxes	(38,143)	(24,465)	(26,923)	(29,822)
Provision for (benefit from) income taxes	(5)	3	(94)	(584)
Net loss	$ (38,148)	$ (24,462)	$ (27,017)	$ (30,406)
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	168,294	167,956	180,968	205,273
Net loss per share, basic and diluted	$ (0.23)	$ (0.15)	$ (0.15)	$ (0.15)

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
Net loss	$ (38,148)	$ (27,017)	$ (30,406)
Change in foreign currency translation adjustment	(3)	(42)	(184)
Change in net unrealized losses on marketable securities	2	(253)	(191)
Other comprehensive loss	(1)	(295)	(375)
Total comprehensive loss	$ (38,149)	$ (27,312)	$ (30,781)

The accompanying notes are an integral part of the consolidated financial statements.

Pandora Media, Inc.
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Additional	Accumulated Other	Accumulated	Total Stockholders'
	Shares	Par Amount	Paid-in Capital	Comprehensive Loss	Deficit	Equity
Balances as of January 31, 2012	163,569,361	$ 16	$ 205,955	$ (5)	$ (101,426)	$ 104,540
Issuance of common stock upon exercise of stock options	8,408,842	1	7,305	—	—	7,306
Stock-based compensation	—	—	25,500	—	—	25,500
Vesting of restricted stock units	400,112	—	—	—	—	—
Share cancellations to satisfy tax withholding on vesting of restricted stock units	(18,340)	—	(208)	—	—	(208)
Issuance of common stock in connection with preferred stock warrant exercise	146,076	—	—	—	—	—
Components of comprehensive loss:						—
Net loss	—	—	—	—	(38,148)	(38,148)
Other comprehensive loss	—	—	—	(1)	—	(1)
Balances as of January 31, 2013	172,506,051	$ 17	$ 238,552	$ (6)	$ (139,574)	$ 98,989
Issuance of common stock upon exercise of stock options	5,659,377	1	18,355	—	—	18,356
Issuance of common stock in connection with secondary offering, net issuance costs	15,730,000	2	378,635	—	—	378,637
Stock-based compensation	—	—	40,041	—	—	40,041
Vesting of restricted stock units	1,520,516	—	—	—	—	—
Share cancellations to satisfy tax withholding on vesting of restricted stock units	(20,004)	—	(480)	—	—	(480)
Components of comprehensive loss:						—
Net loss	—	—	—	—	(27,017)	(27,017)
Other comprehensive loss	—	—	—	(295)	—	(295)
Balances as of December 31, 2013	195,395,940	$ 20	$ 675,103	$ (301)	$ (166,591)	$ 508,231
Issuance of common stock upon exercise of stock options	10,437,509	1	17,115	—	—	17,116
Stock-based compensation	—	—	87,055	—	—	87,055
Vesting of restricted stock units	3,169,456	—	—	—	—	—
Share cancellations to satisfy tax withholding on vesting of restricted stock units	(73,682)	—	(2,019)	—	—	(2,019)
Stock issued under employee stock purchase plan	142,265	—	3,407	—	—	3,407
Excess tax benefit from stock-based awards	—	—	348	—	—	348
Components of comprehensive loss:						
Net loss	—	—	—	—	(30,406)	(30,406)
Other comprehensive loss	—	—	—	(375)	—	(375)
Balances as of December 31, 2014	209,071,488	$ 21	$ 781,009	$ (676)	$ (196,997)	$ 583,357

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.
Consolidated Statements of Cash Flows
(in thousands)

	Twelve months ended January 31,	Eleven months ended December 31,		Twelve months ended December 31,
	2013	2012 (unaudited)	2013	2014
Operating activities				
Net loss	$ (38,148)	$ (24,462)	$ (27,017)	$ (30,406)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities				
Depreciation and amortization	7,076	6,406	10,112	15,431
Loss on retirement of fixed assets	23	23	—	105
Stock-based compensation	25,500	23,283	40,041	87,055
Amortization of premium on investments	360	329	237	2,833
Amortization of debt issuance costs	264	242	220	197
Excess tax benefit from stock-based awards	—	—	—	(348)
Changes in assets and liabilities				
Accounts receivable	(36,672)	(43,487)	(60,613)	(54,414)
Prepaid expenses and other assets	(3,752)	(2,189)	(7,891)	(9,219)
Accounts payable and accrued liabilities	4,963	10,419	17,352	12,520
Accrued royalties	19,261	17,525	13,027	7,608
Accrued compensation	9,598	2,085	(3,393)	13,736
Deferred revenue	10,034	10,285	13,384	(28,238)
Reimbursement of cost of leasehold improvements	1,243	1,243	1,555	4,169
Net cash provided by (used in) operating activities	(250)	1,702	(2,986)	21,029
Investing activities				
Purchases of property and equipment	(7,580)	(11,809)	(21,180)	(30,039)
Purchases of patents	—	—	(8,000)	—
Purchases of investments	(65,168)	(59,559)	(224,549)	(340,679)
Proceeds from maturities of investments	87,933	79,603	42,210	258,518
Payments related to acquisition	—	—	(400)	—
Net cash provided by (used in) investing activities	15,185	8,235	(211,919)	(112,200)
Financing activities				
Borrowings under debt arrangements	—	—	10,000	—
Repayments of debt	—	—	(10,000)	—
Payment of debt issuance costs in connection with the debt refinancing	—	—	(450)	—
Proceeds from follow-on offering, net of issuance costs	—	—	378,654	—
Proceeds from exercise of stock options	6,669	5,877	17,273	16,894
Tax payments from net share settlements of restricted stock units	—	—	(480)	(2,019)
Excess tax benefit from stock-based awards	—	—	—	348
Proceeds from employee stock purchase plan	—	—	—	6,438
Net cash provided by financing activities	6,669	5,877	394,997	21,661
Effect of exchange rate changes on cash and cash equivalents	(5)	(1)	(62)	(288)
Net increase (decrease) in cash and cash equivalents	21,599	15,813	180,030	(69,798)
Cash and cash equivalents at beginning of period	44,126	44,126	65,725	245,755
Cash and cash equivalents at end of period	$ 65,725	$ 59,939	$ 245,755	$ 175,957
Supplemental disclosures of cash flow information				
Cash paid during the period for income taxes	$ —	$ —	$ 26	$ 164
Cash paid during the period for interest	$ 289	$ 283	$ 18	$ 314
Purchases of property and equipment recorded in accounts payable and accrued liabilities	$ 1,952	$ 726	$ 7,910	$ 751

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.
Notes to Consolidated Financial Statements

1. Description of Business and Basis of Presentation

Pandora Media, Inc. provides an internet radio service offering a personalized experience for each listener wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, computers and car audio systems, as well as a range of other internet-connected devices. We have pioneered a new form of radio—one that uses intrinsic qualities of music to initially create stations and then adapts playlists in real-time based on the individual feedback of each listener. We generate a majority of our revenue by offering local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements. We also generate revenue by offering a paid subscription service which we call Pandora One. We were incorporated as a California corporation in January 2000 and reincorporated as a Delaware corporation in December 2010. Our principal operations are located in the United States; we also operate in Australia and New Zealand.

As used herein, "Pandora," "we," "our," the "Company" and similar terms include Pandora Media, Inc. and its subsidiaries, unless the context indicates otherwise.

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") and include the accounts of Pandora and our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Certain changes in presentation have been made to conform the prior period presentation to current period reporting. Our statements of operations now include the presentation of gross profit, which is calculated as total revenue less cost of revenue. In addition, we have reclassified certain software license fees, facilities-related expenses and depreciation expenses among the general and administrative, cost of revenue—other, sales and marketing and product development lines in our consolidated statements of operations. Furthermore, we have reclassified certain compensation-related amounts from the accrued liabilities line item to the accrued compensation line item of our consolidated balance sheets and our consolidated statements of cash flows.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and the related disclosures at the date of the financial statements, as well as the reported amounts of revenue and expenses during the periods presented. Estimates are used in several areas including, but not limited to determining accrued royalties, selling prices for elements sold in multiple-element arrangements, the allowance for doubtful accounts, the fair market value of stock options and the impact of forfeitures on stock-based compensation, the provision for (benefit from) income taxes and the subscription return reserve. To the extent there are material differences between these estimates, judgments, or assumptions and actual results, our financial statements could be affected. In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result.

Segments

Pandora operates in one segment. Our chief operating decision maker (the "CODM"), our Chief Executive Officer, manages our operations on a consolidated basis for purposes of allocating resources. When evaluating our financial performance, the CODM reviews separate revenue information for our advertising, subscription and other offerings, while all other financial information is reviewed on a consolidated basis.

Fiscal year

We changed our fiscal year from the twelve months ending January 31 to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. As a result of this change, our prior fiscal year was an eleven-month transition period ended on December 31, 2013. In these consolidated statements, including the notes thereto, the current year financial results ended December 31, 2014 are for a twelve-month period. Audited results for the periods ended

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December 31, 2013 and January 31, 2013 are for an eleven-month period and a twelve-month period. In addition, the accompanying consolidated statements of operations and consolidated statements of cash flows include unaudited comparative amounts for the eleven-month period ended December 31, 2012. These unaudited consolidated financial statements have been prepared in accordance with U.S. GAAP. In our opinion, the unaudited consolidated financial statements include all adjustments of a normal recurring nature necessary for the fair presentation of our results of operations and our cash flows for the eleven months ended December 31, 2012.

All references herein to a fiscal year prior to December 31, 2013 refer to the twelve months ended January 31 of such year, and references to the first, second, third and fourth fiscal quarters ended prior to November 1, 2013 refer to the three months ended April 30, July 31, October 31 and January 31, respectively.

All references herein to a fiscal year subsequent to December 31, 2013 refer to the twelve months ended December 31 of such year, and references to the first, second, third and fourth fiscal quarters ended subsequent to November 1, 2013 refer to the three months ended March 31, June 30, September 30 and December 31, respectively.

2. Summary of Significant Accounting Policies

Revenue Recognition

We recognize revenue when four basic criteria are met: (1) persuasive evidence exists of an arrangement with the customer reflecting the terms and conditions under which the products or services will be provided; (2) delivery has occurred or services have been provided; (3) the fee is fixed or determinable; and (4) collection is reasonably assured. We consider a signed agreement, a binding insertion order or other similar documentation to be persuasive evidence of an arrangement. Collectability is assessed based on a number of factors, including transaction history and the creditworthiness of a customer. If it is determined that collection is not reasonably assured, revenue is not recognized until collection becomes reasonably assured, which is generally upon receipt of cash. We record cash received in advance of revenue recognition as deferred revenue.

Advertising revenue. We generate advertising revenue primarily from audio, display and video advertising. We generate the majority of our advertising revenue through the delivery of advertising impressions sold on a cost per thousand, or CPM, basis. In determining whether an arrangement exists, we ensure that a binding arrangement, such as an insertion order or a fully executed customer-specific agreement, is in place. We generally recognize revenue based on delivery information from our campaign trafficking systems.

We also generate advertising revenue pursuant to arrangements with advertising agencies and brokers. Under these arrangements, we provide the agencies and brokers the ability to sell advertising inventory on our service directly to advertisers. We report this revenue net of amounts due to agencies and brokers because we are not the primary obligor under these arrangements, we do not set the pricing and do not establish or maintain the relationship with the advertisers.

Subscription and other revenue. Subscription and other revenue is generated primarily through the sale of a premium version of the Pandora service which currently includes advertisement-free access and higher audio quality on supported devices. We offer both an annual and a monthly subscription option. Subscription revenue derived from direct sales to listeners is recognized on a straight-line basis over the duration of the subscription period. Subscription revenue derived from sales through some mobile operating systems may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when services have been provided and the rights lapse or when we have developed sufficient transaction history to estimate a reserve.

We were required to defer revenue for certain subscriptions purchased through mobile app stores that contained refund rights until the refund rights lapsed or until we developed sufficient operating history to estimate a return reserve. As of December 31, 2013, we had deferred all revenue related to these mobile subscriptions subject to refund rights totaling approximately $14.2 million, as we did not have sufficient history to estimate a return reserve. Beginning in January 2014, we had sufficient historic transactional information which enabled us to estimate future returns. Accordingly, in January 2014, we began recording revenue related to these mobile subscriptions net of estimated returns. This change resulted in a one-time increase in subscription revenue in the three months ended March 31, 2014 of approximately $14.2 million, as the previously deferred revenue was recognized. As of December 31, 2014, the deferred revenue related to the return reserve was not significant.

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Pandora Media, Inc.
Notes to Consolidated Financial Statements - Continued

Multiple-element arrangements. We enter into arrangements with customers to sell advertising packages that include different media placements or ad services that are delivered at the same time, or within close proximity of one another. We recognize the relative fair value of the media placements or ad services as they are delivered assuming all other revenue recognition criteria are met.

We allocate arrangement consideration in multiple-deliverable revenue arrangements at the inception of an arrangement to all deliverables or those packages in which all components of the package are delivered at the same time, based on the relative selling price method in accordance with the selling price hierarchy, which includes: (1) vendor-specific objective evidence ("VSOE") if available; (2) third-party evidence ("TPE") if VSOE is not available; and (3) best estimate of selling price ("BESP") if neither VSOE nor TPE is available.

VSOE. We determine VSOE based on our historical pricing and discounting practices for the specific product or service when sold separately. In determining VSOE, we require that a substantial majority of the selling prices for these services fall within a reasonably narrow pricing range. We have not historically priced our advertising products within a narrow range. As a result, we have not been able to establish VSOE for any of our advertising products.

TPE. When VSOE cannot be established for deliverables in multiple element arrangements, we apply judgment with respect to whether it can establish a selling price based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. Generally, our go-to-market strategy differs from that of our peers and our offerings contain a significant level of differentiation such that the comparable pricing of services cannot be obtained. Furthermore, we are unable to reliably determine what similar competitor services' selling prices are on a stand-alone basis. As a result, we have not been able to establish selling price based on TPE.

BESP. When we are unable to establish selling price using VSOE or TPE, we use BESP in our allocation of arrangement consideration. The objective of BESP is to determine the price at which we would transact a sale if the service were sold on a stand-alone basis. BESP is generally used to allocate the selling price to deliverables in our multiple element arrangements. We determine BESP for deliverables by considering multiple factors including, but not limited to, prices we charge for similar offerings, market conditions, competitive landscape and pricing practices. We limit the amount of allocable arrangement consideration to amounts that are fixed or determinable and that are not contingent on future performance or future deliverables. We regularly review BESP. Changes in assumptions or judgments or changes to the elements in the arrangement may cause an increase or decrease in the amount of revenue that we report in a particular period.

Concentration of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents, investments and trade accounts receivable. We maintain cash and cash equivalents with domestic financial institutions of high credit quality. We perform periodic evaluations of the relative credit standing of such institutions.

We perform ongoing credit evaluations of customers to assess the probability of accounts receivable collection based on a number of factors, including past transaction experience with the customer, evaluation of their credit history, and review of the invoicing terms of the contract. We generally do not require collateral. We maintain reserves for potential credit losses on customer accounts when deemed necessary. Actual credit losses during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 were \$0.5 million, \$0.4 million and \$1.1 million, respectively.

For the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, we had no customers that accounted for 10% or more of total revenue. As of December 31, 2013 and 2014, there were no customers that accounted for 10% or more of our total accounts receivable.

Cash, Cash Equivalents and Investments

We classify our highly liquid investments with maturities of three months or less at the date of purchase as cash equivalents. Our investments consist of commercial paper, corporate debt securities and U.S. government and government agency debt securities. These investments are classified as available-for-sale securities and are carried at fair value with the unrealized gains and losses reported as a component of stockholders' equity. Management determines the appropriate classification of our investments at the time of purchase and reevaluates the available-for-sale designations as of each balance

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sheet date. We classify our investments as either short-term or long-term based on each instrument's underlying contractual maturity date. Investments with maturities of twelve months or less are classified as short-term and those with maturities greater than twelve months are classified as long-term. The cost basis for investments sold is based upon the specific identification method.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded net of an allowance for doubtful accounts. Our allowance for doubtful accounts is based upon historical loss patterns, the number of days that billings are past due and an evaluation of the potential risk of loss associated with delinquent accounts. We also consider any changes to the financial condition of our customers and any other external market factors that could impact the collectability of our receivables in the determination of our allowance for doubtful accounts.

Property and Equipment, net

Property and equipment is recorded at cost, less accumulated depreciation and amortization. Depreciation is computed using the straight-line method based on the estimated useful lives of the assets, which typically range from three to five years. Leasehold improvements are amortized over the shorter of the lease term or expected useful lives of the improvements.

Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of these assets is measured by a comparison of the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If property and equipment are considered to be impaired, the impairment to be recognized equals the amount by which the carrying value of the asset exceeds its fair market value.

Costs incurred to develop software for internal use are required to be capitalized and amortized over the estimated useful life of the asset if certain criteria are met. Costs related to preliminary project activities and post implementation activities are expensed as incurred. We evaluate the costs incurred during the application development stage of website development to determine whether the costs meet the criteria for capitalization. As of December 31, 2013 and 2014, we had approximately $1.5 million and $2.8 million of capitalized internal use software and website development costs, net of accumulated amortization. These costs are being amortized over their three-year estimated useful lives. Internal use software and website development costs are included in property and equipment.

Stock-Based Compensation—Restricted Stock Units and Stock Options

Stock-based awards granted to employees, including grants of restricted stock units (“RSUs”) and stock options, are recognized as expense in our statements of operations based on their grant date fair value. We recognize stock-based compensation expense on a straight-line basis over the service period of the award, which is generally four years. We estimate the fair value of RSUs at our stock price on the grant date. We generally estimate the grant date fair value of stock options using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model is affected by our stock price on the date of grant, the expected stock price volatility over the expected term of the award, which is based on projected employee stock option exercise behaviors, the risk-free interest rate for the expected term of the award and expected dividends.

Stock-based compensation expense is recorded net of estimated forfeitures in the statement of operations for only those stock-based awards that we expect to vest. We estimate the forfeiture rate based on historical forfeitures of equity awards and adjust the rate to reflect changes in facts and circumstances, if any. We revise our estimated forfeiture rate if actual forfeitures differ from our initial estimates.

We have elected to use the "with and without" approach as described in Accounting Standards Codification 740 - *Income Taxes* in determining the order in which tax attributes are utilized. As a result, we will only recognize a tax benefit from stock-based awards in additional paid-in capital if an incremental tax benefit is realized after all other tax attributes currently available to us have been utilized. In addition, we have elected to account for the indirect effects of stock-based awards on other tax attributes, such as the research tax credit, through the statement of operations.

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Notes to Consolidated Financial Statements - Continued

Stock-Based Compensation—Employee Stock Purchase Plan

In December 2013, our board of directors approved the Employee Stock Purchase Plan ("ESPP"), which was approved by our stockholders at the annual meeting in June 2014. We estimate the fair value of shares to be issued under the ESPP on the first day of the offering period using the Black-Scholes valuation model. The determination of the fair value is affected by our stock price on the first date of the offering period, as well as other assumptions including the risk-free interest rate, the estimated volatility of our stock price over the term of the offering period, the expected term of the offering period and the expected dividend rate. Stock-based compensation expense related to the ESPP is recognized on a straight-line basis over the offering period, net of estimated forfeitures.

Cost of Revenue—Content Acquisition Costs

Cost of revenue—content acquisition costs principally consist of royalties paid for streaming music or other content to our listeners. Royalties are currently calculated using negotiated rates documented in agreements. The majority of our royalties are payable based on a fee per public performance of a sound recording, while in other cases our royalties are payable based on a percentage of our revenue or a formula that involves a combination of per performance and revenue metrics. For royalty arrangements under negotiation, we accrue for estimated royalties based on the available facts and circumstances and adjust these estimates as more information becomes available.

Cost of Revenue—Other

Cost of revenue—other consists primarily of hosting and ad serving costs, employee-related costs and other costs of ad sales. Hosting and ad serving costs consist of content streaming, maintaining our internet radio service and creating and serving advertisements through third-party ad servers. We make payments to third-party ad servers for the period the advertising impressions are delivered or click-through actions occur, and accordingly, we record this as a cost of revenue in the related period. Employee-related costs include salaries and benefits associated with supporting hosting and ad serving functions. Other costs of ad sales include costs related to music events that are sold as part of advertising arrangements.

Product Development

Product development consists primarily of employee-related costs, including salaries and benefits related to employees in software engineering, music analysis and product management departments, facilities-related expenses, information technology and costs associated with supporting consumer connected-device manufacturers in implementing our service in their products. We incur product development expenses primarily for improvements to our website and the Pandora app, development of new advertising products and development and enhancement of our personalized station generating system. We have generally expensed product development as incurred.

Certain website development and internal use software development costs are capitalized when specific criteria are met. In such cases, the capitalized amounts are amortized over the useful life of the related application once the application is placed in service.

Sales and Marketing

Sales and marketing consists primarily of employee-related costs, including salaries, commissions and benefits related to employees in sales, sales support and marketing departments. In addition, sales and marketing expenses include transaction processing commissions on subscription purchases through mobile app stores, external sales and marketing expenses such as brand marketing and customer acquisition costs, public relations expenses, costs related to music events, agency platform and media measurement expenses, facilities-related expenses and infrastructure costs.

General and Administrative

General and administrative consists primarily of employee-related costs, including salaries and benefits for finance, accounting, legal, internal information technology and other administrative personnel. In addition, general and administrative expenses include professional services costs for outside legal and accounting services, facilities-related expenses, infrastructure costs and credit card fees.

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Notes to Consolidated Financial Statements - Continued

Provision for (Benefit from) Income Taxes

We account for our provision for (benefit from) income taxes using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted statutory income tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized.

We recognize a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized upon settlement. We will recognize interest and penalties related to unrecognized tax benefits in the provision for (benefit from) income taxes in the accompanying statement of operations.

We calculate the current and deferred income tax provision based on estimates and assumptions that could differ from the actual results reflected in income tax returns filed in subsequent years. Adjustments based on filed income tax returns are recorded when identified. The amount of income taxes paid is subject to examination by U.S. federal, state and international tax authorities. The estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts and circumstances existing at that time. To the extent that the assessment of such tax positions change, the change in estimate is recorded in the period in which the determination is made.

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by giving effect to all potential shares of common stock, including stock options and restricted stock units, to the extent dilutive. Basic and diluted net loss per share were the same for each period presented as the inclusion of all potential common shares outstanding would have been anti-dilutive.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-9, *Revenue from Contracts with Customers (Topic 606)* (“ASU 2014-9”). ASU 2014-9 outlines a single comprehensive model for entities to use in accounting for revenue. Under the guidance, revenue is recognized when a company transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The standard is effective for public entities with annual and interim reporting periods beginning after December 15, 2016. Entities have the option of using either a full retrospective or a modified retrospective approach to adopt the guidance. We are currently evaluating implementation methods and the effect that implementation of this standard will have on our consolidated financial statements upon adoption.

In August 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-15, *Going Concern (Subtopic 205-40)* (“ASU 2014-15”). ASU 2014-15 requires management of all entities to evaluate whether there are conditions and events that raise substantial doubt about the entity’s ability to continue as a going concern within one year after the financial statements are issued (or available to be issued when applicable). The guidance is effective for fiscal years beginning after December 15, 2016 and for interim periods within that fiscal year. We do not expect the adoption of this guidance to have a material effect on our consolidated financial statements.

3. Composition of Certain Financial Statement Captions

Cash, Cash Equivalents and Investments

Cash, cash equivalents and investments consisted of the following:

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Notes to Consolidated Financial Statements - Continued

	As of December 31,	
	2013	2014
	(in thousands)	
Cash and cash equivalents		
Cash	$ 89,176	$ 72,487
Money market funds	98,437	89,113
Commercial paper	54,247	9,349
Corporate debt securities	3,895	5,008
Total cash and cash equivalents	$ 245,755	$ 175,957
Short-term investments		
Commercial paper	$ 47,526	$ 45,443
Corporate debt securities	50,436	128,691
U.S. government and government agency debt securities	700	4,497
Total short-term investments	$ 98,662	$ 178,631
Long-term investments		
Corporate debt securities	$ 100,690	$ 100,998
U.S. government and government agency debt securities	4,996	3,245
Total long-term investments	$ 105,686	$ 104,243
Total cash, cash equivalents and investments	$ 450,103	$ 458,831

Our short-term investments have maturities of twelve months or less and are classified as available-for-sale. Our long-term investments have maturities of greater than twelve months and are classified as available-for-sale.

The following tables summarizes our available-for-sale securities' adjusted cost, gross unrealized gains, gross unrealized losses and fair value by significant investment category as of December 31, 2013 and 2014.

	As of December 31, 2013			
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Cash equivalents and marketable securities				
Money market funds	$ 98,437	$ —	$ —	$ 98,437
Commercial paper	101,773	—	—	101,773
Corporate debt securities	155,273	6	(258)	155,021
U.S. government and government agency debt securities	5,700	—	(4)	5,696
Total cash equivalents and marketable securities	$ 361,183	$ 6	$ (262)	$ 360,927

	As of December 31, 2014			
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
Cash equivalents and marketable securities				
Money market funds	$ 89,113	$ —	$ —	$ 89,113
Commercial paper	54,792	—	—	54,792
Corporate debt securities	235,135	6	(444)	234,697
U.S. government and government agency debt securities	7,751	—	(9)	7,742
Total cash equivalents and marketable securities	$ 386,791	$ 6	$ (453)	$ 386,344

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Notes to Consolidated Financial Statements - Continued

The following tables present available-for-sale investments by contractual maturity date as of December 31, 2013 and 2014.

	As of December 31, 2013	
	Adjusted Cost	Fair Value
	(in thousands)	
Due in one year or less	$ 255,278	$ 255,241
Due after one year through three years	105,905	105,686
Total	$ 361,183	$ 360,927

	As of December 31, 2014	
	Adjusted Cost	Fair Value
	(in thousands)	
Due in one year or less	$ 282,206	$ 282,101
Due after one year through three years	104,585	104,243
Total	$ 386,791	$ 386,344

The following tables summarize our available-for-sale securities' fair value and gross unrealized losses aggregated by investment category and length of time that the individual securities have been in a continuous unrealized loss position as of December 31, 2013 and 2014.

	As of December 31, 2013					
	Twelve Months or Less		More than Twelve Months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(in thousands)					
Money market funds	$ —	$ —	$ —	$ —	$ —	$ —
Commercial paper	—	—	—	—	—	—
Corporate debt securities	130,308	(258)	—	—	130,308	(258)
U.S. government and government agency debt securities	5,697	(4)	—	—	5,697	(4)
Total	$ 136,005	$ (262)	$ —	$ —	$ 136,005	$ (262)

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Notes to Consolidated Financial Statements - Continued

	As of December 31, 2014					
	Twelve Months or Less		More than Twelve Months		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(in thousands)					
Money market funds	$ —	$ —	$ —	$ —	$ —	$ —
Commercial paper	—	—	—	—	—	—
Corporate debt securities	192,699	(422)	12,148	(22)	204,847	(444)
U.S. government and government agency debt securities	5,240	(9)	—	—	5,240	(9)
Total	$ 197,939	$ (431)	$ 12,148	$ (22)	$ 210,087	$ (453)

Our investment policy requires investments to be investment grade, primarily rated “A1” by Standard & Poor’s or “P1” by Moody’s or better for short-term investments and rated “A” by Standard & Poor’s or “A2” by Moody’s or better for long-term investments, with the objective of minimizing the potential risk of principal loss. In addition, the investment policy limits the amount of credit exposure to any one issuer.

The unrealized losses on our available-for-sale securities as of December 31, 2014 were primarily a result of unfavorable changes in interest rates subsequent to the initial purchase of these securities. As of December 31, 2014, we owned 151 securities that were in an unrealized loss position. We do not intend nor expect to need to sell these securities before recovering the associated unrealized losses. We expect to recover the full carrying value of these securities. As a result, no portion of the unrealized losses at December 31, 2014 is deemed to be other-than-temporary and the unrealized losses are not deemed to be credit losses. When evaluating the investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below cost basis, the financial condition of the issuer and any changes thereto, and our intent to sell, or whether it is more likely than not we will be required to sell, the investment before recovery of the investment’s amortized cost basis. During the twelve months ended months ended December 31, 2014, we did not recognize any impairment charges.

Accounts Receivable

	As of December 31,	
	2013	2014
	(in thousands)	
Accounts receivable, net		
Accounts receivable	$ 165,295	$ 219,655
Allowance for doubtful accounts	(1,272)	(1,218)
Total accounts receivable, net	$ 164,023	$ 218,437

The following table summarizes our beginning allowance for doubtful accounts balance for each period, additions, write-offs net of recoveries and the balance at the end of each period for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014:

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Notes to Consolidated Financial Statements - Continued

Allowance for Doubtful Accounts	Balance at Beginning of Period	Additions	Write-offs, Net of Recoveries	Balance at End of Period
		(in thousands)		
For the twelve months ended January 31, 2013	$ 590	659	(488)	$ 761
For the eleven months ended December 31, 2013	$ 761	948	(437)	$ 1,272
For the twelve months ended December 31, 2014	$ 1,272	1,064	(1,118)	$ 1,218

Property and Equipment, net

	As of December 31,	
	2013	2014
	(in thousands)	
Property and equipment		
Servers, computers and other related equipment	$ 27,361	$ 39,890
Leasehold improvements	11,314	25,893
Office furniture and equipment	2,248	2,721
Construction in progress	13,575	5,075
Software developed for internal use	2,173	4,519
Total property and equipment	$ 56,671	$ 78,098
Less accumulated depreciation and amortization	(21,520)	(35,177)
Total property and equipment, net	$ 35,151	$ 42,921

Depreciation expenses totaled $7.1 million, $9.7 million and $14.7 million for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, respectively. There were no material write-offs during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 or the twelve months ended December 31, 2014.

Software developed for internal use generally has an expected useful life of three years from the date placed in service. As of December 31, 2013 and 2014 the net carrying amount was $1.5 million and $2.8 million, including accumulated amortization of $0.7 million and $1.7 million. Amortization expense for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $0.1 million, $0.6 million and $1.1 million, respectively.

Other Long-Term Liabilities

Other long-term liabilities consisted of the following as of December 31, 2014:

	As of December 31,	
	2013	2014
	(in thousands)	
Other long-term liabilities		
Long-term deferred rent	$ 8,352	$ 15,068
Other	746	1,705
Total other long-term liabilities	$ 9,098	$ 16,773

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For operating leases that include escalation clauses over the term of the lease, tenant improvement reimbursements and rent abatement periods, we recognize rent expense on a straight-line basis over the lease term including expected renewal periods. The difference between rent expense and rent payments is recorded as deferred rent.

4. Fair Value

We record cash equivalents and investments at fair value. Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Fair value measurements are required to be disclosed by level within the following fair value hierarchy:

Level 1 — Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 — Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 — Inputs lack observable market data to corroborate management's estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

When determining fair value, whenever possible we use observable market data and rely on unobservable inputs only when observable market data is not available.

The fair value of these financial assets and liabilities was determined using the following inputs at December 31, 2013 and 2014:

	As of December 31, 2013		
	Fair Value Measurement Using		
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Total
	(in thousands)		
Assets			
Money market funds	$ 98,437	$ —	$ 98,437
Commercial paper	—	101,773	101,773
Corporate debt securities	—	155,021	155,021
U.S. government and government agency debt securities	—	5,696	5,696
Total assets measured at fair value	$ 98,437	$ 262,490	$ 360,927

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Notes to Consolidated Financial Statements - Continued

	As of December 31, 2014		
	Fair Value Measurement Using		
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Total
	(in thousands)		
Assets			
Money market funds	$ 89,113	$ —	$ 89,113
Commercial paper	—	54,792	54,792
Corporate debt securities	—	234,697	234,697
U.S. government and government agency debt securities	—	7,742	7,742
Total assets measured at fair value	$ 89,113	$ 297,231	$ 386,344

Our money market funds are classified as Level 1 within the fair value hierarchy because they are valued primarily using quoted market prices. Our other cash equivalents and investments are classified as Level 2 within the fair value hierarchy because they are valued using professional pricing sources for identical or comparable instruments, rather than direct observations of quoted prices in active markets. As of December 31, 2013 and 2014, we held no Level 3 assets or liabilities.

5. Other Long-Term Assets

	As of December 31,	
	2013	2014
	(in thousands)	
Other long-term assets		
Patents, net of amortization	$ 7,636	$ 6,939
Long-term security deposits	4,736	4,947
Other	1,343	1,826
Total other long-term assets	$ 13,715	$ 13,712

Patents

In June 2013, we purchased certain internet radio-related patents from Yahoo! Inc. for $8.0 million in cash. We intend to hold these patents as part of our strategy to protect and defend Pandora from patent-related litigation. These patents are being amortized over the estimated useful life of the patents of eleven years. As of December 31, 2013 and 2014, the net carrying amount of these patents was $7.6 million and $6.9 million, including accumulated amortization of $0.4 million and $1.1 million. Amortization expense for the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $0.4 million and $0.7 million.

The following is a schedule of future amortization expense related to patents as of December 31, 2014:

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Notes to Consolidated Financial Statements - Continued

	As of December 31, 2014
	(in thousands)
2015	$ 733
2016	733
2017	733
2018	733
2019	733
Thereafter	3,275
Total future amortization expense	$ 6,940

Restricted Cash

As part of our original May 2011 credit facility, we had entered into a cash collateral agreement in connection with the issuance of letters of credit that were used to satisfy deposit requirements under facility leases, refer to Note 8 "Debt Instruments" for more information. In September 2013, we amended the credit facility and terminated the cash collateral agreement. As a result, our outstanding letters of credit no longer required cash collateral and all cash collateral that was considered restricted cash was returned to us in September 2013.

Pending Acquisition

In June 2013, we entered into a local marketing agreement to program KXMZ-FM, a Rapid City, South Dakota-area terrestrial radio station. In addition, we entered into an agreement to purchase the assets of KXMZ-FM for a total purchase price of approximately $0.6 million in cash, subject to certain closing conditions. As of December 31, 2014, we have paid $0.4 million of the purchase price, which is included in the other long-term assets line item of our balance sheets.

The completion of the KXMZ-FM acquisition is subject to various closing conditions, which include, but are not limited to, regulatory approval by the Federal Communications Commission. Upon completion of these conditions, we expect to account for this acquisition as a business combination.

6. Commitments and Contingencies

Leases

The following is a schedule of future minimum lease payments and future minimum sublease income under noncancelable operating leases as of December 31, 2014:

	As of December 31, 2014	
	Future Minimum Lease Payments	Future Minimum Sublease Income
	(in thousands)	
2015	$ 11,130	$ 1,216
2016	11,092	1,246
2017	10,956	1,277
2018	10,256	541
2019	8,863	—
Thereafter	20,540	—
Total	$ 72,837	$ 4,280

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Notes to Consolidated Financial Statements - Continued

We conduct our operations using leased office facilities in various locations. We lease office space under arrangements expiring through 2024. Rent expenses for twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 were $3.2 million, $5.7 million and $8.6 million, respectively.

For operating leases that include escalation clauses over the term of the lease, tenant improvement reimbursements and rent abatement periods, we recognize rent expense on a straight-line basis over the lease term including expected renewal periods. The difference between rent expense and rent payments is recorded as deferred rent in current and long-term liabilities. As of December 31, 2013 and 2014 deferred rent was $9.4 million and $15.3 million.

Purchase Obligation

As of December 31, 2014, we had a non-cancelable royalty-related contractual obligation, which is recoupable against future royalty payments in the amount of $5.0 million and a non-cancelable royalty-related contractual obligation, which is not recoupable against future royalty payments in the amount of $5.0 million.

Legal Proceedings

We have been in the past, and continue to be, a party to various legal proceedings, which have consumed, and may continue to consume, financial and managerial resources. We record a liability when we believe that it is both probable that a loss has been incurred and the amount can be reasonably estimated. Our management periodically evaluates developments that could affect the amount, if any, of liability that we have previously accrued and make adjustments as appropriate. Determining both the likelihood and the estimated amount of a loss requires significant judgment, and management's judgment may be incorrect. We do not believe the ultimate resolution of any pending legal matters is likely to have a material adverse effect on our business, financial position, results of operations or cash flows.

PRO rate-setting litigation

On November 5, 2012, we filed a petition in the rate court established by the consent decree between the American Society of Composers, Authors and Publishers ("ASCAP") and the U.S. Department of Justice in the U.S. District Court for the Southern District of New York for the determination of reasonable license fees and terms for the ASCAP consent decree license applicable to the period January 1, 2011 through December 31, 2015. On June 11, 2013 we filed a motion for partial summary judgment seeking a determination that as a matter of law the publishers alleged to have withdrawn certain rights of public performance by digital audio transmission from the scope of grant of rights ASCAP could license on behalf of such publishers subsequent to the date of our request for a license from ASCAP were not valid as to our ASCAP consent decree license. On September 17, 2013, our motion for partial summary judgment was granted, alleviating the need to negotiate direct licenses for such purportedly withdrawn performance rights. A trial to determine the royalty rates we will pay ASCAP concluded in February 2014 and the court issued its opinion in March 2014. On April 14, 2014, ASCAP, Sony/ATV, EMI Music Publishing, and Universal Publishing Group filed notices of appeal of the District Court's decision with the Second Circuit Court of Appeals. Oral arguments have been scheduled for March 19, 2015.

On June 13, 2013, Broadcast Music, Inc. ("BMI") filed a petition in the rate court established by the consent decree between BMI and the U.S. Department of Justice in the U.S. District Court for the Southern District of New York for the determination of reasonable fees and terms for the BMI consent decree license applicable to the period January 1, 2013 through December 31, 2014. We filed our response on July 19, 2013. On November 1, 2013, we filed a motion for partial summary judgment seeking a determination that as a matter of law the publishers alleged to have withdrawn certain rights of public performance by digital audio transmission from the scope of grant of rights BMI could license on behalf of such publishers subsequent to the date of our request for a license from BMI were not valid as to our BMI consent decree license. On December 18, 2013, our motion for summary judgment was denied based on the Court's determination that an attempted partial withdrawal, although inconsistent with BMI's obligations under its consent decree, would result in a publisher's complete withdrawal from BMI. This rate proceeding commenced on February 10, 2015.

Pre-1972 copyright litigation

On April 17, 2014, UMG Recordings, Inc., Sony Music Entertainment, Capitol Records, LLC, Warner Music Group Corp., and ABKCO Music and Records, Inc. filed suit against Pandora Media Inc. in the Supreme Court of the State of New

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York. The complaint claims common law copyright infringement and unfair competition arising from allegations that Pandora owes royalties for the public performance of sound recordings recorded prior to February 15, 1972.

On October 2, 2014, Flo & Eddie Inc. filed suit against Pandora Media Inc. in the federal district court for the Central District of California. The complaint alleges misappropriation and conversion in connection with the public performance of sound recordings recorded prior to February 15, 1972. On December 19, 2014, Pandora filed a motion to strike Plaintiffs' complaint in the Flo & Eddie case pursuant to California's Anti-Strategic Lawsuit Against Public Participation ("Anti-SLAPP") statute. This motion is currently pending before the Court.

The outcome of any litigation is inherently uncertain. Based on our current knowledge we believe that the final outcome of the matters discussed above will not likely, individually or in the aggregate, have a material adverse effect on our business, financial position, results of operations or cash flows; however, in light of the uncertainties involved in such matters, there can be no assurance that the outcome of each case or the costs of litigation, regardless of outcome, will not have a material adverse effect on our business. In particular, rate court proceedings could take years to complete, could be very costly and may result in royalty rates that are materially less favorable than rates we currently pay.

Indemnification Agreements, Guarantees and Contingencies

In the ordinary course of business, we are party to certain contractual agreements under which we may provide indemnifications of varying scope, terms and duration to customers, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, services to be provided by us or from intellectual property infringement claims made by third parties. In addition, we have entered into indemnification agreements with directors and certain officers and employees that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. Such indemnification provisions are accounted for in accordance with guarantor's accounting and disclosure requirements for guarantees, including indirect guarantees of indebtedness of others. To date, we have not incurred, do not anticipate incurring and therefore have not accrued for, any costs related to such indemnification provisions.

While the outcome of these matters cannot be predicted with certainty, we do not believe that the outcome of any claims under indemnification arrangements will have a material adverse effect on our consolidated financial position, results of operations or cash flows.

7. Provision for Income Taxes

Loss before provision for income taxes by jurisdiction consists of the following:

	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
		(in thousands)	
Jurisdiction			
Domestic	$ (39,891)	$ (24,005)	$ (24,230)
Foreign	1,748	(2,918)	(5,592)
Loss before provision for income taxes	$ (38,143)	$ (26,923)	$ (29,822)

The provision for income taxes consists of the following:

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	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
		(in thousands)	
Current			
Federal	$ —	$ —	$ —
State and local	(4)	7	353
International	9	87	231
Total current income tax expense	$ 5	$ 94	$ 584
Deferred			
Federal	(10,098)	(10,166)	(9,996)
State and local	(1,573)	(2,027)	(6,238)
Valuation allowance	11,671	12,193	16,234
Total deferred income tax expense	$ —	$ —	$ —
Total provision for income taxes	$ 5	$ 94	$ 584

The provision for income taxes increased by $0.5 million during the twelve months ended December 31, 2014 as a result of an increase in foreign income taxes and state income taxes computed without the benefit of stock options.

The following table presents a reconciliation of the statutory federal rate and our effective tax rate:

	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
U.S. federal taxes at statutory rate	34 %	34 %	34 %
State taxes, net of federal benefit	—	—	(1)
Permanent differences	(2)	5	4
Foreign rate differential	(2)	(4)	(7)
Federal and state credits, net of reserve	2	8	11
Change in valuation allowance	(30)	(46)	(55)
Change in rate	(2)	—	6
Deferred adjustments	—	3	6
Effective tax rate	— %	— %	(2)%

The major components of deferred tax assets and liabilities consist of the following:

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	As of December 31,	
	2013	2014
	(in thousands)	
Deferred tax assets		
Net operating loss carryforwards	$ 34,525	$ 27,487
Tax credit carryforwards	5,745	10,839
Allowances and other	7,037	13,832
Stock options	10,159	24,215
Depreciation and amortization	323	255
Total deferred tax assets	$ 57,789	$ 76,628
Deferred tax liabilities		
Depreciation and amortization	(41)	(2,645)
Total deferred tax liabilities	$ (41)	$ (2,645)
Valuation allowance	(57,748)	(73,983)
Net deferred tax assets	$ —	$ —

At December 31, 2014, we had federal net operating loss carryforwards of approximately $447.0 million and tax credit carryforwards of approximately $7.9 million. If realized, approximately $378.0 million of the net operating loss carryforwards will be recognized as a benefit through additional paid in capital. The federal net operating losses and tax credits expire in years beginning in 2021. At December 31, 2014, we had state net operating loss carryforwards of approximately $496.0 million which expire in years beginning in 2015. In addition, we had state tax credit carryforwards of approximately $8.3 million that do not expire and approximately $3.7 million of credits that will expire beginning in 2024.

Under Section 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income may be limited. In general, an "ownership change" will occur if there is a cumulative change in our ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Utilization of our net operating loss and tax credit carryforwards may be subject to annual limitations due to ownership changes. Such annual limitations could result in the expiration of our net operating loss and tax credit carryforwards before they are utilized.

During the twelve months ended December 31, 2014, our valuation allowance increased by $16.2 million. At December 31, 2013 and 2014, we maintained a full valuation allowance on our net deferred tax assets. The valuation allowance was determined in accordance with the provisions of Accounting Standards Codification 740 - *Income Taxes*, which requires an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction by jurisdiction basis. Our history of cumulative losses, along with expected future U.S. losses required that a full valuation allowance be recorded against all net deferred tax assets. We intend to maintain a full valuation allowance on net deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance.

At December 31, 2013 and 2014 we have unrecognized tax benefits of approximately $5.2 million and $5.8 million. The increase in our unrecognized tax benefits was primarily attributable to current year activities. A reconciliation of the beginning and ending amounts of unrecognized tax benefits (excluding interest and penalties) is as follows:

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	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
	(in thousands)	
Beginning balance	$ 2,633	$ 5,220
Increases related to tax positions taken during a prior year	108	1,161
Decreases related to tax positions taken during a prior year	—	(1,924)
Increases related to tax positions taken during the current year	2,479	1,336
Ending balance	$ 5,220	$ 5,793

The total unrecognized tax benefits, if recognized, would not affect our effective tax rate as the tax benefit would increase a deferred tax asset, which is currently offset with a full valuation allowance. We do not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease within the next twelve months. Accrued interest and penalties related to unrecognized tax benefits are recorded in the provision for income taxes. We did not have such interest, penalties or tax benefits during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 or the twelve months ended December 31, 2014.

We file income tax returns in the United States, California, other states and international jurisdictions. Tax years 2000 to 2014 remain subject to examination for U.S. federal, state and international purposes. All net operating losses and tax credits generated to date are subject to adjustment for U.S. federal and state purposes. We are not currently under examination in any federal, state or international jurisdictions.

8. Debt Instruments

In May 2011, we entered into a $30.0 million credit facility with a syndicate of financial institutions. At our option, drawn amounts under the credit facility bore an interest rate of either an adjusted London Interbank Offered Rate, or LIBOR, plus 2.75% - 3.00% or an alternate base rate plus 1.75% - 2.00%, both of which were per annum rates based on outstanding borrowings. Adjusted LIBOR is LIBOR for a particular interest period multiplied by the statutory reserve rate. The alternate base rate is the greatest of the prime rate, the federal funds effective rate plus 0.5% and adjusted LIBOR plus 1%. In addition, the credit facility included a non-usage charge on the available balance of 0.5% - 0.625% per annum based on outstanding borrowings. Under the credit facility, we could request the issuance of up to $5.0 million in letters of credit by the financial institutions. The annual charge for any outstanding letters of credit was 2.75% - 3.00% per annum based on outstanding borrowings.

In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million and extended the maturity date from May 12, 2015 to September 12, 2018. The amendment further decreased the interest rate on borrowings by 0.75% to either LIBOR plus 2.00% - 2.25% or an alternate base rate plus 1.00% - 1.25%, both of which are per annum rates based on outstanding borrowings. In addition, the amendment decreased the non-usage fee to 0.375% per annum. The amount of available letters of credit under the amended credit facility was increased from $5.0 million to $15.0 million, and the annual charge for outstanding letters of credit was reduced by 0.75% to 2.00% - 2.25% per annum based on outstanding borrowings.

The amount of borrowings available under the credit facility at any time is based on our monthly accounts receivable balance at such time and the amounts borrowed are collateralized by our personal property, including such accounts receivable but excluding intellectual property. The credit facility contains customary events of default, conditions to borrowing and covenants, including restrictions on our ability to dispose of assets, make acquisitions, incur debt, incur liens and make distributions to stockholders. The credit facility also includes a financial covenant requiring the maintenance of minimum liquidity of at least $5.0 million. During the continuance of an event of a default, the lenders may accelerate amounts outstanding, terminate the credit facility and foreclose on all collateral.

As part of the original credit facility, we had entered into a cash collateral agreement in connection with the issuance of letters of credit that were used to satisfy deposit requirements under facility leases. Under the amended credit facility, the cash collateral agreement was terminated and, as a result, letters of credit no longer require cash collateral. In connection with the termination of the cash collateral agreement, all cash collateral that was considered restricted cash was returned to us in September 2013.

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In July 2013, we borrowed approximately $10.0 million from the credit facility to enhance our working capital position. This amount was paid off in full in August 2013. As of December 31, 2013 and 2014, we had no outstanding borrowings, $1.1 million in letters of credit outstanding and $58.9 million of available borrowing capacity under the credit facility.

Total debt issuance costs associated with the May 2011 credit facility were $1.0 million, which were amortized as interest expense over the four-year term of the May 2011 credit facility agreement. As part of the amendment, the amortization period for the remaining unamortized costs incurred in connection with the May 2011 credit facility was adjusted to reflect the amended term of the credit facility. We further incurred $0.5 million in debt issuance costs in connection with the amendment, which are being amortized over the term of the amended credit facility. For twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, $0.3 million, $0.2 million and $0.2 million of debt issuance costs, respectively, were amortized and included in interest expense.

9. Stock-based Compensation Plans and Awards

Stock Compensation Plans

In 2000, our board of directors adopted the 2000 Stock Incentive Plan, as amended (the "2000 Plan"). In 2004, our board of directors adopted the 2004 Stock Option Plan (the "2004 Plan"), which replaced the 2000 Plan and provided for the issuance of incentive and non-statutory stock options to employees and other service providers of Pandora. In 2011, our board of directors adopted the Pandora Media, Inc. 2011 Equity Incentive Plan (the "2011 Plan" and, together with the 2000 Plan and the 2004 Plan, the "Plans"), which replaced the 2004 Plan. The Plans are administered by the compensation committee of our board of directors (the "Plan Administrator").

The 2011 Plan provides for the issuance of stock options, restricted stock units and other stock-based awards. Shares of common stock reserved for issuance under the 2011 Plan include 12,000,000 shares of common stock reserved for issuance under the 2011 Plan and 1,506,424 shares of common stock previously reserved but unissued under the 2004 Plan as of June 14, 2011. To the extent awards outstanding as of June 14, 2011 under the 2004 Plan expire or terminate for any reason prior to exercise or would otherwise return to the share reserve under the 2004 Plan, the shares of common stock subject to such awards will instead be available for future issuance under the 2011 Plan. Each year, the number of shares in the reserve under the Plan may be increased by the lesser of 10,000,000 shares, 4.0% of the outstanding shares of common stock on the last day of the prior fiscal year or another amount determined by our board of directors. The 2011 Plan is scheduled to terminate in 2021, unless our board of directors determines otherwise.

Under the 2011 Plan, the Plan Administrator determines various terms and conditions of awards including option expiration dates (no more than ten years from the date of grant), vesting terms (generally over a four-year period) and payment terms. For stock option grants the exercise price is determined by the Plan Administrator, but generally may not be less than the fair market value of the common stock on the date of grant.

Shares available for grant as of December 31, 2014 and the activity during the twelve months ended December 31, 2014 are as follows:

	Shares Available for Grant		
	Equity Awards	**ESPP**	**Total**
Balance as of December 31, 2013	9,048,200	—	9,048,200
Additional shares authorized	7,815,837	4,000,000	11,815,837
Options granted	(349,500)	—	(349,500)
Restricted stock granted	(4,909,360)	—	(4,909,360)
ESPP shares issued	—	(142,265)	(142,265)
Options forfeited	1,639,935	—	1,639,935
Restricted stock forfeited	1,081,348	—	1,081,348
Balance as of December 31, 2014	14,326,460	3,857,735	18,184,195

Employee Stock Purchase Plan

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In December 2013, our board of directors approved the Employee Stock Purchase Plan ("ESPP"), which was approved by our stockholders at the annual meeting in June 2014. The ESPP allows eligible employees to purchase shares of our common stock through payroll deductions of up to 15% of their eligible compensation, subject to a maximum of $25,000 per calendar year. Shares reserved for issuance under the ESPP include 4,000,000 shares of common stock. The ESPP provides for six- month offering periods, commencing in February and August of each year. At the end of each offering period employees are able to purchase shares at 85% of the lower of the fair market value of our common stock on the first trading day of the offering period or on the last day of the offering period.

We estimate the fair value of shares to be issued under the ESPP on the first day of the offering period using the Black-Scholes valuation model. The determination of the fair value is affected by our stock price on the first date of the offering period, as well as other assumptions including the risk-free interest rate, the estimated volatility of our stock price over the term of the offering period, the expected term of the offering period and the expected dividend rate. Stock-based compensation expense related to the ESPP is recognized on a straight-line basis over the offering period, net of estimated forfeitures.

The per-share fair value of shares to be granted under the ESPP is determined on the first day of the offering period using the Black-Scholes option pricing model using the following assumptions:

	Twelve months ended December 31, 2014
Expected life (in years)	0.5
Risk-free interest rate	0.06%
Expected volatility	42%
Expected dividend yield	0%

During the twelve months ended December 31, 2014, we recognized $2.1 million of stock-based compensation expense related to the ESPP. In the twelve months ended December 31, 2014, 149,378 shares of common stock were issued under the ESPP at a purchase price of $23.95, which represents 85% of our stock price on the date of purchase of $28.17. There were no stock-based compensation expense related to the ESPP or shares of common stock issued under the ESPP in the twelve months ended January 31, 2013 or the eleven months ended December 31, 2013.

Stock Options

Stock option activity during the twelve months ended December 31, 2014 was as follows:

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	Options Outstanding			
	Outstanding Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (1)
	(in thousands, except share and per share data)			
Balance as of December 31, 2013	22,708,200	$ 4.85	5.76	$ 493,866
Granted	349,500	35.61		
Exercised	(10,437,509)	1.62		
Forfeited	(1,639,935)	11.49		
Balance as of December 31, 2014	10,980,256	7.91	1.08	120,033
Exercisable as of December 31, 2014	7,958,775	4.39	0.40	108,296
Expected to vest as of December 31, 2014 (2)	2,719,853	$ 17.05	2.82	$ 10,822

(1)Amounts represent the difference between the exercise price and the fair value of common stock at each period end for all in the money options outstanding based on the fair value per share of common stock of $26.60 and $17.83 as of December 31, 2013 and 2014.

(2)Options expected to vest reflect an estimated forfeiture rate.

The per-share fair value of stock options granted during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was determined on the grant date using the Black-Scholes option pricing model with the following assumptions:

	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
Expected life (in years)	6.02 - 6.67	5.99 - 6.32	6.08
Risk-free interest rate	0.99% - 1.52%	1.00% - 2.04%	1.71% - 1.93%
Expected volatility	56% - 57%	58% - 59%	58% - 59%
Expected dividend yield	0%	0%	0%

The expected term of stock options granted represents the weighted average period that the stock options are expected to remain outstanding. We determined the expected term assumption based on our historical exercise behavior combined with estimates of the post-vesting holding period. Expected volatility is based on historical volatility of peer companies in our industry that have similar vesting and contractual terms. The risk free interest rate is based on the implied yield currently available on U.S. Treasury issues with terms approximately equal to the expected life of the option. We currently have no history or expectation of paying cash dividends on our common stock.

During the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, we recorded stock-based compensation expense related to stock options of approximately $14.9 million, $10.6 million and $14.7 million, respectively.

As of December 31, 2014, there was $26.7 million of unrecognized compensation cost related to outstanding employee stock options. This amount is expected to be recognized over a weighted-average period of 2.86 years. To the extent the actual forfeiture rate differs from our estimates, stock-based compensation related to these awards could differ from our expectations.

The weighted-average fair value of stock option grants made during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $5.91, $9.34 and $19.74 per share, respectively.

The total grant date fair value of stock options vested during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $13.0 million, $9.1 million and $16.0 million, respectively.

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The aggregate intrinsic value of stock options exercised during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $84.9 million, $93.8 million and $169.2 million, respectively. The total fair value of options vested during the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014 was $13.1 million, $9.4 million and $16.5 million, respectively.

Stock option awards with both a service period and a market condition

In March 2012, Mr. Joseph Kennedy, the Company's former Chief Executive Officer, was granted non-statutory stock options to purchase 800,000 shares of common stock with an exercise price of $10.63 per share. This award included both a service period and a market vesting condition that stipulated that the award would vest if the 60-day trailing volume weighted average price of our common stock exceeded $21.00 per share, or if there was a sale of the Company for at least $21.00 per share, in each case prior to July 2017. Upon the market condition being met, the award would vest ratably over four years, beginning in July 2013, subject to severance and change of control acceleration.

We used a Monte Carlo simulation to value the award due to the market vesting condition. The following assumptions were used to value the award using the Monte Carlo simulation: ten-year term, risk-free interest rate of 2.33%, expected volatility of 70% and a beginning stock price of $10.63. The grant-date fair value for the award was $6.08 per share.

In March 2013, we announced that we would begin a process to identify a successor to Mr. Kennedy as CEO, which prompted us to re-evaluate certain estimates and assumptions related to the stock-based compensation expense associated with his awards. As a result of this re-evaluation, we reduced stock-based compensation expense by $1.7 million during the three months ended April 30, 2013, primarily related to the award with both a service period and a market condition. In September 2013, the market condition for Mr. Kennedy's awards was met and the shares became exercisable as if they had been vesting ratably over four years from July 2013. In the eleven months ended December 31, 2013, we recorded $0.6 million in additional stock-based compensation expense in connection with these awards.

Restricted Stock Units

The fair value of the restricted stock units is expensed ratably over the vesting period. RSUs vest annually on a cliff basis over the service period, which is generally four years. During the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, we recorded stock-based compensation expense related to restricted stock units of approximately $10.4 million, $28.9 million and $69.9 million, respectively. As of December 31, 2014, total compensation cost not yet recognized of approximately $197.3 million related to non-vested restricted stock units, is expected to be recognized over a weighted average period of 2.60 years.

The following table summarizes the activities for our RSUs for the twelve months ended December 31, 2014:

	Number of RSUs	Weighted-Average Grant Date Fair Value	
Unvested as of December 31, 2013	10,365,512	$	14.31
Granted	4,909,360		32.29
Vested	(3,169,456)		13.85
Forfeited	(1,081,348)		19.06
Unvested as of December 31, 2014	11,024,068		21.99
Expected to vest as of December 31, 2014 (1)	9,914,453	$	21.88
(1) RSUs expected to vest reflect an estimated forfeiture rate.			

Stock-based Compensation Expense

Stock-based compensation expense related to all employee and non-employee stock-based awards was as follows:

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	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
	(in thousands)		
Stock-based compensation expense			
Cost of revenue—Other	$ 1,214	$ 1,946	$ 4,414
Product development	4,530	8,802	17,546
Sales and marketing	12,294	20,222	42,165
General and administrative	7,462	9,071	22,930
Total stock-based compensation expense	$ 25,500	$ 40,041	$ 87,055

During the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, we capitalized $0.7 million and $1.3 million of stock-based compensation as internal use software and website development costs. There was no capitalized stock-based compensation in the twelve months ended January 31, 2013.

10. Common Stock and Net Loss per Share

Each share of common stock has the right to one vote per share. The holders of common stock are also entitled to receive dividends as and when declared by our board of directors, whenever funds are legally available.

Follow-on Public Offering

In September 2013, we completed a follow-on public equity offering in which we sold an aggregate of 15,730,000 shares of our common stock, inclusive of 2,730,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of $25.00 per share. In addition, another 5,200,000 shares were sold by certain selling stockholders. We received aggregate net proceeds of $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. We did not receive any of the proceeds from the sales of shares by the selling stockholders.

Net Loss per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period.

Diluted net loss per share is computed by giving effect to all potential shares of common stock, including stock options and restricted stock units, to the extent dilutive. Basic and diluted net loss per share were the same for the twelve months ended January 31, 2013, the eleven months ended December 31, 2013 and the twelve months ended December 31, 2014, as the inclusion of all potential common shares outstanding would have been anti-dilutive.

The following table sets forth the computation of historical basic and diluted net loss per share:

	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013	Twelve months ended December 31, 2014
	(in thousands except per share amounts)		
Numerator			
Net loss	$ (38,148)	$ (27,017)	$ (30,406)
Denominator			
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	168,294	180,968	205,273
Net loss per share, basic and diluted	$ (0.23)	$ (0.15)	$ (0.15)

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The following potential common shares outstanding were excluded from the computation of diluted net loss per share because including them would have been anti-dilutive:

	As of January 31, 2013	As of December 31, 2013	As of December 31, 2014
		(in thousands)	
Options to purchase common stock	26,103	22,708	10,980
Restricted stock units	5,512	10,366	11,024
Total common stock equivalents	31,615	33,074	22,004

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11. Selected Quarterly Financial Data (unaudited)

	Three months ended			Two months ended	Three months ended			
	April 30, 2013	July 31, 2013	October 31, 2013	December 31, 2013 (1)	March 31, 2014	June 30, 2014	September 30, 2014	December 31, 2014
	(in thousands, except per share data)							
Total revenue	$ 125,510	$ 157,355	$ 180,376	$ 136,992	$ 194,315	$ 218,894	$ 239,593	$ 268,000
Cost of revenue								
Cost of Revenue—Content acquisition costs	82,853	81,880	86,989	63,144	108,275	111,461	111,315	115,326
Cost of revenue—Other	9,845	11,141	12,532	8,699	14,979	13,989	15,453	17,206
Total cost of revenue	92,698	93,021	99,521	71,843	123,254	125,450	126,768	132,532
Gross profit	32,812	64,334	80,855	65,149	71,061	93,444	112,825	135,468
Operating expenses								
Product development	7,312	8,301	9,244	6,437	11,831	13,076	13,381	14,865
Sales and marketing	40,075	45,606	50,285	33,039	61,864	66,232	72,320	76,914
General and administrative	13,872	18,061	22,823	14,544	26,361	25,865	29,143	31,074
Total operating expenses	61,259	71,968	82,352	54,020	100,056	105,173	114,844	122,853
Income (loss) from operations	(28,447)	(7,634)	(1,497)	11,129	(28,995)	(11,729)	(2,019)	12,615
Net income (loss) attributable to common stockholders	(28,587)	(7,787)	(1,700)	11,057	(28,931)	(11,728)	(2,025)	12,278
Net income (loss) per share, basic	(0.16)	(0.04)	(0.01)	0.06	(0.14)	(0.06)	(0.01)	0.06
Net income (loss) per share, diluted	$ (0.16)	$ (0.04)	$ (0.01)	$ 0.05	$ (0.14)	$ (0.06)	$ (0.01)	$ 0.06

(1) We changed our fiscal year from the twelve months ending January 31 to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. Therefore, for financial reporting purposes our fourth quarter of the prior fiscal year was shortened from the three months ended January 31 to the two months ended December 31.

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12. Subsequent Event

Subsequent to December 31, 2014, we entered into a sublease agreement to increase our leased space at our corporate headquarters in Oakland, California. This agreement is expected to result in an additional operating lease obligation of approximately $7.6 million through 2020.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. Based on their evaluation at the end of the period covered by this Annual Report on Form 10-K, our chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2014.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of internal control effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management has assessed the effectiveness of the internal control over financial reporting as of December 31, 2014. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control-Integrated Framework (2013 framework). Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2014.

The effectiveness of our internal control over financial reporting as of December 31, 2014 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during our most recent annual period that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item regarding our directors and executive officers is incorporated by reference to the sections of our proxy statement to be filed with the SEC in connection with our 2015 annual meeting of stockholders (the "Proxy Statement") entitled "Election of Class III Directors" and "Management."

Information required by this Item regarding our corporate governance, including our audit committee and code of business conduct and ethics, is incorporated by reference to the sections of the Proxy Statement entitled "Corporate Governance" and "Board of Directors."

Information required by this Item regarding compliance with Section 16(a) of the Exchange Act required by this Item is incorporated by reference to the section of the Proxy Statement entitled "Section 16(a) Beneficial Ownership Reporting Compliance."

ITEM 11. EXECUTIVE COMPENSATION

Information required by this Item is incorporated by reference to the sections of the Proxy Statement entitled "Executive Compensation," "Board of Directors—Compensation of Directors," "Corporate Governance—Compensation Committee Interlocks and Insider Participation."

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the section of the Proxy Statement entitled "Security Ownership of Certain Beneficial Owners and Management."

Information regarding our stockholder approved and non-approved equity compensation plans is incorporated by reference to the section of the Proxy Statement entitled "Equity Compensation Plan Information."

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this Item is incorporated by reference to the sections of the Proxy Statement entitled "Certain Relationships and Related Party Transactions" and "Corporate Governance-Director Independence."

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is incorporated by reference to the section of the Proxy Statement entitled "Ratification of Appointment of Independent Registered Public Accounting Firm."

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES
(a) The following documents are included as part of this Annual Report on Form 10-K.

1. Index to Financial Statements

2. Financial Statement Schedules

All other schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

3. Exhibits

See the Exhibit Index immediately following the signature page of this Annual Report on Form 10-K.

SIGNATURES

Pursuant to the requirements Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 11, 2015.

PANDORA MEDIA, INC.

By: /s/ BRIAN MCANDREWS

Name: Brian McAndrews

Title: *Chief Executive Officer, President and Chairman of the Board*

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Brian McAndrews, Michael S. Herring and Stephen Bené and each of them, his or her true and lawful attorneys-in-fact and agents, with full power to act separately and full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1934, as amended, this report has been signed by the following persons in the capacities and on the dates indicated.

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Signature	Title	Date
/s/ BRIAN MCANDREWS Brian McAndrews	Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)	February 11, 2015
/s/ MICHAEL S. HERRING Michael S. Herring	Chief Financial Officer (Principal Financial and Accounting Officer)	February 11, 2015
/s/ PETER CHERNIN Peter Chernin	Director	February 11, 2015
/s/ JAMES M. P. FEUILLE James M. P. Feuille	Director	February 11, 2015
/s/ PETER GOTCHER Peter Gotcher	Director	February 11, 2015
/s/ ROBERT KAVNER Robert Kavner	Director	February 11, 2015
/s/ ELIZABETH A. NELSON Elizabeth A. Nelson	Director	February 11, 2015
/s/ DAVID SZE David Sze	Director	February 11, 2015
/s/ TIM WESTERGREN Tim Westergren	Director	February 11, 2015

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EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
3.01	Amended and Restated Certificate of Incorporation	S-1/A	333-172215	3.1	5/4/2011		
3.02	Amended and Restated Bylaws	S-1/A	333-172215	3.2	5/4/2011		
4.01	Fifth Amended and Restated Investor Rights Agreement, by and among Pandora Media, Inc. and the investors listed on Exhibit A thereto, dated May 20, 2010, as amended	S-1/A	333-172215	4.2	2/22/2011		
10.01†	2011 Long Term Incentive Plan and Form of Stock Option Agreement under 2011 Long Term Incentive Plan	S-1/A	333-172215	10.1	5/26/2011		
10.02†	2011 Corporate Incentive Plan	S-1/A	333-172215	10.2	5/4/2011		
10.03†	2004 Stock Plan, as amended, and Forms of Stock Option Agreement and Restricted Stock Purchase Agreement under 2004 Stock Plan	S-1/A	333-172215	10.3	2/22/2011		
10.04†	2000 Stock Incentive Plan, as amended, and Forms of NSO Stock Option Agreement and ISO Stock Option Agreement under 2000 Stock Plan	S-1/A	333-172215	10.4	2/22/2011		
10.05†	Form of Indemnification Agreement by and between Pandora Media, Inc. and each of its executive officers and its directors not affiliated with an investment fund	S-1/A	333-172215	10.5	2/22/2011		
10.06†	Form of Indemnification Agreement by and between Pandora Media, Inc. and each of its directors affiliated with an investment fund	S-1/A	333-172215	10.5A	2/22/2011		
10.7†	Employment Agreement with Tim Westergren, dated April 28, 2004	S-1/A	333-172215	10.7	2/22/2011		
10.8†	Offer Letter with Thomas Conrad, dated November 12, 2004	S-1/A	333-172215	10.9	2/22/2011		
10.9†	Offer Letter with John Trimble, dated February 18, 2009	S-1/A	333-172215	10.1	2/22/2011		
10.10	Office Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 23, 2009	S-1/A	333-172215	10.12	2/22/2011		
10.10A	First Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated April 13, 2010	S-1/A	333-172215	10.12A	2/22/2011		
10.10B	Second Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated June 16, 2010	S-1/A	333-172215	10.12B	2/22/2011		
10.10C	Third Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated December 15, 2010	10-Q	001-35198	10.12C	9/4/2012		
10.10D	Fourth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated March 10, 2011	10-Q	001-35198	10.12D	9/4/2012		
10.10E	Fifth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 1, 2011	10-Q	001-35198	10.12E	9/4/2012		
10.10F	Sixth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated September 27, 2011	10-Q	001-35198	10.12F	9/4/2012		
10.10G	Seventh Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 12, 2012	10-Q	001-35198	10.12G	9/4/2012		
10.10H	Eighth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated February 1, 2013	10-Q	001-35198	10.12H	5/29/2013		

SX EX. 089-103-RP

10.10I	Ninth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated August 15, 2013	10-Q	001-35198	10.12I	10/27/2014	
10.10J	Tenth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated October 1, 2014	10-Q	001-35198	10.12J	10/27/2014	
10.10K	Sublease between Cerexa, Inc. and Pandora Media, Inc. dated January 1, 2015					X
10.11	Web Site Performance Agreement by and between Broadcast Music, Inc. and Savage Beast Technologies, Inc., dated June 30, 2005	S-1/A	333-172215	10.13	2/22/2011	
10.12	License Agreement by and between SESAC and Pandora Media, Inc., dated July 1, 2007	S-1/A	333-172215	10.14	2/22/2011	
10.13	Credit Agreement among Pandora Media, Inc., the Lenders party thereto and JPMorgan Chase Bank, N.A. as Administrative Agent, dated as of May 13, 2011	S-1/A	333-172215	10.17	6/10/2011	
10.13A	Amendment and Restatement Agreement to Credit Agreement among Pandora Media, Inc., the Lenders party thereto and JPMorgan Chase Bank, N.A. as Administrative Agent, dated as of September 12, 2013	10-Q	001-35198	10.15	11/26/2013	
10.14†	Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-Q	001-35198	10.01	9/2/2011	
10.15†	Amended Executive Severance and Change in Control Policy	10-K	001-35198	10.18	3/19/2012	
10.16†	Offer Letter with Simon Fleming-Wood, dated August 5, 2012	10-Q	001-35198	10.19	6/4/2012	
10.17†	2013 Corporate Incentive Plan	10-Q	001-35198	10.20	6/4/2012	
10.17B†	2014 Corporate Incentive Plan	10-Q	001-35198	10.19B	8/26/2013	
10.17C†	Calendar 2014 Corporate Incentive Plan	10-Q	001-35198	10.19C	4/29/2014	
10.20†	Australian Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-K	001-35198	10.22	3/18/2013	
10.21†	Offer Letter with Michael Herring, dated December 21, 2012	10-K	001-35198	10.23	3/18/2013	
10.22†	New Zealand Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-Q	001-35198	10.24	5/29/2013	
10.23†	Offer Letter with Brian McAndrews, dated September 11, 2013	10-Q	001-35198	10.25	11/26/2013	
10.24A†	2014 Employee Stock Purchase Plan	S-8	333-193612	99.2	1/28/2014	
23.01	Consent of Independent Registered Public Accounting Firm					X
24.01	Power of Attorney (included on signature page of this Annual Report on Form 10-K)					X
31.01	Certification of the Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act					X
31.02	Certification of the Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act					X
32.01	Certification of the Principal Executive Officer and Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act					X

101	Interactive Data Files Pursuant to Rule 405 of Regulation S-T: (i) Balance Sheets as of December 31, 2014 and December 31, 2013, (ii) Statements of Operations for the Twelve months ended December 31, 2014, the Eleven months ended December 31, 2013 and 2012 and the Twelve months ended January 31, 2013 (iii) Statements of Comprehensive Loss for the Twelve months ended December 31, 2014, the Eleven months Ended December 31, 2013 and the Twelve months ended January 31, 2013, (iv) Statements of Cash Flows for the Twelve months ended December 31, 2014, the Eleven months ended December 31, 2013 and 2012 and the Twelve months ended January 31, 2013 and (v) Notes to Financial Statements	X

† Indicates management contract or compensatory plan.

SX EX. 089-105-RP

SUBLEASE AGREEMENT

THIS SUBLEASE AGREEMENT is made as of the 1st day of January, 2015, between CEREXA, INC., a Delaware corporation ("Sublandlord"), and PANDORA MEDIA INC., a Delaware corporation ("Subtenant").

W I T N E S S E T H

WHEREAS, CIM/OAKLAND CENTER 21, LP, a Delaware limited partnership ("Prime Landlord") and Sublandlord, as tenant, are parties to that certain Agreement of Lease dated as of November 2008 (the "Original Lease"), as amended and modified by that certain First Amendment to Lease dated as of March 13, 2009 (the "First Amendment"), that certain Second Amendment to Lease dated as of November 27, 2012 (the "Second Amendment") and that certain Third Amendment to Lease dated as of October 22, 2013 (the "Third Amendment"). The First Amendment, the Second Amendment, the Third Amendment and the Original Lease shall collectively be referred to herein as the "Prime Lease," a true and complete copy of which (except for the rent and certain other financial provisions) has been provided to Subtenant; and

WHEREAS, pursuant to the Prime Lease, Prime Landlord leased to Sublandlord certain premises located on the eighth and ninth floors of the building located at 2100 Franklin Street, Oakland, California (the "Building"), all as more particularly described in the Prime Lease (the "Premises"); and

WHEREAS, Sublandlord desires to sublease to Subtenant, and Subtenant desires to hire from Sublandlord, the entire Premises on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, it is agreed as follows:

1. SUBLEASING OF PREMISES. Sublandlord hereby subleases to Subtenant, and Subtenant hereby hires from Sublandlord, the Premises (commonly known as Suites 850 and 900), consisting of approximately 49,311 rentable square feet, together with any right Subtenant may have to use the Basement Garage and the Multi-Story Parking Facility (as such terms are defined in the Prime Lease).

2. CONDITION OF PREMISES. On the Commencement Date, Sublandlord shall deliver the Premises, and Subtenant agrees to accept the Premises in its "as is" condition, as of the date hereof; provided that the Premises will be delivered broom clean and upon delivery, the Building systems and equipment serving the Premises shall be in good operating order and condition. Prior to the Commencement Date, Sublandlord shall remove all of its furniture, fixtures and equipment (including the high-density filing system); however Sublandlord will leave the cabling in place. Except as provided herein, Sublandlord shall not be obligated to perform any work or furnish any materials in, to or about the Premises in order to prepare the Premises for use or occupancy by Subtenant or otherwise. Sublandlord makes no statement, representation, covenant, or warranty, express or implied, in connection with the Premises or the Building, and Subtenant acknowledges and agrees that in executing this Sublease, it has not relied upon any statements, representations,

covenants or warranties made by Sublandlord, or any person acting on behalf of Sublandlord, other than those, if any, expressly set forth in this Sublease and on such investigations, examinations and inspections as Subtenant has chosen to make or has made.

3. TERM OF SUBLEASE. The term ("Term") of this Sublease shall commence on the later of December 1, 2014 or the date which is three (3) business days after Sublandlord gives Subtenant notice that the Prime Landlord has consented to this Sublease (the "Commencement Date") and, unless sooner terminated as herein provided, shall expire on May 30, 2020 (the "Expiration Date").

4. PRIME LANDLORD'S CONSENT. This Sublease is subject to and conditioned upon Sublandlord obtaining the written consent of Prime Landlord to this Sublease. Sublandlord shall promptly request such consent, and Subtenant shall cooperate with Sublandlord to obtain such consent, including providing all information concerning Subtenant that Prime Landlord shall reasonably request. If such consent is refused or if Prime Landlord shall otherwise fail to grant such consent within thirty (30) business days from the date hereof, then either party may, by written notice to the other, given at any time prior to the granting of such consent, terminate and cancel this Sublease, whereupon within five (5) business days after receipt of such notice of termination, Sublandlord shall refund to Subtenant any Rental (as hereinafter defined) paid in advance hereunder together with Subtenant's security deposit, if any. Upon the making of such refunds, neither party hereto shall have any further obligation to the other under this Sublease, except to the extent that the provisions of this Sublease expressly survive the termination of this Sublease.

5. RENT.

A. (i) Commencing on July 1, 2015 (the "Rent Commencement Date") and continuing throughout the Term, Subtenant covenants and agrees to pay to Sublandlord, in lawful money of the United States, base rent ("Base Rent") at the annual rate of One Million Four Hundred Forty Nine Thousand Seven Hundred Forty Three and 40/100 Dollars ($1,449,743.40), payable in equal monthly installments of One Hundred Twenty Thousand Eight Hundred Eleven and 95/100 Dollars ($120,811.95). Upon each anniversary of the Commencement Date, Base Rent shall increase by three percent (3.00%).

(ii) From and after the Rent Commencement Date Subtenant shall be responsible for Tenant's Share (as that term is defined in the Prime Lease) of Operating Expenses and Taxes (as such terms are defined in the Prime Lease) in accordance with the Prime Lease, except that (i) the Base Year (as that term is defined in the Prime Lease) for the Premises shall be the calendar year 2015 and (ii) Operating Expenses shall be grossed up to 100% occupancy in accordance with Section 7(d) of the Original Lease.

(iii) Subtenant shall pay the first monthly installment of Base Rent payable under this Sublease upon execution of this Sublease.

B. (i) From and after the Rent Commencement Date, Base Rent shall be due and payable in equal monthly installments in advance on the first (1st) day of each month during the Term. If the Rent Commencement Date shall be other than the first day of a month or the expiration or sooner termination of the Term is other than the last day of a month, the monthly installments of Base Rent payable hereunder for any such month shall be prorated on a per diem basis based on the actual number of days in such month.

(ii) All of the amounts payable by Subtenant pursuant to this Sublease, including, without limitation, Base Rent, payments for Tenant's Share of Operating Expenses and Taxes and all other costs, charges, sums and deposits payable by Subtenant hereunder (collectively, "Rental"), shall constitute rent under this Sublease and shall be payable to Sublandlord or its designee at such address as Sublandlord shall from time to time direct in writing.

(iii) Subtenant shall promptly pay the Rental as and when the same shall become due and payable without setoff, offset or deduction of any kind except as may be provided in the Prime Lease and, in the event of Subtenant's failure to pay same when due, Sublandlord shall have all of the rights and remedies provided for in the Prime Lease or at law or in equity in the case of nonpayment of rent. Subtenant's obligation to pay Rental shall survive the expiration or sooner termination of this Sublease.

6. USE. Subtenant's use of the Premises shall be limited to general office, administration and other uses incidental thereto, and any other legally permitted use compatible with a Class A office building. Tenant's rights to use the Premises shall be subject to all applicable laws and governmental rules and regulations and to all reasonable requirements of the insurers of the Building.

7. SUBORDINATION TO AND INCORPORATION OF THE PRIME LEASE.

A. This Sublease and all of Subtenant's rights hereunder are and shall remain in all respects subject and subordinate to (i) all of the conditions and provisions of the Prime Lease (which includes all amendments thereto), a true and complete copy of which (except for the rent and certain other financial provisions) has been delivered to and reviewed by Subtenant, (ii) any and all amendments or modifications to the Prime Lease or supplemental agreements relating thereto hereafter made between the Prime Landlord and Sublandlord which do not in any material respect contravene any express rights granted to Subtenant hereunder, and (iii) any and all matters to which the tenancy of Sublandlord, as tenant under the Prime Lease, is or may be subordinate. The foregoing provisions shall be self-operative and no further instrument of subordination shall be necessary to effectuate such provisions.

B. Except as otherwise expressly provided in this Sublease, Subtenant assumes and shall keep, observe and perform every term, provision, covenant and condition on Sublandlord's part pertaining to the Premises which is required to be kept, observed and performed pursuant to the Prime Lease, and which arises or accrues during the Term.

C. Except as otherwise expressly provided in this Sublease, the terms, provisions, and conditions contained in the Prime Lease are incorporated in this Sublease by reference, and are made a part hereof as if herein set forth at length, Sublandlord being substituted for the "Landlord" under the Prime Lease and Subtenant being substituted for the "Tenant" under the Prime Lease. The parties agree that the following provisions of the First Amendment are not so incorporated herein by reference: Sections 1, 2 and 3. The parties agree that the following provisions of the Second Amendment are not so incorporated herein by reference: Section 3, 4, clause (b) of Section 5, the first and last sentences of Section 6, Section 7, the second sentence of

Section 8, Section 9, Section 11 and Exhibit B. The parties agree that the following provisions of the Third Amendment are not so incorporated herein by reference: the last two sentences of Section 2, Section 4 and Section 5. The parties agree that the following provisions of the Original Lease are not so incorporated herein by reference: Sections 1(d), 1(e) through (j), 1(k)(i), 1(m) and (n), 1(w), 2(b) through (d), 3(a) through (e), 5, 6, 16(a) and (b),24, 28, 29, 32, 33, 36(p) and Exhibits B, D and F.

D. The time limits set forth in the Prime Lease for the giving of notices, making demands, performance of any act, condition or covenant, or the exercise of any right, remedy or option, are changed for the purposes of incorporation into this Sublease, by lengthening or shortening the same in each instance, as appropriate, so that notices may be given, demands made, or any act, condition or covenant performed, or any right, remedy or option hereunder exercised, by Sublandlord or Subtenant, as the case may be (and each party covenants that it will do so), within three (3) business days prior to the expiration of the time limit, taking into account the maximum grace period, if any, relating thereto contained in the Prime Lease. Each party shall promptly deliver to the other party copies of all notices, requests or demands which relate to the Premises or the use or occupancy thereof after receipt of same from the Prime Landlord. In the case of any time limit described above which is one or two days after the giving of the notice applicable thereto, such notice shall be delivered personally as provided in Article 20 hereof.

E. Sublandlord shall have the same rights and remedies with respect to a breach of this Sublease by Subtenant as the Prime Landlord has with respect to a breach of the Prime Lease, as if the same were more fully set forth at length herein, and Sublandlord shall have, with respect to Subtenant, this Sublease and the Premises, all of the rights, powers, privileges and immunities as are had by the Prime Landlord under the Prime Lease. Sublandlord herein shall not be responsible for any breach of the Prime Lease by the Prime Landlord or any non-performance or non-compliance with any provision thereof by the Prime Landlord, but Sublandlord shall comply with the provisions of Article 11 hereof and shall upon receipt of request from Subtenant use its commercially reasonable efforts to cause Prime Landlord to comply with the terms of the Prime Lease as necessary.

F. Provided Subtenant is not in default under this Sublease beyond applicable periods of notice and grace, Sublandlord covenants and agrees not to voluntarily cancel or surrender the Prime Lease, except for a termination permitted under the Prime Lease as a result of a casualty or condemnation, or consent to any modification, amendment or supplement to the Prime Lease except as herein permitted, without the prior written consent of Subtenant. If the Prime Lease is terminated for any reason whatsoever, whether by operation of law or otherwise, except through the default of Sublandlord, Sublandlord shall not be liable in any manner whatsoever for such termination. Sublandlord shall promptly forward to Subtenant any default or termination notice with respect to the Prime Lease received by Sublandlord and this Sublease shall terminate in the event of any such termination of the Prime Lease. A termination of the Prime Lease due to the default of Sublandlord, other than a default caused by Subtenant under this Sublease, shall be considered a voluntary cancellation or surrender of the Prime Lease under this paragraph.

8. ATTORNMENT. If the Prime Lease and Sublandlord's leasehold in the Premises shall be terminated, other than as a result of casualty or condemnation or sale in lieu thereof,

Subtenant shall, if so requested in writing by Prime Landlord, attorn to Prime Landlord and shall, during the Term, perform all of the terms, covenants and conditions of this Sublease on the part of Subtenant to be performed. In the event of any such attornment, Prime Landlord shall not be (a) liable for any act or omission or default of any prior sublessor (including, without limitation, Sublandlord); or (b) subject to any offsets or defenses which Subtenant might have against any prior sublessor (including without limitation, Sublandlord); or (c) bound by any rent or additional rent which Subtenant might have paid for more than the current month to any prior sublessor (including, without limitation, Sublandlord); or (d) bound by any amendment or modification of this Sublease made without Prime Landlord's consent. The foregoing shall be self-operative without the necessity of the execution of any further instruments but Subtenant agrees, upon the demand of Prime Landlord, to execute, acknowledge and deliver any instrument or instruments confirming such attornment.

9. QUIET ENJOYMENT. Sublandlord covenants that as long as Subtenant shall pay the Rental due hereunder and shall duly perform all the terms, covenants and conditions of this Sublease on its part to be performed and observed, Subtenant shall peaceably and quietly have, hold and enjoy the Premises during the Term without molestation or hindrance by Sublandlord, subject to the terms, provisions and conditions of the Prime Lease and this Sublease.

10. REPRESENTATIONS, WARRANTIES AND COVENANTS.

A. In no event shall any statement, promise, covenant or warranty made by Sublandlord (as tenant under the Prime Lease) or by Prime Landlord (as landlord under the Prime Lease) be deemed or otherwise construed to made for the benefit of or reliance by Subtenant, and nothing contained in this Sublease or otherwise shall be deemed or otherwise construed to impose upon Sublandlord the making of any such statement, promise, covenant or warranty. Sublandlord represents and warrants to Subtenant as follows and as of the date hereof:

(i) the Prime Lease is in full force and effect in accordance with, and subject to, all of the terms, covenants, conditions and agreements contained therein;

(ii) the Prime Lease has not been modified, amended or supplemented, except as set forth and described in the recitals to this Sublease;

(iii) Sublandlord has not received any notice of any default by the Sublandlord under the Prime Lease, which default remains uncured;

(iv) Subject to obtaining the consent and approval of this Sublease by Prime Landlord and any mortgagee of Prime Landlord, Sublandlord has full right, power and authority to enter into this Sublease.

A. Subtenant hereby warrants and represents to Sublandlord the Subtenant has full right, power and authority to enter into this Sublease.

11. SERVICES AND REPAIRS . Notwithstanding anything to the contrary set forth in this Sublease, Subtenant agrees that Sublandlord shall have no obligation to render or supply any services to Subtenant, including, without limitation (a) the furnishing of electrical energy, heat, ventilation, water, air conditioning, elevator service, cleaning, window washing, or rubbish removal services, (b) making any alterations, repairs or restorations, (c) complying with any laws or

requirements of any governmental authorities, or (d) taking any action that Prime Landlord has agreed to provide, make, comply with, or take, or cause to be provided, made, complied with, or taken under the Prime Lease (collectively "Services and Repairs"). Subtenant hereby agrees that Subtenant shall look solely to Prime Landlord for the performance of any and all of such Services and Repairs, subject to the terms and conditions of this Sublease. Sublandlord hereby grants to Subtenant Sublandlord's rights under the Prime Lease to receive from the Prime Landlord Services and Repairs to the extent that Sublandlord is entitled (i) to receive same under the Prime Lease and (ii) to grant same to Subtenant. Sublandlord shall in no event be liable to Subtenant nor shall the obligations of Subtenant hereunder be impaired or the performance thereof excused because of any failure or delay on the Prime Landlord's part in furnishing Services and Repairs, unless such failure or delay results from Sublandlord's default under the Prime Lease (which default does not result from or is attributable to any corresponding default of Subtenant under this Sublease). Notwithstanding the foregoing, upon receipt of request from Subtenant, Sublandlord shall use its commercially reasonable efforts to cause Prime Landlord to comply with the terms of the Prime Lease as necessary.

12. ENFORCEMENT OF PRIME LEASE. If the Prime Landlord shall default in any of its obligations to Sublandlord with respect to the Premises, Sublandlord shall not, except as and to the extent hereinafter set forth, be obligated to bring any action or proceeding or to take any steps to enforce Sublandlord's rights against Prime Landlord other than, upon the written request of Subtenant, making a demand upon the Prime Landlord to perform its obligations under the Prime Lease with respect to the Premises. If following the making of such demand and the expiration of any applicable grace period granted to the Prime Landlord under the Prime Lease, the Prime Landlord shall fail to perform its obligations under the Prime Lease, then Subtenant shall have the right to take such action in its own name. If (a) any such action against the Prime Landlord in Subtenant's name is barred by reason of lack of privity, non-assignability or otherwise, and (b) the failure of Prime Landlord to perform its obligations under the Prime Lease has, or may have, an adverse affect upon the Premises or Subtenant's permitted use thereof, then subject to and upon the following terms, Subtenant may bring such action in Sublandlord's name and Sublandlord shall execute all documents reasonably required in connection therewith, provided (i) the same is without cost and expense to Sublandlord, (ii) Subtenant shall provide the indemnification to Sublandlord required pursuant to Article 14 hereof, and (iii) Subtenant is not in default hereunder.

13. ASSIGNMENT, SUBLETTING AND ENCUMBRANCES.

A. Subtenant shall comply with the terms of Section 13 of the Original Lease. Any assignment of this Sublease, if consented to by Sublandlord, shall be subject to and conditioned upon compliance with the following terms and conditions:

(i) By written instrument of assignment and assumption, the assignee for the benefit of Sublandlord and the assignor shall assume and agree to perform and to comply with all of the terms, conditions and agreements of this Sublease on the part of Subtenant to be kept, performed and observed and to become jointly and severally liable with the assignor for such performance and compliance;

(ii) A duplicate original of such instrument, in form reasonably satisfactory to Sublandlord, duly acknowledged and executed by the assignor and the assignee, shall be delivered to Sublandlord within five (5) business days following the date of execution thereof; and

(iii) The assignor shall assign all of its right, title, interest and claim to any security deposited hereunder to the assignee.

(iv) Sublandlord, within fifteen (15) days following Sublandlord's receipt of the instruments identified in clauses (i) and (ii) above, shall have the option to recapture the Premises and terminate this Sublease. Sublandlord shall exercise its option by providing written notice to Subtenant ("Sublandlord's Recapture Notice") and such notice shall designate an effective date of the termination which shall be no more than 30 days after Subtenant's receipt of Sublandlord's Recapture Notice. Upon such termination, neither Sublandlord nor Subtenant shall have any further rights, estates or liabilities under this Sublease accruing after the effective date of termination, except for such obligations which expressly survive the termination of this Sublease

B. A. Subtenant shall comply with the terms of Section 13 of the Original Lease. Any subletting of the Premises or any part thereof, if consented to by Sublandlord, shall be subject to and conditioned upon compliance with the following terms and conditions:

(i) The sublease shall provide that it is subject and subordinate to all of the provisions of this Sublease and all of the rights of Sublandlord hereunder;

(ii) The sublease shall expressly provide that the sub-sublessee shall use and occupy the Premises only for the permitted purposes set forth herein and for no other purpose whatsoever; and

(iii) A duplicate original of the sublease, duly executed by sublessor and sublessee, shall be delivered to Sublandlord within five (5) business days following the date of its execution.

(iv) Sublandlord, within fifteen (15) days following Sublandlord's receipt of the instruments identified in clauses (i), (ii) and (iii) above, shall have the option to recapture the Premises and terminate this Sublease. Sublandlord shall exercise its option by providing written notice to Subtenant ("Sublandlord's Recapture Notice") and such notice shall designate an effective date of the termination which shall be no more than 30 days after Subtenant's receipt of Sublandlord's Recapture Notice. Upon such termination, neither Sublandlord nor Subtenant shall have any further rights, estates or liabilities under this Sublease accruing after the effective date of termination, except for such obligations which expressly survive the termination of this Sublease

C. If this Sublease is assigned, or if the Premises or any part thereof is sublet or occupied by one other than Subtenant, whether or not Subtenant shall have been granted any required consent, Sublandlord may, after default by Subtenant, collect rent and other charges from such assignee, Subtenant or other occupant, and apply the net amount collected to Rental and other charges herein reserved, but no such assignment, subletting, occupancy or collection shall be deemed to be a waiver of the requirements of this Article 13 or an acceptance of the assignee, subtenant or other occupant as subtenant under this Sublease. The consent by Sublandlord to an assignment or subletting shall not in any way be construed to relieve Subtenant from obtaining consent to any further assignment or subletting. No assignment or subletting shall, in any way, release, relieve or modify the liability of Subtenant under this Sublease and Subtenant shall be and remain liable under all of the terms, conditions, and covenants hereof.

D. If Subtenant shall at any time request the consent of Sublandlord to any proposed assignment of this Sublease or subletting of all or any portion of the Premises, Subtenant shall pay on demand the actual, reasonable costs and expenses incurred by Sublandlord and Prime Landlord, including, without limitation, architect, engineer and reasonable attorneys' fees and disbursements for review and/or preparation of documents in connection with any proposed or actual assignment of this Sublease or subletting of the Premises or any part thereof.

E. One hundred percent (100%) of any sums or other economic consideration received by Subtenant as a result of any assignment of this Sublease or subletting of all or any portion of the Premises whether denominated rentals under the sublease or otherwise, which exceed, in the aggregate, the total sums which Subtenant is obligated to pay Sublandlord under this Sublease (prorated to reflect obligations allocable to that portion of the Premises subject to such sublease or assignment) shall be paid to Sublandlord by Subtenant as Rental under this Sublease without affecting or reducing any other obligation of Subtenant hereunder.

14. INDEMNIFICATION.

A. Sublandlord, Prime Landlord and the employees, agents, contractors, licensees and invitees (collectively "Agents") of each (collectively, "Indemnified Parties"), shall not be liable to Subtenant or its agents and Subtenant shall indemnify and hold harmless the Indemnified Parties from and against any and all suits, claims, demands, liability, damages, costs and expenses of every kind and nature for which the Indemnified Parties are not reimbursed by insurance, including, without limiting the generality of the foregoing, reasonable attorneys' fees and expenses, court costs, penalties and fines, incurred in connection with or arising out of the following to the extent not caused by the negligence or willful misconduct of the Indemnified Parties or matters occurring outside the Premises without the fault of Subtenant:

(v) any injury or damage to any person happening on or about the Premises, or for any injury or damage to the Premises, or to any property of Subtenant or of any other person, firm, association or corporation on or about the Premises.

(vi) default by Subtenant in the payment of the Rental or any other default by Subtenant in the observance or performance of, or compliance with any of the terms, provisions or conditions of this Sublease including, without limitation, such matters relating to obtaining possession of the Premises following any such default;

(vii) the exercise by Subtenant or any person claiming through or under Subtenant of any rights against Prime Landlord granted to Subtenant hereunder;

(viii) any holdover beyond the term of this Sublease;

(ix) any acts, omissions or negligence of Subtenant or any person claiming through or under Subtenant, or the Agents of Subtenant or any such person, in or about the Premises or the Building; or

(x) any proceeding, action or dispute that Sublandlord or Subtenant may institute or be party to pursuant to Article 12 of this Sublease, except to the extent that any such proceeding, action or dispute shall determine that Prime Landlord's failure or refusal to provide

Services or Repairs is justified because of Sublandlord's negligence, misconduct or breach of this Sublease or the Prime Lease, not resulting from Subtenant's acts or omissions.

The provisions of this Article 14 shall survive the expiration or earlier termination of this Sublease.

15. ALTERATIONS. Subtenant shall make no alterations, installations, additions or improvements (collectively, "Alterations") in or about the Premises without the prior written consent of Sublandlord in each instance, which consent shall not be unreasonably withheld, conditioned or delayed. Sublandlord shall provide consent, if at all, within fifteen (15) days of Sublandlord's receipt of Subtenant's request to perform Alterations. Any Alterations consented to by Sublandlord shall be performed by Subtenant at its sole cost and expense and in compliance with all of the provisions of the Prime Lease, including the provisions requiring Prime Landlord's prior written consent, and also in compliance with other reasonable requirements of Sublandlord and Prime Landlord. At the time of giving consent to any Alterations, Sublandlord must advise Subtenant in writing which Alterations, if any, must be removed upon expiration or earlier termination of this Sublease.

16. INSURANCE.

A. Sections 16(a), (b) and (c) of the Original Lease are revised to read as follows:

(a) Tenant's insurance. Tenant shall obtain and keep in force at all times during the Term, at its own expense:

(i) Liability Coverage. Commercial general liability insurance including contractual liability and personal injury liability and ail similar coverage, with the premiums thereon fully paid in advance, such insurance to afford minimum protection of not less than $3,000,000.00 per occurrence, combined single limits on account of personal injury, bodily injury to or death of one or more persons as the result of any one accident or disaster and on account of damage to property. Tenant shall also require its movers to procure and deliver to Landlord a certificate of insurance naming Landlord as an additional insured. The coverages required to be carried shall be extended to include, but not to be limited to, blanket contractual liability, and errors and omissions/media liability including personal injury and advertising injury, and broad form property damage liability. Tenant's contractual liability insurance shall apply to Tenant's indemnity obligations under this Lease and the certificate evidencing Tenant's insurance coverage shall state that the insurance includes the liability assumed by Tenant under this Lease. Tenant's policy shall be written on an occurrence basis and shall be primary, with any other insurance available to Landlord being excess.

(ii) Property Insurance. "All risk" ("special causes of loss") insurance coverage during the Term insuring against loss or damage by fire and such other risks insuring the full replacement cost of any Alterations and Tenant's furniture, equipment, machinery, trade-fixtures, personal property, goods or supplies, as the same may exist from time to time, naming Landlord as the loss payee with respect to the Alterations. Such policy shall contain agreed value, ordinance or law coverage, plate glass, and legal liability endorsements.

(b) Policy/Insurer Requirements. All liability insurance required of Tenant hereunder shall name Landlord, Landlord's Agent and Tenant as additional insureds, as their interests may appear. Prior to the commencement of the Term, Tenant shall provide Landlord with certificates which evidence that the coverages required have been obtained for the policy periods and evidencing the waiver of subrogation required pursuant to Section 16(d). Tenant shall also furnish to Landlord throughout the Term hereof replacement certificates prior to the expiration dates of the then current policy or policies. All the insurance required under this Lease shall be issued by insurance companies authorized to do business in the State of California with a financial rating of at least an A-VII as rated in the most recent edition of Best's Insurance Reports and in business for the past five years. The limit of any such insurance shall not limit the liability of Tenant hereunder. If Tenant fails to procure and maintain such insurance, Landlord may, but shall not be required to, procure and maintain the same, at Tenant's expense to be reimbursed by Tenant as Additional Rent within thirty (30) days of written demand.

B. Nothing contained in this Sublease shall relieve Subtenant from any liability as a result of damage from fire or other casualty, but each party shall look first to any insurance in its favor before making any claim against the other party for recovery for loss or damage resulting from fire or other casualty. To the extent that such insurance is in force and collectible and to the extent permitted by law, Sublandlord and Subtenant each hereby releases and waives all right to recovery against the other or anyone claiming through or under the other by way of subrogation or otherwise, and Subtenant also releases and waives all right to recover against Prime Landlord.

17. INTENTIONALLY OMITTED.

18. SECURITY. Subtenant has deposited with Sublandlord the sum of $362,435.85 (if by check, subject to collection) as security for the faithful performance and observance by Subtenant of the terms, provisions and conditions of this Sublease. It is agreed that in the event Subtenant defaults in respect of any of the terms, provisions and conditions of this Sublease, including, but not limited to, the payment of Rental, Sublandlord may, after notice to Subtenant and the expiration of any applicable grace period provided for in the Prime Lease with respect to such default, use, apply or retain the whole or any part of the security so deposited to the extent required for the payment of any Rental or any other sum as to which Subtenant is in default or for any sum which Sublandlord may expend or may be required to expend by reason of Subtenant’s default in respect of any of the terms, covenants and conditions of this Sublease, including but not limited to, any damages or deficiency in the re-letting of the Premises, whether such damages or deficiency accrued before or after summary proceedings or other re-entry by Sublandlord. In any such event, Subtenant shall promptly on demand deposit with Sublandlord so much of the security as shall have been so expended so that Sublandlord shall at all times have the full security deposit required hereunder. In the event that Subtenant shall fully and faithfully comply with all of the terms, provisions,

covenants and conditions of this Sublease, the security shall be returned to Subtenant after the date fixed as the end of the Sublease and after delivery of possession of the Premises to Sublandlord.

19. BROKER. Each party warrants and represents to the other party hereto that it has not dealt with any brokers in connection with this Sublease other than CM Commercial Real Estate, Inc. and CBRE, Inc. (collectively, “Brokers”). Sublandlord shall be responsible for the commission due to Brokers in connection with the execution and delivery of this Sublease pursuant to a separate agreement(s). Each party hereby indemnifies and holds the other party hereto harmless from any and all loss, damage, claim, liability, cost or expense (including, but not limited to, reasonable attorneys’ fees, expenses and court costs) arising out of or in connection with any breach of the foregoing warranty and representation. The provisions of this Article shall survive the expiration or earlier termination of this Sublease.

20. NOTICES. All notices, consents, approvals or other communications (collectively a “Notice”) required to be given under this Sublease or pursuant to law shall be in writing and, unless otherwise required by law, shall be either personally delivered (against a receipt), or sent by reputable overnight courier service, or given by registered or certified mail, return receipt requested, postage prepaid, addressed to the party which is to receive such Notice (Attention: Director, Global Real Estate, in the case of Notices to Sublandlord, and Attention: Director of Real Estate, in the case of Notices to Subtenant) at its address herein set forth (provided, however, that after the Commencement Date, Notices addressed to Subtenant shall be sent to the Premises), or such other address as either may designate by Notice to the other. Any Notice shall be deemed to have been given upon delivery or upon failure to accept delivery.

21. NO WAIVERS. Failure by either party in any instance to insist upon the strict performance of any one or more of the obligations of the other party under this Sublease, or to exercise any election herein contained, or acceptance of payment of any kind with knowledge of a default by the other party, shall in no manner be or be deemed to be a waiver by such party of any defaults or breaches hereunder or of any of its rights and remedies by reason of such defaults or breaches, or a waiver or relinquishment for the future of the requirement of strict performance of any and all of the defaulting party’s obligations hereunder. Further, no payment by Subtenant or receipt by Sublandlord of a lesser amount than the correct amount of Rental due hereunder shall be deemed to be other than a payment on account, nor shall any endorsement or statement on any check or any letter accompanying any check or payment be deemed to effect or evidence an accord and satisfaction, and Sublandlord may accept any checks or payments as made without prejudice to Sublandlord’s right to recover the balance or pursue any other remedy in this Sublease or otherwise provided at law or in equity.

22. CONSENT.

A. Sublandlord shall not be deemed to have unreasonably withheld or delayed its consent to any matter if the Prime Landlord’s consent to the matter requested is required by the Prime Lease and if Prime Landlord shall have withheld or delayed its consent to such matter.

B. If either party shall request the other’s consent and such consent is withheld or delayed, such party shall not be entitled to any damages by reason thereof, it being intended that the sole remedy therefor shall be an action for specific performance or injunction and that such remedy shall only be available where a party has agreed herein not to unreasonably withhold or delay such consent or where, as a matter of law, such consent may not be unreasonably withheld or delayed.

23. ENTIRE AGREEMENT, MISCELLANEOUS.

A. This Sublease shall be governed by and construed in accordance with the law of the State of Connecticut without regard to the conflicts of law principles thereof.

B. The section headings in this Sublease are inserted only as a matter of convenience for reference and are not to be given any effect in construing this Sublease.

C. If any of the provisions of this Sublease or the application thereof to any person or circumstance shall, to any extent, held to be invalid or unenforceable, the remainder of this Sublease shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

D. All of the terms and provisions of this Sublease shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

E. All prior negotiations and agreements relating to this Sublease and the Premises are merged into this Sublease. This Sublease may not be amended, modified or terminated, in whole or in part, nor may any of the provisions be waived, except by a written instrument executed by the party against whom enforcement of such amendment, modification, termination or waiver is sought and unless the same is permitted under the terms and provisions of the Prime Lease.

F. This Sublease shall have no binding force and effect and shall not confer any rights or impose any obligations upon either party unless and until both parties have executed it and Sublandlord shall have obtained Prime Landlord’s written consent to this Sublease and delivered to Subtenant an executed copy of such consent. Under no circumstances shall the submission of this Sublease in draft form by or to either party be deemed to constitute an offer for the subleasing of the Premises.

G. This Sublease and all the obligations of Subtenant to pay Rental and perform all of its other covenants and agreements hereunder shall in no way be affected, impaired, delayed or excused because Sublandlord or Prime Landlord are unable to fulfill any of their respective obligations hereunder, either explicit or implicit, if Sublandlord or Prime Landlord is prevented or delayed from so doing by reason of strikes or labor troubles by accident, adjustment of insurance or by any cause whatsoever reasonably beyond Sublandlord’s or Prime Landlord’s control.

H. Each and every right and remedy of Sublandlord under this Sublease shall be cumulative and in addition to every other right and remedy herein contained or now or hereafter existing at law or in equity, by statute or otherwise.

I. At any time and from time to time either party shall, within ten (10) days after a written request by the other, execute, acknowledge and deliver to the requesting party a written statement certifying (i) that this Sublease has not been modified and is in full force and effect or, if modified, that this Sublease in full force and effect as modified, and specifying such modifications, (ii) the dates to which the Base Rent and other charges have been paid, (iii) that to the Certifying Party's actual knowledge, no defaults exist under this Sublease or, if any do exist, the nature of such default and (iv) as to such other matters as the requesting party may reasonably request.

J. This Sublease may be executed in counterparts, each of which shall be deemed an original and together which shall constitute one and the same instrument.

[no further text this page; signature pages to follow]

IN WITNESS WHEREOF, the parties hereto have duly executed this Sublease as of the day and year first above written.

SUBLANDLORD

CEREXA, INC., a Delaware corporation

By: /s/ A. Robert D. Bailey

Name: A. Robert D. Bailey

Title: *Chief Legal Officer*

SUBTENANT

PANDORA MEDIA, INC., a Delaware corporation

By: /s/ Michael S. Herring

Name: Michael S. Herring

Title: *Executive Vice President and Chief Financial Officer (Principal Financial Officer)*

Landlord has executed this Sublease for the sole purpose of confirming that it has consented hereto.

LANDLORD

CIM/OAKLAND CENTER 21, LP

By:

Name:

Title:

Exhibit 23.01

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

(1) Registration Statement (Form S-8 No. 333-175378) pertaining to the 2000 Stock Incentive Plan, 2004 Stock Plan, and 2011 Equity Incentive Plan of Pandora Media, Inc.,
(2) Registration Statement (Form S-8 No. 333-182212) pertaining to the 2011 Equity Incentive Plan of Pandora Media, Inc.,
(3) Registration Statement (Form S-8 No. 333-187340) pertaining to the 2011 Equity Incentive Plan of Pandora Media, Inc., and
(4) Registration Statement (Form S-8 No. 333-193612) pertaining to the 2011 Equity Incentive Plan and 2014 Employee Stock Purchase Plan of Pandora Media, Inc.;

of our reports dated February 11, 2015, with respect to the consolidated financial statements of Pandora Media, Inc. and the effectiveness of internal control over financial reporting of Pandora Media, Inc. included in this Annual Report (Form 10-K) for the twelve months ended December 31, 2014.

/s/ Ernst & Young LLP

San Francisco, California
February 11, 2015

SX EX. 089-120-RP

Exhibit 31.01

Certification of Principal Executive Officer
Pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Brian McAndrews, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pandora Media, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 11, 2015

/s/ Brian McAndrews

Name:	Brian McAndrews
Title:	*Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)*

SX EX. 089-121-RP

Exhibit 31.02

Certification of Principal Financial Officer
Pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Michael S. Herring, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pandora Media, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 11, 2015

/s/ Michael S. Herring

Name:	Michael S. Herring
Title:	*Executive Vice President and Chief Financial Officer (Principal Financial Officer)*

Exhibit 32.01

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF SARBANES-OXLEY ACT OF 2002

The certification set forth below is being submitted in connection with this Annual Report on Form 10-K for the twelve months ended December 31, 2014 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Each of the undersigned certifies that, to his knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Pandora Media, Inc.

February 11, 2015

/s/ Brian McAndrews

Name:	Brian McAndrews
Title:	*Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)*

/s/ Michael S. Herring

Name:	Michael S. Herring
Title:	*Executive Vice President and Chief Financial Officer (Principal Financial Officer)*

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.

SX EX. 089-123-RP

Use these links to rapidly review the document
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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☐ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

or

☒ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from February 1, 2013 to December 31, 2013

Commission File Number: 001-35198

Pandora Media, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**94-3352630**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
2101 Webster Street, Suite 1650 **Oakland, CA**	
(Address of principal executive offices)	**94612** (Zip Code)

(510) 451-4100
(Registrant's telephone number, including area code)

Securities registered pursuant to section 12(g) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, $0.0001 par value	The New York Stock Exchange

SX EX. 090-1-RP

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by a check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting common stock held by non-affiliates of the registrant as of July 31, 2013(the last business day of the registrant's most recently completed second quarter), based on the closing price of such stock on The New York Stock Exchange on such date was approximately $1,568 million. This calculation excludes the shares of common stock held by executive officers, directors and stockholders whose ownership exceeds 5% outstanding at July 31, 2013. This calculation does not reflect a determination that such persons are affiliates for any other purposes.

On February 6, 2014 the registrant had 197,423,063 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Definitive Proxy Statement relating to its 2014 annual meeting of stockholders, to be filed subsequent to the date hereof, are incorporated by reference into Part III of this Transition Report on Form 10-K where indicated. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the registrant's transition period ended December 31, 2013. Except with respect to information specifically incorporated by reference in this Transition Report on Form 10-K, the Definitive Proxy Statement is not deemed to be filed as part of this Transition Report on Form 10-K.

PANDORA MEDIA, INC.
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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This Transition Report on Form 10-K contains "forward-looking statements" that involve substantial risks and uncertainties. The statements contained in this Transition Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including, but not limited to, statements regarding our expectations, beliefs, intentions, strategies, future operations, future financial position, future revenue, projected expenses and plans and objectives of management. In some cases, you can identify forward-looking statements by terms such as "anticipate," "believe," "estimate," "expect," "intend," "may," "might," "plan," "project," "will," "would," "should," "could," "can," "predict," "potential," "continue," "objective," or the negative of these terms, and similar expressions intended to identify forward-looking statements. However, not all forward-looking statements contain these identifying words. These forward-looking statements reflect our current views about future events and involve known risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievement to be materially different from those expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included in this Transition Report on Form 10-K. Furthermore, such forward-looking statements speak only as of the date of this report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements. We qualify all of our forward-looking statements by these cautionary statements. In addition, the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors including those described in the section entitled "Risk Factors." These and other factors could cause our results to differ materially from those expressed in this Transition Report on Form 10-K.

Some of the industry and market data contained in this Transition Report on Form 10-K are based on independent industry publications, including those generated by Triton Digital Media or "Triton" and International Data Corporation or "IDC" or other publicly available information. This information involves a number of assumptions and limitations. Although we believe that each source is reliable as of its respective date, we have not independently verified the accuracy or completeness of this information.

As used herein, "Pandora," the "Company," "we," "our," and similar terms refer to Pandora Media, Inc., unless the context indicates otherwise.

"Pandora" and other trademarks of ours appearing in this report are our property. This report contains additional trade names and trademarks of other companies. We do not intend our use or display of other companies' trade names or trademarks to imply an endorsement or sponsorship of us by such companies, or any relationship with any of these companies.

EXPLANATORY NOTE REGARDING THE TRANSITION REPORT

We changed our fiscal year to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. As a result, our current fiscal period was shortened from twelve months to an eleven-month transition period ended on December 31, 2013. We reported our third fiscal quarter as the three months ended October 31, 2013, followed by a two-month transition period ended December 31, 2013.

When financial results for the 2013 transition period are compared to financial results for the prior year period, the results compare the eleven-month periods ended December 31, 2013 and December 31, 2012. The results for the eleven month period ended December 31, 2012 are unaudited. When financial results for fiscal 2013 are compared to financial results for fiscal 2012, the results compare our previous fiscal years, or the twelve-month periods ended January 31, 2013 and January 31, 2012. Thefollowing tables show the months included within the various comparison periods:

Calendar 2013 (11-month) Results Compared With Calendar 2012 (11-month recast, unaudited)

Calendar 2012 (11-month recast, unaudited)	Calendar 2013 (11-month)
February 2012 - December 2012	February 2013 - December 2013

Fiscal 2013 Results Compared With Fiscal 2012

2012	2013
February 2011 - January 2012	February 2012 - January 2013

PART I.

ITEM 1. BUSINESS

Overview

Pandora is the leader in internet radio in the United States, offering a personalized experience for each of our listeners wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, traditional computers, car audio systems and a range of other internet-connected devices. The majority of our listener hours occur on mobile devices, with the majority of our revenue generated from advertising on these devices. We have pioneered a new form of radio—one that uses intrinsic qualities of music to create stations initially and then adapt playlists in real-time based on the individual feedback of each listener. We offer local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements.

As of December 31, 2013, we had more than 200 million registered users, which we define as the total number of accounts that have been created for our service at period end. As of December 31, 2013 approximately 175 million registered users have accessed Pandora through smartphones and tablets. For the eleven months ended December 31, 2013, we streamed 15.31 billion hours of radio and as of December 31, 2013, we had 76.2 million active users during the prior 30 day period. According to a September 2013 report by Triton, we have more than a 70% share of internet radio among the top 20 stations and networks in the United States. Since we launched our free, advertising-supported radio service in 2005, our listeners have created over 5 billion stations.

Our Service

Unlike traditional radio stations that broadcast the same content at the same time to all of their listeners, we enable each of our listeners to create up to 100 personalized stations. The Music Genome Project and our playlist generating algorithms power our ability to predict listener music preferences, play music content suited to the tastes of each individual listener and introduce listeners to music they will love. When a listener enters a single song, artist or genre to start a station—a process we call seeding—the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we pick, we further tailor the station to match the listener's preferences.

We currently provide the Pandora service through two models:

- *Free Service.* Our free service is advertising-supported and allows listeners access to our music and comedy catalogs and personalized playlist generating system across all of our delivery platforms.

- *Pandora One.* Pandora One is provided to paying subscribers without any external advertising. Pandora One allows listeners to have more daily skips and enjoy higher quality audio on supported devices.

Beyond song delivery, listeners can discover more about the music they hear by researching song lyrics, reading the history of their favorite artists, viewing artist photos and buying albums and songs from Amazon or iTunes. Our service also incorporates community social networking features. Listeners can create and customize personal listener profile pages to connect with other listeners. Our music feed feature enables a real-time, centralized stream for listeners to view the music that their social connections are experiencing and to provide and receive recommendations for songs, albums and artists. Listeners can also share their stations across other social media outlets and through email by using our share feature or by distributing our individualized station URLs.

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Our Technologies

At the core of our service is our set of proprietary personalization technologies, including the Music Genome Project and our playlist generating algorithms. When a listener enters a single song, artist or genre to start a station, the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we stream, we further tailor the station to match the listener's preferences in real time.

Music Genome Project

The Music Genome Project is a database of over 1,000,000 uniquely analyzed songs from over 100,000 artists, spanning over 500 genres and sub-genres, which we develop one song at a time by evaluating and cataloging each song's particular attributes. Once we select music to become part of our catalog, our music analysts genotype the music by examining up to 450 attributes including objectively observable metrics such as tone and tempo, as well as subjective characteristics, such as lyrics, vocal texture and emotional intensity. We employ rigorous hiring and training standards for selecting our music analysts, who typically have four-year degrees in music theory, composition or performance, and we provide them with intensive training in the Music Genome Project's precise methodology.

Comedy Genome Project

Our Comedy Genome Project leverages similar technology to the technology underlying the Music Genome Project, allowing a listener to choose a favorite comedian or a genre as a seed to start a station and then give feedback to personalize that station. Our comedy collection includes content from more than 1,500 comedians with more than 25,000 tracks.

Our Other Core Innovations

In addition to the Music Genome Project, we have developed other proprietary technologies to improve delivery of the Pandora service, enhance the listener experience and expand our reach. Our other core innovations include:

Playlist Generating Algorithms. We have developed complex algorithms that determine which songs play and in what order on each personalized station. Developed since 2004, these algorithms combine the Music Genome Project with the individual and collective feedback we receive from our listeners in order to deliver a personalized listening experience.

Pandora User Experience. We have invested in ways to enable us to reach our audience anytime, anywhere that they enjoy music. To this end, we have developed a number of innovative approaches, including our autocomplete station creation feature, which predicts and generates a list of the most likely musical starting points as a listener begins to enter a favorite station, song or artist.

Pandora Mobile Streaming. We have designed a sophisticated system for streaming music content to mobile devices. This system involves a combination of music coding programs that are optimized for mobile devices as well as algorithms designed to address the intricacies of reliable delivery over diverse mobile network technologies. For example, these algorithms are designed to maintain a continuous stream to a listener even in circumstances where the mobile data network may be unreliable.

Automotive Protocol. We have developed an automotive protocol to facilitate increased availability of the Pandora service in automobiles. Through the automotive protocol, certain automobile manufacturers, their suppliers and makers of aftermarket audio systems can easily connect dash-mounted interface elements to the Pandora app running on a smartphone. This allows us to deliver the Pandora service to listeners via their existing smartphone, while leveraging the automobile itself for application command, display and control functionalities.

Pandora API. As part of our effort to make the Pandora service available everywhere our listeners want it, we have developed an application programming interface, which we call the Pandora API. Through our partnerships with manufacturers of consumer electronics products, we have used this technology to bring the Pandora experience to connected devices throughout the home.

Tv.pandora.com. We have developed a standards-based HTML5 website called tv.pandora.com that allows users to stream music content on next generation TV, game console and set top box architectures that support open web standards. Tv.pandora.com features streamlined navigation with controls and displays designed specifically for larger screens.

Distribution and Partnerships

A key element of our strategy is to make the Pandora service available everywhere that there is internet connectivity. To this end, we make the Pandora service available through a variety of distribution channels. In addition to streaming our service to traditional computers, we have developed Pandora mobile device applications or "apps" for smartphones such as iPhone, Android, and the Windows Phone and for tablets including the iPad and Android tablets. We distribute those mobile apps free to listeners via app stores. In addition, Pandora is now integrated with more than 1,000 connected devices, including automobiles, automotive aftermarket devices and consumer electronic devices.

Advertising Revenue

We derive the substantial majority of our revenue from the sale of audio, display and video advertising for delivery across our traditional computer-based, mobile and other connected device platforms. While historically our revenue growth was principally attributable to selling display advertising through our traditional computer-based platform, we now generate a majority of our revenue from mobile and other connected devices and our advertising includes a mix of audio, display and video. This expansion of our services also presents an opportunity for us to reach our audience anytime, anywhere that they enjoy music, and therefore offer additional distribution channels to current and potential advertisers for delivery of their advertising messages.

Our advertising strategy focuses on developing our core suite of audio, display and video advertising products and marketing these products to advertisers for delivery across traditional computer and mobile and other connected device platforms. Our advertising products allow both local and national advertisers to target and connect with listeners based on attributes including age, gender, zip code and content preferences using multi-platform ad campaigns to target their advertising messages to listeners anytime and anywhere. As listenership on our mobile platforms has grown more rapidly than on our other platforms, we have sought to improve our advertising products for the mobile environment to better enable us to develop and market multi-platform advertising solutions. In the twelve months ended January 31, 2012 and 2013 and in the eleven months ended December 31, 2012 and 2013 advertising revenue accounted for approximately 87%, 88%, 88% (unaudited) and 82% of our total revenue, respectively, and we expect that advertising will comprise a substantial majority of revenue for the foreseeable future.

Audio Advertising. Our audio advertising products allow custom audio messages to be delivered between songs during short ad interludes. Audio ads are available across all of our delivery platforms. On supported platforms, the audio ads can be accompanied by display ads to further enhance advertisers' messages.

Display Advertising. Our display products offer advertisers opportunities to maximize exposure to our listeners through our desktop and mobile service interfaces, which are divided between our tuner containing our player and "now playing" information, and the information space surrounding our tuner. Our display ads include industry standard banner ads of various sizes and placements depending on platform and listener interaction.

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Video Advertising. Our video advertising products allow delivery of rich branded messages to further engage listeners through in-banner click-initiated videos, videos that automatically play when a listener changes stations or skips a song and opt-in videos that pause the music and cover the tuner.

Our audio, display and video advertising products can be designed and modified by us and advertisers to create advertising campaigns tailored across all of our high volume delivery platforms to fit specific advertiser needs. For example, our advertisers can create custom "branded" stations from our music library that can be accessed by our listeners, as well as engage listeners by allowing them to personalize the branded stations through listener-controlled variables. Additionally, advertisers can also benefit from our proprietary ad targeting capabilities. Our proprietary targeting segments leverage listener-submitted profile information, enabling advertisers to precisely reach sought-after consumers across the web and connected devices without needing third-party cookies.

In 2013, we integrated Pandora's advertising inventory into the leading radio media buying platforms, Mediaocean and STRATA, and we are continuing to enhance the ability of radio advertisers to purchase media on these platforms which incorporate Triton measurements of our radio audience reach side-by-side with terrestrial radio metrics. In addition, we have invested in building a local sales force in major radio markets. In January 2014, we began rolling out in-car advertising solutions, which will run across the vehicle models that include a native Pandora integration. Our integration into standard radio media-buying processes and measurement, our in-car advertising solutions and our local ad sales force are key elements of our strategy for expanded penetration of the radio advertising market.

Subscription and Other Revenue

Subscription and other revenue is generated primarily through the sale of Pandora One, a premium version of the Pandora service which currently includes advertisement-free access and higher audio quality on the devices that support it. For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013, subscription and other revenue accounted for 13%, 12%, 12% (unaudited) and 18% of our total revenue, respectively.

Content, Copyrights and Royalties

To secure the rights to stream music content over the internet, we must obtain licenses from, and pay royalties to, copyright owners of both sound recordings and musical works. These licensing and royalty arrangements strongly influence our business operations. We stream spoken word comedy content, for which the underlying literary works are not currently entitled to eligibility for licensing by any performing rights organization for the United States. Rather, pursuant to industry-wide custom and practice, this content is performed without a specific license from any such performing rights organization or individual copyright owners. We do, however, obtain licenses to stream the sound recordings of comedy content under a federal statutory license, as described under the section captioned "Sound Recordings" below, which in some instances we have opted to augment with direct agreements with the licensors of such sound recordings.

Sound Recordings

The number of sound recordings we transmit to users of the Pandora service, as generally reflected by our listener hours, drives the vast majority of our content acquisition costs, although certain of our licensing agreements require us to pay fees for public performances of musical works based on a percentage of revenue. We obtain performance rights licenses and pay performance rights royalties for the benefit of the copyright owners of such sound recordings and the recording artists, both featured and non-featured, on such recordings, pursuant to the Digital Performance Right in Sound Recordings Act of 1995 (the "DPRA") and the Digital Millennium Copyright Act of 1998 (the "DMCA").

Under federal statutory licenses created by the DPRA and the DMCA, we are permitted to stream any lawfully released sound recordings and to make reproductions of these recordings on our computer servers, without having to separately negotiate and obtain direct licenses with each individual sound recording copyright owner. These statutory licenses are granted to us on the condition that we operate in compliance with the rules of the statutory licenses and pay the applicable royalty rates to SoundExchange, the non-profit organization designated by the Copyright Royalty Board, a tribunal established within the U.S. Library of Congress, or CRB, to collect and distribute royalties under these statutory licenses.

The rates we pay pursuant to these licenses can be established by either negotiation or through a rate proceeding conducted by the CRB, a tribunal established within the U.S. Library of Congress. In 2009, certain webcasters reached a settlement agreement with SoundExchange establishing alternative rates and rate structures below those eventually established by the CRB for services not qualifying for the settlement rates. This settlement agreement is commonly known as the "Pureplay Settlement" that applies through 2015. We have elected since 2009 to avail ourselves of the Pureplay Settlement. Proceedings to establish rates that will be applicable to our service for the 2016-2020 period known as Webcasting IV proceedings, were commenced in January 2014. We are unable to estimate the direct and indirect costs of participating in the Webcaster IV proceedings, but we expect those costs to be significant. Further, federal copyright law does not recognize a public performance right for sound recordings created prior to February 15, 1972, and we face additional risks related to pre-1972 sound recording licensing. For additional details on risks related to the rate-setting process and pre-1972 sound recordings, please refer to the section entitled "Risk Factors."

The royalties we pay to SoundExchange for the streaming of sound recordings are calculated using a per performance rate and are subject to audit. The table below sets forth the per performance rates for the calendar years 2013 to 2015 as established by the CRB, which we have opted not to pay, under the Pureplay Settlement applicable to our non-subscription, ad-supported service and under the Pureplay Settlement applicable to our subscription service:

Year	CRB Rate	Pureplay Rate (non-subscription)*	Pureplay Rate (subscription)
2013	0.00210	0.00120	0.00220
2014	0.00230	0.00130	0.00230
2015	0.00230	0.00140	0.00250

* The rate applicable to our non-subscription service is the greater of the per performance rates set forth in this column or 25% of all of our U.S. gross revenue, including revenue from subscriptions.

As reflected in the table above, we pay per-performance rates for streaming of sound recordings via our Pandora One subscription service that are higher than the per-performance rates for our free, non-subscription service. As a result, we may incur higher royalty expenses to SoundExchange for a listener that subscribes to Pandora One as compared to a listener that uses our free, non-subscription service, even if both listeners listen to the same number of performers.

Musical Works

Our content costs are also comprised of the royalties we pay for the public performance of musical works embodied in the sound recordings that we stream. Copyright owners of musical works, typically, songwriters and music publishers, have traditionally relied on intermediaries known as performing rights organizations to negotiate so-called "blanket" licenses with copyright users, collect royalties under such licenses, and distribute them to copyright owners. We have obtained public performance licenses from, and pay license fees to, the three major performing rights organizations in the United States: the American Society of Composers, Authors and Publishers ("ASCAP"), Broadcast Music, Inc. ("BMI") and SESAC, Inc. ("SESAC").

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We currently operate under an agreement with SESAC, which automatically renews yearly, but is subject to termination by either party in accordance with its terms at the end of each yearly term. The SESAC rate is subject to small annual increases.

We currently operate under interim licenses with each of ASCAP and BMI. ASCAP and BMI each are governed by a consent decree with the United States Department of Justice. The rates we pay ASCAP and BMI can be established by either negotiation or through a rate court proceeding conducted by the United States District Court for the Southern District of New York. We elected to terminate our prior agreements with ASCAP as of December 31, 2010 and with BMI as of December 31, 2012 because, among other things, we believed that the royalty rates sought by ASCAP and BMI were in excess of rates paid by our largest radio competitors, broadcast radio stations and satellite radio. Notwithstanding our termination of these agreements, the musical works administered by each of ASCAP and BMI continued to be licensed to us pursuant to the provisions of their respective consent decrees. We are currently involved in rate court proceedings to determine the royalty rates we will pay to ASCAP and BMI. For additional details regarding such proceedings, please see the sections entitled "Risk Factors" and "Legal Proceedings."

In some cases, we pay royalties directly to music publishers. Music publishers own or administer copyrights in musical works and license those copyrights to third parties that use music, such as record labels, filmmakers, television and radio stations. Publishers also collect license fees from these third parties and distribute the fees to the writers or composers of the musical works. Between 2012 and 2014, certain publishers purported to partially withdraw portions of their repertoires from each of ASCAP and BMI with the intent that each performing rights organization would be unable to license the withdrawn musical works to new media licensees such as Pandora. Our position is that attempted partial withdrawals violate the ASCAP and BMI consent decrees. From time to time, we have entered, and will continue to enter, into agreements with some purported withdrawing publishers to enable Pandora to continue to perform those publishers' works amidst the current legal uncertainty. For additional details regarding such purported withdrawals, please see the sections entitled "Risk Factors" and "Legal Proceedings."

Non-U.S. Licensing Regimes

In addition to the copyright and licensing arrangements described above for our use of sound recordings and musical compositions in the United States, other countries have various copyright and licensing regimes, including in some cases performing rights organizations and copyright collection societies from which licenses must be obtained. We have obtained licenses to operate in Australia and New Zealand for the communication of sound recordings and the musical compositions embodied in those sound recordings, which have not had a material effect on our results of operations to date.

Listening Limits

Until September 2011, for non-subscription listeners, we limited usage of our advertising-supported service on traditional, desktop and laptop, computers to 40 hours per month. Listeners who reached this limit could continue to use this service by paying $0.99 for the remainder of the month. We included this revenue in subscription and other revenue. In September 2011, we effectively eliminated the 40 hour per month listening cap on traditional computers by increasing the cap to 320 hours of listening per month, which almost none of our listeners exceed.

In March 2013, we instituted a 40 hour per month listening limit for our advertising supported service on certain mobile and other connected devices. Listeners who reached this limit could continue to use our ad supported service on these devices by paying $0.99 for the remainder of the month, could listen to our ad supported service on their traditional computers, or could purchase Pandora One annual subscriptions for $36 per year or monthly subscriptions for $4 per month.

Effective September 2013, we eliminated this limit primarily due to our improved ability to monetize mobile listener hours. Although we have removed the broad 40 hour per month mobile listening limit, we have implemented other more precise measures that we believe will allow us to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience.

Government Regulation

As a company conducting business on the internet, we are subject to a number of foreign and domestic laws and regulations relating to consumer protection, information security and data protection, among other things. Many of these laws and regulations are still evolving and could be interpreted in ways that could harm our business. In the area of information security and data protection, the laws in several states require companies to implement specific information security controls to protect certain types of information. Likewise, all but a few states have laws in place requiring companies to notify users if there is a security breach that compromises certain categories of their information. We are also subject to federal and state laws regarding privacy of listener data, among other things. Our privacy policy and terms of use describe our practices concerning the use, transmission and disclosure of listener information and are posted on our website.

Sales and Marketing

We organize our sales force into multiple geographically-based teams that are each focused on selling advertising across our traditional computer, mobile and other connected device platforms. Teams are located in our Oakland, California headquarters, in regional sales offices in Chicago, Illinois; Santa Monica, California; and New York, New York and local sales offices throughout the country and in Sydney, Australia.

Our marketing team is charged with amplifying Pandora's brand message to grow awareness and drive listener hours. We organize the marketing team into three groups focused on communications, marketing analytics and brand marketing.

Competition

Competition for Listeners

We compete for the time and attention of our listeners with other content providers on the basis of a number of factors, including quality of experience, relevance, acceptance and perception of content quality, ease of use, price, accessibility, perceptions of ad load, brand awareness and reputation. We also compete for listeners on the basis of our presence, branding and visibility as compared with other providers that deliver content through the internet, mobile devices and consumer products. We believe that we compete favorably on these factors. For additional details on risks related to competition for listeners, please refer to the section entitled "Risk Factors."

Many of our current and potential future competitors enjoy competitive advantages, such as greater name recognition, legacy operating histories and larger marketing budgets, as well as greater financial, technical and other resources. Our competitors include Apple, Spotify, Clear Channel, Slacker, Sirius XM, RDIO, Microsoft, Rhapsody, Google, Amazon, YouTube, Hulu and VEVO.

We compete for listeners with broadcast radio providers, including terrestrial radio providers. Many broadcast radio companies own large numbers of radio stations or other media properties. Many terrestrial radio stations have begun broadcasting digital signals, which provide high quality audio transmission. In addition, unlike participants in the emerging internet radio market, terrestrial and satellite radio providers, as aggregate entities of their subsidiary providers, generally enjoy larger established audiences and legacy operating histories.

Broadcast and satellite radio companies enjoy a significant cost advantage because they pay a much lower percentage of revenue for transmissions of sound recordings. Broadcast radio pays no royalties for its terrestrial use of sound recordings, and satellite radio paid only 9.0% of revenue in 2013 and pays only 9.5% of revenue in 2014 for its satellite transmissions ofsound recordings. By contrast, Pandora incurred content acquisition costs representing 48% of revenue for our internet transmissions of sound recordings during the eleven months ended December 31, 2013. We also compete directly with other emerging non-interactive internet radio providers, which may offer more extensive content libraries than we offer and some of which may be accessed internationally. We could face additional competition if known incumbents in the digital media space choose to enter the internet radio market.

We face competition from providers of interactive on-demand audio content and pre-recorded entertainment that allow listeners to select the audio content that they stream or purchase. This interactive on-demand content is accessible in automobiles and homes, using portable players, mobile phones and other wireless and consumer electronic devices. The audio entertainment marketplace continues to rapidly evolve, providing our listeners with a growing number of alternatives and new media platforms.

We compete for the time and attention of our listeners with providers of other forms of in-home and mobile entertainment. To the extent existing or potential listeners choose to watch cable television, stream video from on-demand services or play interactive video games on their home-entertainment system, computer or mobile phone rather than listen to the Pandora service, these content services pose a competitive threat.

Competition for Advertisers

We compete with other content providers for a share of our advertising customers' overall marketing budgets. We compete on the basis of a number of factors, including perceived return on investment, effectiveness and relevance of our advertising products, pricing structure and ability to deliver large volumes or precise types of ads to targeted demographics. We believe that our ability to deliver targeted and relevant ads across a wide range of platforms allows us to compete favorably on the basis of these factors and justify a long-term profitable pricing structure. However, the market for online advertising solutions is intensely competitive and rapidly changing, and with the introduction of new technologies and market entrants, we expect competition to intensify in the future. Our competitors include Facebook, Google, MSN, Yahoo!, ABC, CBS, FOX, NBC, The New York Times and the Wall Street Journal. For additional details on risks related to competition for advertisers, please refer to the section entitled "Risk Factors."

The market for online advertising is becoming increasingly competitive as advertisers are allocating increasing amounts of their overall marketing budgets to web-based advertising. We compete for online advertisers with other internet companies, including major internet portals, search engine companies and social media sites. Large internet companies with greater brand recognition have large direct sales staffs, substantial proprietary advertising technology and extensive web traffic and consequently enjoy significant competitive advantages.

Terrestrial broadcast and to a lesser extent satellite radio are significant sources of competition for advertising dollars. These radio providers deliver ads across platforms that are more familiar to traditional advertisers than the internet might be. Advertisers may be reluctant to migrate advertising dollars to our internet-based platform.

We compete for advertising dollars with other traditional media companies in television and print. These traditional outlets present us with a number of competitive challenges in attracting advertisers, including large established audiences, longer operating histories, greater brand recognition and a growing presence on the internet.

Seasonality

Our results reflect the effects of seasonal trends in listener behavior due to higher advertising sales during the last three months of each calendar year due to greater advertiser demand during the holiday season and lower advertising sales in the first three months of the following calendar year due to reduced advertiser demand. In addition, we expect to experience increased usage during the last three months of each calendar year due to the holiday season, and in the first three months of each calendar year due to increased use of media-streaming devices received as gifts during the holiday season. We may also experience higher advertising sales during the last three months of each calendar year due to greater advertiser demand during the holiday season and lower advertising sales in the first three months of the calendar year due to reduced advertiser demand. See the section entitled "Business Trends" in Item 7 of this Transition Report on Form 10-K for a more complete description of the seasonality of our financial results.

The results of our prior fiscal quarters (three months ended April 30, July 31, October 31 and January 31 of each year prior to November 1, 2013) reflect the same effects of the seasonal trends on advertising revenue discussed above for calendar periods, except that the impact of these advertising sales-related trends on our fiscal results was not as pronounced due to the inclusion of January instead of October in our fourth fiscal quarter.

We changed our fiscal year to the calendar twelve months ended December 31 to align with the advertising industry's business cycle, effective beginning with the period ended on December 31, 2013. Due to this change, the effect of seasonality on our business will be more pronounced in calendar years ended after December 31, 2013.

Intellectual Property

Our success depends upon our ability to protect our technologies and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including trade secrets, patents, copyrights, trademarks, contractual restrictions, technological measures and other methods. We enter into confidentiality and proprietary rights agreements with our employees, consultants and business partners, and we control access to and distribution of our proprietary information.

We have 8 patents that have been issued in the United States and 10 that have been issued outside of the United States, and we continue to pursue additional patent protection, both in the United States and abroad where appropriate and cost effective. In June 2013, we purchased certain patents covering technologies used in internet radio from Yahoo! Inc. for $8.0 million in cash. We intend to hold these patents as part of our strategy to protect and defend Pandora in patent-related litigation.

Our registered trademarks in the United States include "Pandora" and the "Music Genome Project," in addition to a number of Pandora logos. "Pandora" is also registered in Australia, Canada, Chile, the European Union, Israel, Korea, Mexico, New Zealand, Switzerland and other countries. "Music Genome Project" is also registered in Australia, China and New Zealand. We have pending trademark applications in the United States and in certain other countries, including applications for Pandora logos.

We are the registrant of the internet domain name for our website, pandora.com, as well as pandora.co.in, pandora.co.uk, pandora.co.nz and pandora.de, among others. We own rights to proprietary processes and trade secrets, including those underlying the Pandora service.

In addition to the foregoing protections, we generally control access to and use of our proprietary software and other confidential information through the use of internal and external controls, including contractual protections with employees, contractors, customers and partners.

Customer Concentration

For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013 we had nocustomers that accounted for 10% or more of total revenue.

Employees

As of December 31, 2013, we had 1,069 employees. None of our employees are covered by collective bargaining agreements, and weconsider our relations with our employees to be good.

Corporate and Available Information

We were incorporated as a California corporation in January 2000 and reincorporated as a Delaware corporation in December 2010. Our principal executive offices are located at 2101 Webster Street, Suite 1650, Oakland, California 94612 and our telephone number is (510) 451-4100. Our website is located at www.pandora.com and our Investor Relations website is located at investor.pandora.com.

We changed our fiscal year to the calendar twelve months ending December 31 to align with the advertising industry's business cycle, effective beginning with the period ended on December 31, 2013. As a result, our current fiscal year was shortened from twelve months to an eleven-month transition period ended December 31, 2013. We reported our third fiscal quarter as the three months ended October 31, 2013, followed by a two-month transition period ended December 31, 2013.

In this Transition Report on Form 10-K, all references to a fiscal year prior to December 31, 2013 refer to the twelve months ended January 31 of such year, and references to the first, second, third and fourth fiscal quarters ended prior to November 1, 2013 refer to the three months ended April 30, July 31, October 31 and January 31, respectively.

We file reports with the Securities and Exchange Commission ("SEC"), including Annual and Transition Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any other filings required by the SEC. We make available on our Investor Relations website, free of charge, our Annual and Transition Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The information on our website is not incorporated by reference into this Transition Report on Form 10-K or in any other report or document we file with the SEC.

The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

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ITEM 1A. RISK FACTORS

The risks and uncertainties set forth below, as well as other factors described elsewhere in this Transition Report on Form 10-K or in other filings by us with the SEC, could adversely affect our business, financial condition, results of operations and the trading price of our common stock. Additional risks and uncertainties that are not currently known to us or that are not currently believed by us to be material may also harm our business operations and financial results. Because of the following factors, as well as other factors affecting our financial condition and operating results, past financial performance should not be considered to be a reliable indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods.

Risks Related to Our Business

Internet radio is an emerging market, which makes it difficult to evaluate our current business and future prospects.

Internet radio is an emerging market and our current business and future prospects are difficult to evaluate. The market for internet radio has undergone rapid and dramatic changes in its relatively short history and is subject to significant challenges. As a result, the future revenue and income potential of our business is uncertain. You should consider our business and prospects in light of the risks and difficulties we encounter in this new and rapidly evolving market, which risks and difficulties include, among others:

- our relatively new, evolving and unproven business model;
- our ability to retain our current listenership, build our listener base and increase listener hours;
- our ability to effectively monetize listener hours, particularly with respect to listener hours on mobile devices, by growing our sales of advertising inventory created from growing listener hours and developing compelling ad product solutions that successfully deliver advertisers' messages across the range of our delivery platforms while maintaining our listener experience in continually evolving markets;
- our ability to attract new advertisers, retain existing advertisers and prove to advertisers that our advertising platform is effective enough to justify a pricing structure that is profitable for us;
- our ability to maintain relationships with makers of mobile devices, consumer electronic products and automobiles;
- our operation under an evolving music industry licensing structure including statutory and consent decree licenses that may change or cease to exist, which in turn may result in a significant increase in our operating expenses; and
- our ability to continue to secure the rights to music that attracts listeners to the service on fair and reasonable economic terms.

Failure to successfully address these risks and difficulties and other challenges associated with operating in a new and emerging market, could inhibit the implementation of our business plan, significantly harm our financial condition, operating results and liquidity and prevent us from achieving or sustaining profitability.

We have incurred significant operating losses in the past and may not be able to generate sufficient revenue to be profitable.

Since our inception in 2000, we have incurred significant net operating losses and, as of December 31, 2013, we had an accumulated deficit of $166.6 million.

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A key element of our strategy is to increase the number of listeners and listener hours to increase our market penetration, including the number of listener hours on mobile and other connected devices. However, as our number of listener hours increases, the royalties we pay for content acquisition also increase. In addition, we have adopted a strategy to invest in our operations in advance of, and to drive, future revenue growth. As a result of these trends, we have not in the past generated, and may not in the future generate, sufficient revenue from the sale of advertising and subscriptions to offset our expenses.

If we cannot successfully earn revenue at a rate that exceeds the operational costs associated with increased listener hours, we may not be able to achieve or sustain profitability. In addition, we expect to invest heavily in our operations to support anticipated future growth. As a result of these factors, we expect to incur annual net losses on a U.S. GAAP basis in the near term.

Our revenue increased rapidly in each of the twelve months ended January 31, 2007 through January 31, 2013, and the eleven months ended December 31, 2013; however,we do not expect to sustain our high revenue growth rates in the future as a result of a variety of factors, including increased competition and the maturation of our business, and we cannot assure you that our revenue will continue to grow or will not decline. You should not consider our historical revenue growth or operating expenses as indicative of our future performance. If revenue growth is lower than our expectations, or our operating expenses exceed our expectations, our financial performance will be adversely affected. Further, if our future growth and operating performance fail to meet investor or analyst expectations, it could have a materially negative effect on our stock price.

In addition, in our efforts to increase revenue as the number of listener hours has grown, we have expanded and expect to continue to expand our sales force. If our hiring of additional sales personnel does not result in a sufficient increase in revenue, the cost of this additional headcount will not be offset, which would harm our operating results and financial condition.

Our failure to convince advertisers of the benefits of our service in the future could harm our business.

For the eleven months ended December 31, 2013 we derived 82% of our revenue from the sale of advertising and expect to continue to derive a substantial majority of our revenue from the sale of advertising in the future. Our ability to attract and retain advertisers, and ultimately to sell our advertising inventory to generate advertising revenue, depends on a number of factors, including:

- increasing the number of listener hours;
- keeping pace with changes in technology and our competitors;
- competing effectively for advertising dollars from other online marketing and media companies;
- penetrating the market for local radio advertising;
- demonstrating the value of advertisements to reach targeted audiences across all of our delivery platforms, including the value of mobile digital advertising;
- continuing to develop and diversify our advertising platform, which currently includes delivery of display, audio and video advertising products through multiple delivery channels, including traditional computers, mobile and other connected devices; and
- coping with ad blocking technologies that have been developed and are likely to continue to be developed that can block the display of our ads.

Our agreements with advertisers are generally short-term or may be terminated at any time by the advertiser. Advertisers that are spending only a small amount of their overall advertising budget on our service may view advertising with us as experimental and unproven and may leave us for competing alternatives at any time.

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We may never succeed in capturing a greater share of our advertisers' core advertising spending, particularly if we are unable to achieve the scale and market penetration necessary to demonstrate the effectiveness of our advertising platforms, or if our advertising model proves ineffective or not competitive when compared to alternatives. Failure to demonstrate the value of our service would result in reduced spending by, or loss of, existing or potential future advertisers, which would materially harm our revenue and business.

Advertising on mobile devices, such as smartphones, is an emerging phenomenon, and if we are unable to increase revenue from our advertising products delivered to mobile devices, our results of operations will be materially adversely affected.

Our number of listener hours on mobile devices has surpassed listener hours on traditional computers, and we expect that this trend will continue. Our mobile listenership has experienced significant growth since we introduced the first mobile version of our service in May 2007. Listener hours on mobile and other connected devices constituted approximately 54%, 69%, 77% and 80% of our total listener hours for the twelve months ended January 31, 2011, 2012 and 2013 and for the eleven months ended December 31, 2013, respectively. We expect this shift towards mobile to continue, though at a less rapid pace. Digital advertising on mobile devices is an emerging phenomenon, and the percentage of advertising spending allocated to digital advertising on mobile devices is lower than that allocated to traditional online advertising. According to IDC, the percentage of U.S. advertising spending allocated to advertising on mobile devices was less than 1% in 2010, compared to 13% for all online advertising. We must therefore convince advertisers of the capabilities of mobile digital advertising opportunities so that they migrate their advertising spend toward demographics and ad solutions that more effectively utilize mobile inventory.

We are still at an early stage of building our sales capability to penetrate local advertising markets, which we view as a key challenge in monetizing our listener hours, including listener hours on mobile and other connected devices. In addition, while a substantial amount of our revenue has traditionally been derived from display ads, some display ads may not be currently optimized for use on certain mobile or other connected devices. For example, standard display ads may not be well-suited for use on smartphones due to the size of the device screen and may not be appropriate for smartphones connected to or integrated in automobiles due to safety considerations. Further, some display ads may not be optimized to take advantage of the multimedia capabilities of connected devices. By contrast, audio ads are better-suited for delivery on smartphones connected to or installed in automobiles and across mobile and connected device platforms and video ads can be optimized for a variety of platforms. However, our audio and video advertising products are relatively new and have not been as widely accepted by advertisers as our traditional display ads. In addition, the introduction of audio advertising places us in more direct competition with terrestrial radio, as many advertisers that purchase audio ads focus their spending on terrestrial radio stations who traditionally have strong connections with local advertisers.

We have plans that, if successfully implemented, would increase our number of listener hours on mobile and other connected devices, including efforts to expand the reach of our service by making it available on an increasing number of devices, such as smartphones and devices connected to or installed in automobiles. In order to effectively monetize such increased listener hours, we must, among other things, convince advertisers to migrate spending to nascent advertising markets, penetrate local advertising markets and develop compelling ad product solutions. We cannot assure you that we will be able to effectively monetize inventory generated by listeners using mobile and connected devices, or the time frame on which we may do so.

If our efforts to attract prospective listeners and to retain existing listeners are not successful, our growth prospects and revenue will be adversely affected.

Our ability to grow our business and generate advertising revenue depends on retaining and expanding our listener base and increasing listener hours. We must convince prospective listeners of the benefits of our service and existing listeners of the continuing value of our service. The more listener hours we stream, the more ad inventory we have to sell. Further, growth in our listener base increases the size of demographic pools targeted by advertisers, which improves our ability to deliver advertising in a manner that maximizes our advertising customers' return on investment and, ultimately, to demonstrate the effectiveness of our advertising solutions and justify a pricing structure that is profitable for us. If we fail to grow our listener base and listener hours, particularly in key demographics such as young adults, we will be unable to grow advertising revenue, and our business will be materially and adversely affected.

Our ability to increase the number of our listeners and listener hours will depend on effectively addressing a number of challenges. We may fail to do so. Some of these challenges include:

- providing listeners with a consistent high quality, user-friendly and personalized experience;
- continuing to build our catalogs of music and comedy content that our listeners enjoy;
- continuing to innovate and keep pace with changes in technology and our competitors;
- maintaining and building our relationships with makers of consumer products such as mobile devices, other consumer electronic products and automobiles to make our service available through their products; and
- maintaining positive listener perception of our service while managing ad-load to optimize inventory utilization;

In addition, we have historically relied heavily on the success of viral marketing to expand consumer awareness of our service. If we are unable to maintain or increase the efficacy of our viral marketing strategy, or if we otherwise decide to expand the reach of our marketing through use of more costly marketing campaigns, we may experience an increase in marketing expenses, which could have an adverse effect on our results of operations. We cannot assure you that we will be successful in maintaining or expanding our listener base and failure to do so would materially reduce our revenue and adversely affect our business, operating results and financial condition.

Further, although we use our number of registered users and our number of active users as indicators of our brand awareness and the growth of our business, the number of registered users and number of active users exceeds the number of unique individuals who register for, or actively use, our service. We define registered users as the total number of accounts that have been created for our service and we define active users as the number of distinct registered users that have requested audio from our servers within the trailing 30 days from the end of each calendar month. To establish an account, a person does not need to provide personally unique information. For this reason a person may have multiple accounts. If the number of actual listeners does not result in an increase in listener hours, then our business may not grow as quickly as we expect, which may harm our business, operating results and financial condition.

We have experienced rapid growth in both listener hours and advertising revenue. We do not expect to be able to sustain these growth rates in the future and our business and operating results may suffer.

We have experienced rapid growth rates in both listener hours and advertising revenue as a result of our growth strategy to commit substantial financial, operational and technical resources to build the Company. As we grow larger and increase our listener base and usage, we expect it will become increasingly difficult to maintain the rate of growth we currently experience.

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Slower growth could negatively impact our stock price, our ability to hire and retain employees or harm our business in other ways.

If our efforts to attract and retain subscribers are not successful, our business may be adversely affected.

In the eleven months ended December 31, 2013, subscription revenue comprised 18% of our total revenue, compared to 12% (unaudited) in the eleven months ended December 31, 2012. The growth in subscribers and subscription revenue in the transition period ended December 31, 2013 has been driven substantially by the listener hour limit we instituted on mobile listeners in March 2013. In September 2013, we removed the mobile listening limit, due to other tools that we have instituted to moderate mobile listener hour growth. As a result, we do not expect the growth rate we experienced in subscribers in the eleven months ended December 31, 2013 to continue. Furthermore, listeners who subscribed to Pandora One in response to the mobile listening limit may choose to cancel their subscriptions going forward and return to using our free, ad-supported service. As a result, we presently expect subscriber growth to be lower than in corresponding prior year periods for the near term. Over the longer term, our ability to continue to attract subscribers will depend in part on our ability to consistently provide our subscribers with a quality experience through Pandora One. If Pandora One subscribers do not perceive that offering to be of value, or if we introduce new or adjust existing features or pricing in a manner that is not favorably received by them, we may not be able to attract and retain subscribers. Subscribers may cancel their subscription to our service for many reasons, including a perception that they do not use the service sufficiently, the need to cut household expenses, competitive services provide a better value or experience or as a result in changes in pricing, if any. If our efforts to attract and retain subscribers are not successful, our business, operating results and financial condition may be adversely affected.

If we fail to accurately predict and play music or comedy content that our listeners enjoy, we may fail to retain existing and attract new listeners.

We believe that a key differentiating factor between the Pandora service and other music content providers is our ability to predict music that our listeners will enjoy. Our personalized playlist generating system, based on the Music Genome Project and our proprietary algorithms, is designed to enable us to predict listener music preferences and select music content tailored to our listeners' individual music tastes. We have invested, and will continue to invest, significant resources in refining these technologies; however, we cannot assure you that such investments will yield an attractive return or that such refinements will be effective. The effectiveness of our personalized playlist generating system depends in part on our ability to gather and effectively analyze large amounts of listener data and listener feedback and we have no assurance that we will continue to be successful in enticing listeners to give a thumbs-up or thumbs-down to enough songs for our database to effectively predict and select new and existing songs. In addition, our ability to offer listeners songs that they have not previously heard and impart a sense of discovery depends on our ability to acquire and appropriately categorize additional tracks that will appeal to our listeners' diverse and changing tastes. While we have more than 1,000,000 songs in our catalog, we must continuously identify and analyze additional tracks that our listeners will enjoy and we may not effectively do so. Further, many of our competitors currently have larger catalogs than we offer and they may be more effective in providing their listeners with a more appealing listener experience.

We also provide comedy content on Pandora, an offering that is designed to predict what our listeners will enjoy using technology similar to the technology that we use to generate personalized playlists for music. The risks that apply to predicting our listeners' musical tastes apply to comedy to an even greater extent, particularly as we lack experience with content other than music, do not yet have as large a set of data on listener preferences for comedy and have a much smaller comedy catalog as compared to music.

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Our ability to predict and select music or comedy content that our listeners enjoy is critical to the perceived value of our service among listeners and failure to make accurate predictions would adversely affect our ability to attract and retain listeners, increase listener hours and sell advertising.

If we fail to effectively manage our growth, our business and operating results may suffer.

Our rapid growth has placed, and will continue to place, significant demands on our management and our operational and financial infrastructure. In order to attain and maintain profitability, we will need to recruit, integrate and retain skilled and experienced sales personnel who can demonstrate our value proposition to advertisers and increase the monetization of listener hours, particularly on mobile devices, by developing relationships with both national and local advertisers to convince them to migrate advertising spending to online and mobile digital advertising markets and utilize our advertising product solutions. Continued growth could also strain our ability to maintain reliable service levels for our listeners, effectively monetize our listener hours, develop and improve our operational, financial and management controls, enhance our reporting systems and procedures and recruit, train and retain highly skilled personnel. If our systems do not evolve to meet the increased demands placed on us by an increasing number of advertisers, we may also be unable to meet our obligations under advertising agreements with respect to the timing of our delivery of advertising or other performance obligations. As our operations grow in size, scope and complexity, we will need to improve and upgrade our systems and infrastructure, which will require significant expenditures and allocation of valuable management resources. If we fail to maintain the necessary level of discipline and efficiency and allocate limited resources effectively in our organization as it grows, our business, operating results and financial condition may suffer.

We face, and will continue to face, competition for both listener hours and advertising spending.

We compete with other content providers for listeners.

We compete for the time and attention of our listeners with other content providers on the basis of a number of factors, including quality of experience, relevance, acceptance and perception of content quality, ease of use, price, accessibility, perception of ad load, brand awareness and reputation.

Many of our competitors may leverage their existing infrastructure, brand recognition and content collections to augment their services by offering competing internet radio features to provide listeners with more comprehensive music service delivery choices. We face increasing competition for listeners from a growing variety of businesses that deliver audio media content through mobile phones and other wireless devices. Our competitors include Apple, Spotify, Clear Channel, Slacker, Sirius XM, RDIO, Microsoft, Rhapsody, Google, Amazon, YouTube, Hulu and VEVO.

Our competitors include terrestrial radio, satellite radio and internet radio. Terrestrial radio providers offer their content for free, are well-established and accessible to listeners and offer content, such as news, sports, traffic, weather and talk that we currently do not offer. In addition, many terrestrial radio stations have begun broadcasting digital signals, which provide high-quality audio transmission. Satellite radio providers may offer extensive and oftentimes exclusive news, comedy, sports and talk content, national signal coverage and long-established automobile integration. In addition, terrestrial radio pays no royalties for its use of sound recordings and satellite radio pays a much lower percentage of revenue, 9.0% in 2013 and 9.5% in 2014, than internet radio providers for use of sound recordings, giving broadcast and satellite radio companies a significant cost advantage. We also compete directly with other emerging non-interactive internet radio providers, which may offer more extensive content libraries than we offer and some of which may be accessed internationally.

On-demand audio media and entertainment which are purchased or available for free and playable on mobile devices, automobiles and in the home provide listeners with an interactive experience. These forms of media may be purchased, downloaded and owned such as iTunes audio files, MP3s, CDs, or accessed from subscription or free online on-demand offerings by music providers.

We compete for the time and attention of our listeners with providers of other forms of in-home and mobile entertainment. To the extent existing or potential listeners choose to watch cable television, stream video from on-demand services or play interactive video games on their home-entertainment system, computer or mobile phone rather than listen to the Pandora service, these content services pose a competitive threat.

We believe that companies with a combination of financial resources, technical expertise and digital media experience also pose a significant threat of developing competing internet radio and digital audio entertainment technologies. For example, known incumbents in the digital media space have recently launched competing services, and they may devote greater resources than we have available, have a more accelerated time frame for deployment and leverage their existing user base and proprietary technologies to provide products and services that our listeners and advertisers may view as superior. Our current and future competitors may have more well-established brand recognition, more established relationships with music publishing companies and consumer product manufacturers, greater financial, technical and other resources, more sophisticated technologies or more experience in the markets, both domestic and international, in which we compete.

We also compete for listeners on the basis of our presence and visibility as compared with other businesses and software that deliver audio and other content through the internet, mobile devices and consumer products. We face significant competition for listeners from companies promoting their own digital music and content online or through application stores, including several large, well-funded and seasoned participants in the digital media market. Search engines and mobile device application stores rank responses to search queries based on the popularity of a website or mobile application, as well as other factors that are outside of our control. Additionally, mobile device application stores often offer users the ability to browse applications by various criteria, such as the number of downloads in a given time period, the length of time since a mobile app was released or updated, or the category in which the application is placed. The websites and mobile applications of our competitors may rank higher than our website and our Pandora app, and our app may be difficult to locate in mobile device application stores, which could draw potential listeners away from our service and toward those of our competitors. In addition, our competitors' products may be pre-loaded or integrated into consumer electronics products or automobiles, creating an initial visibility advantage. If we are unable to compete successfully for listeners against other digital media providers by maintaining and increasing our presence and visibility online, in application stores and in consumer electronics products and automobiles, our listener hours may fail to increase as expected or decline and our advertising sales may suffer.

To compete effectively, we must continue to invest significant resources in the development of our service to enhance the user experience of our listeners. There can be no assurance that we will be able to compete successfully for listeners in the future against existing or new competitors, and failure to do so could result in loss of existing or potential listeners, reduced revenue, increased marketing expenses or diminished brand strength, any of which could harm our business.

We compete for advertising spending with other content providers.

We compete for a share of advertisers' overall marketing budgets with other content providers on a variety of factors including perceived return on investment, effectiveness and relevance of our advertising products, pricing structure and ability to deliver large volumes or precise types of ads to targeted demographics. Our competitors include Facebook, Google, MSN, Yahoo!, ABC, CBS, FOX, NBC, The New York Times and the Wall Street Journal.

Although advertisers are allocating an increasing amount of their overall marketing budgets to web and mobile-based ads, such spending lags behind growth in internet and mobile usage, and the market for online and mobile advertising is intensely competitive. As a result, we compete for advertisers with a range of internet companies, including major internet portals, search engine companies and social media sites. Large internet companies with greater brand recognition have significant numbers of direct sales personnel and substantial proprietary advertising inventory and web traffic that provide a significant competitive advantage and have a significant impact on pricing for internet advertising and web traffic. The trend toward consolidation among online marketing and media companies may also affect pricing and availability of advertising inventory.

We also face significant competition for advertising dollars from terrestrial and, to a lesser extent, satellite radio providers. As many of the advertisers we target have traditionally advertised on terrestrial radio and have less experience with internet radio providers, they may be reluctant to spend for advertising on traditional computers, mobile or other connected device platforms.

In addition, terrestrial radio providers as well as other traditional media companies in television and print, cable television channel providers, national newspapers and some regional newspapers enjoy a number of competitive advantages over us in attracting advertisers, including large established audiences, longer operating histories, greater brand recognition and a growing presence on the internet.

In order to compete successfully for advertisers against new and existing competitors, we must continue to invest resources in developing and diversifying our advertisement platform, harnessing listener data and ultimately proving the effectiveness and relevance of our advertising products. Failure to compete successfully against our current or future competitors could result in loss of current or potential advertisers or a reduced share of our advertisers' overall marketing budget, which could adversely affect our pricing and margins, lower our revenue, increase our research and development and marketing expenses and prevent us from achieving or maintaining profitability.

Our ability to increase the number of our listeners will depend in part on our ability to establish and maintain relationships with automakers, automotive suppliers and consumer electronics manufacturers with products that integrate our service.

A key element of our strategy to expand the reach of our service and increase the number of our listeners and listener hours is to establish and maintain relationships with automakers, automotive suppliers and consumer electronics manufacturers that integrate our service into and with their products. Working with certain third-party distribution partners, we currently offer listeners the ability to access our service through a variety of consumer electronics products used in the home and devices connected to or installed in automobiles. We intend to broaden our ability to reach additional listeners, and increase current listener's hours, through other platforms and partners over time. However, reaching agreements with distribution partners can be time consuming, and once an agreement is reached, product design cycles can be lengthy. If we are not successful in maintaining existing and creating new relationships, or if we encounter technological, content licensing or other impediments, our ability to grow our business could be adversely impacted.

Our existing agreements with partners in the automobile and consumer electronics industries generally do not obligate those partners to offer our service in their products. In addition, some automobile manufacturers or their supplier partners may terminate their agreements with us for convenience. Our business could be adversely affected if our automobile partners and consumer electronics partners do not continue to provide access to our service or are unwilling to do so on terms acceptable to us. If we are forced to amend the business terms of our distribution agreements as a result of competitive pressure, our ability to maintain and expand the reach of our service and increase listener hours would be adversely affected, which would reduce our revenue and harm our operating results.

Additionally, we distribute our mobile applications via smartphone application download stores managed by Apple, Google, Amazon, Palm and Research In Motion, or RIM, and such distribution is subject to an application developer license agreement in each case. Should any of these parties reject our app from their application store or amend the terms of their license in such a way that inhibits our ability to distribute the Pandora apps via their application store, or negatively impacts our economics in such distribution, our ability to increase listener hours and sell advertising would be adversely affected, which would reduce our revenue and harm our operating results.

If we are unable to continue to make our technology compatible with the technologies of third-party distribution partners who make our service available to our listeners through mobile devices, consumer electronic products and automobiles, we may not remain competitive and our business may fail to grow or decline.

In order to deliver music everywhere our listeners want to hear it, our service must be compatible with mobile, consumer electronic, automobile and website technologies. Our service is accessible in part through Pandora-developed or third-party developed applications that hardware manufacturers embed in, and distribute through, their devices. Connected devices and their underlying technology are constantly evolving. As internet connectivity of automobiles, mobile devices and other consumer electronic products expands and as new internet-connected products are introduced, we must constantly adapt our technology. It is difficult to keep pace with the continual release of new devices and technological advances in digital media delivery and predict the problems we may encounter in developing versions of our applications for these new devices and delivery channels. It may become increasingly challenging to do so in the future. In particular, the technology used for streaming the Pandora service in automobiles remains at an early stage and may not result in a seamless customer experience. If automobile and consumer electronics makers fail to make products that are compatible with our technology or we fail to adapt our technology to evolving requirements, our ability to grow or sustain the reach of our service, increase listener hours and sell advertising could be adversely affected.

Consumer tastes and preferences can change in rapid and unpredictable ways and consumer acceptance of these products depends on the marketing, technical and other efforts of third-party manufacturers, which is beyond our control. If consumers fail to accept the products of the companies with whom we partner or if we fail to establish relationships with makers of leading consumer products, our business could be adversely affected.

Unavailability of, or fluctuations in, third-party measurements of our audience may adversely affect our ability to grow advertising revenue.

Selling ads, locally and nationally, requires that we demonstrate to advertisers that our service has substantial reach and usage. Third-party measurements may not reflect our true listening audience and their underlying methodologies are subject to change at any time. In addition, the methodologies we apply to measure the key metrics that we use to monitor and manage our business may differ from the methodologies used by third-party measurement service providers. For example, we calculate listener hours based on the total bytes served for each track that is requested and served from our servers, as measured by our internal analytics systems, whether or not a listener listens to the entire track. By contrast, certain third-party measurement service providers may calculate and report the number of listener hours using a client-based approach, which measures time elapsed during listening sessions. Measurement technologies for mobile and consumer electronic devices may be even less reliable in quantifying the reach and usage of our service, and it is not clear whether such technologies will integrate with our systems or uniformly and comprehensively reflect the reach and usage of our service. While we have been working with third-party measurement service providers, these providers have not yet developed uniform measurement systems that comprehensively measure the reach and usage of our service.

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In order to demonstrate to potential advertisers the benefits of our service, we must supplement third-party measurement data with our internal research, which may be perceived as less valuable than third-party numbers. If such third-party measurement providers report lower metrics than we do, or if there is wide variance among reported metrics, our ability to convince advertisers of the benefits of our service could be adversely affected.

The lack of accurate cross-platform measurements for internet radio and broadcast radio may adversely affect our ability to grow advertising revenue.

Pandora has invested substantial resources to create accurate cross-platform measurements for internet radio and broadcast radio in the major automated media-buying platforms, creating a one-stop shop that enables media buyers to compare internet radio audience reach with terrestrial radio audience reach using traditional broadcast radio metrics. To achieve this result, we currently rely on third parties such as Triton to quantify the reach and usage of our service and on media buying companies to provide Internet radio metrics side-by-side with terrestrial radio metrics in media-buying platforms.

We have also partnered with media buying companies that show internet radio measurements alongside terrestrial metrics in the media buying systems that media buyers use to purchase advertising. Media buying companies receive measurement metrics from third parties, such as Triton for internet radio and Arbitron and Nielsen for more traditional media like terrestrial radio and television. Media buying companies may choose not to show, or may be prohibited by third-party measurement services that measure terrestrial radio and other traditional media from showing, internet radio metrics alongside traditional terrestrial metrics. Our ability to realize our long-term potential will be significantly affected by our success in these advertising initiatives, and there is no assurance we will achieve substantial penetration of these advertising markets.

Our success depends upon the continued acceptance of online advertising as an alternative or supplement to offline advertising.

The percentage of the advertising market allocated to online advertising lags the percentage of consumer online consumption by a significant degree. Growth of our business will depend in large part on the reduction or elimination of this gap between online and offline advertising spending, which may not happen in a way or to the extent that we currently expect. Many advertisers still have limited experience with online advertising and may continue to devote significant portions of their advertising budgets to traditional, offline advertising media. Accordingly, we continue to compete for advertising dollars with traditional media, including broadcast radio. We believe that the continued growth and acceptance of our online advertising products will depend on the perceived effectiveness and the acceptance of online advertising models generally, which is outside of our control. Any lack of growth in the market for online advertising could result in reduced revenue or increased marketing expenses, which would harm our operating results and financial condition.

We operate under and pay royalties pursuant to statutory licenses for the reproduction and public performance of sound recordings that could change or cease to exist, which would adversely affect our business.

We currently operate under statutory licenses that may change or cease to exist. We must pay performance rights royalties for the digital audio transmission of sound recordings. Subject to our ongoing compliance with numerous statutory conditions and regulatory requirements for a non-interactive service, we are permitted to operate our radio service under federal statutory licenses that allow the streaming in the U.S. of any sound recording lawfully released to the public. The service does have a small number of interactive components for which we obtain licenses directly from the rights holders, but we believe that these components do not impact our status as a non-interactive service.

We are also permitted to make reproductions of sound recordings on computer servers pursuant to these statutory licenses designed to facilitate the making of transmissions. There is no guarantee that Congress will not amend the Copyright Act to eliminate the availability of these licenses or that we will continue to be eligible to operate under these statutory licenses. For example, if copyright owners objected, and a court agreed, that we operate an "interactive" streaming service, that we make reproductions of sound recordings not covered by the statutory license, or that the functionality or transmission methods of our service extend beyond what is allowed under the statutory license, we could be subject to significant liability for copyright infringement and, absent making technological changes, lose our eligibility to operate under the statutory license. In that event, we would have to negotiate license agreements with sound recording copyright owners individually, a time-consuming and expensive undertaking that could jeopardize our ability to stream a significant percentage of the music currently in our library and result in royalty costs that are prohibitively expensive. For the eleven months ended December 31, 2013 we incurred SoundExchange related content acquisition costs representing 48% of our total revenue for that period.

As described in "Business—Content, Copyrights and Royalties—Sound Recordings", we currently elect to avail ourselves of the Pureplay Settlement, which provides of rates and terms of statutory licenses for the reproduction and public performance of sound recordings for commercial webcasters through 2015, and we intend to continue to avail ourselves of this settlement through 2015. We presently do not know what rates will be available to us commencing January 1, 2016. There can be no assurance that we will be able to reach a new agreement with SoundExchange for rates for commercially reasonable rates. The CRB, which still has rate-making authority over us upon expiration of the Pureplay Settlement, has consistently established royalty rates, including those established for the years 2011 through 2015 that would, if paid by us, consume a significantly greater portion of our revenue and negatively impact our ability to achieve and sustain profitability. There can be no assurance that the per performance rates established by the CRB for periods following 2015 will not exceed the rates currently paid by us under the Pureplay Settlement. If we are unable to reach a new agreement for commercially reasonable rates with SoundExchange and the CRB sets performance rates for post-2015 periods that exceed the Pureplay Settlement, our content acquisition costs may significantly increase, which could materially harm our financial condition and inhibit the implementation of our business plans.

We depend upon third-party licenses for the right to publicly perform musical works and a change to these licenses could materially increase our content acquisition costs.

Our content costs, in part, are comprised of the royalties we pay for the public performance of musical works embodied in the sound recordings that we stream. As described in "Business—Content, Copyrights and Royalties—Musical Works" to secure the rights to publicly perform musical works embodied in sound recordings over the internet, we obtain licenses from or for the benefit of copyright owners and pay royalties to copyright owners or their agents. Copyright owners of musical works are vigilant in protecting their rights and currently are seeking substantial increases in the rates applicable to the public performance of such works. There is no guarantee that the licenses available to us now will continue to be available in the future or that such licenses will be available at the royalty rates associated with the current licenses. If we are unable to secure and maintain rights to publicly perform musical works or if we cannot do so on terms that are acceptable to us, our ability to perform music content to our listeners, and consequently our ability to attract and retain both listeners and advertisers, will be adversely impacted.

Copyright owners of musical works, typically, songwriters and music publishers, have traditionally relied on intermediaries known as performing rights organizations to negotiate so-called "blanket" licenses with copyright users, collect royalties under such licenses, and distribute them to copyright owners. We have obtained public performance licenses from, and pay license fees to, the three major performing rights organizations in the United States: the American Society of Composers, Authors and Publishers ("ASCAP"), Broadcast Music, Inc. ("BMI") and SESAC, Inc. ("SESAC").

We currently operate under an agreement with SESAC, which automatically renews yearly, but is subject to termination by either party in accordance with its terms at the end of each yearly term. The SESAC rate is subject to small annual increases. There is no guarantee that either the license or the associated royalty rate available to us now with respect to SESAC will be available to us in the future.

We currently operate under interim licenses with each of ASCAP and BMI. ASCAP and BMI each are governed by a consent decree with the United States Department of Justice. The rates we pay ASCAP and BMI can be established by either negotiation or through a rate court proceeding conducted by the United States District Court for the Southern District of New York. We elected to terminate our prior agreements with ASCAP as of December 31, 2010 and with BMI as of December 31, 2012 because, among other things, we believed that the royalty rates sought by ASCAP and BMI were in excess of rates paid by our largest radio competitors, broadcast radio stations and satellite radio. Notwithstanding our termination of these agreements, the musical works administered by each of ASCAP and BMI continued to be licensed to us pursuant to the provisions of their respective consent decrees. In November 2012, we filed a petition requesting that the ASCAP rate court determine reasonable license fees and terms for the ASCAP consent decree license applicable to the period January 1, 2011 through December 31, 2015. In June 2013, BMI filed a petition requesting that the BMI rate court determine reasonable license fees and terms for the BMI consent decree license applicable to the period January 1, 2013 through December 31, 2017. A trial to determine the royalty rates we will pay ASCAP concluded in February 2014. A trial date has not been set for the BMI rate court proceeding. Each of these proceedings has been, and is expected to continue to be, protracted, expensive and uncertain in outcome. It is likely that trial level outcomes will be appealed and the final resolution may not be known for years. In the event that these matters are resolved adversely to us, our content acquisition costs could increase significantly, which would adversely affect our operating results. There is no guarantee that final rates established by mutual agreement or by a rate court determination would establish royalty rates more favorable to us than those we previously paid pursuant our terminated agreements with ASCAP and/or BMI or those that we pay pursuant to our interim arrangements with ASCAP and/or BMI. For the eleven months ended December 31, 2013, we incurred content acquisition costs for the public performance of musical works representing 4% of our total revenue for that period.

We do not currently pay so-called "mechanical royalties" to music publishers for the reproduction and distribution of musical works embodied in server copies or transitory copies used to make streams audible to our listeners. Although not currently a matter of dispute, if music publishers were to retreat from the publicly stated position of their trade association that non-interactive streaming does not require the payment of a mechanical royalties, and a final judgment were entered by a court requiring that payment, our royalty obligations could increase significantly, which would increase our operating expenses and harm our business and financial interests. While we would vigorously challenge such mechanical royalties as not required by law, our challenge may be unsuccessful and would in any case involve commitment of substantial time and resources. In addition, we stream spoken word comedy content, for which the underlying literary works are not currently entitled to eligibility for licensing by any performing rights organization in the United States. Rather, pursuant to industry-wide custom and practice, this content is performed absent a specific license from any such performing rights organization or individual rights owners, although royalties are paid to SoundExchange for the public performance of the sound recordings in which such literary works are embodied.

There can be no assurance that this industry custom will not change or that we will not otherwise become subject to additional licensing costs for spoken word comedy content imposed by performing rights organizations or individual copyright owners in the future or be subject to damages for copyright infringement.

Changes in third-party licenses for the right to publicly perform musical works may reduce the sound recordings that we perform on the service or materially increase our content acquisition costs.

The number of works administered by SESAC, ASCAP and BMI may fluctuate over time and may be subject to the withdrawal of certain rights by individual SESAC, ASCAP and BMI-affiliated music publishers for certain types of transmissions by certain types of services, such as Pandora, or the loss of repertory entirely in the event of a publisher's complete withdrawal from any of SESAC, ASCAP or BMI. The decrease in the works licensed by SESAC, ASCAP and BMI may require more direct licensing by Pandora with individual music publishers and individual publishers not subject to a mandatory licensing obligations who could withhold the rights to all of the musical works which they own or administer. Between 2012 and 2014, certain publishers purported to partially withdraw portions of their repertoires from each of ASCAP and BMI with the intent that each performing rights organization would be unable to license the withdrawn musical works to new media licensees such as Pandora. Our position is that these attempted partial withdrawals were a violation of the ASCAP and BMI consent decrees, and we moved for summary judgment in both the ASCAP and BMI rate courts to clarify the issue.

The ASCAP rate court granted our summary motion in September 2013, which is subject to appeal, determining that the publishers' attempted partial withdrawals from ASCAP would place ASCAP in violation of its consent decree and, therefore, were ineffectual. The BMI rate court agreed that the attempted partial withdrawals would place BMI in violation of its consent decree; however, it also determined that any publisher seeking to partially withdraw from BMI would be deemed to have totally withdrawn from BMI. Based on the ASCAP court decision, we believe that Pandora remains able to perform works that were the subject of such attempted partial withdrawals. Based on the recent BMI court decision, however, there is some doubt regarding our immediate ability under the BMI license to perform works that have been the subject of attempted partial publisher withdrawals. From time to time, in light of the legal uncertainties, we have entered into agreements with some purported withdrawing publishers to enable Pandora to continue to perform those publishers' works while we continue to pursue other legal remedies.

If music publishers effectuate withdrawals of all or a portion of their catalogs from ASCAP, BMI or SESAC, we may no longer be able to obtain licenses for such publisher's withdrawn catalogs from ASCAP, BMI or SESAC. Under these circumstances, we would either need to enter into direct licensing arrangements with such music publishers or remove those musical works from the service, including any sound recordings in which such musical works are embodied. Although we continue to be licensed by the performing rights organizations, it is unclear what specific effect a publisher's purported limited or prospective complete withdrawal of rights to public performances by means of digital transmissions from a performing rights organization would have on us. If we are unable to reach an agreement with respect to the repertoire of any music publisher which successfully withdraws all or a portion of its catalog(s) from a performing rights organization, or if we are forced to enter into direct licensing agreements with such publishers at rates higher than those currently set by the performing rights organizations, or higher than those set by the U.S. District Court having supervisory authority over ASCAP and BMI, for the performance of musical works, or if there is uncertainty as to what rights are administered by any particular performing rights organization or publisher, the number of sound recordings that we perform on our service may be reduced, our content acquisition costs may increase and our ability to retain and expand our listener base could be adversely affected, any of which could adversely affect our business, financial condition and results of operations.

Assertions by third parties of violations under state law with respect to the public performance and reproduction of pre-1972 sound recordings could result in significant costs and substantially harm our business and operating results.

As described in "Business—Content, Copyrights and Royalties—Sound Recordings", sound recordings made on or after February 15, 1972 fall within the scope of federal copyright protection. Subject to our ongoing compliance with numerous federal statutory conditions and regulatory requirements for a noninteractive service, we are permitted to operate our radio service under a statutory license that allows the streaming in the U.S. of any such sound recording lawfully released to the public and permits us to make reproductions of such sound recordings on computer servers pursuant to a separate statutory license designed to facilitate the making of such transmissions.

By contrast, protection of sound recordings created prior to February 15, 1972 ("pre-1972 sound recordings") remains governed by a patchwork of state statutory and common laws. Copyright owners of pre-1972 sound recordings have commenced litigation against Sirius XM Radio Inc., alleging violations of numerous state statutory and common laws with respect to the unauthorized reproduction and public performance of pre-1972 sound recordings, seeking, among other things, restitution, disgorgement of profits, exemplary and punitive damages as well as injunctive relief prohibiting further violation of those copyright owners' alleged exclusive rights. Similar litigation could be brought against us for similar claims. If we are sued and found liable for the violation of the exclusive rights of any pre-1972 sound recording copyright owners, then we could be subject to liability, the amount of which could be significant. If we are required to obtain licenses from individual sound recording copyright owners for the reproduction and public performance of pre-1972 sound recordings, then the time, effort and cost of securing such licenses directly from all owners of sound recording used on our service could be significant and could harm our business and operating results. If we are required to obtain licenses for pre-1972 sound recordings to avoid liability and are unable to secure such licenses, then we may have to remove pre-1972 sound recordings from our service, which could harm our ability to attract and retain users.

Our royalty payments are subject to audits and our royalty calculation methods involve significant estimates.

The royalties that we pay to SoundExchange for the streaming of sound recordings are calculated using a per performance rate. While we believe that the mechanisms we use to track performances are sufficient to ensure that we are accurately reporting and paying royalties, our ability to do so depends in part on our ability to maintain these mechanisms as new devices are introduced and technologies evolve. Any understatement or overstatement of performances could result in our paying lower or higher royalties to SoundExchange than we actually owed, which could in turn affect our financial condition and results of operations. SoundExchange has the right to audit our royalty payments and in December 2013 informed us that it intends to audit our payments for the years 2010, 2011, and 2012. In addition, performing rights organizations and musical work copyright owners with whom we have entered into direct licenses have or may have the right to audit our royalty payments, and any such audit could result in disputes over whether we have paid the proper royalties. If such a dispute were to occur, we could be required to pay additional royalties and audit fees. The amounts involved could be material.

Rate court proceedings, the attempted and/or purported withdrawal of certain music publishers or the rights to certain of their works for certain purposes from ASCAP and BMI, and our recent entry into a local marketing agreement to program KXMZ-FM have highlighted uncertainties for the royalty rates that we pay for the public performance of musical works. For example, we could be liable for both increased royalty rates going forward and a potential true-up of royalty payments in excess of any interim royalties paid for the period following December 31, 2010 with respect to ASCAP and/or for the period following December 31, 2012 with respect to BMI.

We record a liability for public performance royalties based on our best estimate of the amount owed to each organization based on historical rates, third-party evidence and legal developments. For each quarterly period, we evaluate our estimates to assess the adequacy of recorded liabilities. If actual royalty rates differ from estimates, revisions to the estimated royalty liabilities may be required, which could materially affect our results of operations. Any royalty audit could result in disputes over whether we have paid the proper royalties.

Our inability to obtain accurate and comprehensive information to identify the ownership of a musical work may impact our ability to remove musical works or decrease the number of performances of a particular musical work, subjecting us to potential copyright infringement and difficulties in controlling content acquisition costs.

Comprehensive and accurate rightsholder information for the musical works that we publicly perform is not presently available. Without the ability to identify which composers, songwriters or publishers own or administer musical works, it may be difficult to remove from our service musical works for which we have not obtained a license, which may subject us to significant liability for copyright infringement.

In addition, we have historically relied on the provisions of blanket licenses from ASCAP and BMI pursuant to certain consent decrees, and if the consent decrees no longer provide for such blanket licenses, our lack of ownership information for the musical works we stream may make it difficult to identify the appropriate rightsholders from which to obtain a license, which could also lead to a reduction of musical works performed on our service, adversely impacting our ability to retain and expand our listener base.

Expansion of our operations into non-music content, including our launch of comedy, subjects us to additional business, legal, financial and competitive risks.

Expansion of our operations into delivery of non-music content stations involves numerous risks and challenges, including increased capital requirements, new competitors and the need to develop new strategic relationships. Growth into this new area may require changes to our existing business model and cost structure, modifications to our infrastructure and exposure to new regulatory and legal risks, including infringement liability, any of which may require expertise in which we have little or no experience. There is no guarantee that we will be able to generate sufficient revenue from advertising sales associated with comedy content to offset the costs of maintaining comedy stations or the royalties paid for such comedy stations. Further, we have established a reputation as an online music provider and our ability to gain acceptance and listenership for comedy content stations, and thus our ability to attract advertisers on comedy stations, is not certain. Failure to obtain or retain rights to comedy content on acceptable terms, or at all, to successfully monetize and generate revenues from such content, or to effectively manage the numerous risks and challenges associated with such expansion could adversely affect our revenues and profitability. To the extent we choose, in the future, to offer additional types of content beyond music and comedy, such as news, talk and sports programming, we will be subject to many of these same risks.

Loss of agreements with the makers of mobile devices, renegotiation of such agreements on less favorable terms or other actions these third parties may take could harm our business.

Most of our agreements with makers of mobile operating systems and devices through which our service may be accessed, including Apple, RIM and Google, are short-term or can be cancelled at any time with little or no prior notice or penalty. The loss of these agreements, or the renegotiation of these agreements on less favorable economic or other terms, could limit the reach of our service and its attractiveness to advertisers.

Some of these mobile device makers, including Apple, are now, or may in the future become, competitors of ours, and could stop allowing or supporting access to our service through their products for competitive reasons. Furthermore, because devices providing access to our service are not manufactured and sold by us, we cannot guarantee that these companies will ensure that their devices perform reliably, and any faulty connection between these devices and our service may result in consumer dissatisfaction toward us, which could damage our brand.

We rely upon an agreement with DoubleClick, which is owned by Google, for delivering and monitoring our ads. Failure to renew the agreement on favorable terms, or termination of the agreement, could adversely affect our business.

We use DoubleClick's ad-serving platform to deliver and monitor ads for our service. There can be no assurance that our agreement with DoubleClick, which is owned by Google, will be extended or renewed upon expiration, that we will be able to extend or renew our agreement with DoubleClick on terms and conditions favorable to us or that we could identify another alternative vendor to take its place. Our agreement with DoubleClick also allows DoubleClick to terminate our relationship before the expiration of the agreement on the occurrence of certain events, including material breach of the agreement by us, and to suspend provision of the services if DoubleClick determines that our use of its service violates certain security, technology or content standards.

If we are unable to implement and maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to furnish a report by our management on our internal control over financial reporting. The report contains, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of year-end, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management.

While we have determined that our internal control over financial reporting was effective as of December 31, 2013, as indicated in our Management's Annual Report on Internal Control over Financial Reporting included in this Transition Report on Form 10-K for the eleven months ended December 31, 2013, we must continue to monitor and assess our internal control over financial reporting. If our management identifies one or more material weaknesses in our internal control over financial reporting and such weakness remains uncorrected at year-end, we will be unable to assert such internal control is effective at year-end. If we are unable to assert that our internal control over financial reporting is effective at year-end, or if our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls or concludes that we have a material weakness in our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which could have a material adverse effect on our business and price of our common stock.

Our business and prospects depend on the strength of our brand and failure to maintain and enhance our brand would harm our ability to expand our base of listeners, advertisers and other partners.

Maintaining and enhancing the "Pandora" brand is critical to expanding our base of listeners, advertisers and other partners. Maintaining and enhancing our brand will depend largely on our ability to continue to develop and provide an innovative and high quality experience for our listeners and attract advertisers, content owners and automobile, mobile device and other consumer electronic product manufacturers to work with us, which we may not do successfully.

Our brand may be impaired by a number of other factors, including service outages, data privacy and security issues, listener perception of ad load and exploitation of our trademarks by others without permission. In addition, if our partners fail to maintain high standards for products that integrate our service, fail to display our trademarks on their products in breach of our agreements with them, or use our trademarks incorrectly or in an unauthorized manner or if we partner with manufacturers of products that our listeners reject, the strength of our brand could be adversely affected. Further, our efforts to achieve a more equitable royalty structure for our business may have an adverse impact on our relationship with artists, which could in turn diminish the perception of our brand. In addition, there is a risk that the word "Pandora" could become so commonly used that we lose protection for this trademark, which could result in other people using the word "Pandora" to refer to their own products, thus diminishing the strength of our brand.

We have not historically incurred significant expenses to establish and maintain our brand. However, if we are unable to maintain the growth rate in the number of our listeners, we may be required to expend greater resources on advertising, marketing and other brand-building efforts to preserve and enhance consumer awareness of our brand which would adversely affect our operating results and may not be effective.

We depend on key personnel to operate our business, and if we are unable to retain, attract and integrate qualified personnel, our ability to develop and successfully grow our business could be harmed.

We believe that our future success is highly dependent on the contributions of our executive officers as well as our ability to attract and retain highly skilled and experienced sales, technical and other personnel. All of our employees, including our executive officers, are free to terminate their employment relationship with us at any time, and their knowledge of our business and industry may be difficult to replace. Qualified individuals are in high demand, particularly in the digital media industry, and we may incur significant costs to attract them. In addition, competition for qualified personnel is particularly intense in the San Francisco Bay Area, where our headquarters are located. If we are unable to attract and retain our executive officers and key employees, we may not be able to achieve our strategic objectives, and our business could be harmed. In addition, we believe that our key executives have developed highly successful and effective working relationships. If one or more of these individuals leave, we may not be able to fully integrate new executives or replicate the current dynamic and working relationships that have developed among our executive officers and other key personnel, and our operations could suffer.

Interruptions or delays in service arising from our own systems or from our third-party vendors could impair the delivery of our service and harm our business.

We rely on systems housed in our own facilities and upon third-party vendors, including bandwidth providers and data center facilities located in California and Virginia, to enable listeners to receive our content in a dependable, timely and efficient manner. We have experienced and expect to continue to experience periodic service interruptions and delays involving our own systems and those of our third-party vendors. We do not currently maintain a live fail-over capability that would allow us to switch our streaming operations from one facility to another in the event of a service outage. Both our own facilities and those of our third-party vendors are vulnerable to damage or interruption from earthquakes, floods, fires, power loss, telecommunications failures and similar events. They also are subject to break-ins, sabotage, intentional acts of vandalism, the failure of physical, administrative, technical and cyber security measures, terrorist acts, natural disasters, human error, the financial insolvency of our third-party vendors and other unanticipated problems or events. The occurrence of any of these events could result in interruptions in our service and to unauthorized access to, or alteration of, the content and data contained on our systems and that these third-party vendors store and deliver on our behalf.

We exercise no control over our third-party vendors, which makes us vulnerable to any errors, interruptions, or delays in their operations. Any disruption in the services provided by these vendors could have significant adverse impacts on our business reputation, customer relations and operating results. Upon expiration or termination of any of our agreements with third-party vendors, we may not be able to replace the services provided to us in a timely manner or on terms and conditions, including service levels and cost, that are favorable to us, and a transition from one vendor to another vendor could subject us to operational delays and inefficiencies until the transition is complete.

Our operating results may fluctuate, which makes our results difficult to predict and could cause our results to fall short of expectations.

Our revenue and operating results could vary significantly from quarter to quarter and year to year because of a variety of factors, many of which are outside our control. As a result, comparing our operating results on a period-to-period basis may not be meaningful. In addition to other risk factors discussed in this "Risk Factors" section, factors that may contribute to the variability of our quarterly and annual results include:

- our ability to retain our current listenership, build our listener base and increase listener hours;
- our ability to more effectively monetize mobile listener hours by increasing the sale of mobile advertising inventory as the number of listener hours on mobile devices grow;
- our ability to attract and retain existing advertisers and prove that our advertising products are effective enough to justify a pricing structure that is profitable for us;
- our ability to effectively manage our growth;
- our ability to secure licenses for sound recordings and musical works on favorable terms;
- the effects of increased competition in our business;
- our ability to keep pace with changes in technology and our competitors;
- interruptions in service, whether or not we are responsible for such interruptions, and any related impact on our reputation;
- costs associated with defending any litigation, including intellectual property infringement litigation;
- our ability to pursue, and the timing of, entry into new geographic or content markets and, if pursued, our management of this expansion;
- the impact of general economic conditions on our revenue and expenses; and
- changes in government regulation affecting our business.

Seasonal variations in listener and advertising behavior may also cause fluctuations in our financial results. We expect to experience some effects of seasonal trends in listener behavior due to higher advertising sales during the fourth quarter of each calendar year due to greater advertiser demand during the holiday season and lower advertising sales in the first three months of the following calendar year due to reduced advertiser demand. Expenditures by advertisers tend to be cyclical and discretionary in nature, reflecting overall economic conditions, the economic prospects of specific advertisers or industries, budgeting constraints and buying patterns and a variety of other factors, many of which are outside our control. In addition, we expect to experience increased usage during the fourth quarter of each calendar year due to the holiday season, and in the first quarter of each calendar year due to increased use of media-streaming devices received as gifts during the holiday season. While we believe these seasonal trends have affected and will continue to affect our quarterly results, our trajectory of rapid growth may have overshadowed these effects to date.

Failure to protect our intellectual property could substantially harm our business and operating results.

The success of our business depends, in part, on our ability to protect and enforce our trade secrets, trademarks, copyrights and patents and all of our other intellectual property rights, including our intellectual property rights underlying the Pandora service. We attempt to protect our intellectual property under trade secret, trademark, copyright and patent law, and through a combination of employee and third-party nondisclosure agreements, other contractual restrictions, technological measures and other methods. These afford only limited protection. Despite our efforts to protect our intellectual property rights and trade secrets, unauthorized parties may attempt to copy aspects of our song selection technology or obtain and use our trade secrets and other confidential information. Moreover, policing our intellectual property rights is difficult, costly and may not always be effective.

We have filed, and may in the future file, patent applications and we have purchased a portfolio of internet radio-related patents from a third party. It is possible, however, that these innovations may not be protectable. In addition, given the cost, effort, risks and downside of obtaining patent protection, including the requirement to ultimately disclose the invention to the public, we may choose not to seek patent protection for certain innovations. However, such patent protection could later prove to be important to our business. Furthermore, there is always the possibility that our patent applications may not issue as granted patents, that the scope of the protection gained will be insufficient or that an issued patent may be deemed invalid or unenforceable. We also cannot guarantee that any of our present or future patents or other intellectual property rights will not lapse or be invalidated, circumvented, challenged or abandoned, that our intellectual property rights will provide competitive advantages to us, that our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will not be limited by our relationships with third parties, that any of our pending or future patent applications will have the coverage originally sought, that our intellectual property rights will be enforced in jurisdictions where competition may be intense or where legal protection may be weak, or that we will not lose the ability to assert our intellectual property rights against or to license our technology to others and collect royalties or other payments.

We have registered "Pandora," "Music Genome Project" and other marks as trademarks in the United States. Nevertheless, competitors may adopt service names similar to ours, or purchase our trademarks and confusingly similar terms as keywords in internet search engine advertising programs, thereby impeding our ability to build brand identity and possibly leading to confusion among our listeners or advertising customers. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of the term Pandora or our other trademarks. Any claims or customer confusion related to our trademarks could damage our reputation and brand and substantially harm our business and operating results.

We currently own the www.pandora.com internet domain name and various other related domain names. Domain names are generally regulated by internet regulatory bodies. If we lose the ability to use a domain name in a particular country, we would be forced either to incur significant additional expenses to market our solutions within that country or to elect not to sell solutions in that country. Either result could harm our business and operating results. The regulation of domain names in the United States and in foreign countries is subject to change. Regulatory bodies could establish additional top-level domains, appoint additional domain name registrars or modify the requirements for holding domain names. As a result, we may not be able to acquire or maintain the domain names that utilize our brand names in the United States or other countries in which we may conduct business in the future.

In order to protect our trade secrets and other confidential information, we rely in part on confidentiality agreements with our employees, consultants and third parties with whom we have relationships. These agreements may not effectively prevent disclosure of trade secrets and other confidential information and may not provide an adequate remedy in the event of misappropriation of trade secrets or any unauthorized disclosure of trade secrets and other confidential information. In addition, others may independently discover our trade secrets and confidential information, and in some such cases we might not be able to assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our trade secret rights and related confidentiality and nondisclosure provisions, and failure to obtain or maintain trade secret protection, or our competitors' obtainment of our trade secrets or independent development of unpatented technology similar to ours or competing technologies, could adversely affect our competitive business position.

Litigation or proceedings before the U.S. Patent and Trademark Office or other governmental authorities and administrative bodies in the United States and abroad may be necessary in the future to enforce our intellectual property rights, to protect our patent rights, trademarks, trade secrets and domain names and to determine the validity and scope of the proprietary rights of others. Our efforts to enforce or protect our proprietary rights may be ineffective and could result in substantial costs and diversion of resources and management time, each of which could substantially harm our operating results.

Although we take steps to protect our intellectual property as discussed above, there can be no assurance, however, that changes in law will not be implemented, or changes in interpretation of such laws will occur, that will affect our ability to protect and enforce our patents and other intellectual property, including as a result of the 2011 passage of the America Invents Act of 2011, which codifies several significant changes to the U.S. patent laws and will remain subject to certain rule-making and interpretation, including changing from a "first to invent" to a "first inventor to file" system, limiting where a patentee may file a patent suit, requiring the apportionment of patent damages, replacing interference proceedings with derivation actions, and creating a post-grant opposition process to challenge patents after they have issued.

Assertions by third parties of infringement or other violation by us of their intellectual property rights could result in significant costs and substantially harm our business and operating results.

Internet, technology and media companies are frequently subject to litigation based on allegations of infringement, misappropriation or other violations of intellectual property rights. Some internet, technology and media companies, including some of our competitors, own large numbers of patents, copyrights, trademarks and trade secrets, which they may use to assert claims against us. In addition, we encourage our artists to submit content for our catalogue and we cannot be assured that artist representations made in connection with such submissions accurately reflect the legal rights of such content. Third parties have asserted, and may in the future assert, that we have infringed, misappropriated or otherwise violated their intellectual property rights. In addition, various federal and state laws and regulations govern the intellectual property and related rights associated with sound recordings and musical works. Existing laws and regulations are evolving and subject to different interpretations, and various federal and state legislative or regulatory bodies may expand current or enact new laws or regulations. We cannot assure you that we are not infringing or violating any third-party intellectual property rights.

We cannot predict whether assertions of third-party intellectual property rights or any infringement or misappropriation claims arising from such assertions will substantially harm our business and operating results. If we are forced to defend against any infringement or misappropriation claims, we may be required to expend significant time and financial resources on the defense of such claims, even if without merit, settled out of court, or determined in our favor.

Furthermore, an adverse outcome of a dispute may require us to pay damages, potentially including treble damages and attorneys' fees, if we are found to have willfully infringed a party's intellectual property; cease making, licensing or using solutions that are alleged to infringe or misappropriate the intellectual property of others; expend additional development resources to redesign our solutions; enter into potentially unfavorable royalty or license agreements in order to obtain the right to use necessary technologies, content, or materials; and to indemnify our partners and other third parties. Royalty or licensing agreements, if required or desirable, may be unavailable on terms acceptable to us, or at all, and may require significant royalty payments and other expenditures. In addition, we do not carry patent liability insurance, any lawsuits regarding intellectual property rights, regardless of their success, could be expensive to resolve and would divert the time and attention of our management and technical personnel.

We may require additional capital to pursue our business objectives and respond to business opportunities, challenges or unforeseen circumstances. If capital is not available to us, our business, operating results and financial condition may be harmed.

We may require additional capital to operate or expand our business. In addition, some of our current or future strategic initiatives, including entry into non-music content channels, such as comedy, or international markets, may require substantial additional capital resources before they begin to generate revenue. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. For example, our current credit facility contains restrictive covenants relating to our capital raising activities and other financial and operational matters, and any debt financing secured by us in the future could involve further restrictive covenants, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. In addition, volatility in the credit markets may have an adverse effect on our ability to obtain debt financing. If we do not have funds available to enhance our solutions, maintain the competitiveness of our technology and pursue business opportunities, we may not be able to service our existing listeners, acquire new listeners or attract or retain advertising customers, each of which could inhibit the implementation of our business plan and materially harm our operating results.

We may acquire other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

We may in the future seek to acquire or invest in businesses, products or technologies that we believe could complement or expand our service, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated.

In addition, we have limited experience acquiring other businesses. If we acquire additional businesses, we may not be able to integrate the acquired personnel, operations and technologies successfully, or effectively manage the combined business following the acquisition. We also may not achieve the anticipated benefits from the acquired business due to a number of factors, including:

- unanticipated costs or liabilities associated with the acquisition;
- incurrence of acquisition-related costs;
- diversion of management's attention from other business concerns;
- regulatory uncertainties;
- harm to our existing business relationships with business partners and advertisers as a result of the acquisition;

- harm to our brand and reputation;
- the potential loss of key employees;
- use of resources that are needed in other parts of our business; and
- use of substantial portions of our available cash to consummate the acquisition.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process.

Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial condition may suffer.

We face many risks associated with our long-term plan to expand our operations outside of the United States, including difficulties obtaining rights to publicly perform or communicate to the public music on favorable terms.

Expanding our operations into international markets is an element of our long-term strategy. For example, we recently began publicly performing and communicating to the public music as well as deploying advertising to listeners in New Zealand, Australia and their associated territories. However, offering our service outside of the United States involves numerous risks and challenges. Most importantly, while United States copyright law provides a statutory licensing regime for the public performance of sound recordings to listeners within the United States, there is no equivalent statutory licensing regime available outside of the United States, and many of the other licensing alternatives currently available in other countries are not commercially viable. Currently, the licensing terms offered by rights organizations and individual copyright owners in most countries outside the United States are prohibitively expensive. Addressing licensing structure and royalty rate issues in the United States required us to make very substantial investments of time, capital and other resources, and our business could have failed if such investments had not succeeded. Addressing these issues in foreign jurisdictions may require a commensurate investment by us, and there can be no assurance that we would succeed or achieve any return on this investment.

In addition, international expansion exposes us to other risks such as:

- the need to modify our technology and sell our solutions in non-English speaking countries;
- the need to localize our service to foreign customers' preferences and customs;
- the need to conform our marketing and advertising efforts with the laws and regulations of foreign jurisdictions, including, but not limited to, the use of any personal information about our listeners;
- the need to amend existing agreements and to enter into new agreements with automakers, automotive suppliers, consumer electronics manufacturers with products that integrate our service, and others in order to provide that service in foreign countries;
- difficulties in managing operations due to language barriers, distance, staffing, cultural differences and business infrastructure constraints and domestic laws regulating corporations that operate internationally;
- our lack of experience in marketing, and encouraging viral marketing growth without incurring significant marketing expenses, in foreign countries;
- application of foreign laws and regulations to us;

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- fluctuations in currency exchange rates;
- reduced or ineffective protection of our intellectual property rights in some countries; and
- potential adverse tax consequences associated with foreign operations and revenue.

Furthermore, in most international markets, we would not be the first entrant, and our competitors may be better positioned than we are to succeed. In addition, in jurisdictions where copyright protection has been insufficient to protect against widespread music piracy, achieving market acceptance of our service may prove difficult as we would need to convince listeners to stream our service when they could otherwise download the same music for free. As a result of these obstacles, we may find it impossible or prohibitively expensive to enter or sustain our presence in foreign markets, or entry into foreign markets could be delayed, which could hinder our ability to grow our business.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

At December 31, 2013, we had federal net operating loss carryforwards of approximately $264.2 million and tax credit carryforwards of approximately $5.3 million. At December 31, 2013, we had state net operating loss carryforwards of approximately $245.2 million and tax credit carryforwards of approximately of $5.1 million. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income may be limited. In general, an "ownership change" will occur if there is a cumulative change in our ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. As a result of prior equity issuances and other transactions in our stock, we have previously experienced "ownership changes" under section 382 of the Code and comparable state tax laws. We may also experience ownership changes in the future as a result of future transactions in our stock. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards or other pre-change tax attributes to offset United States federal and state taxable income is subject to limitations.

We could be subject to additional income tax liabilities.

We are subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating and estimating our worldwide income tax provision and accruals for these taxes. For example, our effective tax rates could be adversely affected by earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated in countries where we have higher statutory tax rates, by losses incurred in jurisdictions for which we are not able to realize the related tax benefit, by changes in foreign currency exchange rates, by changes in the valuation of our deferred tax assets and liabilities, or by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations. We are also subject to tax audits in various jurisdictions, and such jurisdictions may assess additional income tax liabilities against us.

If we cannot maintain our corporate culture as we grow, we could lose the innovation, teamwork and focus that contribute crucially to our business.

We believe that a critical component of our success is our corporate culture, which we believe fosters innovation, encourages teamwork, cultivates creativity and promotes focus on execution. We have invested substantial time, energy and resources in building a highly collaborative team that works together effectively in a non-hierarchical environment designed to promote openness, honesty, mutual respect and pursuit of common goals. As we continue to develop the infrastructure of a public company and grow, we may find it difficult to maintain these valuable aspects of our corporate culture. Any failure to preserve our culture could negatively impact our future success, including our ability to attract and retain employees, encourage innovation and teamwork and effectively focus on and pursue our corporate objectives.

Federal, state and industry regulations as well as self-regulation related to privacy and data security concerns pose the threat of lawsuits and other liability, require us to expend significant resources, and may hinder our ability and our advertisers' ability to deliver relevant advertising.

We collect and utilize demographic and other information, including personally identifiable information, from and about our listeners as they interact with our service. For example, to register for a Pandora account, our listeners must provide the following information: age, gender, zip code and e-mail address. Listeners must also provide their credit card or debit card numbers and other billing information in connection with additional service offerings. We also may collect information from our listeners when they enter information on their profile page, post comments on other listeners' pages, use other community or social networking features that are part of our service, participate in polls or contests or sign up to receive e-mail newsletters. Further, we and third parties use tracking technologies, including "cookies" and related technologies, to help us manage and track our listeners' interactions with our service and deliver relevant advertising. Third parties may, without our knowledge or consent, illegally obtain, transmit or utilize our listeners' personally identifiable information, or data associated with particular users or devices.

Various federal and state laws and regulations, as well as the laws of foreign jurisdictions in which we may choose to operate, govern the collection, use, retention, sharing and security of the data we receive from and about our listeners. Privacy groups and government bodies have increasingly scrutinized the ways in which companies link personal identities and data associated with particular users or devices with data collected through the internet, and we expect such scrutiny to continue to increase. Alleged violations of laws and regulations relating to privacy and data security, and any relevant claims, may expose us to potential liability and may require us to expend significant resources in responding to and defending such allegations and claims. Claims or allegations that we have violated laws and regulations relating to privacy and data security have resulted and could in the future result in negative publicity and a loss of confidence in us by our listeners and our advertisers, and may subject us to fines by credit card companies and loss of our ability to accept credit and debit card payments.

Existing privacy-related laws and regulations are evolving and subject to potentially differing interpretations, and various federal and state legislative and regulatory bodies, as well as foreign legislative and regulatory bodies, may expand current or enact new laws regarding privacy and data security-related matters. We may find it necessary or desirable to join self-regulatory bodies or other privacy-related organizations that require compliance with their rules pertaining to privacy and data security. We also may be bound by contractual obligations that limit our ability to collect, use, disclose and leverage listener data and to derive economic value from it. New laws, amendments to or re-interpretations of existing laws, rules of self-regulatory bodies, industry standards and contractual obligations, as well as changes in our listeners' expectations and demands regarding privacy and data security, may limit our ability to collect, use and disclose, and to leverage and derive economic value from listener data. We may also be required to expend significant resources to adapt to these changes and to develop new ways to deliver relevant advertising or otherwise provide value to our advertisers. In particular, government regulators have proposed "do not track" mechanisms, and requirements that users affirmatively "opt-in" to certain types of data collection that, if enacted into law or adopted by self-regulatory bodies or as part of industry standards, could significantly hinder our ability to collect and use data relating to listeners. Restrictions on our ability to collect, access and harness listener data, or to use or disclose listener data or any profiles that we develop using such data, would in turn limit our ability to stream personalized music content to our listeners and offer targeted advertising opportunities to our advertising customers, each of which are critical to the success of our business.

We have incurred, and will continue to incur, expenses to comply with privacy and security standards and protocols imposed by law, regulation, self-regulatory bodies, industry standards and contractual obligations. Increased regulation of data utilization and distribution practices, including self-regulation and industry standards, could increase our cost of operation, limit our ability to grow our operations or otherwise adversely affect our business.

If our security systems are breached, we may face civil liability and public perception of our security measures could be diminished, either of which would negatively affect our ability to attract listeners and advertisers.

Techniques used to gain unauthorized access are constantly evolving, and we may be unable to anticipate or prevent unauthorized access to data pertaining to our listeners, including credit card and debit card information and other personally identifiable information. Like all internet services, our service, which is supported by our own systems and those of third-party vendors, is vulnerable to computer viruses, internet worms, break-ins, phishing attacks, attempts to overload servers with denial-of-service, attempts to access our servers to stream music or acquire playlists, or other attacks and similar disruptions from unauthorized use of our and third-party vendor computer systems, any of which could lead to system interruptions, delays, or shutdowns, causing loss of critical data or the unauthorized access to personally identifiable information. If an actual or perceived breach of security occurs of our systems or a vendor's systems, we may face civil liability and public perception of our security measures could be diminished, either of which would negatively affect our ability to attract listeners, which in turn would harm our efforts to attract and retain advertisers. We also would be required to expend significant resources to mitigate the breach of security and to address related matters. Unauthorized access to music or playlists would potentially create additional royalty obligations with no corresponding revenue.

We cannot control the actions of third parties who may have access to the listener data we collect. The integration of the Pandora service with applications provided by third parties represents a significant growth opportunity for us, but we may not be able to control such third parties' use of listeners' data, ensure their compliance with the terms of our privacy policies, or prevent unauthorized access to, or use or disclosure of, listener information, any of which could hinder or prevent our efforts with respect to growth opportunity. In addition, these third-party vendors may become the victim of security breaches, or have practices that may result in a breach and we may be responsible for those third-party acts or failures to act.

Any failure, or perceived failure, by us to maintain the security of data relating to our listeners and employees, to comply with our posted privacy policy, laws and regulations, rules of self-regulatory organizations, industry standards and contractual provisions to which we may be bound, could result in the loss of confidence in us, or result in actions against us by governmental entities or others, all of which could result in litigation and financial losses, and could potentially cause us to lose listeners, advertisers, revenue and employees.

We are subject to a number of risks related to credit card and debit card payments we accept.

We accept payments exclusively through credit and debit card transactions. For credit and debit card payments, we pay interchange and other fees, which may increase over time. An increase in those fees would require us to either increase the prices we charge for our products, which could cause us to lose subscribers and subscription revenue, or suffer an increase in our operating expenses, either of which could harm our operating results.

If we or any of our processing vendors have problems with our billing software, or the billing software malfunctions, it could have an adverse effect on our subscriber satisfaction and could cause one or more of the major credit card companies to disallow our continued use of their payment products.

In addition, if our billing software fails to work properly and, as a result, we do not automatically charge our subscribers' credit cards on a timely basis or at all, or there are issues with financial insolvency of our third-party vendors or other unanticipated problems or events, we could lose subscription revenue, which would harm our operating results.

We are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, which could change or be reinterpreted to make it more difficult for us to comply. Currently, we are implementing the steps that are required for us to become fully compliant with the Payment Card Industry, or PCI, Data Security Standard, or PCI DSS, a security standard with which companies that collect, store or transmit certain data regarding credit and debit cards, credit and debit card holders and credit and debit card transactions are required to comply. Our failure to comply fully with PCI DSS may violate payment card association operating rules, federal and state laws and regulations and the terms of our contracts with payment processors and merchant banks. Such failure to comply fully also may subject us to fines, penalties, damages and civil liability, and may result in the loss of our ability to accept credit and debit card payments. Further, there is no guarantee that, even if PCI DSS compliance is achieved, we will maintain PCI DSS compliance or that such compliance will prevent illegal or improper use of our payment systems or the theft, loss, or misuse of data pertaining to credit and debit cards, credit and debit card holders and credit and debit card transactions.

If we fail to adequately control fraudulent credit card transactions, we may face civil liability, diminished public perception of our security measures and significantly higher credit card-related costs, each of which could adversely affect our business, financial condition and results of operations.

If we are unable to maintain our chargeback rate or refund rates at acceptable levels, credit card and debit card companies may increase our transaction fees or terminate their relationships with us. Any increases in our credit card and debit card fees could adversely affect our results of operations, particularly if we elect not to raise our rates for our service to offset the increase. The termination of our ability to process payments on any major credit or debit card would significantly impair our ability to operate our business.

If we fail to detect click fraud or other invalid clicks on ads, we could lose the confidence of our advertisers, which would cause our business to suffer.

Our business relies on delivering positive results to our advertising customers. We are exposed to the risk of fraudulent and other invalid clicks or conversions that advertisers may perceive as undesirable. A major source of invalid clicks could result from click fraud where a listener intentionally clicks on ads for reasons other than to access the underlying content of the ads. If fraudulent or other malicious activity is perpetrated by others and we are unable to detect and prevent it, or if we choose to manage traffic quality in a way that advertisers find unsatisfactory, the affected advertisers may experience or perceive a reduced return on their investment in our advertising products, which could lead to dissatisfaction with our advertising programs, refusals to pay, refund demands or withdrawal of future business. This could damage our brand and lead to a loss of advertisers and revenue.

Our success depends upon the continued acceptance of online advertising as an alternative or supplement to offline advertising.

The percentage of the advertising market allocated to online advertising lags the percentage of consumer offline consumption by a significant degree. Growth of our business will depend in large part on the reduction or elimination of this gap between online and offline advertising spending, which may not happen. Many advertisers still have limited experience with online advertising and may continue to devote significant portions of their advertising budgets to traditional, offline advertising media. Accordingly, we continue to compete for advertising dollars with traditional media, including broadcast radio.

Although advertisers as a whole are spending an increasing amount of their overall advertising budget on online advertising, we face a number of challenges in growing our advertising revenue. We compete for advertising dollars with significantly larger and more established online marketing and media companies such as Facebook, Google, MSN and Yahoo!. We believe that the continued growth and acceptance of our online advertising products will depend on the perceived effectiveness and the acceptance of online advertising models generally, which is outside of our control. Any lack of growth in the market for online advertising could result in reduced revenue or increased marketing expenses, which would harm our operating results and financial condition.

Some of our services and technologies may use "open source" software, which may restrict how we use or distribute our service or require that we release the source code of certain services subject to those licenses.

Some of our services and technologies may incorporate software licensed under so-called "open source" licenses, including, but not limited to, the GNU General Public License and the GNU Lesser General Public License. Such open source licenses typically require that source code subject to the license be made available to the public and that any modifications or derivative works to open source software continue to be licensed under open source licenses. Few courts have interpreted open source licenses, and the manner in which these licenses may be interpreted and enforced is therefore subject to some uncertainty. We rely on multiple software programmers to design our proprietary technologies, and we do not exercise complete control over the development efforts of our programmers and we cannot be certain that our programmers have not incorporated open source software into our proprietary products and technologies or that they will not do so in the future. In the event that portions of our proprietary technology are determined to be subject to an open source license, we could be required to publicly release the affected portions of our source code, re-engineer all or a portion of our technologies, or otherwise be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our services and technologies and materially and adversely affect our ability to sustain and grow our business.

Government regulation of the internet is evolving, and unfavorable developments could have an adverse effect on our operating results.

We are subject to general business regulations and laws, as well as regulations and laws specific to the internet. Such laws and regulations cover taxation, user privacy, data collection and protection, copyrights, electronic contracts, sales procedures, automatic subscription renewals, credit card processing procedures, consumer protections, broadband internet access and content restrictions. We cannot guarantee that we have been or will be fully compliant in every jurisdiction, as it is not entirely clear how existing laws and regulations governing issues such as privacy, taxation and consumer protection apply to the internet. Moreover, as internet commerce continues to evolve, increasing regulation by federal, state and foreign agencies becomes more likely. The adoption of any laws or regulations that adversely affect the popularity or growth in use of the internet, including laws limiting internet neutrality, could decrease listener demand for our service offerings and increase our cost of doing business. Future regulations, or changes in laws and regulations or their existing interpretations or applications, could also hinder our operational flexibility, raise compliance costs and result in additional historical or future liabilities for us, resulting in adverse impacts on our business and our operating results.

We could be adversely affected by regulatory restrictions on the use of mobile and other electronic devices in motor vehicles and legal claims are possible from use of such devices while driving.

Regulatory and consumer agencies have increasingly focused on distraction to drivers that may be associated with use of mobile and other devices in motor vehicles.

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In 2010, the U.S. Department of Transportation identified driver distraction as a top priority, and in April 2013, the National Highway Traffic Safety Administration (the "NHTSA") released new voluntary guidelines for visual-manual devices not related to the driving task that are integrated into motor vehicles. NHTSA also intends to propose guidelines applicable to after-market and portable devices that may be used in motor vehicles. Regulatory restrictions on how drivers and passengers in motor vehicles may engage with devices on which our service is broadcast could inhibit our ability to increase listener hours and generate ad revenue, which would harm our operating results. In addition, concerns over driver distraction due to use of mobile and other electronic devices to access our service in motor vehicles could result in litigation and negative publicity.

We rely on third parties to provide software and related services necessary for the operation of our business.

We incorporate and include third-party software into and with our applications and service offerings and expect to continue to do so. The operation of our applications and service offerings could be impaired if errors occur in the third-party software that we use. It may be more difficult for us to correct any defects in third-party software because the development and maintenance of the software is not within our control. Accordingly, our business could be adversely affected in the event of any errors in this software. There can be no assurance that any third-party licensors will continue to make their software available to us on acceptable terms, to invest the appropriate levels of resources in their software to maintain and enhance its capabilities, or to remain in business. Any impairment in our relationship with these third-party licensors could harm our ability to maintain and expand the reach of our service, increase listener hours and sell advertising each of which could harm our operating results, cash flow and financial condition.

The impact of worldwide economic conditions, including the effect on advertising budgets and discretionary entertainment spending behavior, may adversely affect our business and operating results.

Our financial condition is affected by worldwide economic conditions and their impact on advertising spending. Expenditures by advertisers generally tend to reflect overall economic conditions, and to the extent that the economy continues to stagnate, reductions in spending by advertisers could have a serious adverse impact on our business. In addition, we provide an entertainment service, and payment for our Pandora One subscription service may be considered discretionary on the part of some of our current and prospective subscribers or listeners who may choose to use a competing free service or to listen to Pandora without subscribing. To the extent that overall economic conditions reduce spending on discretionary activities, our ability to retain current and obtain new subscribers could be hindered, which could reduce our subscription revenue and negatively impact our business.

Our business is subject to the risks of earthquakes, fires, floods and other natural catastrophic events and to interruption by man-made problems such as computer viruses or terrorism.

Our systems and operations are vulnerable to damage or interruption from earthquakes, fires, floods, power losses, telecommunications failures, terrorist attacks, acts of war, human errors, break-ins or similar events. For example, a significant natural disaster, such as an earthquake, fire or flood, could have a material adverse impact on our business, operating results and financial condition, and our insurance coverage may be insufficient to compensate us for losses that may occur. Our principal executive offices are located in the San Francisco Bay Area, a region known for seismic activity. In addition, acts of terrorism could cause disruptions in our business or the economy as a whole. Our servers may also be vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data or the unauthorized disclosure of confidential customer data. We currently have very limited disaster recovery capability, and our business interruption insurance may be insufficient to compensate us for losses that may occur.

As we rely heavily on our servers, computer and communications systems and the internet to conduct our business and provide high quality service to our listeners, such disruptions could negatively impact our ability to run our business, result in loss of existing or potential listeners and advertisers and increased maintenance costs, which would adversely affect our operating results and financial condition.

Risks Related to Owning Our Common Stock

Our stock price has been and will likely continue to be volatile, and the value of an investment in our common stock may decline.

The trading price of our common stock has been and is likely to continue to be volatile. In addition to the risk factors described in this section and elsewhere in this Transition Report on Form 10-K, factors that may cause the price of our common stock to fluctuate include, but are not limited to:

- our actual or anticipated operating performance and the operating performance of similar companies in the internet, radio or digital media spaces;
- general economic conditions and their impact on advertising spending;
- the overall performance of the equity markets;
- the number of shares of our common stock publicly owned and available for trading;
- threatened or actual litigation;
- changes in laws or regulations relating to our service;
- any major change in our board of directors or management;
- publication of research reports about us or our industry or changes in recommendations or withdrawal of research coverage by securities analysts; and
- sales or expected sales of shares of our common stock by us, and our officers, directors and significant stockholders.

In addition, the stock market has experienced extreme price and volume fluctuations that often have been unrelated or disproportionate to the operating performance of those affected companies. Securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. Such litigation, if instituted against us, could result in very substantial costs, divert our management's attention and resources and harm our business, operating results and financial condition.

If securities or industry analysts cease publishing research, publish inaccurate or unfavorable research about our business or make projections that exceed our actual results, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business. If securities or industry analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline. Furthermore, such analysts publish their own projections regarding our actual results. These projections may vary widely from one another and may not accurately predict the results we actually achieve. Our stock price may decline if we fail to meet securities and industry analysts' projections.

Our charter documents, Delaware law and certain terms of our music licensing arrangements could discourage takeover attempts and lead to management entrenchment.

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change in control of the Company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, our president, our secretary, or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least $66^{2}/3$% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our certificate of incorporation relating to the issuance of preferred stock and management of our business or our bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquiror to amend the bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

Section 203 of the Delaware General Corporation Law governs us. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time. In addition, if we are acquired, certain terms of our music licensing arrangements, including favorable royalty rates that currently apply to us, may not be available to an acquiror. These terms may discourage a potential acquiror from making an offer to buy us or may reduce the price such a party may be willing to offer.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Our principal executive offices are located in Oakland, California in a 98,872 square-foot facility, under a lease expiring on September 30, 2017. We also lease regional offices in Chicago, Illinois; Santa Monica, California; and New York, New York and local sales offices at various locations throughout the United States and in Sydney, Australia.

Our data centers are located in colocation facilities operated by Equinix in San Jose, California and Ashburn, Virginia as well as by Digital Realty Trust in Chicago, Illinois and are designed to be fault tolerant and operate at maximum uptime. Backup systems in California and Virginia can be brought online in the event of a failure at the other data centers. These redundancies enable fault tolerance and will also support our continued growth.

The data centers host the Pandora.com website and intranet applications that are used to manage the website content. The websites are designed to be fault-tolerant, with a collection of identical web servers connecting to an enterprise database. The design also includes load balancers, firewalls and routers that connect the components and provide connections to the internet. The failure of any individual component is not expected to affect the overall availability of our website.

We believe that our current facilities are adequate to meet our needs for the near future and that suitable additional or alternative space will be available on commercially reasonable terms to accommodate our foreseeable future operations.

ITEM 3. LEGAL PROCEEDINGS

The material set forth in Note 6 of Notes to Consolidated Financial Statements in Part II, Item 8 of this Transition Report on Form 10-K is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is traded on The New York Stock Exchange ("NYSE") under the symbol "P." The following table sets forth the range of high and low intra-day sales prices per share of our common stock for the periods indicated, as reported by the NYSE.

PRICE RANGE OF OUR COMMON STOCK

Our common stock has traded on the NYSE since June 15, 2011. Our initial public offering was priced at $16.00 per share on June 14, 2011.

	High	Low
Eleven Months Ended December 31, 2013		
First quarter (February 1, 2013 - April 30, 2013)	$ 14.27	$ 11.36
Second quarter (May 1, 2013 - July 31, 2013)	$ 20.52	$ 13.94
Third quarter (August 1, 2013 - October 31, 2013)	$ 28.17	$ 18.16
Fourth quarter (November 1, 2013 - December 31, 2013)(1)	$ 31.56	$ 25.67
Twelve Months Ended January 31, 2013		
First quarter (February 1, 2012 - April 30, 2012)	$ 15.25	$ 7.83
Second quarter (May 1, 2012 - July 31, 2012)	$ 12.30	$ 8.50
Third quarter (August 1, 2012 - October 31, 2012)	$ 12.57	$ 7.38
Fourth quarter (November 1, 2012 - January 31, 2013)	$ 11.90	$ 7.08

(1) The fourth quarter of calendar 2013 (11-months) included two months (November 1, 2013—December 31, 2013) as a result of the change in our fiscal year-end.

On December 31, 2013, the closing price per share of our common stock as reported on the NYSE was $26.60. As of December 31, 2013, there were approximately 71 holders of record of our common stock. The number of beneficial stockholders is substantially greater than the number of holders of record because a large portion of our common stock is held through brokerage firms.

Dividend Policy

We have not declared or paid any cash dividends on our common stock and currently do not anticipate paying any cash dividends in the foreseeable future. Instead, we intend to retain all available funds and any future earnings for us in the operation and expansion of our business. Any future determination relating to dividend policy will be made at the discretion of our board of directors and will depend on our future earnings, capital requirements, financial condition, future prospects, applicable Delaware law, which provides that dividends are only payable out of surplus or current net profits, and other factors that our board of directors deems relevant. In addition, our credit facility restricts our ability to pay dividends. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Our Indebtedness—CrediFacility" and Note 8 to our financial statements included elsewhere in this Transition Report on Form 10-K.

Equity Compensation Plan Information

For equity compensation plan information refer to Item 12 in Part III of this Transition Report on Form 10-K.

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Stock Price Performance Graph

This performance graph shall not be deemed to be "soliciting material" or "filed" or incorporated by reference in future filings with the SEC, or subject to the liabilities of Section 18 of the Exchange Act except as shall be expressly set forth by specific reference in such filing.

The following graph shows a comparison from June 15, 2011, the date our common stock commenced trading on the NYSE, through December 31, 2013 of the total cumulative return of our common stock with the total cumulative return of the New York Stock Exchange Composite Index (the "NYA Composite"), the Global X Social Media Index (the "SOCL") and the SPDR Morgan Stanley Technology MTK Index (the "MTK"). The figures represented below assume an investment of $100 in our common stock at the closing price of $17.42 on June 15, 2011 and in the NYA Composite and MTK on the same date. The SOCL was modeled from the inception of the index on November 15, 2011. Data for the NYA Composite, MTK and SOCL assume reinvestment of dividends. The comparisons in the graph are historical and are not intended to forecast or be indicative of possible future performance of our common stock.

Comparison of Cumulative Total Return Among Pandora Media, Inc.,
New York Stock Exchange Composite Index, Global X Social Media Index and
SPDR Morgan Stanley Technology MTK Index

ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial and other data should be read in conjunction with, and are qualified by reference to, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our audited consolidated financial statements and the accompanying notes included elsewhere in this report. The consolidated statement of operations and balance sheet data for the twelve months ended January 31, 2010 and 2011 and the consolidated balance sheet data as of January 31, 2010, 2011 and 2012 were derived from our audited consolidated financial statements not included in this report. The consolidated statements of operations data for the twelve months ended January 31, 2012 and 2013 for the eleven months ended December 31, 2013 and the consolidated balance sheet data as of January 31, 2013 and December 31, 2013 werederived from our audited consolidated financial statements included in this report. The consolidated statement of operations data for the eleven months ended December 31, 2012 is unaudited.

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The historical results presented below are not necessarily indicative of financial results to be achieved in future periods.

	Twelve months ended January 31,				Eleven months ended December 31,	
	2010	2011	2012	2013	2012	2013
					(unaudited)	
	(in thousands, except per share data)					
Statement of Operations Data:						
Revenue:						
Advertising	$ 50,147	$ 119,333	$ 239,957	$ 375,218	$ 343,318	$ 489,340
Subscription and other	5,042	18,431	34,383	51,927	46,166	110,893
Total revenue	55,189	137,764	274,340	427,145	389,484	600,233
Cost of revenue:						
Cost of revenue —Content acquisition costs	32,946	69,357	148,708	258,748	230,731	314,866
Cost of revenue —Other(1)	7,892	11,559	22,759	32,019	28,740	41,844
Total cost of revenue	40,838	80,916	171,467	290,767	259,471	356,710
Gross profit	14,351	56,848	102,873	136,378	130,013	243,523
Operating Expenses:						
Product development(1)	6,026	6,736	13,425	18,118	16,191	29,986
Sales and marketing(1)	17,426	36,250	65,010	107,715	94,566	169,774
General and administrative(1)	6,358	14,183	35,428	48,247	43,320	70,212
Total operating expenses	29,810	57,169	113,863	174,080	154,077	269,972
Loss from operations	(15,459)	(321)	(10,990)	(37,702)	(24,064)	(26,449)
Other expense, net	(1,294)	(1,309)	(5,042)	(441)	(401)	(474)
Loss before provision for income taxes	(16,753)	(1,630)	(16,032)	(38,143)	(24,465)	(26,923)
Income tax benefit (expense)	—	(134)	(75)	(5)	3	(94)
Net loss	(16,753)	(1,764)	(16,107)	(38,148)	(24,462)	(27,017)
Deemed dividend on Series D and Series E	(1,443)	—	—	—	—	—
Accretion of redeemable convertible preferred stock	(218)	(300)	(110)	—	—	—
Increase in cumulative dividends payable upon conversion of liquidation of redeemable						

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convertible preferred stock	(6,461)	(8,978)	(3,648)	—	—	—
Net loss attributable to common stockholders	$ (24,875)	$ (11,042)	$ (19,865)	$ (38,148)	$ (24,462)	$ (27,017)
Net loss per share, basic and diluted	$ (3.84)	$ (1.03)	$ (0.19)	$ (0.23)	$ (0.15)	$ (0.15)
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	6,482	10,761	105,955	168,294	167,956	180,968

(1) Includes stock-based compensation as follows:

Cost of revenue —Other	$ 18	$ 85	$ 582	$ 1,214	$ 1,109	$ 1,946
Product development	125	329	1,638	4,530	4,138	8,802
Sales and marketing	225	549	4,866	12,294	11,128	20,222
General and administrative	109	492	2,101	7,462	6,908	9,071
Total stock-based compensation	$ 477	$ 1,455	$ 9,187	$ 25,500	$ 23,283	$ 40,041

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Key Metrics (unaudited):(2)

	Twelve months ended January 31,			Eleven months ended December 31,	
	2011	2012	2013	2012	2013
	(in billions)				
Listener hours	3.83	8.23	14.01	12.56	15.31

	As of January 31,			As of December 31,
	2011	2012	2013	2013
	(in millions)			
Active users	29.3	47.6	65.6	76.2

(2) Listener hours and active users are defined in the section entitled "Key Metrics" in Item 7 of this Transition Report on Form 10-K.

	As of January 31,				As of December 31,
	2010	2011	2012	2013	2013
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$ 16,164	$ 43,048	$ 44,126	$ 65,725	$ 245,755
Working capital	18,929	36,715	89,218	82,644	362,777
Total assets	40,277	99,209	178,015	218,832	673,335
Preferred stock warrant liability	300	1,027	—	—	—
Convertible preferred stock	104,806	126,662	—	—	—
Common stock and additional paid-in capital	1	2,309	205,971	238,569	675,123
Total stockholders' equity (deficit)	(87,771)	(83,010)	104,540	98,989	508,231

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (MD&A)

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes thereto included elsewhere in this Transition Report on Form 10-K. The following discussion contains forward-looking statements that are subject to risks and uncertainties. Actual results may differ substantially from those referred to herein due to a number of factors, including but not limited to those discussed below and elsewhere in this report, particularly in the sections entitled "Special Note Regarding Forward-Looking Statements and Industry Data" and "Risk Factors."

We changed our fiscal year to the calendar twelve months ending December 31, effective beginning with the year ended December 31, 2013. As a result, our current fiscal period was shortened from twelve months to an eleven-month transition period ended on December 31, 2013. We reported our third fiscal quarter as the three months ended October 31, 2013, followed by a two-month transition period ended December 31, 2013.

In this MD&A, when financial results for the 2013 transition period are compared to financial results for the prior year period, the results compare the eleven-month period ended December 31, 2013 to the unaudited results for the eleven month period ended December 31, 2012. When financial results for fiscal 2013 are compared to financial results for fiscal 2012, the results compare our previous fiscal years, or the twelve-month periods ended January 31, 2013 and January 31, 2012. The following tables show the monthsincluded within the various comparison periods in our MD&A:

Calendar 2013 (11-month) Results Compared With Calendar 2012 (11-month recast, unaudited)

Calendar 2012 (11-month recast, unaudited)	Calendar 2013 (11-month)
February 2012 - December 2012	February 2013 - December 2013

Fiscal 2013 Results Compared With Fiscal 2012

2012	2013
February 2011 - January 2012	February 2012 - January 2013

Overview

Pandora is the leader in internet radio in the United States, offering a personalized experience for each of our listeners wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, traditional computers and car audio systems, as well as a range of other internet-connected devices. The majority of our listener hours occur on mobile devices, with the majority of our revenue generated from advertising on these devices. We have pioneered a new form of radio—one that uses intrinsiqualities of music to initially create stations and then adapts playlists in real-time based on the individual feedback of each listener. We offer local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements.

As of December 31, 2013, we had more than 200 million registered users, which we define as the total number of accounts that have been created for our service at period end. As of December 31, 2013 approximately 175 million registered users have accessed Pandora through smartphones and tablets. For the eleven months ended December 31, 2013, we streamed 15.31 billion hours of radio and as of December 31, 2013, we had 76.2 million active users during the prior 30 day period. According to a September 2013 report by Triton, we have more than a 70% share of internet radio among the top 20 stations and networks in the United States. Since we launched our free, advertising-supported radio service in 2005, our listeners have created over 5 billion stations.

At the core of our service is our set of proprietary personalization technologies, including the Music Genome Project and our playlist generating algorithms. The Music Genome Project is a database of over 1,000,000 uniquely analyzed songs from over 100,000 artists, spanning over 500 genres and sub-genres, which we develop one song at a time by evaluating and cataloging each song's particular attributes. When a listener enters a single song, artist or genre to start a station, the Pandora service instantly generates a station that plays music we think that listener will enjoy. Based on listener reactions to the songs we stream, we further tailor the station to match the listener's preferences in real time.

We currently provide the Pandora service through two models:

- *Free Service.* Our free service is advertising-supported and allows listeners access to our music and comedy catalogs and personalized playlist generating system across all of our delivery platforms.

- *Pandora One.* Pandora One is provided to paying subscribers without any external advertising. Pandora One allows listeners to have more daily skips and enjoy higher quality audio on supported devices.

A key element of our strategy is to make the Pandora service available everywhere that there is internet connectivity. To this end, we make the Pandora service available through a variety of distribution channels. In addition to streaming our service to traditional computers, we have developed Pandora mobile device applications or "apps" for smartphones such as iPhone, Android and the Windows Phone and the iPhone and for tablets including the iPad and Android tablets. We distribute those mobile apps free to listeners via app stores. In addition, Pandora is now integrated with more than 1,000 connected devices, including automobiles, automotive aftermarket devices and consumer electronic devices.

Recent Key Events

In 2013, we integrated Pandora's advertising inventory into the leading radio media buying platforms, Mediaocean and STRATA, and we are continuing to enhance the ability of radio advertisers to purchase media on these platforms which incorporate Triton measurements of our radio audience reach side-by-side with terrestrial radio metrics. In addition, we have invested in building a local sales force in major radio markets. In January 2014, we began rolling out in-car advertising solutions which will run across the vehicle models that include a native Pandora integration. Our integration into standard radio media-buying processes and measurement, our in-car advertising solutions and our local ad sales force are key elements of our strategy for expanded penetration of the radio advertising market.

In June 2013, we entered into a local marketing agreement to program KXMZ-FM, a Rapid City, South Dakota-area terrestrial radio station. In addition, we entered into an agreement to purchase the assets of KXMZ-FM for a total purchase price of approximately $0.6 million in cash, subject to certain closing conditions. These agreements were made in part to allow us to qualify for certain settlement agreements concerning royalties for the public performance of musical works between the Radio Music Licensing Committee ("RMLC") and the American Society of Composers, Authors and Publishers ("ASCAP") and Broadcast Music, Inc. ("BMI"), respectively. Completion of the KXMZ-FM acquisition is subject to various closing conditions. These include, but are not limited to, regulatory approval by the Federal Communications Commission. Upon completion of these conditions, we expect to account for this transaction as a business combination.

In September 2013, we completed a follow-on public equity offering in which we sold an aggregate of 15,730,000 shares of our common stock, inclusive of 2,730,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of $25.00 per share. In addition, another 5,200,000 shares were sold by certain selling stockholders. We received aggregate net proceeds of $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. We did not receive any of the proceeds from the sales of shares by the selling stockholders. We anticipate that we will use the net proceeds of this offering for general corporate purposes, including working capital and capital expenditures. In addition, we may use a portion of the net proceeds for potential acquisitions of businesses, products or technologies, although we have no current agreements or understandings with respect to any such transactions.

Factors Affecting our Business Model

As our mobile listenership increases, we face new challenges in optimizing our advertising products for delivery on mobile and other connected device platforms and monetizing inventory generated by listeners using these platforms. The mobile digital advertising market is at an early stage of development, with lower overall spending levels than traditional online advertising markets, and faces technical challenges due to fragmented platforms and lack of standard audience measurement protocols. As a greater share of our listenership is consumed on mobile devices, our ability to monetize increased mobile streaming may not keep up with our past monetization of streaming to desktop computers and laptops.

In addition, our strategy includes increasing the number of ad campaigns for traditional computer, mobile and other connected device platforms sold to local advertisers, placing us in more direct competition with broadcast radio for advertiser spending, especially for audio advertisements. By contrast, historically our display advertisers have been predominantly national brands. To successfully monetize our growing listener hours, we may have to convince a substantial base of local advertisers of the benefits of advertising on the Pandora service including demonstrating the effectiveness and relevance of our advertising products, and in particular, audio advertising products, across the range of our delivery platforms.

Growth in our active users and distribution platforms has fueled a corresponding growth in listener hours. Our total number of listener hours is a key driver for both revenue generation opportunities and content acquisition costs, which are the largest component of our expenses:

- *Revenue.* Listener hours define the number of opportunities we have to sell advertisements, which we refer to as inventory. Our ability to attract advertisers depends in large part on our ability to offer sufficient inventory within desired demographics. In turn, our ability to generate revenue depends on the extent to which we are able to sell the inventory we have.

- *Cost of Revenue—Content Acquisition Costs.*The number of sound recordings we transmit to users of the Pandora service, as generally reflected by listener hours, drives substantially all of our content acquisition costs, although certain of our licensing agreements require us to pay fees for public performances of musical works based on a percentage of revenue.

We pay royalties to the copyright owners, or their agents, of each sound recording that we stream and to the copyright owners, or their agents, of the musical work embodied in that sound recording, subject to certain exclusions. Royalties for sound recordings are negotiated with and paid to record labels or to SoundExchange, a performing rights organization ("PRO") authorized to collect royalties on behalf of all sound recording copyright owners. Royalties for musical works are most often negotiated with and paid to PROs such as ASCAP, BMI and SESAC or directly to publishing companies such as Sony/ATV. Royalties are calculated based on the number of sound recordings streamed, revenue earned or other usage measures. Refer to "Musical Works" in the Business section for more information.

We stream spoken word comedy content pursuant to a federal statutory license, for which the underlying literary works are not currently entitled to eligibility for licensing by any performing rights organization for the United States. Rather, pursuant to industry-wide custom and practice, this content is performed absent a specific license from any such performing rights organization or the copyright owner of such content. However, we pay royalties to SoundExchange at rates negotiated between representatives of online music services and SoundExchange for the right to stream this spoken word comedy content.

Given the current royalty structures in effect through 2015 with respect to the public performance of sound recordings in the United States, our content acquisition costs increase with each additional listener hour, regardless of whether we are able to generate more revenue. As such, our ability to achieve and sustain profitability and operating leverage depends on our ability to increase our revenue per hour of streaming through increased advertising sales across all of our delivery platforms.

Until September 2011, for listeners who are not subscribers, we limited usage of our advertising-supported service on traditional, desktop and laptop, computers to 40 hours per month. Listeners who reached this limit could continue to use this service by paying $0.99 for the remainder of the month. We included this revenue in subscription and other revenue. In September 2011, we effectively eliminated the 40 hour per month listening cap on traditional computers by increasing the cap to 320 hours of listening per month, which almost none of our listeners exceed.

In March 2013, we instituted a 40 hour per month listening limit for our advertising supported service on certain mobile and other connected devices. Listeners who reached this limit could continue to use our ad supported service on these devices by paying $0.99 for the remainder of the month, could listen to our ad supported service on their traditional computers, or could purchase Pandora One subscriptions for $36 per year or approximately $4 per month. Effective September 2013, we eliminated this limit primarily due to our improved ability to monetize mobile listener hours. Although we have removed the broad 40 hour per month mobile listening limit, we have implemented other more precise measures that we believe will allow us to better manage the growth of content acquisition costs while minimizing adverse effects on the listener experience. In addition, while the mobile listening limit drove significant growth in subscribers, this growth has moderated subsequent to removing the limit.

As the volume of music we stream to listeners in the United States increases, our content acquisition costs will also increase, regardless of whether we are able to generate more revenue. In addition, we expect to invest heavily in our operations to support anticipated future growth. One of our key objectives is furthering our market leadership in internet radio, which we believe will strengthen our brand and help us to convince advertisers to allocate spending towards our ad products. As such, a central focus is adding, retaining and engaging listeners to build market share and grow our listener hours. For the foreseeable future, we expect that there will be periods during which our ability to monetize listener hours will lag behind the growth of listener hours. As our business matures, we expect that the growth rate in our listener hours will decline relative to our increased ability to monetize listener hours. However, we expect to incur net losses on a U.S. GAAP basis in the near term.

Our current strategy is to leverage any improvements in gross profit by investing in broadening distribution channels, developing innovative and scalable advertising products, increasing utilization of advertising inventory and building our sales force. These investments are intended to drive further growth in our business through both increased listener hours and monetization of those hours, and as a result we are targeting gradual improvements in gross profit over time. Our planned reinvestment of any resulting incremental gross profit will continue to depress any growth of bottom line profitability. In this regard, we do not expect significant improvements in our earnings per share for calendar year 2014 relative to calendar year 2013.

Key Metrics

Listener Hours

The table below sets forth our listener hours for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013.

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
	(in billions)			
Listener hours	8.23	14.01	12.56	15.31

We track listener hours because it is a key indicator of the growth of our business. We calculate listener hours based on the total bytes served for each track that is requested and served from our servers, as measured by our internal analytics systems, whether or not a listener listens to the entire track. We believe this server-based approach is the best methodology to forecast advertising inventory given that advertisements are frequently served in between tracks and are often served upon triggers such as a listener clicking thumbs-down or choosing to skip a track. To the extent that third-party measurements of listener hours are not calculated using a similar server-based approach, the third-party measurements may differ from our measurements.

Active Users

The table below sets forth our active users as of January 31, 2013 and December 31, 2013.

	As of January 31, 2013	As of December 31, 2013
	(in millions)	
Active users	65.6	76.2

We track the number of active users as an additional indicator of the breadth of audience we are reaching at a given time, which is particularly important to potential advertisers. Active users are defined as the number of distinct registered users that have requested audio from our servers within the trailing 30 days to the end of the final calendar month of the period. The number of active users may overstate the number of unique individuals who actively use our service within a month as one individual may register for, and use, multiple accounts. We track the number of active users as an additional indicator of the breadth of audience we are reaching at a given time, which is particularly important to potential advertisers.

Advertising Revenue per Thousand Listener Hours ("ad RPMs")

The table below sets forth our ad RPMs, including total, traditional computer and mobile and other connected devices ad RPMs for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013.

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
Total ad RPMs	$ 32.22	$ 29.13	$ 29.60	$ 36.70
Traditional computer	62.68	53.73	54.51	56.79
Mobile and other connected devices	21.05	22.53	22.80	31.97

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We track ad RPMs for our free, advertising supported service because it is a key indicator of our ability to monetize advertising inventory created by our listener hours. We focus on total ad RPMs across all of our delivery platforms. Ad RPMs compare advertising revenue generated in a given period to advertising supported listener hours in the period and we believe such total ad RPMs to be the central top-line indicator for evaluating the results of our monetization efforts. We calculate total ad RPMs by dividing advertising revenue we generate by the number of thousands of listener hours of our advertising-based service.

We also provide estimates of disaggregated ad RPMs for our traditional computer platform as well as our mobile and other connected devices platforms, which we calculate by dividing the estimated advertising revenue generated through the respective platforms by the number of thousands of listener hours of our advertising-based service delivered through such platforms. While we believe that such disaggregated ad RPMs provide directional insight for evaluating our efforts to monetize our service by platform, we do not validate disaggregated ad RPMs to the level of financial statement reporting. Such metrics should be seen as indicative only and as management's best estimate. We continue to refine our systems and methodologies used to categorize ad RPMs across our delivery platforms. Period-to-period results should not be regarded as precise nor can they be relied upon as indicative of results for future periods. In addition, as our business matures and in response to technological evolutions, we anticipate that the relevant indicators we monitor for evaluating our business may change.

Total ad RPMs

For the eleven months ended December 31, 2012 and 2013, total ad RPMs increased compared to the respective prior year period as advertising sales growth outpaced the growth in advertising-supported listener hours primarily due to an increase in the number of ads delivered, as well as an increase in the average price per ad. In addition, total ad RPMs benefited from measures we implemented in 2013 to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience.

For the twelve months ended January 31, 2012 and 2013, total ad RPMs decreased compared to the respective prior year period, as the growth in listener hours outpaced the growth in advertising revenue, primarily due to the effective elimination of the 40 hour per month listening cap on traditional computers in September 2011.

Traditional computer ad RPMs

For the eleven months ended December 31, 2012 and 2013, traditional computer ad RPMs increased compared to the respective prior year period, as the growth in traditional computer revenue outpaced the growth in listener hours on that platform primarily due to an increase in the average price per ad.

For the twelve months ended January 31, 2012 and 2013, traditional computer ad RPMs decreased compared to the respective prior year period, as the growth in listener hours outpaced the growth in advertising revenue on that platform, primarily due to the effective elimination of the 40 hour per month listening cap on traditional computers in September 2011.

Mobile and other connected device ad RPMs

For the eleven months ended December 31, 2012 and 2013, mobile and other connected device ad RPMs increased compared to the respective prior year period, as the growth in mobile and other connected devices revenue outpaced the growth in listener hours on those platforms primarily due to an increase in the number of ads delivered and an increase in the average price per ad. In addition, mobile and other connected device ad RPMs benefited from measures we implemented in 2013 to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience.

For the twelve months ended January 31, 2012 and 2013, mobile and other connected device ad RPMs increased compared to the respective prior year period, as the growth in mobile and connected devices revenue outpaced the growth in listener hours on those platforms. The increase in RPMs for the twelve months ended January 31, 2013 was partially offset by the effect of direct advertising sales to one customer which accounted for 9% of revenue in the twelve months ended January 31, 2012.

Total Revenue per Thousand Listener Hours ("total RPMs")

The table below sets forth our total RPMs, including total, traditional computer and mobile and other connected devices total RPMs for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013.

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
Total RPMs	$ 33.32	$ 30.49	$ 30.88	$ 39.22
Traditional computer	58.84	52.36	52.98	56.01
Mobile and other connected devices	21.93	23.83	24.03	34.98

We track revenue per thousand listener hours for our service because it is a key indicator of our ability to monetize our listener hours. We focus on total RPMs across all of our delivery platforms. Total RPMs compare advertising and subscription and other revenue generated in a given period to total listener hours in the period. We calculate total RPMs by dividing the total revenue generated by the number of thousands of listener hours.

The estimates used to derive disaggregated total RPMs for our traditional computer platform as well as our mobile and other connected devices platforms are similar to those used to derive ad RPMs. The changes in total RPMs were driven by the same factors mentioned above within the discussion of ad RPMs.

Licensing Costs per Thousand Listener Hours ("LPMs")

The table below sets forth our total LPMs for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013.

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
Total LPMs	$ 18.06	$ 18.47	$ 18.30	$ 20.57

We track licensing costs per thousand listener hours and analyze them in combination with our analysis of RPMs as they provide a key indicator of our profitability. LPMs are relatively fixed licensing costs with scheduled annual rate increases which drive period over period changes in LPMs. As such, the margin on our business varies principally with variances in ad RPMs and subscription RPMs. Total LPMs in the twelve months ended January 31, 2013 and the eleven months ended December 31, 2013 increased compared to the respective prior year periods primarily due to scheduled rate increases.

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Basis of Presentation and Results of Operations

The following tables present our results of operations for the periods indicated as a percentage of total revenue. The period-to-period comparisons of results are not necessarily indicative of results for future periods.

	Twelve months ended January 31, 2012	Twelve months ended January 31, 2013	Eleven months ended December 31, 2012 (unaudited)	Eleven months ended December 31, 2013
Revenue:				
Advertising	87%	88%	88%	82%
Subscription and other	13	12	12	18
Total revenue	100	100	100	100
Cost of revenue:				
Cost of revenue—Content acquisition costs	54	61	59	52
Cost of revenue—Other(1)	8	7	7	7
Total cost of revenue	62	68	66	59
Gross profit	38	32	34	41
Operating expenses:				
Product development(1)	5	4	4	5
Sales and marketing(1)	24	25	24	28
General and administrative(1)	13	11	11	12
Total operating expenses	42	40	39	45
Loss from operations	(4)	(8)	(5)	(4)
Other income (expense):				
Interest income	—	—	—	—
Interest expense	—	—	—	—
Other expense, net	(2)	—	—	—
Loss before provision for income taxes	(6)	(8)	(5)	(4)
Income tax benefit (expense)	—	—	0	0
Net loss	(6)%	(8)%	(5)%	(4)%

(1) Includes stock-based compensation as follows:

Cost of revenue—Other	0.2%	0.3%	0.3%	0.3%
Product development	0.6	1.1	1.1	1.5
Sales and marketing	1.8	2.9	2.9	3.4
General and administrative	0.8	1.7	1.8	1.5

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Revenue

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
		(in thousands)			(in thousands)	
Advertising	$ 239,957	$ 375,218	$ 135,261	$ 343,318	$ 489,340	$ 146,022
Subscription and other	34,383	51,927	17,544	46,166	110,893	64,727
Total revenue	$ 274,340	$ 427,145	$ 152,805	$ 389,484	$ 600,233	$ 210,749

Advertising revenue. We generate advertising revenue primarily from audio, display and video advertising, which is typically sold on a cost-per-thousand impressions, or CPM, basis. Advertising campaigns typically range from one to twelve months, and advertisers generally pay us based on the number of delivered impressions or the satisfaction of other criteria, such as click-throughs. We also have arrangements with advertising agencies and brokers pursuant to which we provide the ability to sell advertising inventory on our service directly to advertisers. We report revenue under these arrangements net of amounts due to agencies and brokers. For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013, advertising revenue accounted for 87%, 88%, 88% (unaudited) and 82% of our total revenue, respectively, and we expect that advertising will comprise a substantial majority of revenue for the foreseeable future.

For the eleven months ended December 31, 2012 compared to 2013, advertising revenue increased by $146.0 million or approximately 40%, primarily due to an approximate 30% increase in the number of ads delivered, as well as an increase in the average price per ad of approximately 10%. The increase in the number of ads delivered was primarily due to an increase in total advertising listener hours of approximately 15%, which increased the volume of advertising inventory, as well as an increase in our sales force year-over-year to sell such advertising inventory and an increase in ad capacity per hour of approximately 10%. The increase in the average price per ad was due primarily to changes in the sales distribution mix amongst direct sales, third-party network sales, and other channels and the platform mix between traditional computer and mobile and other connected devices.

For the twelve months ended January 31, 2012 compared to 2013, advertising revenue increased by $135.3 million or approximately 56%, primarily due to an approximate 100% increase in the number of ads delivered, partially offset by a decrease in the average price per ad of approximately 20% due to fluctuations in the sales distribution mix amongst direct sales, third-party network sales, and other channels and the platform mix between traditional computer and mobile and other connected devices. The increase in the number of ads delivered was primarily due to an increase in total listener hours of approximately 70%, which increased the volume of advertising inventory, as well as an increase in our sales force year-over-year to sell such advertising inventory.

Subscription and other revenue. Subscription and other revenue is generated primarily through the sale of a premium version of the Pandora service which currently includes advertisement-free access and higher audio quality on the devices that support it. Subscription revenue derived from direct sales to listeners is recognized on a straight-line basis over the duration of the subscription period, although in certain cases described below subscription revenue is currently subject to deferral pending the expiration of refund rights. For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013, subscription and other revenue accounted for 13%, 12%, 12% (unaudited) and 18% of our total revenue, respectively.

For the eleven months ended December 31, 2012 compared to 2013, subscription and other revenue increased by $64.7 million, or approximately 140%, due to an increase in the number of subscribers, partially driven by the implementation of the mobile listening limit, which was implemented in March 2013 and eliminated in September 2013.

For the twelve months ended January 31, 2012 compared to 2013, subscription and other revenue increased $17.5 million, or approximately 50%, due to an increase in the number of subscribers.

Deferred revenue. Our deferred revenue consists principally of both prepaid but unrecognized subscription revenue and advertising fees received or billed in advance of the delivery or completion of the delivery of services. Deferred revenue is recognized as revenue when the services are provided and all other revenue recognition criteria have been met.

In addition, subscription revenue derived from sales through some mobile operating systems may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when services have been provided and the rights lapse or when we have developed sufficient transaction history to estimate a reserve. As of December 31, 2013, we had deferred all revenue subject to certain refund rights totaling approximately $14.2 million, as we do not currently have sufficient history to estimate a reserve. We expect that we will have sufficient history to estimate the reserve in January 2014. As a result, our revenue results will include a one-time reversal of substantially all of the deferred revenue related to the subscription return reserve in the first quarter of calendar year 2014.

Costs and Expenses

Cost of revenue consists of cost of revenue—content acquisition costs and cost of revenue—other. Our operating expenses consist of product development, sales and marketing and general and administrative costs. Cost of revenue—content acquisition costs are the most significant component of our costs and expenses followed by employee-related costs, which include stock-based compensation expenses. We expect to continue to hire additional employees in order to support our anticipated growth and our product development initiatives. In any particular period, the timing of additional hires could materially affect our cost of revenue and operating expenses, both in absolute dollars and as a percentage of revenue. We anticipate that our costs and expenses will increase in the future.

Cost of revenue—Content acquisition costs

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
		(in thousands)			(in thousands)	
Cost of revenue—Content acquisition costs	$ 148,708	$ 258,748	$ 110,040	$ 230,731	$ 314,866	$ 84,135

Content acquisition costs as a percentage of advertising revenue by platform

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
			(unaudited)	
Traditional computer	29%	35%	34%	34%
Mobile and other connected devices	78%	76%	75%	58%

Cost of revenue—Content acquisition costs principally consist of royalties paid for streaming music or other content to our listeners. Royalties are currently calculated using negotiated rates documented in agreements and are based on both percentage of revenue and listening metrics.

The majority of our royalties are payable based on a fee per public performance of a sound recording, while in other cases our royalties are payable based on a percentage of our revenue or a formula that involves a combination of per performance and revenue metrics. For royalty arrangements under negotiation, we accrue for estimated royalties based on the available facts and circumstances and adjust these estimates as more information becomes available. The results of any finalized negotiation may be materially different from our estimates.

We estimate our advertising-based content acquisition costs attributable to specific platforms by allocating costs from royalties payable based on a fee per track to the platform for which the track is served and by allocating costs from royalties based on a percentage of our revenue in accordance with the overall percentage of our revenue estimated to be attributable to such platforms. While we believe that comparing disaggregated content acquisition costs and revenues across our delivery platforms may provide directional insight for evaluating our efforts to monetize the rapid adoption of our service on mobile and other connected devices, we do not validate such disaggregated metrics to the level of financial statement reporting. We continue to refine our systems and methodologies used to categorize such metrics across our delivery platforms and the period-to-period comparisons of results are not necessarily indicative of results for future periods.

For the eleven months ended December 31, 2012 compared to 2013, content acquisition costs increased by $84.1 million due to increased listener hours, higher royalty rates due to scheduled rate increases and increased revenue. Content acquisition costs as a percentage of total revenue decreased from 59% (unaudited) to 52%, primarily due to an increase in advertising sales and the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, partially offset by scheduled rate increases. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our traditional computer platform were 34% in both the eleven months ended December 31, 2012 and 2013, primarily due to increases in advertising sales on that platform that were offset by scheduled rate increases. Estimated content acquisition costs as a percentage of the advertising revenue attributable to our mobile and other connected devices platforms decreased from 75% (unaudited) to 58%, primarily due to an increase in advertising sales on those platforms and the effect of measures we have adopted to manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience, partially offset by scheduled rate increases.

For the twelve months ended January 31, 2012 compared to 2013, content acquisition costs increased by $110.0 million due to increased royalty payments driven by increased listener hours and higher royalty rates due to scheduled rate increases and higher revenue. Content acquisition costs as a percentage of total revenue increased from 54% to 61%, primarily due to increased listener hours, higher royalty rates due to scheduled rate increases and increased revenue. Estimated content acquisition costs as a percentage of the revenue attributable to our traditional computer platform increased from 29% to 35%, primarily due to an increase in listener hours as a result of the effective elimination of the 40 hour per month listening cap on traditional computers and scheduled rate increases. Estimated content acquisition costs as a percentage of the revenue attributable to our mobile and other connected devices platforms decreased from 78% to 76%, primarily due to the an increase in advertising sales on those platforms.

Cost of revenue—other

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
	(in thousands)			(in thousands)		
Cost of revenue—Other	$ 22,759	$ 32,019	$ 9,260	$ 28,740	$ 41,844	$ 13,104

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Cost of revenue—Other consists primarily of hosting, infrastructure and the employee-related costs associated with supporting those functions. Hosting costs consist of content streaming, maintaining our internet radio service and creating and serving advertisements through third-party ad servers. We make payments to third-party ad servers for the period the advertising impressions or click-through actions are delivered or occur, and accordingly, we record this as a cost of revenue in the related period.

For the eleven months ended December 31, 2012 compared to 2013, cost of revenue increased by $13.1 million primarily due to an $8.5 million increase in ad serving costs and hosting costs driven by an increase in advertising revenue and listener hours, a $2.8 million increase in employee-related costs driven by an increase in headcount and a $2.1 million increase in infrastructure costs primarily driven by an increase in listener hours.

For the twelve months ended January 31, 2012 compared to 2013, cost of revenue increased by $9.3 million due to a $5.3 million increase in ad serving and costs and hosting services costs driven by an increase in advertising revenue and listener hours, a $2.0 million increase in employee-related costs driven by an increase in headcount and a $1.8 million increase in infrastructure costs primarily driven by an increase in listener hours.

Gross profit

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
		(in thousands)			(in thousands)	
Total revenue	$ 274,340	$ 427,145	$ 152,805	$ 389,484	$ 600,233	$ 210,749
Total cost of revenue	171,467	290,767	119,300	259,471	356,710	97,239
Gross profit	$ 102,873	$ 136,378	$ 33,505	$ 130,013	$ 243,523	$ 113,510
Gross margin	37%	32%		33%	41%	

For the eleven months ended December 31, 2012 compared to 2013, gross profit increased by $113.5 million primarily due to an increase in advertising revenue as a result of an increase in the number of ads delivered. Gross margin increased from 33% (unaudited) to 41% as the growth in advertising revenue outpaced the growth in content acquisition costs primarily due to an increase in the number of ads delivered and the effect of the measures we adopted to manage the growth of mobile content acquisition costs.

For the twelve months ended January 31, 2012 compared to 2013, gross profit increased by $33.5 million primarily due to an increase in advertising revenue as a result of an increase in the number of ads delivered. Gross margin decreased from 37% to 32% as the growth in content acquisition costs outpaced the growth in revenue primarily due to an increase in listener hours in connection with the removal of the 40 hour traditional computer listening cap in September 2011.

Product development

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
		(in thousands)			(in thousands)	
Product development	$ 13,425	$ 18,118	$ 4,693	$ 16,191	$ 29,986	$ 13,795

Product development consists primarily of employee-related costs, including salaries and benefits related to employees in software engineering, music analysis and product management departments, facilities-related expenses, information technology and costs associated with supporting consumer connected-device manufacturers in implementing our service in their products. We incur product development expenses primarily for improvements to our website and the Pandora app, development of new advertising products and development and enhancement of our personalized station(s) generating system. We have generally expensed product development as incurred. Certain website development and internal use software development costs may be capitalized when specific criteria are met. In such cases, the capitalized amounts are amortized over the useful life of the related application once the application is placed in service. We intend to continue making significant investments in developing new products and enhancing the functionality of our existing products.

For the eleven months ended December 31, 2012 compared to 2013, product development expenses increased by $13.8 million primarily due to a $13.2 million increase in employee-related costs primarily driven by an increase in headcount.

For the twelve months ended January 31, 2012 compared to 2013, product development expenses increased by $4.7 million primarily due to a $5.0 million increase in employee-related costs primarily driven by an increase in headcount.

Sales and marketing

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
		(in thousands)			(in thousands)	
Sales and marketing	$ 65,010	$ 107,715	$ 42,705	$ 94,566	$ 169,774	$ 75,208

Sales and marketing consists primarily of employee-related costs, including salaries, commissions and benefits related to employees in sales, sales support and marketing departments. In addition, sales and marketing expenses include transaction processing fees for subscription purchases on mobile platforms, external sales and marketing expenses such as third-party marketing, branding, advertising and public relations expenses, facilities-related expenses, infrastructure costs and credit card fees. We expect sales and marketing expenses to increase as we hire additional personnel to build out our sales and sales support teams.

For the eleven months ended December 31, 2012 compared to 2013, sales and marketing expenses increased by $75.2 million primarily due to a $44.9 million increase in employee-related costs and a $5.4 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount, a $16.1 million increase in transaction processing fees for subscription purchases on mobile platforms and a $9.1 million increase in marketing expenses.

For the twelve months ended January 31, 2012 compared to 2013, sales and marketing expenses increased by $42.7 million primarily due to a $33.2 million increase in employee-related costs and a $3.0 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount, and a $4.8 million increase in transaction processing fees for subscription purchases on mobile platforms.

General and administrative

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
	(in thousands)			(in thousands)		
General and administrative	$ 35,428	$ 48,247	$ 12,819	$ 43,320	$ 70,212	$ 26,892

General and administrative consists primarily of employee-related costs, consisting of salaries and benefits for finance, accounting, legal, internal information technology and other administrative personnel. In addition, general and administrative expenses include professional services costs for outside legal and accounting services, facilities-related expenses and infrastructure costs. We expect general and administrative expenses to increase in future periods as we continue to invest in corporate infrastructure, including adding personnel and systems to our administrative functions.

For the eleven months ended December 31, 2012 compared to 2013, general and administrative expenses increased by $26.9 million primarily due to an $11.7 million increase in professional fees, a $10.5 million increase in employee-related costs and a $2.4 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount.

For the twelve months ended January 31, 2012 compared to 2013, general and administrative expenses increased by $12.8 million primarily due to a $10.4 million increase in employee-related costs and a $1.4 million increase in facilities and equipment expenses, both of which were primarily driven by an increase in headcount.

Income tax benefit (expense)

We have historically been subject to income taxes only in the United States. As we expand our operations outside the United States, we have become subject to taxation based on the foreign statutory rates and our effective tax rate could fluctuate accordingly.

Income taxes are computed using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted statutory income tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized.

Other income (expense)

	Twelve months ended January 31,			Eleven months ended December 31,		
	2012	2013	$ Change	2012	2013	$ Change
				(unaudited)		
	(in thousands)			(in thousands)		
Interest income	$ 59	$ 95	$ 36	$ 88	$ 96	$ 8
Interest expense	(616)	(535)	81	(486)	(554)	(68)
Other expense, net	(4,485)	(1)	4,484	(3)	(16)	(13)
Total other expense	$ (5,042)	$ (441)	$ 4,601	$ (401)	$ (474)	$ (73)

For the eleven months ended December 31, 2012 compared to 2013, total other expense increased by $0.1 million primarily driven by a $0.1 million increase in interest expense.

For the twelve months ended January 31, 2012 compared to 2013, total other expense decreased by $4.6 million primarily due to a $4.5 million decrease in expenses recorded in connection with the warrant remeasurement during the twelve months ended January 31, 2012, which was due to the change in the fair market value of our common stock. Upon the IPO in June 2011, this liability was eliminated, resulting in a corresponding decrease in other expense.

Liquidity and Capital Resources

As of December 31, 2013 we had cash, cash equivalents and investments totaling $450.1 million, which consisted of cash and money market funds held at major financial institutions, commercial paper, investment-grade corporate debt securities and U.S. government and government agency debt securities.

In September 2013, we completed a follow-on public equity offering in which we sold an aggregate of 15,730,000 shares of our common stock, inclusive of 2,730,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of $25.00 per share. In addition, another 5,200,000 shares were sold by certain selling stockholders. We received aggregate net proceeds of $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. We did not receive any of the proceeds from the sales of shares by the selling stockholders.

The principal uses of our cash during the eleven months ended December 31, 2013 were funding our operations, as described below, and capital expenditures.

Sources of Funds

We believe, based on our current operating plan, that our existing cash and cash equivalents and available borrowings under our credit facility will be sufficient to meet our anticipated cash needs for at least the next twelve months.

From time to time, we may explore additional financing sources and means to lower our cost of capital, which could include equity, equity-linked and debt financing. In addition, in connection with any future acquisitions, we may require additional funding which may be provided in the form of additional debt, equity or equity-linked financing or a combination thereof. There can be no assurance that any additional financing will be available to us on acceptable terms.

Our Indebtedness

In May 2011, we entered into a $30.0 million credit facility with a syndicate of financial institutions. In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million, extended the maturity date from May 12, 2015 to September 12, 2018 and decreased the interest rate on borrowings. Refer to Note 8 "Debt Instruments" in the Notes to Consolidated Financial Statements for further details regarding our credit facility.

In July 2013, we borrowed approximately $10.0 million from the credit facility to enhance our working capital position. This amount was paid off in full in August 2013.

Capital Expenditures

Consistent with previous periods, future capital expenditures will primarily focus on acquiring additional hosting and general corporate infrastructure. Our access to capital is adequate to meet our anticipated capital expenditures for our current plans.

Historical Trends

The following table summarizes our cash flow data for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2012 and 2013.

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
			(unaudited)	
	(in thousands)		(in thousands)	
Net cash provided by (used in) operating activities	$ 5,358	$ (250)	$ 1,702	$ (2,986)
Net cash provided by (used in) investing activities	(58,550)	15,185	8,235	(211,919)
Net cash provided by financing activities	54,270	6,669	5,877	394,997

Operating activities

In the eleven months ended December 31, 2013, net cash used in operating activities was $3.0 million, including our net loss of $27.0 million, which was offset by non-cash charges of $50.6 million primarily related to $40.0 million in stock-based compensation expense. Net cash used in operating activities benefited from a $13.4 million increase in deferred revenue from the prior period primarily due to an increase in subscriptions, partially driven by the temporary implementation of the mobile listening limit and an increase in accrued royalties of $13.0 million due to schedule rate increases, offset by a $60.6 million increase in accounts receivable driven by an increase in revenue.

In the eleven months ended December 31, 2012, net cash provided by operating activities was $1.7 million (unaudited), primarily due to non-cash charges of $31.5 million (unaudited) primarily related to $23.3 million (unaudited) in stock-based compensation expense, offset by our net loss of $24.5 million (unaudited).Net cash provided by operating activities benefited from an increase in accrued royalties of $17.5 million (unaudited) due to schedule rate increases and a $10.3 million (unaudited) increase in deferred revenue primarily due to an increase in customers purchasing subscriptions for Pandora One, offset by an increase in accounts receivable of $43.5 million (unaudited) driven by an increase in revenue.

In the twelve months ended January 31, 2013, net cash used in operating activities was $0.3 million, including our net loss of $38.1 million, offset by non-cash charges of $33.2 million primarily related to stock-based compensation expense. Net cash used in operating activities benefited an increase in accrued royalties of $19.3 million due to schedule rate increases and an increase in deferred revenue of $10.0 million primarily due to an increase in customers purchasing subscriptions for Pandora One, offset by an increase in accounts receivable of $36.7 million driven by an increase in revenue.

In the twelve months ended January 31, 2012, net cash provided by operating activities was $5.4 million, including non-cash charges of $18.9 million primarily related to stock-based compensation expense, offset by our net loss of $16.1 million. In addition, cash provided by operating activities benefitted from an increase in accrued royalties of $15.7 million due to schedule rate increases and a $3.3 million increase in deferred revenue primarily related to an increase in customers purchasing subscriptions for Pandora One, offset by an increase in accounts receivable of $24.5 million driven by an increase in revenue.

Investing activities

In the eleven months ended December 31, 2013, net cash used in investing activities was $211.9 million, primarily due to $224.5 million for purchases of investments, $42.2 million in maturities of short-term investments, $21.2 million for capital expenditures for server equipment and leasehold improvements and $8.0 million for the purchase of patents.

In the eleven months ended December 31, 2012, net cash provided by investing activities was $8.2 million (unaudited), primarily consisting of $79.6 million (unaudited) in maturities of short-term investments offset by $59.6 million (unaudited) for the purchases of investments.

In the twelve months ended January 31, 2013, net cash provided by investing activities was $15.2 million, primarily consisting of $87.9 million in maturities of short-term investments, offset by $65.2 million for the purchases of investments.

In the twelve months ended January 31, 2012, net cash used in investing activities was $58.6 million, primarily consisting of $66.9 million for the purchases of investments, offset by $20.0 million in maturities of short-term investments.

Financing activities

In the eleven months ended December 31, 2013, net cash provided by financing activities was $395.0 million, primarily consisting of net proceeds from the follow-on public equity offering of $378.7 million and cash proceeds from the issuance of common stock of $16.8 million.

In the eleven months ended December 31, 2012, net cash provided by financing activities was $5.9 million (unaudited), primarily consisting of proceeds from the issuance of common stock.

In the twelve months ended January 31, 2013, net cash provided by financing activities was $6.7 million, primarily consisting of proceeds from the issuance of common stock.

In the twelve months ended January 31, 2012, net cash provided by financing activities was $54.3 million, primarily consisting of net proceeds of $90.6 million from issuance of common stock in our IPO, partially offset by the payment of $31.0 million in dividends upon conversion of the redeemable convertible preferred stock in connection with our IPO and repayment of all outstanding debt for $7.6 million.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of December 31, 2013:

	Payments Due by Period				
	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	More Than 5 Year
	(in thousands)				
Purchase obligations	$ 10,000	$ 5,000	$ 5,000	$ —	$ —
Operating lease obligations	57,822	7,108	18,328	12,667	19,719
Total	$ 67,822	$ 12,108	$ 23,328	$ 12,667	$ 19,719

Purchase Obligation

Our purchase obligation represents a non-cancelable royalty-related contractual obligation at December 31, 2013 which is recoupable against future royalty payments.

Off-Balance Sheet Arrangements

As of January 31, 2012 and 2013 and as of December 31, 2012 and 2013, we did not have any off-balance sheet arrangements.

Business Trends

Our operating results fluctuate from quarter to quarter as a result of a variety of factors. We expect our operating results to continue to fluctuate in future quarters.

Our results reflect the effects of seasonal trends in listener behavior due to higher advertising sales during the fourth quarter of each calendar year due to greater advertiser demand during the holiday season and lower advertising sales during the first quarter of each calendar year due to seasonally adjusted advertising demand. In addition, we expect to experience increased usage during the fourth quarter of each calendar year due to the holiday season, and in the first quarter of each calendar year due to increased use of media-streaming devices received as gifts during the holiday season. We believe these seasonal trends have affected, and will continue to affect our operating results, particularly as increases in content acquisition costs from increased usage are not offset by increases in advertising sales in the first calendar quarter.

In addition, expenditures by advertisers tend to be cyclical and discretionary in nature, reflecting overall economic conditions, the economic prospects of specific advertisers or industries, budgeting constraints and buying patterns and a variety of other factors, many of which are outside our control. For example, an advertiser which accounted for more than 10% of our advertising revenue for the three months ended April 30 and July 31, 2011 did not meet this threshold for the three months ended October 31, 2011 and January 31, 2012. As aresult of these and other factors, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

The results of our fiscal quarters (three months ended April 30, July 31, October 31 and January 31 of each year prior to November 1, 2013) reflect the same effects of the seasonal trends on advertising revenue discussed above for calendar periods, except that the impact of these advertising-sales related trends on our fiscal results is not as pronounced due to the inclusion of January instead of October in our fourth fiscal quarter.

We changed our fiscal year to the calendar twelve months ending December 31 to align with the advertising industry's business cycle, effective beginning with the period ended on December 31, 2013. Due to this change, the effect of seasonality on our business will be more pronounced in calendar years ended after December 31, 2013.

The growth in listener hours on mobile and other connected devices was tempered in the eleven months ended December 31, 2013 by the implementation of the mobile listening limit for our advertising supported service on certain mobile and other connected devices. Effective September 2013, we eliminated this limit primarily due to our improved ability to monetize mobile listener hours. Although we have removed the broad 40 hour per month mobile listening limit, we have implemented other more precise measures that we believe will allow us to better manage the growth of mobile content acquisition costs while minimizing adverse effects on the listener experience. In addition, the mobile listening limit drove significant growth in subscribers to our ad-free service, and since removing the limit we do not expect to experience similar growth in subscriptions in the near term. To the extent we take steps such as these to affect usage on a particular platform, trends in usage may be obscured or changed and comparisons across periods may not be meaningful.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and the related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Our estimates form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

An accounting policy is considered to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimate that are reasonably likely to occur, could materially impact the consolidated financial statements. We believe that our critical accounting policies reflect the more significant estimates and assumptions used in the preparation of the consolidated financial statements.

We believe that the assumptions and estimates associated with our royalties for performance rights of musical works, revenue recognition, stock based compensation, stock option grants and common stock valuations and accounting for income taxes have the greatest potential impact on our financial statements. Therefore, we consider these to be our critical accounting policies and estimates.

Royalties for Performance Rights of Musical Works

We incur royalty expenses from our public performance of musical works. This includes royalties that we pay for public performance rights to the owners of those musical works or their agents, such as ASCAP, BMI and SESAC. In 2010 and 2012, we elected to terminate our agreements with ASCAP and BMI, respectively. Recent court proceedings, the purported withdrawal of certain performance rights with respect to certain musical works by certain music publishers from the ASCAP and BMI catalogs, and our recent entry into a local marketing agreement to program KXMZ-FM, in part to allow Pandora to qualify for the current ASCAP and BMI license agreements available to owners of one or more commercial radio stations, have highlighted uncertainties for the royalty rates payable to these organizations and to musical copyright owners. We record a liability for public performance royalties based on our best estimate of the amount owed to each licensor, PROs or individual copyright owners, based on historical rates, third-party evidence and legal developments consistent with our past practices. For each quarterly period, we evaluate our estimates to assess the adequacy of recorded liabilities. If actual royalty rates differ from estimates, revisions to the estimated royalty liabilities may be required, which could materially affect our results of operations.

Revenue Recognition

We recognize revenue when four basic criteria are met: (1) persuasive evidence exists of an arrangement with the customer reflecting the terms and conditions under which the products or services will be provided; (2) delivery has occurred or services have been provided; (3) the fee is fixed or determinable; and (4) collection is reasonably assured. We consider a signed agreement, a binding insertion order or other similar documentation to be persuasive evidence of an arrangement. Collectability is assessed based on a number of factors, including transaction history and the creditworthiness of a customer. If it is determined that collection is not reasonably assured, revenue is not recognized until collection becomes reasonably assured, which is generally upon receipt of cash. We record cash received in advance of revenue recognition as deferred revenue.

Advertising revenue

We generate advertising revenue primarily from audio, display and video advertising. We generate the majority of our advertising revenue through the delivery of advertising impressions sold on a cost per thousand, or CPM, basis. In determining whether an arrangement exists, we ensure that a binding arrangement, such as an insertion order or a fully executed customer-specific agreement, is in place. We generally recognize revenue based on delivery information from our campaign trafficking systems.

We also generate advertising revenue pursuant to arrangements with advertising agencies and brokers. Under these arrangements, we provide the agencies and brokers the ability to sell advertising inventory on our service directly to advertisers. We report this revenue net of amounts due to agencies and brokers because we are not the primary obligor under these arrangements, we do not set the pricing and do not establish or maintain the relationship with the advertisers.

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Subscription and other revenue

Subscription and other revenue is generated primarily through the sale of a premium version of the Pandora service which currently includes advertisement-free access and higher audio quality on supported devices. Subscription revenue derived from direct sales to listeners is recognized on a straight-line basis over the duration of the subscription period. Subscription revenue derived from sales through some mobile operating systems may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when services have been provided and the rights lapse or when we have developed sufficient transaction history to estimate a reserve. As of December 31, 2013, we had deferred revenue of approximately $14.2 million related to refund rights. As a result, our revenue results will include a one-time reversal of substantially all of the deferred revenue related to the subscription return reserve in the first quarter of calendar year 2014.

Revenue recognition for multiple-element arrangements

We enter into arrangements with customers to sell advertising packages that include different media placements or ad services that are delivered at the same time, or within close proximity of one another.

We allocate arrangement consideration in multiple-deliverable revenue arrangements at the inception of an arrangement to all deliverables or those packages in which all components of the package are delivered at the same time, based on the relative selling price method in accordance with the selling price hierarchy, which includes: (1) vendor-specific objective evidence, or VSOE, if available; (2) third-party evidence, or TPE, if VSOE is not available; and (3) best estimate of selling price, or BESP, if neither VSOE nor TPE is available. BESP is generally used to allocate the selling price to deliverables in our multiple element arrangements. We determine BESP for deliverables by considering multiple factors including, but not limited to, prices we charge for similar offerings, sales volume, market conditions, competitive landscape and pricing practices. We recognize the relative fair value of the media placements or ad services as they are delivered assuming all other revenue recognition criteria are met.

Stock-Based Compensation

Stock-based compensation expenses are classified in the statement of operations based on the department to which the related employee reports. Our stock-based awards are comprised principally of stock options and restricted stock unit awards. We measure stock-based compensation expenses for employees at the grant date fair value of the award, and recognize expenses on a straight-line basis over the requisite service period, which is generally the vesting period. We generally estimate the fair value of stock-based payment awards using the Black-Scholes option-pricing model.

The determination of the fair value of a stock-based award on the date of grant using the Black-Scholes option-pricing model is affected by our stock price on the date of grant as well as assumptions regarding a number of complex and subjective variables. These variables include our expected stock price volatility over the expected term of the award, actual and projected employee stock option exercise behaviors, the risk-free interest rate for the expected term of the award and expected dividends. The value of the portion of the award that is ultimately expected to vest is recognized as expense in our statements of operations. Prior to our IPO, our board of directors considered numerous objective and subjective factors to determine the fair market value of our common stock at each meeting at which stock options were granted and approved.

Accounting for Income Taxes

We account for our income taxes using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted statutory income tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized.

We recognize a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized upon settlement. We will recognize interest and penalties related to unrecognized tax benefits in the income tax provision in the accompanying statement of operations.

We calculate the current and deferred income tax provision based on estimates and assumptions that could differ from the actual results reflected in income tax returns filed in subsequent years. Adjustments based on filed income tax returns are recorded when identified. The amount of income taxes paid is subject to examination by U.S. federal, state and international tax authorities. The estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts and circumstances existing at that time. To the extent that the assessment of such tax positions change, the change in estimate is recorded in the period in which the determination is made.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business, including interest rate and inflation risks.

Interest Rate Fluctuation Risk

Our exposure to interest rates relates to the increase or decrease in the amount of interest we must pay on our outstanding debt instruments. In May 2011, we entered into a $30 million credit facility with a syndicate of financial institutions. In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million, extended the maturity date from May 12, 2015 to September 12, 2018 and decreased the interest rate on borrowings. Refer to Note 8 "Debt Instruments" in the Notes to Consolidated Financial Statements for further details regarding our credit facility. Any outstanding borrowings under the credit facility bear a variable interest rate and therefore the interest we pay as well as the fair value of our outstanding borrowings will fluctuate as changes occur in certain benchmark interest rates. As of December 31, 2013, we had no amounts drawn under the credit facility and had $1.1 million in outstanding letters of credit.

The primary objective of our investment activities is to preserve principal while maximizing income without significantly increasing risk. Approximately 40% of our portfolio consists of cash and cash equivalents that have a relatively short maturity, and a fair value relatively insensitive to interest rate changes. Our available-for-sale investments consist of corporate debt securities, commercial paper and U.S. government and government agency debt securities which may be subject to market risk due to changes in prevailing interest rates that may cause the fair values of our investments to fluctuate. Based on a sensitivity analysis, we have determined that a hypothetical 100 basis points increase in interest rates would have resulted in a decrease in the fair values of our investments of approximately $2.2 million as of December 31, 2013. Such losses would only be realized if we sold the investments prior to maturity. In future periods, we will continue to evaluate our investment policy in order to ensure that we continue to meet our overall objectives.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

PANDORA MEDIA, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pandora Media, Inc.

We have audited the accompanying consolidated balance sheets of Pandora Media, Inc. as of January 31, 2013 and December 31, 2013, and the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for the twelve months ended January 31, 2012 and 2013and the eleven months ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Pandora Media, Inc. at January 31, 2013 and December 31, 2013, and the consolidated results of its operations and its cash flows for the twelve months ended January 31, 2012 and 2013 and the elevenmonths ended December 31, 2013, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Pandora Media Inc.'s internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control—Integrated Framework issued by th Committee of Sponsoring Organizations of the Treadway Commission (1992 framework) and our report dated February 14, 2014 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Francisco, California
February 14, 2014

Report Of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Pandora Media, Inc.

We have audited Pandora Media, Inc.'s internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework) (the COSO criteria). Pandora Media, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Pandora Media, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Pandora Media, Inc. as of January 31, 2013 and December 31, 2013, and the related consolidated statements of operations and comprehensive loss, redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 of Pandora Media, Inc. and our report dated February 14, 2014 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Francisco, California
February 14, 2014

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Pandora Media, Inc.

Consolidated Balance Sheets

(In thousands, except share and per share amounts)

	As of January 31, 2013	As of December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	$ 65,725	$ 245,755
Short-term investments	23,247	98,662
Accounts receivable, net of allowance of $761 at January 31, 2013 and $1,272 at December 31, 2013	103,410	164,023
Prepaid expenses and other current assets	6,232	10,343
Total current assets	198,614	518,783
Long-term investments	—	105,686
Property and equipment, net	17,758	35,151
Other long-term assets	2,460	13,715
Total assets	$ 218,832	$ 673,335
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,471	$ 14,413
Accrued liabilities	7,590	14,885
Accrued royalties	53,083	66,110
Deferred revenue	29,266	42,650
Accrued compensation	21,560	17,948
Total current liabilities	115,970	156,006
Other long-term liabilities	3,873	9,098
Total liabilities	119,843	165,104
Stockholders' equity:		
Common stock, $0.0001 par value, 1,000,000,000 shares authorized: 172,506,051 shares issued and outstanding at January 31, 2013 and 195,395,940 at December 31, 2013	17	20
Additional paid-in capital	238,552	675,103
Accumulated deficit	(139,574)	(166,591)
Accumulated other comprehensive loss	(6)	(301)
Total stockholders' equity	98,989	508,231
Total liabilities and stockholders' equity	$ 218,832	$ 673,335

The accompanying notes are an integral part of the consolidated financial statements.

SX EX. 090-77-RP

Pandora Media, Inc.

Consolidated Statements of Operations

(In thousands, except per share amounts)

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012 (unaudited)	2013
Revenue				
Advertising	$ 239,957	$ 375,218	$ 343,318	$ 489,340
Subscription and other	34,383	51,927	46,166	110,893
Total revenue	274,340	427,145	389,484	600,233
Cost of revenue				
Cost of revenue—Content acquisition costs	148,708	258,748	230,731	314,866
Cost of revenue—Other	22,759	32,019	28,740	41,844
Total cost of revenue	171,467	290,767	259,471	356,710
Gross profit	102,873	136,378	130,013	243,523
Operating expenses				
Product development	13,425	18,118	16,191	29,986
Sales and marketing	65,010	107,715	94,566	169,774
General and administrative	35,428	48,247	43,320	70,212
Total operating expenses	113,863	174,080	154,077	269,972
Loss from operations	(10,990)	(37,702)	(24,064)	(26,449)
Other income (expense)				
Interest income	59	95	88	96
Interest expense	(616)	(535)	(486)	(554)
Other expense, net	(4,485)	(1)	(3)	(16)
Loss before provision for income taxes	(16,032)	(38,143)	(24,465)	(26,923)
Income tax benefit (expense)	(75)	(5)	3	(94)
Net loss	$ (16,107)	$ (38,148)	$ (24,462)	$ (27,017)
Accretion of redeemable convertible preferred stock	(110)	—	—	—
Increase in cumulative dividends payable upon conversion or liquidation of redeemable convertible preferred stock	(3,648)	—	—	—
Net loss attributable to common stockholders	(19,865)	(38,148)	(24,462)	(27,017)
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	105,955	168,294	167,956	180,968
Net loss per share, basic and diluted	$ (0.19)	$ (0.23)	$ (0.15)	$ (0.15)

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.

Consolidated Statements of Comprehensive Loss

(In thousands)

	Twelve months ended January 31,		Eleven months ended December 31,
	2012	2013	2013
Net loss	$ (16,107)	$ (38,148)	$ (27,017)
Change in foreign currency translation adjustment	—	(3)	(42)
Change in net unrealized losses on marketable securities	(5)	2	(253)
Other comprehensive loss	(5)	(1)	(295)
Total comprehensive loss	$ (16,112)	$ (38,149)	$ (27,312)

The accompanying notes are an integral part of the consolidated financial statements.

Pandora Media, Inc.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)

(In thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock					
	Shares	Amount	Shares	Par Amount	Additional Paid-in Capital	Other Comprehensive Income (loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balances as of January 31, 2011	133,534,334	$ 126,662	14,510,655	$ 1	$ 2,308	$ —	$ (85,319)	$ (83,010)
Issuance of common stock upon exercise of stock options	—	—	5,165,112	1	2,515	—	—	2,516
Stock-based compensation	—	—	—	—	9,187	—	—	9,187
Dividends on redeemable convertible preferred stock	—	25,200	—	—	(25,218)	—	—	(25,218)
Accretion of redeemable convertible preferred stock issuance costs	—	110	—	—	(110)	—	—	(110)
Payment of preferred dividends in connection with initial public offering	—	(31,005)	—	—	—	—	—	—
Conversion of preferred stock to common stock in connection with initial public offering	(133,534,334)	(120,967)	137,294,552	13	126,477	—	—	126,490
Issuance of common stock in connection with initial public offering	—	—	6,350,682	1	90,631	—	—	90,632
Issuance of common stock in connection with preferred stock warrant exercise	—	—	248,360		165	—	—	165
Components of comprehensive loss:								
Net loss	—	—	—	—	—	—	(16,107)	(16,107)
Other comprehensive loss	—	—	—	—	—	(5)	—	(5)
Balances as of January 31, 2012	—	$ —	163,569,361	$ 16	$ 205,955	$ (5)	$ (101,426)	$ 104,540
Issuance of common stock upon exercise of stock options	—	—	8,408,842	1	7,305	—	—	7,306
Stock-based compensation	—	—	—	—	25,500	—	—	25,500
Vesting of restricted stock units	—	—	400,112	—	—	—	—	—
Share cancellations to satisfy tax								

withholding on vesting of restricted stock units	—	—	(18,340)	—	(208)	—	—	(208)
Issuance of common stock in connection with preferred stock warrant exercise	—	—	146,076	—	—	—	—	—
Components of comprehensive loss:								
Net loss	—	—	—	—	—	—	(38,148)	(38,148)
Other comprehensive loss	—	—	—	—	—	(1)	—	(1)
Balances as of January 31, 2013	— $	—	172,506,051 $	17 $	238,552 $	(6) $	(139,574) $	98,989
Issuance of common stock upon exercise of stock options	—	—	5,659,377	1	18,355	—	—	18,356
Issuance of common stock in connection with secondary offering, net issuance costs	—	—	15,730,000	2	378,635	—	—	378,637
Stock-based compensation	—	—	—	—	40,041	—	—	40,041
Vesting of restricted stock units	—	—	1,520,516	—	—	—	—	—
Share cancellations to satisfy tax withholding on vesting of restricted stock units	—	—	(20,004)	—	(480)	—	—	(480)
Components of comprehensive loss:								
Net loss	—	—	—	—	—	—	(27,017)	(27,017)
Other comprehensive loss	—	—	—	—	—	(295)	—	(295)
Balances as of December 31, 2013	— $	—	195,395,940 $	20 $	675,103 $	(301) $	(166,591) $	508,231

The accompanying notes are an integral part of the financial statements.

SX EX. 090-82-RP

Pandora Media, Inc.

Consolidated Statements of Cash Flows

(In thousands)

	Twelve months ended January 31,		Eleven months ended December 31,	
	2012	2013	2012	2013
			(unaudited)	
Operating activities				
Net loss	$ (16,107)	$ (38,148)	$ (24,462)	$ (27,017)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities				
Depreciation and amortization	4,455	7,076	6,406	10,112
Loss on disposition of assets	296	23	23	—
Stock-based compensation	9,187	25,500	23,283	40,041
Remeasurement of preferred stock warrants	4,499	—	—	—
Amortization of premium on investments	246	360	329	237
Amortization of debt issuance costs	190	264	242	220
Changes in assets and liabilities				
Accounts receivable	(24,526)	(36,672)	(43,487)	(60,613)
Prepaid expenses and other assets	156	(3,752)	(2,189)	(7,891)
Accounts payable and accrued liabilities	(865)	4,963	10,419	17,352
Accrued royalties	15,742	19,261	17,525	13,027
Accrued compensation	8,147	9,598	2,085	(3,393)
Deferred revenue	3,322	10,034	10,285	13,384
Reimbursement of cost of leasehold improvements	616	1,243	1,243	1,555
Net cash provided by (used in) operating activities	5,358	(250)	1,702	(2,986)
Investing activities				
Purchases of property and equipment	(11,644)	(7,580)	(11,809)	(21,180)
Purchases of patents	—	—	—	(8,000)
Purchases of investments	(66,890)	(65,168)	(59,559)	(224,549)
Proceeds from maturities of short-term investments	19,984	87,933	79,603	42,210
Payments related to acquisition	—	—	—	(400)
Net cash provided by (used in) investing activities	(58,550)	15,185	8,235	(211,919)
Financing activities				
Borrowings under debt arrangements	—	—	—	10,000
Repayments of debt	(7,596)	—	—	(10,000)
Proceeds from follow-on offering, net of issuance costs				378,654
Proceeds from issuance of common stock	2,074	6,669	5,877	16,793
Proceeds from exercise of preferred stock warrants	165	—	—	—
Proceeds from initial public offering, net	90,632	—	—	—
Payment of dividends to preferred stockholders at initial public offering	(31,005)	—	—	—
Payment of debt issuance costs in connection with the debt refinancing	—	—	—	(450)
Net cash provided by financing activities	54,270	6,669	5,877	394,997
Effects of foreign currency translation	—	(5)	(1)	(62)
Net increase in cash and cash equivalents	1,078	21,599	15,813	180,030
Cash and cash equivalents at beginning of period	43,048	44,126	44,126	65,725
Cash and cash equivalents at end of period	$ 44,126	$ 65,725	$ 59,939	$ 245,755
Supplemental disclosures of noncash financing activities				
Conversion of preferred stock warrants into common stock warrants	(2,151)	—	—	—
Conversion of preferred stock into common stock	(124,341)	—	—	—
Accruals of preferred stock dividends, net	25,218	—	—	—
Accretion of preferred stock issuance cost	110	—	—	—
Supplemental disclosures of cash flow information				
Cash paid during the period for income taxes	125	—	—	26
Cash paid during the period for interest	887	289	283	18
Purchases of property and equipment recorded in accounts payable and accrued liabilities	—	1,952	726	7,910

The accompanying notes are an integral part of the consolidated financial statements.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements

1. Description of the Business and Basis of Presentation

Pandora Media, Inc. provides an internet radio service offering a personalized experience for each listener wherever and whenever they want to listen to radio on a wide range of smartphones, tablets, traditional computers and car audio systems, as well as a range of other internet-connected devices. We have pioneered a new form of radio—one that uses intrinsiqualities of music to initially create stations and then adapts playlists in real-time based on the individual feedback of each listener. We offer local and national advertisers an opportunity to deliver targeted messages to our listeners using a combination of audio, display and video advertisements. We also offer a paid subscription service which we call Pandora One. We were incorporated as a California corporation in January 2000 and reincorporated as a Delaware corporation in December 2010.

As used herein, "Pandora," "we," "our," the "Company" and similar terms include Pandora Media, Inc. and its subsidiaries, unless the context indicates otherwise.

Initial Public Offering

In June 2011, we completed an initial public offering ("IPO") whereby 14,684,000 shares of common stock were sold to the public at a price of $16.00 per share. We sold 6,000,682 common shares and selling stockholders sold 8,683,318 common shares. In July 2011, in connection with the exercise of the underwriters' overallotment option, 350,000 additional shares of common stock were sold to the public at the initial offering price of $16.00 per share. We received aggregate proceeds of $94.5 million from the initial public offering and the underwriters' overallotment option, net of underwriters' discounts and commissions but before deducting offering expenses of $3.9 million. Upon the closing of the IPO, all shares of our outstanding redeemable convertible preferred stock automatically converted into 137,542,912 shares of common stock and outstanding warrants to purchase redeemable convertible preferred stock automatically converted into warrants to purchase 154,938 shares of common stock.

Follow-on Public Offering

In September 2013, we completed a follow-on public equity offering in which we sold an aggregate of 15,730,000 shares of our common stock, inclusive of 2,730,000 shares sold pursuant to the exercise by the underwriters of an option to purchase additional shares, at a public offering price of $25.00 per share. In addition, another 5,200,000 shares were sold by certain selling stockholders. We received aggregate net proceeds of $378.7 million, after deducting underwriting discounts and commissions and offering expenses from sales of our shares in the offering. We did not receive any of the proceeds from the sales of shares by the selling stockholders.

Basis of Presentation

The consolidated financial statements and accompanying notes have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") and include the accounts of Pandora and our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. In the opinion of our management, the consolidated financial statements include all adjustments, which include only normal recurring adjustments, necessary for the fair presentation of our financial position for the periods presented.

Certain changes in presentation have been made to conform the prior period presentation to current period reporting. Our statements of operations now include the presentation of gross profit, which is calculated as total revenue less cost of revenue.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

1. Description of the Business and Basis of Presentation (Continued)

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and the related disclosures at the date of the financial statements, as well as the reported amounts of revenue and expenses during the periods presented. Estimates are used for determining accrued royalties, selling prices for elements sold in multiple-element arrangements, the allowance for doubtful accounts, stock-based compensation and income taxes. To the extent there are material differences between these estimates, judgments, or assumptions and actual results, our financial statements could be affected. In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result.

Segments

Pandora operates in one segment. Our chief operating decision maker (the "CODM"), our Chief Executive Officer, manages our operations on a consolidated basis for purposes of allocating resources. When evaluating our financial performance, the CODM reviews separate revenue information for our advertising, subscription and other offerings, while all other financial information is reviewed on a consolidated basis. All of our principal operations are located in the United States.

Fiscal year

We changed our fiscal year to the calendar twelve months ending December 31, effective beginning with the period ended on December 31, 2013. As a result, our current fiscal period was shortened from twelve months to an eleven-month transition period ended on December 31, 2013. We reported our third fiscal quarter as the three months ended October 31, 2013, followed by a two-month transition period ended December 31, 2013. In these consolidated statements, including the notes thereto, the current year financial results ended December 31, 2013 are for an eleven-month period. Audited results for the twelve months ended January 31, 2012 and 2013 are both for twelve-monthperiods. In addition, our Consolidated Statements of Operations and Consolidated Statements of Cash Flows include unaudited comparative amounts for the eleven-month period ended December 31, 2012.

All references herein to a fiscal year prior to December 31, 2013 refer to the twelve months ended January 31 of such year, and references to the first, second, third and fourth fiscal quarters ended prior to November 1, 2013 refer to the three months ended April 30, July 31, October 31 and January 31, respectively.

2. Summary of Significant Accounting Policies

Revenue Recognition

Our revenue is principally derived from advertising services and subscription fees. We recognize revenue when: (1) persuasive evidence exists of an arrangement with the customer reflecting the terms and conditions under which products or services will be provided; (2) delivery has occurred or services have been provided; (3) the fee is fixed or determinable; and (4) collection is reasonably assured. For all revenue transactions, we consider a signed agreement, a binding insertion order or other similar documentation to be persuasive evidence of an arrangement.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Advertising revenue. We generate advertising revenue primarily from audio, display and video advertising. We generate the majority of our advertising revenue through the delivery of advertising impressions sold on a cost per thousand, or CPM, basis. In determining whether an arrangement exists, we ensure that a binding arrangement, such as an insertion order or a fully executed customer-specific agreement, is in place. We generally recognize revenue based on delivery information from our campaign trafficking systems.

We also generate advertising revenue pursuant to arrangements with advertising agencies and brokers. Under these arrangements, we provide the agencies and brokers the ability to sell advertising inventory on our service directly to advertisers. We report this revenue net of amounts due to agencies and brokers because we are not the primary obligor under these arrangements, we do not set the pricing and do not establish or maintain the relationship with the advertisers.

Subscription and other revenue. We generate subscription revenue through the sale of a premium version of Pandora internet radio, or Pandora One. Subscription revenue derived from direct sales to listeners is recognized on a straight-line basis over the duration of the subscription period. Subscription revenue derived from sales through some mobile operating systems may be subject to refund or cancellation terms which may affect the timing or amount of the subscription revenue recognition. When refund rights exist, we recognize revenue when the service has been provided and the rights lapse or when sufficient transaction history has been developed to estimate a reserve.

Deferred revenue. Our deferred revenue consists principally of both prepaid but unrecognized subscription revenue and advertising fees received or billed in advance of the delivery or completion of the delivery of services. Deferred revenue is recognized as revenue when the services are provided and all other revenue recognition criteria have been met. When refund rights exist, we recognize revenue when the rights lapse or when sufficient transaction history has been developed to estimate a reserve. As of December 31, 2013, we had deferred all revenue subject to certain refund rights totaling approximately $14.2 million, as we do not currently have sufficient history to estimate a reserve.

Multiple-element arrangements. We enter into arrangements with customers to sell advertising packages that include different media placements or ad services that are delivered at the same time, or within close proximity of one another. We recognize the relative fair value of the media placements or ad services as they are delivered assuming all other revenue recognition criteria are met.

We allocate arrangement consideration in multiple-deliverable revenue arrangements at the inception of an arrangement to all deliverables or those packages in which all components of the package are delivered at the same time, based on the relative selling price method in accordance with the selling price hierarchy, which includes: (1) vendor-specific objective evidence ("VSOE") if available; (2) third-party evidence ("TPE") if VSOE is not available; and (3) best estimate of selling price ("BESP") if neither VSOE nor TPE is available.

VSOE. We determine VSOE based on our historical pricing and discounting practices for the specific product or service when sold separately. In determining VSOE, we require that a substantial majority of the selling prices for these services fall within a reasonably narrow pricing range. We have not historically priced our advertising products within a narrow range. As a result, we have not been able to establish VSOE for any of our advertising products.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

TPE. When VSOE cannot be established for deliverables in multiple element arrangements, we apply judgment with respect to whether it can establish a selling price based on TPE. TPE is determined based on competitor prices for similar deliverables when sold separately. Generally, our go-to-market strategy differs from that of our peers and our offerings contain a significant level of differentiation such that the comparable pricing of services cannot be obtained. Furthermore, we are unable to reliably determine what similar competitor services' selling prices are on a stand-alone basis. As a result, we have not been able to establish selling price based on TPE.

BESP. When we are unable to establish selling price using VSOE or TPE, we use BESP in our allocation of arrangement consideration. The objective of BESP is to determine the price at which we would transact a sale if the service were sold on a stand-alone basis. BESP is generally used to allocate the selling price to deliverables in our multiple element arrangements. We determine BESP for deliverables by considering multiple factors including, but not limited to, prices we charge for similar offerings, market conditions, competitive landscape and pricing practices. We limit the amount of allocable arrangement consideration to amounts that are fixed or determinable and that are not contingent on future performance or future deliverables. We regularly review BESP. Changes in assumptions or judgments or changes to the elements in the arrangement may cause an increase or decrease in the amount of revenue that we report in a particular period.

Concentration of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash and cash equivalents, investments and trade accounts receivable. We maintain cash and cash equivalents with domestic financial institutions of high credit quality. We perform periodic evaluations of the relative credit standing of such institutions.

We perform ongoing credit evaluations of customers to assess the probability of accounts receivable collection based on a number of factors, including past transaction experience with the customer, evaluation of their credit history, and review of the invoicing terms of the contract. We generally do not require collateral. We maintain reserves for potential credit losses on customer accounts when deemed necessary. Actual credit losses during the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 were $0.4 million, $0.5 million and $0.4 million, respectively.

For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 we had no customers that accounted for 10% or more of total revenue. As of January 31, 2013 and December 31, 2013, there were no customers that accounted for 10% or more of our total accounts receivable.

Cash, Cash Equivalents and Investments

We classify our highly liquid investments with maturities of three months or less at the date of purchase as cash equivalents. Our investments consist of commercial paper, corporate debt securities and U.S. government and government agency debt securities. These investments are classified as available-for-sale securities and are carried at fair value with the unrealized gains and losses reported as a component of stockholders' equity. Management determines the appropriate classification of our investments at the time of purchase and reevaluates the available-for-sale designations as of each balance sheet date. We classify our investments as either short-term or long-term based on each instrument's underlying contractual maturity date. Investments with maturities of less than twelve months are classified as short-term and those with maturities greater than twelve months are classified as long-term. The cost of investments sold is based upon the specific identification method.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded net of an allowance for doubtful accounts. Our allowance for doubtful accounts is based upon historical loss patterns, the number of days that billings are past due and an evaluation of the potential risk of loss associated with delinquent accounts. We also consider any changes to the financial condition of our customers and any other external market factors that could impact the collectability of our receivables in the determination of our allowance for doubtful accounts.

Property and Equipment

Property and equipment is recorded at cost, less accumulated depreciation and amortization. Depreciation is computed using the straight-line method based on the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized over the shorter of the lease term or expected useful lives of the improvements.

Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of these assets is measured by a comparison of the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If property and equipment are considered to be impaired, the impairment to be recognized equals the amount by which the carrying value of the asset exceeds its fair market value.

Costs incurred to develop software for internal use are required to be capitalized and amortized over the estimated useful life of the asset if certain criteria are met. Costs related to preliminary project activities and post implementation activities are expensed as incurred. We evaluate the costs incurred during the application development stage of website development to determine whether the costs meet the criteria for capitalization. As of January 31, 2013 and December 31, 2013, we had approximately $1.1 million and $1.5 million of capitalizedinternal use software and website development costs, net of accumulated amortization. These costs are being amortized over their three-year estimated useful lives. Internal use software and website development costs are included in property and equipment.

Preferred Stock Warrant

Prior to the IPO, warrants to purchase our redeemable convertible preferred stock were classified as liabilities on our balance sheet. We measured these warrants at fair value at each balance sheet date and any changes in fair value were recognized as a component of other income (expense) in our statements of operations. Our preferred stock warrants were categorized as Level 3 within the fair value hierarchy because the fair value was estimated using an option valuation model, which included the estimated fair value of the underlying preferred stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates and expected dividends on and expected volatility of the price of the underlying preferred stock. These assumptions were inherently subjective and involved significant management judgment. We performed the final remeasurement of the warrants at the fair value at the closing date of the IPO on June 20, 2011 because the preferred stock warrants were either exercised or converted to common stock warrants on that date.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

We recorded losses of approximately $4.5 million arising from the revaluation of the convertible preferred stock warrant liability during the twelve months ended January 31, 2012.

Stock-Based Compensation

Stock-based payments made to employees, including grants of employee stock options and restricted stock, are recognized in the statements of operations based on their fair values. We recognize stock-based compensation for awards granted that are expected to vest, on a straight-line basis using the single-option attribution method over the service period of the award, which is generally four years. Because stock-based compensation expenses recognized in the statements of operations are based on awards ultimately expected to vest, they have been reduced for estimated forfeitures. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The forfeiture rates used for valuing stock-based compensation payments were estimated based on historical experience. We generally estimate the fair value of employee stock options using the Black-Scholes valuation model. The determination of the fair value of a stock-based award is affected by the deemed fair value of the underlying stock price on the grant date, as well as other assumptions including the risk-free interest rate, the estimated volatility of our stock price over the term of the award, the estimated period of time that we expect employees to hold their stock options and the expected dividend rate.

We have elected to use the "with and without" approach as described in Accounting Standards Codification 740 *Tax Provisions* in determining the order in which tax attributes are utilized. As a result, we will only recognize a tax benefit from stock-based awards in additional paid-in capital if an incremental tax benefit is realized after all other tax attributes currently available to us have been utilized. In addition, we have elected to account for the indirect effects of stock-based awards on other tax attributes, such as the research tax credit, through the statement of operations.

Cost of Revenue—Content Acquisition Costs

Cost of revenue—Content acquisition costs principally consist of royalties paid for streaming music or other content to our listeners. Royalties are currently calculated using negotiated rates documented in agreements and are based on both percentage of revenue and listening metrics. For royalty arrangements under negotiation, we accrue for estimated royalties based on the available facts and circumstances and adjust these estimates as more information becomes available.

Cost of Revenue—Other

Cost of revenue—Other consists primarily of hosting and infrastructure costs and the employee-related costs associated with supporting those functions. Hosting costs consist of content streaming, maintaining our internet radio service and creating and serving advertisements through third-party ad servers. We make payments to third-party ad servers in the period in which the advertising impressions are delivered or click-through actions occur, and accordingly, we record this as a cost of revenue in the related period.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Product Development

Product development consists primarily of employee-related costs, including salaries and benefits related to employees in software engineering, music analysis and product management departments, facilities-related expenses, information technology and costs associated with supporting consumer connected-device manufacturers in implementing our service in their products. We incur product development expenses primarily for improvements to our website and the Pandora app, development of new advertising products and development and enhancement of our personalized station(s) generating system. We have generally expensed product development as incurred.

Certain website development and internal use software development costs may be capitalized when specific criteria are met. In such cases, the capitalized amounts are amortized over the useful life of the related application once the application is placed in service.

Sales and Marketing

Sales and marketing consists primarily of employee-related costs, including salaries, commissions and benefits related to employees in sales, sales support and marketing departments. In addition, sales and marketing expenses include transaction processing fees for subscription purchases on mobile platforms, external sales and marketing expenses such as third-party marketing, branding, advertising and public relations expenses, facilities-related expenses, infrastructure costs and credit card fees.

General and Administrative

General and administrative expenses consists primarily of employee-related costs, consisting of salaries and benefits for finance, accounting, legal, internal information technology and other administrative personnel. In addition, general and administrative expenses include professional services costs for outside legal and accounting services, facilities-related expenses and credit card fees.

Income Taxes

We account for our income taxes using the asset and liability method, under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted statutory income tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized.

We recognize a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such positions are then measured based on the largest benefit that has a greater than 50% likelihood of being realized upon settlement. We will recognize interest and penalties related to unrecognized tax benefits in the income tax provision in the accompanying statement of operations.

We calculate the current and deferred income tax provision based on estimates and assumptions that could differ from the actual results reflected in income tax returns filed in subsequent years. Adjustments based on filed income tax returns are recorded when identified. The amount of income taxes paid is subject to examination by U.S. federal, state and international tax authorities. The estimate of the potential outcome of any uncertain tax issue is subject to management's assessment of relevant risks, facts and circumstances existing at that time. To the extent that the assessment of such tax positions change, the change in estimate is recorded in the period in which the determination is made.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

2. Summary of Significant Accounting Policies (Continued)

Net Loss Per Share

Basic net loss per share is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by giving effect to all potential shares of common stock, including stock options, convertible preferred stock warrants, restricted stock units and redeemable convertible preferred stock, to the extent dilutive. Basic and diluted net loss per share were the same for each period presented as the inclusion of all potential common shares outstanding would have been anti-dilutive.

3. Composition of Certain Financial Statement Captions

Cash, Cash Equivalents and Investments

	As of January 31, 2013	As of December 31, 2013
	(in thousands)	
Cash and cash equivalents:		
Cash	$ 22,703	$ 89,176
Money market funds	32,522	98,437
Commercial paper	10,500	54,247
Corporate debt securities	—	3,895
Total cash and cash equivalents	$ 65,725	$ 245,755
Short-term investments:		
Commercial paper	$ 13,592	$ 47,526
Corporate debt securities	9,655	50,436
U.S. government and government agency debt securities	—	700
Total short-term investments	$ 23,247	$ 98,662
Long-term investments:		
Corporate debt securities	$ —	$ 100,690
U.S. government and government agency debt securities	—	4,996
Total long-term investments	$ —	$ 105,686
Cash, cash equivalents and investments	$ 88,972	$ 450,103

Our short-term investments have maturities of less than twelve months and are classified as available-for-sale. Our long-term investments have maturities of greater than twelve months and are classified as available-for-sale. We did not hold any long-term investments as of January 31, 2013.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

3. Composition of Certain Financial Statement Captions (Continued)

The following table summarizes our available-for-sale securities' adjusted cost, gross unrealized gains, gross unrealized losses and fair value by significant investment category as of January 31, 2013 and December 31, 2013.

	As of January 31, 2013 (in thousands)			
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 32,522	$ —	$ —	$ 32,522
Commercial paper	24,093	—	(1)	24,092
Corporate debt securities	9,657	—	(2)	9,655
Total cash equivalents and marketable securities	$ 66,272	$ —	$ (3)	$ 66,269

	As of December 31, 2013 (in thousands)			
	Adjusted Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 98,437	$ —	$ —	$ 98,437
Commercial paper	101,773	—	—	101,773
Corporate debt securities	155,273	6	(258)	155,021
U.S. government and government agency debt securities	5,700	—	(4)	5,696
Total cash equivalents and marketable securities	$ 361,183	$ 6	$ (262)	$ 360,927

The following table presents available-for-sale investments by contractual maturity date as of December 31, 2013. As of January 31, 2013, all of our investments had maturities of less than twelve months.

	As of December 31, 2013 (in thousands)	
	Adjusted Cost	Fair Value
Due in one year or less	$ 255,278	$ 255,241
Due after one year through three years	105,906	105,686
Total	$ 361,184	$ 360,927

Our investment policy requires investments to be investment grade, primarily rated "A1" by Standard & Poor's or "P1" by Moody's or better for short-term investments and rated "A" by Standard & Poor's or "A2" by Moody's or better for long-term investments, with the objective of minimizing the potential risk of principal loss. In addition, the investment policy limits the amount of credit exposure to any one issuer.

The unrealized losses on our available-for-sale securities as of December 31, 2013 were primarily a result of unfavorable changes in interest rates subsequent to the initial purchase of these securities. As of December 31, 2013, we owned 68 securities that were in an unrealized loss position. We do not intend nor expect to need to sell these securities before recovering the associated unrealized losses.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

3. Composition of Certain Financial Statement Captions (Continued)

We expect to recover the full carrying value of these securities. As a result, no portion of the unrealized losses at December 31, 2013 is deemed to be other-than-temporary and the unrealized losses are not deemed to be credit losses. No available-for-sale securities have been in an unrealized loss position for twelve months or more. When evaluating the investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below cost basis, the financial condition of the issuer and any changes thereto, and our intent to sell, or whether it is more likely than not we will be required to sell, the investment before recovery of the investment's amortized cost basis. During the eleven months ended December 31, 2013, we did not recognize any impairment charges.

Accounts Receivable

	As of January 31, 2013	As of December 31, 2013
	(in thousands)	
Accounts receivable	$ 104,171	$ 165,295
Allowance for doubtful accounts	(761)	(1,272)
Accounts receivable, net	$ 103,410	$ 164,023

The following table summarizes our beginning allowance for doubtful accounts balance for each period, additions, write-offs net of recoveries and the balance at the end of each period for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013:

Allowance for Doubtful Accounts	Balance at Beginning of Period	Additions	Write-offs, Net of Recoveries	Balance at End of Period
	(in thousands)			
For the twelve months ended January 31, 2012	$ 503	$ 492	$ (405)	$ 590
For the twelve months ended January 31, 2013	590	659	(488)	761
For the eleven months ended December 31, 2013	761	948	(437)	1,272

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

3. Composition of Certain Financial Statement Captions (Continued)

Property and Equipment

	As of January 31, 2013	As of December 31, 2013
	(in thousands)	
Property and equipment:		
Software developed for internal use	$ 1,095	$ 2,173
Servers, computers and other related equipment	19,461	27,361
Office furniture and equipment	1,722	2,248
Construction in progress	2,264	13,575
Leasehold improvements	6,142	11,314
Total property and equipment	$ 30,684	$ 56,671
Less accumulated depreciation and amortization	(12,926)	(21,520)
Property and equipment, net	$ 17,758	$ 35,151

Depreciation and amortization expenses totaled $4.5 million and $7.1 million for the twelve months ended January 31, 2012 and 2013 and $10.1 million for the eleven months ended December 31, 2013. We wrote off net assets due to asset retirement totaling $0.3 million for the twelve months ended January 31, 2012. There were no material write-offs during the twelve months ended January 31, 2013 or the eleven months ended December 31, 2013.

Software developed for internal use generally has an expected useful life of three years from the date placed in service. As of January 31, 2013 and December 31, 2013 the net carrying amount was $1.0 million and $1.5, including accumulated amortization of $0.1 million and $0.7 million. Amortization expense for the twelve months ended January 31, 2013 and the eleven months ended December 31, 2013 was $0.1 million and $0.6 million. We held no material software developed for internal use assets during the twelve months ended January 31, 2012.

4. Fair Value

We record cash equivalents and investments at fair value. Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Fair value measurements are required to be disclosed by level within the following fair value hierarchy:

- Level 1—Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2—Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.
- Level 3—Inputs lack observable market data to corroborate management's estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

4. Fair Value (Continued)

When determining fair value, whenever possible we use observable market data, and rely on unobservable inputs only when observable market data is not available.

	As of January 31, 2013		
	Fair Value Measurement Using		
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Total
	(in thousands)		
Assets:			
Money market funds	$ 32,522	$ —	$ 32,522
Commercial paper	—	24,092	24,092
Corporate debt securities	—	9,655	9,655
Total assets measured at fair value	$ 32,522	$ 33,747	$ 66,269

	As of December 31, 2013		
	Fair Value Measurement Using		
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Total
	(in thousands)		
Assets:			
Money market funds	$ 98,437	$ —	$ 98,437
Commercial paper	—	101,773	101,773
Corporate debt securities	—	155,021	155,021
U.S. government and government agency debt securities	—	5,696	5,696
Total assets measured at fair value	$ 98,437	$ 262,490	$ 360,927

Our money market funds are classified as Level 1 within the fair value hierarchy because they are valued primarily using quoted market prices. Our other cash equivalents and investments are classified as Level 2 within the fair value hierarchy because they are valued using professional pricing sources for identical or comparable instruments, rather than direct observations of quoted prices in active markets. During the twelve months ended January 31, 2013 and the eleven months ended December 31, 2013, we held no Level 3 assets.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

5. Other Long-Term Assets

		As of January 31, 2013		As of December 31, 2013
		(in thousands)		
Other long-term assets:				
Patents, net of amortization	$	—	$	7,636
Long-term security deposits		922		4,736
Other		709		1,343
Restricted cash		829		—
Total other long-term assets	$	2,460	$	13,715

In June 2013, we purchased certain internet radio-related patents from Yahoo! Inc. for $8.0 million in cash. We intend to hold these patents as part of our strategy to protect and defend Pandora from patent-related litigation. These patents are being amortized over a period of eleven years.

As part of our original May 2011 credit facility, we had entered into a cash collateral agreement in connection with the issuance of letters of credit that were used to satisfy deposit requirements under facility leases, refer to Note 8 "Debt Instruments" for more information. In September 2013, we amended the credit facility and terminated the cash collateral agreement. As a result, our outstanding letters of credit no longer required cash collateral and all cash collateral that was considered restricted cash was returned to us in September 2013.

Pending Acquisition

In June 2013, we entered into a local marketing agreement to program KXMZ-FM, a Rapid City, South Dakota-area terrestrial radio station. In addition, we entered into an agreement to purchase the assets of KXMZ-FM for a total purchase price of approximately $0.6 million in cash, subject to certain closing conditions. As of December 31, 2013, we have paid $0.4 million of the purchase price, which is included in the other long-term assets line item of our balance sheets.

The completion of the KXMZ-FM acquisition is subject to various closing conditions, which include, but are not limited to, regulatory approval by the Federal Communications Commission. Upon completion of these conditions, we expect to account for this transaction as a business combination.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

6. Commitments and Contingencies

Leases

The following is a schedule of future minimum lease payments under operating leases as of December 31, 2013:

	Twelve months ended December 31, (in thousands)
2014	$ 7,108
2015	9,169
2016	9,159
2017	8,004
2018	4,663
Thereafter	19,719
Total future minimum lease payments	$ 57,822

We conduct our operations using leased office facilities in various locations. We lease office space under arrangements expiring through 2024. Rent expenses for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 were $2.5 million, $3.2 million and $5.7 million, respectively.

For operating leases that include escalation clauses over the term of the lease, tenant improvement reimbursements and rent abatement periods, we recognize rent expense on a straight-line basis over the lease term including expected renewal periods. The difference between rent expense and rent payments is recorded as deferred rent in current and long-term liabilities. As of January 31, 2013 and December 31, 2013 deferred rent was $3.6 million and $9.4 million.

Purchase Obligation

As of December 31, 2013, we had a non-cancelable royalty-related contractual obligation which is recoupable against future royalty payments. As of December 31, 2013, the balance of this purchase obligation was $10.0 million.

Indemnification Agreements, Guarantees and Contingencies

In the ordinary course of business, we are party to certain contractual agreements under which it may provide indemnifications of varying scope, terms and duration to customers, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, services to be provided by us or from intellectual property infringement claims made by third parties. In addition, we have entered into indemnification agreements with directors and certain officers and employees that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors, officers or employees. Such indemnification provisions are accounted for in accordance with guarantor's accounting and disclosure requirements for guarantees, including indirect guarantees of indebtedness of others. To date, we have not incurred, do not anticipate incurring and therefore have not accrued for, any costs related to such indemnification provisions.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

6. Commitments and Contingencies (Continued)

While the outcome of these matters cannot be predicted with certainty, we do not believe that the outcome of any claims under indemnification arrangements will have a material adverse effect on our financial position, results of operations, or cash flows.

Legal Proceedings

We have been in the past, and continue to be, a party to privacy and patent infringement litigation which has consumed, and may continue to consume, financial and managerial resources. We are also from time to time subject to various other legal proceedings and claims arising in the ordinary course of our business. We record a liability when we believe that it is both probable that a loss has been incurred and the amount can be reasonably estimated. Our management periodically evaluates developments that could affect the amount, if any, of liability that we have previously accrued and make adjustments as appropriate. Determining both the likelihood and the estimated amount of a loss requires significant judgment, and management's judgment may be incorrect. We do not believe the ultimate resolution of any pending legal matters is likely to have a material adverse effect on our business, financial position, results of operations or cash flows.

In June 2011, a putative class action lawsuit was filed against Pandora in the United States District Court for the Northern District of California alleging that we unlawfully accessed and transmitted personally identifiable information of the plaintiffs in connection with their use of our Android mobile application. In addition to civil liability, the amended complaint includes allegations of violations of statutes under which criminal penalties could be imposed if we were found liable. Our motion to dismiss the first amended complaint was granted on March 26, 2013. The court allowed the plaintiff to amend his complaint. The second amended complaint, filed May 9, 2013, contains allegations similar to those contained in the previous complaint. Our motion to dismiss the second amended complaint was filed May 30, 2013. The court has not yet ruled on the motion.

In September 2011, a putative class action lawsuit was filed against Pandora in the United States District Court for the Northern District of California alleging that we violated Michigan's video rental privacy law and consumer protection statute by allowing our listeners' listening history to be visible to the public. Our motion to dismiss the complaint was granted on September 28, 2012, judgment was entered on November 14, 2012. The plaintiff appealed the judgment to the U.S. Court of Appeals for the Ninth Circuit. Briefing of the appeal was completed on August 2, 2013. No date has been set for oral argument.

On September 10, 2012, B.E. Technology, LLC filed suit against Pandora in the United States District Court for the Western District of Tennessee alleging that we infringe a B.E. Technology patent and seeking injunctive relief and monetary damages. We filed our answer on December 31, 2012. Defendants in other suits in which B.E. Technology is plaintiff have filed inter partes review petitions before the U.S. Patent and Trademark Office challenging the validity of the patent Pandora is alleged to have infringed. The trial court granted Pandora's motion to stay this litigation until the inter partes review has been concluded.

On November 26, 2012, 1st Technology LLC filed suit against Pandora in the U.S. District Court for the Northern District of Illinois alleging patent infringement. The complaint seeks injunctive relief and monetary damages. On November 20, 2013, the parties negotiated mutually acceptable terms of a settlement of the case.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

6. Commitments and Contingencies (Continued)

On November 21, 2013, the court dismissed the complaint with prejudice, granting the plaintiff leave to refile if a written settlement agreement is not signed. The parties fully executed a settlement agreement and release on December 2, 2013.

On February 26, 2013, Macrosolve, Inc. filed suit against Pandora in the U.S. District Court for the Eastern District of Texas alleging that Pandora infringes a Macrosolve, Inc. patent and seeks injunctive relief and monetary damages. On December 3, 2013, the parties negotiated mutually acceptable terms of a settlement of the case. On January 2, 2014, the court entered a final judgment of dismissal.

On December 23, 2013, Operative Media, Inc. filed a complaint in the New York Supreme Court for New York County alleging that Pandora failed to pay invoices when due, failed to cooperate, and anticipatorily breached a software subscription contract. Pandora's responsive pleading was filed in February 2014.

We currently believe that Pandora has substantial and meritorious defenses to the claims in the lawsuits discussed above and intends to vigorously defend our position.

We are also subject to legal proceedings involving musical work royalty rates. On November 5, 2012, we filed a petition in the rate court established by the consent decree between the American Society of Composers, Authors and Publishers ("ASCAP") and the U.S. Department of Justice in the U.S. District Court for the Southern District of New York for the determination of reasonable license fees and terms for the ASCAP consent decree license applicable to the period January 1, 2011 through December 31, 2015. On June 11, 2013 we filed a motion forpartial summary judgment seeking a determination that as a matter of law the publishers alleged to have withdrawn certain rights of public performance by digital audio transmission from the scope of grant of rights ASCAP could license on behalf of such publishers subsequent to the date of our request for a license from ASCAP were not valid as to our ASCAP consent decree license. On September 17, 2013, our motion for partial summary judgment was granted, alleviating the need to negotiate direct licenses for such purportedly withdrawn performance rights. A trial to determine the royalty rates we will pay ASCAP concluded in February 2014.

On June 13, 2013, Broadcast Music, Inc. ("BMI") filed a petition in the rate court established by the consent decree between BMI and the U.S. Department of Justice in the U.S. District Court for the Southern District of New York for the determination of reasonable fees and terms for the BMI consent decree license applicable to the period January 1, 2013 through December 31, 2017. We filed our response on July 19, 2013. On November 1, 2013, we filed a motion for partial summary judgment seeking a determination that as a matter of law the publishers alleged to have withdrawn certain rights of public performance by digital audio transmission from the scope of grant of rights BMI could license on behalf of such publishers subsequent to the date of our request for a license from BMI were not valid as to our BMI consent decree license. On December 18, 2013, our motion for summary judgment was denied.

The outcome of any litigation is inherently uncertain. Based on our current knowledge we believe that the final outcome of the matters discussed above will not likely, individually or in the aggregate, have a material adverse effect on our business, financial position, results of operations or cash flows; however, in light of the uncertainties involved in such matters, there can be no assurance that the outcome of each case or the costs of litigation, regardless of outcome, will not have a material adverse effect on our business. In particular, rate court proceedings could take years to complete, could be very costly and may result in royalty rates that are materially less favorable than rates we currently pay.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

7. Income Taxes

Income (loss) before income taxes by jurisdiction consists of the following:

	Twelve months ended January 31, 2012	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013
	(in thousands)		
Jurisdiction:			
Domestic	$ (15,802)	$ (39,891)	$ (24,005)
Foreign	(230)	1,748	(2,918)
Income (loss) before income taxes	(16,032)	(38,143)	(26,923)

The provision for income tax expense consists of the following:

	Twelve months ended January 31, 2012	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013
	(in thousands)		
Current:			
Federal	$ —	$ —	$ —
State and local	75	(4)	7
International	—	9	87
Total current income tax expense	$ 75	$ 5	$ 94
Deferred:			
Federal	$ (403)	$ (10,098)	$ (10,166)
State and local	(1,457)	(1,573)	(2,027)
Valuation allowance	1,860	11,671	12,193
Total deferred income tax expense	$ —	$ —	$ —
Total income tax expense	$ 75	$ 5	$ 94

The income tax provision increased by $0.1 million during the eleven months ended December 31, 2013 as a result of an increase in foreign taxes.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

7. Income Taxes (Continued)

The following table presents a reconciliation of the statutory federal rate and our effective tax rate:

	Twelve months ended January 31, 2012	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013
U.S. federal taxes at statutory rate	34%	34%	34%
State taxes, net of federal benefit	—	—	—
Permanent differences	(24)	(2)	5
Foreign rate differential	—	(2)	(4)
Federal and state credits, net of reserve	2	2	8
Change in valuation allowance	(16)	(30)	(46)
Change in rate	1	(2)	—
Other	3	—	3
Effective tax rate	—%	—%	—%

The major components of deferred tax assets and liabilities consist of the following:

	As of January 31, 2013	As of December 31, 2013
	(in thousands)	
Deferred tax assets:		
Net operating loss carryforwards	$ 36,056	$ 34,525
Tax credit carryforwards	3,027	5,745
Allowances and other	3,371	7,037
Stock options	4,313	10,159
Depreciation and amortization	257	323
Total deferred tax assets	$ 47,024	$ 57,789
Deferred tax liabilities:		
Depreciation and amortization	(1,469)	(41)
Total deferred tax liabilities	$ (1,469)	$ (41)
Valuation allowance	(45,555)	(57,748)
Net deferred tax assets	$ —	$ —

At December 31, 2013, we had federal net operating loss carryforwards of approximately $264.2 million and tax credit carryforwards of approximately $5.3 million. If realized, approximately $179.6 million of the net operating loss carryforwards will be recognized as a benefit through additional paid in capital. The federal net operating losses and tax credits expire in years beginning in 2021. At December 31, 2013, we had state net operating loss carryforwards of approximately $245.2 million which expire in years beginning in 2014. In addition, we had state tax credit carryforwards of approximately $5.1 million that do not expire and approximately $2.3 million of credits that will expire beginning in 2024.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

7. Income Taxes (Continued)

Under Section 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes, such as research tax credits, to offset its post-change income may be limited. In general, an "ownership change" will occur if there is a cumulative change in our ownership by "5-percent shareholders" that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws. Utilization of our net operating loss and tax credit carryforwards may be subject to annual limitations due to ownership changes. Such annual limitations could result in the expiration of our net operating loss and tax credit carryforwards before they are utilized.

During the eleven months ended December 31, 2013 our valuation allowance increased by $12.2 million. At January 31, 2013 and December 31, 2013, we maintained a full valuation allowance on our net deferred tax assets. The valuation allowance was determined in accordance with the provisions of ASC 740, Accounting for Income Taxes, which requires an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred tax assets are recoverable. Such assessment is required on a jurisdiction by jurisdiction basis. Our history of cumulative losses, along with expected future U.S. losses required that a full valuation allowance be recorded against all net deferred tax assets. We intend to maintain a full valuation allowance on net deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance.

At January 31, 2013 and December 31, 2013 we have unrecognized tax benefits of approximately $2.6 million and $5.2 million, respectively. The increase in our unrecognized tax benefits was primarily attributable to current year activities. The total unrecognized tax benefits, if recognized, would not affect our effective tax rate as the tax benefit would increase a deferred tax asset, which is currently offset with a full valuation allowance. We do not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease within the next twelve months. Accrued interest and penalties related to unrecognized tax benefits are recorded as income tax expenses. We did not have such interest, penalties or tax benefits during the twelve months ended January 31, 2012 or 2013 or the eleven months ended December 31, 2013.

We file income tax returns in the United States, California, other states and international jurisdictions. Tax years 2000 to 2013 remain subject to examination for U.S. federal, state and international purposes. All net operating losses and tax credits generated to date are subject to adjustment for U.S. federal and state purposes. We are not currently under examination in any federal, state or international jurisdictions.

8. Debt Instruments

In May 2011, we entered into a $30.0 million credit facility with a syndicate of financial institutions. At our option, drawn amounts under the credit facility bore an interest rate of either an adjusted London Interbank Offered Rate, or LIBOR, plus 2.75% - 3.00% or an alternate base rate plus 1.75% - 2.00%, both of which were per annum rates based on outstanding borrowings. Adjusted LIBOR is LIBOR for a particular interest period multiplied by the statutory reserve rate. The alternate base rate is the greatest of the prime rate, the federal funds effective rate plus 0.5% and adjusted LIBOR plus 1%. In addition, the credit facility included a non-usage charge on the available balance of 0.5% - 0.625% per annum based on outstanding borrowings. Under the credit facility, we could request the issuance of up to $5.0 million in letters of credit by the financial institutions. The annual charge for any outstanding letters of credit was 2.75% - 3.00% per annum based on outstanding borrowings.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

8. Debt Instruments (Continued)

In September 2013, we amended this credit facility. The amendment increased the aggregate commitment amount from $30.0 million to $60.0 million and extended the maturity date from May 12, 2015 to September 12, 2018. The amendment further decreased the interest rate on borrowings by 0.75% to either LIBOR plus 2.00% - 2.25% or an alternate base rate plus 1.00% - 1.25%, both of which are per annum rates based on outstanding borrowings. In addition, the amendment decreased the non-usage fee to 0.375% per annum. The amount of available letters of credit under the amended credit facility was increased from $5.0 million to $15.0 million and the annual charge for outstanding letters of credit was reduced by 0.75% to 2.00% - 2.25% per annum based on outstanding borrowings.

The amount of borrowings available under the credit facility at any time is based on our monthly accounts receivable balance at such time and the amounts borrowed are collateralized by our personal property, including such accounts receivable but excluding intellectual property. The credit facility contains customary events of default, conditions to borrowing and covenants, including restrictions on our ability to dispose of assets, make acquisitions, incur debt, incur liens and make distributions to stockholders. The credit facility also includes a financial covenant requiring the maintenance of minimum liquidity of at least $5.0 million. During the continuance of an event of a default, the lenders may accelerate amounts outstanding, terminate the credit facility and foreclose on all collateral.

As part of the original credit facility, we had entered into a cash collateral agreement in connection with the issuance of letters of credit that were used to satisfy deposit requirements under facility leases. Under the amended credit facility, the cash collateral agreement was terminated and, as a result, letters of credit no longer require cash collateral. In connection with the termination of the cash collateral agreement, all cash collateral that was considered restricted cash was returned to us in September 2013.

In July 2013, we borrowed approximately $10.0 million from the credit facility to enhance our working capital position. This amount was paid off in full in August 2013. As of December 31, 2013 we had no borrowings outstanding, $1.1 million in letters of credit outstanding and $58.9 million of available borrowing capacity under the credit facility.

As of January 31, 2013, we had no borrowings outstanding, $0.8 million in letters of credit outstanding and $29.2 million of available borrowing capacity under the credit facility. As of January 31, 2013, $0.8 million in cash collateral for letters of credit was considered to be restricted cash and was included in other-long term assets.

Total debt issuance costs associated with the May 2011 credit facility were $1.0 million, which were amortized as interest expense over the four-year term of the May 2011 credit facility agreement. As part of the amendment, the amortization period for the remaining unamortized costs incurred in connection with the May 2011 credit facility was adjusted to reflect the amended term of the credit facility. We further incurred $0.5 million in debt issuance costs in connection with the amendment, which are being amortized over the term of the amended credit facility. For the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 $0.2 million, $0.3 million and $0.2 million of debt issuance costs, respectively, were amortized and included in interest expense.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

9. Stock-based Compensation Plans and Awards

Stock Compensation Plans

In 2000, our board of directors adopted the 2000 Stock Incentive Plan, as amended (the "2000 Plan"). In 2004, our board of directors adopted the 2004 Stock Option Plan (the "2004 Plan"), which replaced the 2000 Plan and provided for the issuance of incentive and non-statutory stock options to employees and other service providers of Pandora. In 2011, our board of directors adopted the Pandora Media, Inc. 2011 Equity Incentive Plan (the "2011 Plan" and, together with the 2000 Plan and the 2004 Plan, the "Plans"), which replaced the 2004 plan. The Plans are administered by the compensation committee of our board of directors (the "Plan Administrator").

The 2011 Plan provides for the issuance of stock options, restricted stock units and other stock-based awards. Shares of common stock reserved for issuance under the 2011 Plan include 12,000,000 shares of common stock reserved for issuance under the 2011 Plan and 1,506,424 shares of common stock previously reserved but unissued under the 2004 Plan as of June 14, 2011. To the extent awards outstanding as of June 14, 2011 under the 2004 Plan expire or terminate for any reason prior to exercise or would otherwise return to the share reserve under the 2004 Plan, the shares of common stock subject to such awards will instead be available for future issuance under the 2011 Plan. Each year, the number of shares in the reserve under the Plan may be increased by the lesser of 10,000,000 shares, 4.0% of the outstanding shares of common stock on the last day of the prior fiscal year or another amount determined by our board of directors. The 2011 Plan is scheduled to terminate in 2021, unless our board of directors determines otherwise.

Under the 2011 Plan, the Plan Administrator determines various terms and conditions of awards including option expiration dates (no more than ten years from the date of grant), vesting terms (generally over a four-year period) and payment terms. For stock option grants the exercise price is determined by the Plan Administrator, but generally may not be less than the fair market value of the common stock on the date of grant.

Valuation of Awards

The per-share fair value of each stock option was determined on the date of grant using the Black-Scholes option pricing model using the following assumptions:

	Twelve months ended January 31,		Eleven months ended December 31,
	2012	2013	2013
Expected life (in years)	5.72 - 7.02	6.02 - 6.67	5.99 - 6.32
Risk-free interest rate	1.10% - 2.77%	0.99% - 1.52%	1.00% - 2.04%
Expected volatility	54% - 57%	56% - 57%	58% - 59%
Expected dividend yield	0%	0%	0%

The expected term of stock options granted represents the weighted average period that the stock options are expected to remain outstanding. We determined the expected term assumption based on our historical exercise behavior combined with estimates of the post-vesting holding period. Expected volatility is based on historical volatility of peer companies in our industry that have similar vesting and contractual terms. The risk free interest rate is based on the implied yield currently available on U.S. Treasury issues with terms approximately equal to the expected life of the option. We currently have no history or expectation of paying cash dividends on our common stock.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

9. Stock-based Compensation Plans and Awards (Continued)

Common Stock

Each share of common stock has the right to one vote per share. The holders of common stock are also entitled to receive dividends as and when declared by our board of directors, whenever funds are legally available. These rights are subordinate to the dividend rights of holders of all classes of stock outstanding at the time.

Stock Options

Stock option activity during the eleven months ended December 31, 2013 was as follows:

	Options Outstanding				
	Shares Available for Grant	Outstanding Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate(1) Intrinsic Value
	(in thousands, except share and per share data)				
Balance as of January 31, 2013	17,791,314	26,102,949	$ 3.22	6.40	$ 224,736
Additional shares authorized	—				
Granted	(2,915,000)	2,915,000	16.67		
Restricted stock units	(6,374,319)				
Exercised	—	(5,763,544)	3.14		
Cancelled/Forfeited	546,205	(546,205)	8.11		
Balance as of December 31, 2013	9,048,200	22,708,200	4.85	5.76	$ 493,866
Exercisable as of December 31, 2013		15,432,372	1.50	4.56	$ 387,296
Vested as of December 31, 2013 and expected to vest thereafter(2)		21,914,709	4.58	5.67	$ 482,571

(1) Amounts represent the difference between the exercise price and the fair value of common stock at each period end for all in the money options outstanding based on the fair value per share of common stock of $11.52 and $26.60 as of January 31, 2013 and December 31, 2013, respectively.

(2) Options expected to vest reflect an estimated forfeiture rate.

As of December 31, 2013, there was $40.1 million of unrecognized compensation cost related to outstanding employee stock options. This amount is expected to be recognized over a weighted-average period of 3.03 years. To the extent the actual forfeiture rate is different from what we have estimated, stock-based compensation related to these awards will be different from our expectations.

The per-share fair value of stock options granted to non-employees is determined on the date of grant using the Black-Scholes option pricing model with the same assumptions as those used for employee awards with the exception of expected term. The expected term for non-employee awards is the contractual term of 10 years.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

9. Stock-based Compensation Plans and Awards (Continued)

As of January 31, 2013 and December 31, 2013, a total of 52,000 and 30,270 common stock options, issued to non-employees were vested and outstanding. During the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013, we recorded $0.3 million, $0.2 million and $0.6 million in stock-based compensation expenses related to stock option grants made to non-employees, respectively. As of December 31, 2013, total compensation cost related to stock options granted to non-employees but not yet recognized, was $0.3 million, which we expect to recognize over a weighted-average period of 0.95 years. The fair value of these options will be remeasured on each vesting date and as of each reporting date until the options vest. The remeasured fair value will be recognized as compensation expense over the remaining vesting term of the options.

Early Exercise Liability

Certain of our options granted prior to the IPO provided the right to exercise those options before they are vested. We have a right to repurchase any unvested shares at a repurchase price equal to the exercise price during the 90-day period following the termination of an individual's service with Pandora for any reason.

In connection with the early exercise of stock options, we have the right, but not the obligation, to repurchase unvested shares of common stock upon termination of the individual's service with Pandora at the original purchase price per share. As of January 31, 2013 and December 31, 2013, 308,334 and 80,209 unvested restricted shares of common stock were subject to repurchase. During the eleven months ended December 31, 2013 there were 104,167 shares repurchased at the previous early exercise price of $3.14 per share.

During the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 there were no early exercises. Repurchase rights with respect to the restricted shares outstanding as of December 31, 2013 will expire ratably by January 31, 2015.

Stock Option Awards with Both a Service Period and a Market Condition

In March 2012, Mr. Joseph Kennedy, the Company's Chief Executive Officer, was granted non-statutory stock options to purchase 800,000 shares of common stock with an exercise price of $10.63 per share. This award included both a service period and a market vesting condition that stipulated that the award would vest if the 60-day trailing volume weighted average price of our common stock exceeded $21.00 per share, or if there was a sale of the Company for at least $21.00 per share, in each case prior to July 2017. Uponthe market condition being met, the award would vest ratably over four years, beginning in July 2013, subject to severance and change of control acceleration.

We used a Monte Carlo simulation to value the award due to the market vesting condition. The following assumptions were used to value the award using the Monte Carlo simulation: 10-year term, risk-free interest rate of 2.33%, expected volatility of 70% and a beginning stock price of $10.63. The grant-date fair value for the award was $6.08 per share.

In March 2013, we announced that we would begin a process to identify a successor to Mr. Kennedy as CEO, which prompted us to re-evaluate certain estimates and assumptions related to the stock-based compensation expense associated with his awards.

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Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

9. Stock-based Compensation Plans and Awards (Continued)

As a result of this re-evaluation, we reduced stock-based compensation expense by $1.7 million during the three months ended April 30, 2013, primarily related to the award with both a service period and a market condition. In September 2013, the market condition for Mr. Kennedy's awards was met and the shares became exercisable as if they had been vesting ratably over four years from July 2013. In the eleven months ended December 31, 2013, we recorded $0.6 million in additional stock-based compensation expense in connection with these awards.

Modification of Awards

During the twelve months ended January 31, 2012, we revised our employment policies for certain eligible officers, resulting in a modification of approximately 3.6 million stock options held by these employees. As a result, upon an involuntary termination, any unvested options or other stock awards scheduled to vest within a defined time frame would be accelerated. The modification of these stock options resulted in approximately $0, $2.3 million and $0.8 million, in incremental stock-based compensation expense for the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013, respectively.

Restricted Stock Units

During the eleven months ended December 31, 2013, we granted 7,129,868 restricted stock units ("RSUs") under the 2011 Plan at a weighted average fair value of $16.16 per share. The fair value of the restricted stock units is expensed ratably over the vesting period. RSUs generally vest annually on a cliff basis over the service period, which is generally four years. During the eleven months ended December 31, 2013, we recorded stock-based compensation expense related to restricted stock units of approximately $28.9 million. As of December 31, 2013, total compensation cost not yet recognized of approximately $129.6 million related to non-vested restricted stock units, is expected to be recognized over a weighted average period of 2.97 years.

The following table summarizes the activities for our RSUs for the eleven months ended December 31, 2013:

	Number of RSUs	Weighted-Average Grant-Date Fair Value
Unvested at January 31, 2013	5,511,709	$ 10.57
Granted	7,129,868	16.16
Vested	(1,520,516)	10.77
Canceled	(755,549)	11.68
Unvested at December 31, 2013	10,365,512	$ 14.31
Vested as of December 31, 2013 and expected to vest thereafter(1)	11,075,193	$ 13.73

(1) Options expected to vest reflect an estimated forfeiture rate.

Stock-based Compensation Expenses

The weighted-average fair value of stock option grants made during the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 was $4.83, $5.91 and $9.34 per share. As of December 31, 2013, total compensation cost related to stock options granted, but not yet recognized, was $40.1 million, which we expect to recognize over a weighted-average period of approximately 3.03 years.

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

9. Stock-based Compensation Plans and Awards (Continued)

The total grant date fair value of stock options vested during the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 was $5.0 million, $13.0 million and $9.1 million, respectively.

The aggregate intrinsic value of options and warrants exercised during the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 was $51.9 million, $84.9 million and $93.8 million,, respectively. The total fair value of options vested during the twelve months ended January 31, 2012 and 2013 and the eleven months ended December 31, 2013 was $5.2 million, $13.1 million and $9.4 million, respectively.

Stock-based compensation expenses related to all employee and non-employee stock-based awards was as follows:

	Twelve months ended January 31, 2012	Twelve months ended January 31, 2013	Eleven months ended December 31, 2013
	(in thousands)		
Stock-based compensation expenses:			
Cost of revenue—Other	$ 582	$ 1,214	$ 1,946
Product development	1,638	4,530	8,802
Sales and marketing	4,866	12,294	20,222
General and administrative	2,101	7,462	9,071
Total stock-based compensation, recorded in costs and expenses	$ 9,187	$ 25,500	$ 40,041

During the eleven months ended December 31, 2013, we capitalized $0.7 million of stock-based compensation as internal use software and website development costs.

10. Redeemable Convertible Preferred Stock

Redeemable Convertible Series G Preferred Stock

Redeemable convertible preferred stock was as follows as of the closing date of our IPO:

	Shares Authorized	Shares Issued and Outstanding	Carrying Value	Aggregate Liquidation Preference	Accumulated Dividends	Cumulative Aggregate Liquidation Preference
	(in thousands, except share data)					
Series A	375,000	375,000	$ 1,500	$ 1,500	$ —	$ 1,500
Series B	24,859,899	24,859,899	14,777	9,362	5,356	14,718
Series C	24,060,786	23,884,315	17,561	12,181	5,398	17,579
Series D	21,878,271	21,812,963	35,601	25,050	9,961	35,011
Series E	8,639,737	8,639,737	18,257	14,694	2,849	17,543
Series F	45,988,020	45,833,082	40,131	35,498	5,509	41,007
Series G	8,250,000	8,129,338	24,145	22,250	1,932	24,182
	134,051,713	133,534,334	$151,972	$ 120,535	$ 31,005	$ 151,540

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Notes to Consolidated Financial Statements (Continued)

10. Redeemable Convertible Preferred Stock (Continued)

During the period from February 1, 2011 through the closing date of our IPO, we accrued dividends of $3.6 million on our redeemable convertible preferred stock. Upon the closing of the IPO on June 20, 2011, all outstanding redeemable convertible preferred stock was converted into shares of common stock at the contractual conversion ratios per the relevant redeemable preferred stock purchase agreements. Subsequent to our IPO, there are no further convertible preferred share dividends as all outstanding convertible preferred stock has been converted. On the closing date of the IPO we paid $30.6 million in dividends to the holders of redeemable convertible preferred stock.

Accretion of Redeemable Convertible Preferred Stock

Stock issuance costs were being accreted via a charge to accumulated deficit over the period from the date of issuance of the redeemable convertible preferred stock to the date at which the redeemable convertible preferred stock became redeemable at the option of the holders of the redeemable convertible preferred stock, the date of our IPO.

11. Common Stock and Net Loss Per Share

Each share of common stock has the right to one vote per share. The holders of common stock are also entitled to receive dividends as and when declared by our board of directors, whenever funds are legally available. These rights are subordinate to the dividend rights of holders of all classes of stock outstanding at the time.

Basic net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by giving effect to all potential shares of common stock, including stock options, convertible preferred stock warrants and redeemable convertible preferred stock, to the extent dilutive. Basic and diluted net loss per share was the same for each year presented as the inclusion of all potential common shares outstanding would have been anti-dilutive.

The following table sets forth the computation of historical basic and diluted net loss per share.

	Twelve months ended January 31,		Eleven months ended December 31,
	2012	2013	2013
	(in thousands, except per share data)		
Numerator:			
Net loss	$ (16,107)	$ (38,148)	$ (27,017)
Accretion of redeemable convertible preferred stock	(110)	—	—
Increase in cumulative dividends payable upon conversion or liquidation of redeemable convertible preferred stock	(3,648)	—	—
Net loss attributable to common stockholders	$ (19,865)	$ (38,148)	$ (27,017)
Denominator:			
Weighted-average common shares outstanding used in computing basic and diluted net loss per share	105,955	168,294	180,968
Net loss per share, basic and diluted	$ (0.19)	$ (0.23)	$ (0.15)

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Table of Contents

Pandora Media, Inc.

Notes to Consolidated Financial Statements (Continued)

11. Common Stock and Net Loss Per Share (Continued)

Net loss was increased by the cumulative dividends payable upon conversion or liquidation of redeemable convertible preferred shares earned in the twelve months ended January 31, 2012 to arrive at net loss attributable to common stockholders. For the twelve months ended January 31, 2012 dividends were accrued up through the conversion at the close of the IPO.

The following potential common shares were excluded from the computation of diluted net loss per share because including them would have been anti-dilutive:

	Twelve months ended January 31,		Eleven months ended December 31,
	2012	2013	2013
	(in thousands)		
Options to purchase common stock	34,811	26,103	22,708
Warrants to purchase common stock	155	—	—
Restricted stock units	1,427	5,512	10,366
Total common stock equivalents	36,393	31,615	33,074

12. Selected Quarterly Financial Data (unaudited)

	Three months ended							Two months ended
	April 30, 2012	July 31, 2012	Oct 31, 2012	Jan 31, 2013	April 30, 2013	July 31, 2013	Oct 31, 2013	Dec 31, 2013(1)
	(in thousands, except per share data)							
Total revenue	$ 80,784	$101,267	$120,005	$125,089	$125,510	$157,355	$180,376	$136,992
Cost of revenue:								
Cost of Revenue—Content acquisition costs	55,818	60,522	65,713	76,695	82,853	81,880	86,989	63,144
Cost of revenue—Other	6,917	7,514	8,338	9,250	9,779	11,037	12,423	8,605
Total cost of revenue	62,735	68,036	74,051	85,945	92,632	92,917	99,412	71,749
Gross profit	18,049	33,231	45,954	39,144	32,878	64,438	80,964	65,243
Operating expenses:								
Product development	4,119	4,475	4,371	5,153	7,033	7,926	8,848	6,179
Sales and marketing	23,460	23,457	26,714	34,084	40,083	45,794	50,575	33,322
General and administrative	10,612	10,602	12,700	14,333	14,209	18,352	23,038	14,613
Total operating expenses	38,191	38,534	43,785	53,570	61,325	72,072	82,461	54,114

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Income (loss) from operations	(20,142)	(5,303)	2,169	(14,426)	(28,447)	(7,634)	(1,497)	11,129
Net income (loss) attributable to common stockholders	$(20,228)	$ (5,415)	$ 2,052	$ (14,557)	$ (28,587)	$ (7,787)	$ (1,700)	$ 11,057
Net income (loss) per share, basic and diluted	$ (0.12)	$ (0.03)	$ 0.01	$ (0.09)	$ (0.16)	$ (0.04)	$ (0.01)	$ 0.06

(1) We are using this report to transition to a quarterly reporting cycle that corresponds to a December 31 fiscal year end. Therefore, for financial reporting purposes our fourth quarter of the current fiscal year was shortened from the three months ended January 31 to the two months ended December 31.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. Based on their evaluation at the end of the period covered by this Transition Report on Form 10-K, our chief executive officer and chief financial officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2013.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of internal control effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management has assessed the effectiveness of the internal control over financial reporting as of December 31, 2013. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control—Integrated Framework (1992 framework). Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2013.

The effectiveness of our internal control over financial reporting as of December 31, 2013 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included in this Transition Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during our most recent transition period that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item regarding our directors and executive officers is incorporated by reference to the sections of our proxy statement to be filed with the SEC in connection with our 2014 annual meeting of stockholders (the "Proxy Statement") entitled "Election of Class III Directors" and "Management."

Information required by this Item regarding our corporate governance, including our audit committee and code of business conduct and ethics, is incorporated by reference to the sections of the Proxy Statement entitled "Corporate Governance" and "Board of Directors."

Information required by this Item regarding compliance with Section 16(a) of the Exchange Act required by this Item is incorporated by reference to the section of the Proxy Statement entitled "Section 16(a) Beneficial Ownership Reporting Compliance."

Item 11. EXECUTIVE COMPENSATION

Information required by this Item is incorporated by reference to the sections of the Proxy Statement entitled "Executive Compensation," "Board of Directors—Compensation of Directors," "Corporate Governance—Compensation Committee Interlocks and Insider Participation."

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the section of the Proxy Statement entitled "Security Ownership of Certain Beneficial Owners and Management."

Information regarding our stockholder approved and non-approved equity compensation plans is incorporated by reference to the section of the Proxy Statement entitled "Equity Compensation Plan Information."

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this Item is incorporated by reference to the sections of the Proxy Statement entitled "Certain Relationships and Related Party Transactions" and "Corporate Governance—Director Independence."

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is incorporated by reference to the section of the Proxy Statement entitled "Ratification of Appointment of Independent Registered Public Accounting Firm."

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are included as part of this Transition Report on Form 10-K.

1. Index to Financial Statements

2. Financial Statement Schedule

All other schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

3. Exhibits

See the Exhibit Index immediately following the signature page of this Transition Report on Form 10-K.

SIGNATURES

Pursuant to the requirements Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on February 14, 2014.

PANDORA MEDIA, INC.

By: /s/ BRIAN MCANDREWS

Name: Brian McAndrews
Title: *Chief Executive Officer, President and Chairman of the Board*

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Brian McAndrews, Mike Herring and Delida Costin and each of them, his or her true and lawful attorneys-in-fact and agents, with full power to act separately and full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Transition Report on Form 10-K, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or his or her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1934, as amended, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BRIAN MCANDREWS Brian McAndrews	Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)	February 14, 2014
/s/ MICHAEL S. HERRING Michael S. Herring	Chief Financial Officer (Principal Financial and Accounting Officer)	February 14, 2014
/s/ PETER CHERNIN Peter Chernin	Director	February 14, 2014
/s/ JAMES M. P. FEUILLE James M. P. Feuille	Director	February 14, 2014

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Signature	Title	Date
/s/ PETER GOTCHER Peter Gotcher	Director	February 14, 2014
/s/ ROBERT KAVNER Robert Kavner	Director	February 14, 2014
/s/ ELIZABETH A. NELSON Elizabeth A. Nelson	Director	February 14, 2014
/s/ DAVID SZE David Sze	Director	February 14, 2014
/s/ TIM WESTERGREN Tim Westergren	Director	February 14, 2014

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
3.01	Amended and Restated Certificate of Incorporation	S-1/A	333-172215	3.1	5/4/2011		
3.02	Amended and Restated Bylaws	S-1/A	333-172215	3.2	5/4/2011		
4.01	Fifth Amended and Restated Investor Rights Agreement, by and among Pandora Media, Inc. and the investors listed on Exhibit A thereto, dated May 20, 2010, as amended	S-1/A	333-172215	4.2	2/22/2011		
10.01†	2011 Long Term Incentive Plan and Form of Stock Option Agreement under 2011 Long Term Incentive Plan	S-1/A	333-172215	10.1	5/26/2011		
10.02†	2011 Corporate Incentive Plan	S-1/A	333-172215	10.2	5/4/2011		
10.03†	2004 Stock Plan, as amended, and Forms of Stock Option Agreement and Restricted Stock Purchase Agreement under 2004 Stock Plan	S-1/A	333-172215	10.3	2/22/2011		
10.04†	2000 Stock	S-	333-	10.4	2/22/2011		

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	Incentive Plan, as amended, and Forms of NSO Stock Option Agreement and ISO Stock Option Agreement under 2000 Stock Plan	1/A	172215		
10.05†	Form of Indemnification Agreement by and between Pandora Media, Inc. and each of its executive officers and its directors not affiliated with an investment fund	S-1/A	333-172215	10.5	2/22/2011
10.06†	Form of Indemnification Agreement by and between Pandora Media, Inc. and each of its directors affiliated with an investment fund	S-1/A	333-172215	10.5A	2/22/2011
10.7†	Offer Letter with Joseph Kennedy, dated July 7, 2004.	S-1/A	333-172215	10.6	2/22/2011
10.8†	Employment Agreement with Tim Westergren, dated April 28, 2004	S-1/A	333-172215	10.7	2/22/2011
10.9†	Offer Letter with Steven Cakebread, dated February 23, 2010	S-1/A	333-172215	10.8	2/22/2011

Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
10.10†	Offer Letter with Thomas Conrad, dated November 12, 2004	S-1/A	333-172215	10.9	2/22/2011		
10.11†	Offer Letter with John Trimble, dated February 18, 2009	S-1/A	333-172215	10.1	2/22/2011		
10.12	Office Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 23, 2009	S-1/A	333-172215	10.12	2/22/2011		
10.12A	First Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated April 13, 2010	S-1/A	333-172215	10.12A	2/22/2011		
10.12B	Second Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated June 16, 2010	S-1/A	333-172215	10.12B	2/22/2011		
10.12C	Third Amendment to Lease between CIM/Oakland Center 21, LP and Pandora	10-Q	001-35198	10.12C	9/4/2012		

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	Media, Inc., dated December 15, 2010				
10.12D	Fourth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated March 10, 2011	10-Q	001-35198	10.12D	9/4/2012
10.12E	Fifth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 1, 2011	10-Q	001-35198	10.12E	9/4/2012
10.12F	Sixth Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated September 27, 2011	10-Q	001-35198	10.12F	9/4/2012
10.12G	Seventh Amendment to Lease between CIM/Oakland Center 21, LP and Pandora Media, Inc., dated July 12, 2012	10-Q	001-35198	10.12G	9/4/2012
10.12H	Eighth Amendment to Lease between CIM/Oakland	10-Q	001-35198	10.12H	5/29/2013

Center 21, LP
and Pandora
Media, Inc.,
dated
February 1,
2013

Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
10.13	Web Site Performance Agreement by and between Broadcast Music, Inc. and Savage Beast Technologies, Inc., dated June 30, 2005	S-1/A	333-172215	10.13	2/22/2011		
10.14	License Agreement by and between SESAC and Pandora Media, Inc., dated July 1, 2007	S-1/A	333-172215	10.14	2/22/2011		
10.15	Credit Agreement among Pandora Media, Inc., the Lenders party thereto and JPMorgan Chase Bank, N.A. as Administrative Agent, dated as of May 13, 2011	S-1/A	333-172215	10.17	6/10/2011		
10.15A	Amendment and Restatement Agreement to Credit Agreement among Pandora Media, Inc., the Lenders party thereto and JPMorgan Chase Bank, N.A. as Administrative Agent, dated as of September 12, 2013	10-Q	001-35198	10.15	11/26/2013		
10.16†	Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-Q	001-35198	10.01	9/2/2011		
10.17†	Amended Executive	10-K	001-35198	10.18	3/19/2012		

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	Severance and Change in Control Policy				
10.18†	Offer Letter with Simon Fleming-Wood, dated August 5, 2012	10-Q	001-35198	10.19	6/4/2012
10.19†	2013 Corporate Incentive Plan	10-Q	001-35198	10.20	6/4/2012
10.19B†	2014 Corporate Incentive Plan	10-Q	001-35198	10.19B	8/26/2013
10.20†	Stock Option Agreement with Joseph Kennedy, dated March 22, 2012	10-Q	001-35198	10.21	6/4/2012
10.21†	Transition Agreement with Steven Cakebread, dated August 29, 2012	10-Q	001-35198	10.22	12/7/2012
10.22†	Australian Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-K	001-35198	10.22	3/18/2013
10.23†	Offer Letter with Michael Herring, dated December 21, 2012	10-K	001-35198	10.23	3/18/2013

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Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
10.24†	New Zealand Form of Restricted Stock Unit Agreement under the 2011 Equity Incentive Plan	10-Q	001-35198	10.24	5/29/2013		
10.25†	Offer Letter with Brian McAndrews, dated September 11, 2013	10-Q	001-35198	10.25	11/26/2013		
23.01	Consent of Independent Registered Public Accounting Firm						X
24.01	Power of Attorney (included on signature page of this Transition Report on Form 10-K)						X
31.01	Certification of the Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act						X
31.02	Certification of the Principal Financial Officer Pursuant to Section 302 of the						X

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	Sarbanes-Oxley Act	
32.01	Certification of the Principal Executive Officer and Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act	X

Exhibit No.	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed By	Filed Herewith
101	Interactive Data Files Pursuant to Rule 405 of Regulation S-T: (i) Condensed Balance Sheets as of December 31, 2013 and January 31, 2013, (ii) Condensed Statements of Operations for the Eleven months ended December 31, 2013 and 2012 and the Twelve months ended January 31, 2013 and 2012, (iii) Condensed Statements of Comprehensive Loss for the Eleven months Ended December 31, 2013 and the Twelve months ended January 31, 2013 and 2012, (iv) Condensed Statements of Cash Flows for the Eleven months ended December 31, 2013 and 2012 and the Twelve months ended January 31, 2013 and 2012 and (v) Notes to Condensed Financial Statements						X

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Exhibit 23.01

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements (Form S-8 No. 333-175378, Form S-8 No. 333-182212, Form S-8 No. 333-187340) pertaining to the 2000 Stock Incentive Plan, 2004 Stock Plan and 2011 Equity Incentive Plan of Pandora Media, Inc. of our reports dated February 14, 2014, with respect to the consolidated financial statements of Pandora Media, Inc. and the effectiveness of internal control over financial reporting of Pandora Media, Inc. included in this Transition Report (Form 10-K) for the eleven months ended December 31, 2013.

/s/ Ernst & Young LLP

San Francisco, California
February 14, 2014

QuickLinks

Exhibit 31.01

Certification of Principal Executive Officer
Pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Brian McAndrews, certify that:

1. I have reviewed this Transition Report on Form 10-K of Pandora Media, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 14, 2014

/s/ BRIAN MCANDREWS

Name: Brian McAndrews
Title: *Chief Executive Officer, President and Chairman*

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of the Board (Principal Executive Officer)

QuickLinks

Exhibit 31.02

Certification of Principal Financial Officer
Pursuant to Section 302 of Sarbanes-Oxley Act of 2002

I, Michael S. Herring, certify that:

1. I have reviewed this Transition Report on Form 10-K of Pandora Media, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report, based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 14, 2014

/s/ MICHAEL S. HERRING

Name: Michael S. Herring
Title: *Executive Vice President and Chief Financial*

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Officer (Principal Financial Officer)

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Exhibit 31.02

Certification of Principal Financial Officer Pursuant to Section 302 of Sarbanes-Oxley Act of 2002

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Exhibit 32.01

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF SARBANES-OXLEY ACT OF 2002

The certification set forth below is being submitted in connection with this Transition Report on Form 10-K for the eleven months ended December 31, 2013 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Each of the undersigned certifies that, to his knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Pandora Media, Inc.

February 14, 2014

/s/ BRIAN MCANDREWS

Name: Brian McAndrews
Title: *Chief Executive Officer, President and Chairman of the Board (Principal Executive Officer)*

/s/ MICHAEL S. HERRING

Name: Michael S. Herring
Title: *Executive Vice President and Chief Financial Officer (Principal Financial Officer)*

This certification accompanying the Report is not deemed filed with the Securities and Exchange Commission for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities such Section, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before, on or after the date of the Report), irrespective of any general incorporation language contained in such filing.

QuickLinks

Pandora Media (P) CEO Brian McAndrews on Q4 2014 Results - Earnings Call Transcript

Pandora Media, Inc. (NYSE:P)

Q4 2014 Earnings Conference Call

February 5, 2015; 05:00 p.m. ET

Executives

Brian McAndrews - Chairman, President & Chief Executive Officer

Mike Herring - Chief Financial Officer

Dominic Paschel - Vice President, Investor Relations

Analysts

Michael Graham - Canaccord Genuity

James Marsh - Piper Jaffray

Andrew Bruckner - RBC Capital Markets

Jim Goss - Barrington Research

Blake Nelson - Wells Fargo

Jason Helfstein - Oppenheimer

Nat Schindler - BOA/Merrill Lynch

Nick Hrynkiewicz - Credit Suisse

Laura Martin - Needham & Co.

Matthew Thornton - SunTrust

Ryan Fiftal - Morgan Stanley

Heath Terry - Goldman Sachs

James Mak - JP Morgan

Operator

Welcome to Pandora's Fourth Quarter and Full Year 2014 Financial Results Conference Call. All lines have been placed on mute. There will be a question-and-answer session at the end of the conference. [Operator Instructions].

Opening today's call is Dominic Paschel, Vice President, Pandora.

Dominic Paschel

Thanks Angela. Good afternoon and welcome to Pandora's fourth quarter and calendar year 2014 financial results call for the year ended December 31, 2014.

Some of our discussions will contain forward-looking statements, which may include projected financial results or

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operating metrics, business strategies, anticipated future products or services, anticipated market demand or other opportunities and forward-looking topics. The statements are subject to risks, uncertainties and assumptions. Accordingly, actual results could differ materially. For a discussion of the risks that could cause our results to differ from today's discussion, please refer to the documents we filed with the Securities and Exchange Commission.

Also, I would like to remind you that during the course of this conference call we will discuss non-GAAP measures of our performance. Reconciliations to the most directly comparable GAAP financial measures are provided in the tables in the press release and the Form 8-K filed earlier this afternoon with the SEC. For your convenience, supplemental information has been included in today's press release and detailed financials are available on the IR site.

Today's call is available via webcast and a replay will be available for two weeks following the conclusion of the call. To access the press release, supplemental financial information, webcast replay, please consult the IR section of pandora.com.

With that, let me turn the call over to Brian McAndrews, Pandora's Chairman and CEO and President.

Brian McAndrews

Thanks Dom and thank you all for being on the call today. During today's call I'll review the highlights of the fourth quarter and 2014-year end financial results and turn the call over to Mike Herring our Chief Financial Officer for more financial details and 2015 guidance. And then I will share more about our 2015 vision.

Fourth quarter revenue reached $268.0 million, an increase of 33% on a non-GAAP basis and all time high, although below our expectations which we will discuss in more detail in a moment.

From an earnings perspective EBITDA was $43.8 million and non-GAAP fourth quarter net income was $39.4 million or diluted non-GAAP EPS of $0.18, which was in line with expectation. Diluted non-GAAP EPS increased 64% compared to the same quarter last year as we focused on growing profitability along with revenue.

For the year non-GAAP revenue reached $906.6 million, an increase of 40% over 2013. We ended 2014 with adjusted EBITDA of $58.2 million, an increase of 158% compared to last year. Non-GAAP net income of $43.2 million and diluted non-GAAP EPS of $0.20, an increase of 233% compared to last year.

During 2014 we also made substantial progress in our efforts to deliver stable and reasonable content costs, driving them to an all time low of 43% of revenue in Q4 and we have reinvested this leverage back in the business to drive growth. We developed a comprehensive strategy towards optimizing our content cost, we signed our first direct deals with Merlin and BMG and we presented a very strong submission to the CRB for Web IV. With respect to managing our content costs, we believe we are well positioned for 2015 and beyond.

Now I'll discuss our fourth quarter and full year 2014 results in more detail. As of the end of December monthly active users reached a record high of $81.5 million, an increase of 7% year-over-year reflecting conscious efforts to drive usage through marketing spend and product features such as station recommendations and notifications.

We achieved many significant audience milestones in December, including surpassing 30 million active listeners in a single day for the first time ever on Christmas Eve. This was 19% higher than a year ago.

While our listening metrics benefited from seasonality in Q4, and we expect the normal seasonal declines in Q1, we are proud that Pandora is the go-to destination for so many music listeners during the holidays and throughout the year.

Not only are we continuing to grow our listener base, our active users are also increasingly loyal and engaged with listener hours increasing 15% to 5.2 billion in Q4, another record high. Hours per active user increased 7% to 22 hours this quarter. Also for the first time we streamed more than 1 billion songs in a single day, which we did six times in December.

Our focus on growing engagement and loyalty continues to pay off and reinforces Pandora's position as the clear leader in internet radio and as a growing force in radio overall. By our estimates Pandora shared U.S. radio listening increased from 8.6% December of 2013 to 9.7% in December 2014. Third party measurement by Edison confirms our market share. As measured by comScore, Pandora's total multi-platform unique visitors grew by 7% to 89.4 million.

In addition comScore confirms in their December Multi-platform Top Properties Report that Pandora is the number one mobile service in the U.S. in terms of engagement or minutes spent per visitor, ahead of every other mobile servicing including Facebook, Google and Twitter and finally out just this morning Pandora's number one ranking in Triton Digital

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Top 20 Ranker for November increased to an all time high 79.2% market share of the internet radio segment.

We are growing active users, hours and market share and all the while successfully monetizing these listeners and hours with Q4 2014 total RPM topping $50 for the first time at an all time high of $51.54.

Ad RPM's also had a record high of $48.19, strong performance on both web and mobile. Unfortunately despite this great performance we fell short of our revenue grows for the fourth quarter as total revenue of $268 million with $7.5 million shy of the mid-point of our guidance range of $273 million to $278 million.

The root cause of this revenue shortfall was driven by isolated holiday weakness, following relatively soft Black Friday and Cyber Monday sales. This was limited to three verticals retail, telecom and CE. These three verticals have been increasing their spend on Pandora throughout the year until December.

Whether the drop in December was just part of an overall decrease in their spending during this period or if there was some reallocation is not clear, but the result was a reduction in expected advertising on Pandora of almost exactly the $7.5 million miss. Consequently in Q4 these verticals accounted for 22% of total ad revenue, down from 28% last.

Although our advertising revenue was below our expectation due to this development, it did not change our convection regarding our long-term revenue and growth opportunities. In addition to the record RPM's I mentioned earlier, local revenue grew 90% year-over-year, now representing 23% of ad revenue. All audio advertising grew 46%, representing 66% of ad revenue.

Our investments in local markets are paying off and we plan to continue to invest not only in sales people and infrastructure, but also tools and technology to bring automation to radio advertising were we have a significant competitive advantage.

We also continued our investments in Native Advertising Solutions, including branded stations and sponsored listing, an area of great interest among advertisers, because we are able to leverage some of our unique attributes to create an authentic relationship between listener and advertiser.

Example for this past quarter includes brand station platform investments for Toyota and Sonos and Pandora's sponsored listening ad product was honored as one of ad weeks 10 most innovative digital ad products of 2014. We see great opportunity to expand these programs as we head into the New Year.

Also during the quarter we made significant progress to deliver on our commitment to create stronger and more collaborative partnerships with music makers with the launch of AMP the Artist Marketing Platform. For the first time artist and mangers have access to incredibly valuable data driven insights from Pandora's 80 million plus listeners. Enthusiastic response demonstrates the hunger for data and the attractiveness of Pandora's scale. We are now eager to take it to the next level, applying promotional capabilities to allow artists to connect with their listeners in ways that only the technology data and scale of Pandora made possible.

Initiatives such as AMP and the Direct Licensing Deals in 2014 demonstrate our genuine desire and ability to collaborate within the music industry to build mutually beneficial partnerships. We are working hard to make this succeed to expand the depth of our industry relationships.

As we report our final quarter of 2014 it is enormously gratifying to look back at few of our accomplishments this year. Starting with listeners Pandora became the number one mobile property and time spent per user and number two in total mobile minutes overall in the U.S. Internationally we crossed the 2.5 million registered listeners mark in Australia and New Zealand.

We reached the record 81.5 million active listeners in December and we continue to grow our engagement with over 20 billion hours streamed in 2014 and we crossed the 50 billion sum mark. We worked with music stars like Lindsey Stirling, Bush, Matt Nathanson and Nick Jonas to delight our listeners with Pandora's first ever off platform brand advertising campaign, Some Moments. We partnered on live performances for Pandora listeners with leading artist such as the Imagine Dragon, Iggy Azalea, Rita Ora, Charli XCX and MAGIC as well as emerging artist such as Kaiser, Walk the Moon, Cash Cash, The Neighbourhood and many, many others.

To further strengthen our relationship with music makers we signed direct deals and set up systems to allow us to do more in the future. We launched AMP a key milestone on our path to become an indispensable partner to music makers and we submitted a very strong and defensible CRB proposal. Pandora paid a record $439 million to rights owners in 2014, up 34% and we have now paid over $1.2 billion in cumulative royalty payments.

On the advertising side of the house in Q4, 2014 we had record total RPM's and ad RPM's which are now over half the

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RPM in terrestrial radio, only one quarter to one fifth of the audio ads. We expanded our local presence into 37 cities and increased our local revenue to over 20% of ad revenue. We closed the gap further on mobile monetization to a move with 83% of total hours and 78% of non-GAAP total revenue in Q4.

We brought on five extremely talented new members to the executive leadership team, all of whom have experience of scale to complement the great talent already here, and we established several new internal functions which are critical to our growth strategy including corporate strategy, revenue operations and the music industry group, and we grew our overall employee base form 1067 to 1414, including significant investments in our sales and engineering capabilities.

And finally we continue to strengthen Pandora's amazing culture in ways large and small, including rolling out our updated decision and principle to align with this next phase of growth.

I'm extremely proud of our people and all that we've been able to accomplish to 2014, extremely excited about our prospects as we enter 2015 and I will share more about our vision for the future following Mike's remarks.

Mike Herring

Thank you, Brian. I'll now walk through our fourth quarter and 2014 calendar year end financials in more detail and share some thoughts regarding what's driving our result.

Starting with revenue, we ended the fourth quarter of 2014 with total revenue of $268 million, which was below our guidance range of $273 million to $278 million, but nonetheless represented 33% growth on a non-GAAP basis from a year ago quarter.

Advertising revenue increased 36% in the fourth quarter of 2014 to $220.1 million compared to $162 million in revenue in the same quarter last year. Subscription and other revenue was $47.9 million for the fourth quarter and grew 24% year-over-year on a non-GAAP basis.

For the year ended December 31, 2014 Pandora delivered non-GAAP total revenue of $906.6 million, which was below our guidance range of $912 million to $917 million. It represented 40% growth over the prior year. Advertising revenue was $732.3 million, a 40% increase, while non-GAAP subscription and other revenue was $174.3 million or 38% growth year-over-year.

For the quarter adjusted EBITDA was $43.8 million, up 68% year-over-year from Q4, 2013. Adjusted EBITDA excludes $26.9 million in expense from stock base compensation, $4.2 million of depreciation and amortization expense, approximately $400,000 of provision for income taxes and approximately $100,000 in other income.

For the full year 2014 adjusted EBITDA grew 158% to $58.2 million. Adjusted EBITDA excludes $87.1 million in expanse from stock based compensation, $15.4 million of depreciation and amortization expense, $14.2 million in revenue related to the release of the subscription return reserve in Q1, 2014 approximately $600,000 provisioned for income taxes and approximately $300,000 in other income.

Starting in 2015 we will adjust non-GAAP income by considering the income tax effects of our non-GAAP adjustments. Prior to 2015 our non-GAAP tax rate was minimal. For the first quarter 2015 we expect that our non-GAAP effective tax rate will be minimal due to our forecasted non-GAAP net loss position.

For the full year 2015 we are currently forecasting a non-GAAP tax rate of approximately 30% to 35%. Despite this we do not expect to pay significant cash income taxes for the foreseeable future due to our net operating loss position.

Due to the complexities surrounding the non-GAAP effective tax rate, starting in 2015 we are shifting from proving guidance for non-GAAP EPS to adjusted EBITDA, because we believe that adjusted EBITDA represents a better measure of our core business result. We will continue to report non-GAAP EPS result for purposes of evaluating our operating performance, however we will no longer be issuing guidance for non-GAAP EPS.

Fourth quarter 2014 GAAP and basic, GAAP, basic and diluted earnings per share were $0.06. Basic and diluted non-GAAP earnings per share were $0.19 and $0.18 respectively, which excludes approximately $26.9 million in stock based compensation expense and approximately $200,000 in amortization of intangible and was in-line with our guidance.

GAAP and non-GAAP basic EPS were based on $208.4 million weighted average shares outstanding and GAAP and non-GAAP diluted EPS were based on $217.6 million weighted average shares outstanding.

For the year GAAP basic and diluted loss per share were both $0.15. Basic and diluted non-GAAP earnings per share

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were $0.21 and $0.20 respectively, which excludes approximately $87.1 million in stock based compensation expense and approximately $700,000 in amortization of intangible assets and was in line with our guidance.

GAAP basic and diluted and non-GAAP basic EPS were based on $205.3 million weighted average shares outstanding and non-GAAP diluted EPS was based on $218.9 million weighted average shares outstanding.

We continue to contain content cost which represented in all time low of 43% of revenue in Q4 and 49% of non-GAAP revenue for 2014, an improvement of 372 basis points over 2013 in our first full year where content costs were less than 50% of revenue.

As we continue to emphasize, our ability to drive leverage on these costs is dependent on our ability to increase RPM's in excess of our LPMs. Q4, 2014 total RPM's reached a record high of $51.54, topping $50 for the first time. Total Web RPM and total Mobile RPM reached $68.06 and $48.27 respectively, both at all time highs. Total ad RPM reached an all time high of $48.19, web advertising RPM reached $68.83 and mobile advertising RPM reach an all time high of $44.37.

As LPM's are largely fixed with annual increases, the margin on our business improves as RPM grows. Our strength and confidence and improved monetization has allowed us to let user hours grow and with expanding RPM's we are able to commensurately expand non-GAAP gross margin, which occurred again last quarter.

During the fourth quarter gross margins expanded 380 basis points from 47.3% in the year ago quarter to 51.1%. In 2015 we expect this trend to continue as we approach our gross margin target of 60% of revenue, despite the increase in content cost in January due to the schedule annual step up in sound exchange royalty rates.

Bottom line, in an industry historically described as challenging in some circles, in 2014 we delivered profitability for ourselves and our shareholders, while also paying more than $439 million back to rights holders, now accumulatively more than $1.2 billion. This is proof that we can create a win-win music economy for all involved.

Turning to operating expenses, we increased headcount 33% year-over-year to 1,414 employees in the fourth quarter of calendar year 2014 from 1,067 employees in the same period last year, primarily the result of new addition to our sales, marketing and sales operations team, where we added 200 people during 2014 and to our product team where we added an addition of 60 including 45 engineers.

For the fourth quarter of 2014 non-GAAP sales and marketing expense was $63.4 million or 24% of revenue, an increase of 36% compared to $46.5 million in the fourth quarter of 2013. Included in sales and marketing expense are commissions on subscriptions that we pay Google and Apple totaling $8.9 million or14% of sales and marketing and increased marketing expenses on brand, direct response and SCM activities in the fourth quarter of $6.4 million, more than double our spending year-over-year.

For 2014 non-GAAP sales and marketing expense was $235.2 million or 26% of non-GAAP revenue, an increase of 46% compared to $160.8 million in 2013. The commissions on subscriptions paid to Google and Apple totaling $31.4 million and marketing on brand direct response and SCM totaling $16.4 million. Excluding these items sales and marketing remained flat at 21% of non-GAAP revenue as they continue to invest for growth while focusing on leveraging our scale and tax improvement.

Non-GAAP product development expense was $9.6 million for the fourth quarter or 4% of revenue, an increase of 39% compared to $6.9 million in the prior year. We often say product and development is an investment to drive revenue 13 to 36 months out and we will continue to double down in this critical area. For the year non-GAAP product and development expense was $35.6 million or 4% of non-GAAP revenue, an increase of 48% compared to 2013.

Our fourth quarter non-GAAP G&A expense was $24.1 million or 9% of revenue, an increase of 31% compared to $18.4 million in the prior year. For 2014 non-GAAP G&A expense was $88.8 million or 10% of non-GAAP revenue, an increase of 38% compared to $64.1 million in 2013.

Turning to the balance sheet, Pandora ended the fourth quarter with $458.8 million in cash and investments compared to $437.3 million at the end of the prior quarter. Cash provided by operating activity was $25.1 million for the fourth quarter compared to cash provided by operating activity of $12.3 million in the year ago quarter. Capital expenditures were $6.6 million in the fourth quarter.

Now for some thoughts regarding guidance for the calendar year and the first quarter of 2015. Starting with the full year 2015 we estimate total revenues in the range of $1.15 billion to $1.17 billion or year-over-year growth with a mid-point of approximately 28% based off of 2014 non-GAAP total revenues.

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We expect calendar year 2015 adjusted EBITDA to be in the range of $70 million to $80 million. Adjusted EBITDA excludes forecasted stock based compensation expense of approximately $122 million and forecasted depreciation and amortization expense of approximately $23 million and assumes minimal provision for income taxes given our net loss position for 2015.

For the first quarter of 2015 we expect total revenues in the range of $220 million to $225 million. Adjusted EBITDA is expected to be a loss in the range of $35 million to $30 million for the first quarter as we ramp investment in the seasonally slowest advertising quarter.

Adjusted EBITDA excludes forecasted stock base compensation expense of approximately $25 million and forecasted depreciation and amortization expense of approximately $5 million and assumes minimal provision for income taxes given our net loss position for the first quarter.

We expect the revenue growth to be strong in 2015. We are positioning ourselves for a continued strong growth for years to come. With monetization improvements we will gross margin expansion and we expect gross margin to increase 400 basis points in 2015, giving us the opportunity to increase our operating investments significantly.

We believe optimizing earnings growth in the near term – we believe by not optimizing earnings growth in the near term we will accrue the benefits and long term revenue growth in market share expansion, resulting in Pandora becoming a multibillion dollar business in a relatively short time. This is the year to have courage in our conviction that Pandora will continue to be a leader in both the advertising and music industries for years to come.

Now let me pass it back to Brian for some thoughts on 2015.

Brian McAndrews

Thank you, Mike. Let me close by discussing my thoughts on the year ahead. Put simply, 2015 is not a year a caution, it is the year of conviction. In the coming year you will see Pandora move decisively and assertively to capture the enormous market opportunity before us. We have already assembled the best combination of people, technology and content in our industry and we are entering 2015 from a position of strength.

To demonstrate the incredible power in this combination, I’d like to invite you to our first Analyst Day with my leadership team, on March 5 in San Francisco where we will go into further detail about where we have been and more importantly where we are going. I see the year ahead as a critical inflection point where we are investing strategically in order to extend our leadership position for years to come.

So why am I still bullish on Pandora? First off, we have a product that resonates deeply with our listeners and that impact continues to grow even stronger. Our listener base has grown to be a record 81.5 million and those users are more engaged than ever before. Pandora is the clear leader in Internet radio and a growing force in the broader radio industry with a nearly 10% market share. We will never stop investing in our industry leading music Genome Project that delivers the world’s best lean back music experience, providing an effortless source of personalized music enjoyment and discovery.

We are in the very early stages of developing new ways to engage our listeners with our recent launches and station personalization, station recommendation and notification, and we will be building on our early marketing momentum from our first ever off platform brand advertising campaign to critically acclaim some moments.

Looking ahead we have the right vision and team to make our listening experience even more personalized, ubiquitous and effortless and we will continue to invest to bring that vision to life.

We also are excited by our unique opportunity to be an indispensable partner to music makers. In addition to being the highest paying form of radio to artist and writers and growing, Pandora also has proven promotional impact, helping generate additional revenue for artists and writers off of our platform. In 2015 we will continue our investments designed to further connect our 80 plus million listeners with their favorite artist and vice versa.

The launch of the artist marketing platform was an important milestone for Pandora and its been very well received by the industry, providing music makers with unprecedented data and information to strengthen their connection with the band, but it is just the beginning. In 2015 we will invest heavily in the further development of AMP and other initiatives designed to serve the music community and you will see us working collaboratively with the industry to build and straighten partnerships at mutual benefit.

We believe our future will include more direct licensing arrangements to the expanded group of copyright holders and we will make significant efforts to 2015 to pursue win-win licensing arrangements and lay the ground work for more in

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the future. And we are similarly transforming how advertisers engage their customers. Advertising dollars are looking for high engagement properties on mobile and as comScore's data shows, there is no higher engagement property on mobile than Pandora.

To extend our leadership in the future, we are investing in sales, infrastructure and technology. We are also investing to expand our presence in local markets to build on the momentum we have in leading the shift of local radio advertising from terrestrial to digital.

In terms of digital revenue opportunities, we are positioning Pandora to lead the transition in what we see as an inevitable shift to mobile programmatic buying. People will increasingly use their mobile devices for eCommerce and advertisers are sure to follow. With our number one engagement position, accurate targeting and brand safe environment, we are incredibly well positioned to capitalize on this shift.

We already have strong data driven capabilities in place and we will continue to invest in this area and taking a leadership role in the nascent world of mobile programmatics, we will be introducing our first phase capabilities later this quarter, including launching on the android platform and on iOS.

In closing let me say that I understand that 2015 is an odd year in one respect. The CRB ruling will come in at the end of the year and until then there is some inherent investor uncertainty about Pandora, but here is what you can be certain about.

First, we are very confident in our position in the CRB proceeding. Secondly, we will not be distracted from our mission to unleash the infinite power of music and we will be laser focused in 2015 on advancing our key strategies of growing listeners and listener engagement, becoming an indispensable partner for music makers and strengthening our lead in mobile advertising and we are extremely well positioned to succeed on all of these trends.

Bottom line, I couldn't be more bullish about the future of Pandora. We are going to succeed because of our passion for music and our proven ability to unleash the emotional and economic power. This company has proven to be incredibly resilient in its history and I'm confident that no matter what challenges we might encounter, we will overcome that. We know we can because we have what it takes, scale, data, technology, relationship and people with talent and passion like no one else.

2015 is the year of action. We have spent the past few years building our monetization capabilities and infrastructure to a point where we are driving healthy gross margin and a profitable business closing in on $1 dollars in annual revenue.

While we think it is important to continue to improve margins and maintain profitability, now is not the time to optimize either, but rather maximize the potential for long term growth. That means we will continue to expand the significant business we have built with new energy and focus on what is to come. The next phase of migrating radio budgets from terrestrial to digital, defining the future of mobile marketing and advancing Pandora's constructive role in the further of the music industry.

Thank you for your time today. Mike and I look forward to seeing you on March 5 to talk further about our strategy and to introduce you to the broader team. And with that, let's open up the line for questions.

Question-and-Answer Session

Operator

[Operator Instructions]. Your first question comes from Michael Graham with Canaccord.

Michael Graham – Canaccord Genuity

Hi, thanks everyone. I just wanted to ask a little bit about the short fall first of all. Can you comment on whether it was national or local and then secondly, Mike when you look at the guidance for next year, there is a steeper ramp throughout the year than we have forecasted. I'm just wondering with the relatively seasonally week Q1, what are you seeing that gives you confidence in the full year and how would you characterize the outlook in terms of being concretive or aggressive or just anything you can share there? Thank you very much.

Brian McAndrews

Thanks for the questions. First of all in the first question it was definitely national advertising, not local; local had a strong quarter as we discussed and that ad revenue continued to grow solidly, sequentially as well as year-over-year the weakness was purely a national budgets on the digital side.

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And secondly, in terms of the distribution of revenue through the year, we think it matches pretty well on the historical seasonal patterns. We traditionally had a drop similar to this from Q4 to Q1, that's an expected pattern and it does ramp for the year just like it did this last year. I mean we grew ad revenue pretty significantly, sequentially quarter-over-quarter. As we went through the year this year we expect the same kind of ramp on the ad side.

Operator

Your next question comes from James Marsh with Piper Jaffray.

James Marsh - Piper Jaffray

Great, two quick questions. First I was wondering if you guys had drilled down into consensus estimates to see where consensus estimates are for stock based comp. They are never actually embedded in people's numbers, because I know you guys had $120 million. I'm just trying to get an understanding that this is the big gap between what consensus EBITDA today is versus your guidance.

And then the second question just relates to the CRB process and how it impacts your ability to kind of cooperate within the music labels and I know you mentioned the AMP program. Are you continuing to make progress here or is that somewhat slowing down because of that CRB process?

Mike Herring

So, on the first question regarding stock comp, the difference, I don't think that has anything to do with the EBITDA difference. Largely that has to do with I think expectation that we would invest less this year rather than more. This is the year where – in prior years we've taken a significant portion of our margin growth and in gross margins and reinvested that back into operating expenses and driven some of that to the bottom line and have invested some of that in operating expenses this year. We are essentially taking all of that margin growth and reinvesting it back into operating investments to exit this year from the strongest position we can be.

Related to the CRB process, I think we've said before that this a strange time as we are prosecuting the CRB case in the first half of this year and then waiting judges in the second half of this year to come through with the ruling. It's an awkward time for deals to get done. It doesn't mean that I don't think there will be no deals, but it's unlikely we'll see much deal activity from a direct deal perspective until the CRB ruling occurs in the back half of the year.

Brian McAndrews

And I would just add on – you asked about the AMP. We have thousands of artists and representatives that claim their identity and are logging in regularly and using the date to help their careers and the management, so we continue to see momentum there, but as I think I mentioned in my remarks we also are going to go the next phase which involves more promotional elements than allowing people to reach out to listeners on a direct basis and connect better with listeners. So we continue to see momentum there and that seems to be very well received in the industry.

Operator

Your next question comes from Mark Mahaney with RBC Capital Markets.

Andrew Bruckner - RBC Capital Markets

Hi, this is Andrew Bruckner on for Mark. I just have one quick question here. It seems that there was a notable slowdown in the total listener hours from last quarter to this quarter and I'm wondering if you can point to any factors that might be affecting this going forward and better factor into your 2015 guide. Thank you.

Brian McAndrews

So in terms of year-over-year growth is what I'm assuming. The year-over-year growth in hours is 5.2 billion, which is a record level of hours. It's about a 15% year-over-year growth. I would say that's consistent with what we expect to go forward. We've kind of exited the comps where we were comparing against 2013 years, where Q2 and Q3 were artificially low and so year-over-year comps would – if you look at Q3 of 2014 and Q2 of 2014 we had hours growth approaching 30% year-over-year. That was often artificially low based because we were limiting hours in 2013.

As we look forward 2014 was an apples to apples. No hours limits in either in Q4 of either 2013 or 2014. That 15% year-over-year hours growth rate is approximately what we expect going forward at least through this year.

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Operator

Your next question comes from Jim Goss with Barrington Research.

Jim Goss - Barrington Research

Just wondering, as you approach this year as a year to monetize that listener base, are you intending to do it more with rate or volume in terms of number of ad spots. And also on a related basis, I know your targeting broadcast radio, but Spotify might be a more direct comp in a lot of ways and I'm wondering what your sales people are using in terms of arguments of Pandora versus Spotify in the ad process.

Brian McAndrews

On the second point Jim, I think we definitely see terrestrial radio $17 billion opportunity as being the real opportunity. I think Spotify is first and foremost the on demand service that uses its free service to try to drive people to their on demand. So while we do compete in that sense, they are nowhere near the scale that we do, nowhere near the investment and the infrastructure and sales people that we do and so I would say there are certainly probably discussions about them out there, but we don't see them as at all our large direct competitor in that space. The other part of the question?

Mike Herring

When we turn to monetization, this year in 2014 we had significant gains in monetization driven both by price and rate and volumes. To you question, both average CPMs increased as well as sell through rates and our investments that Ryan talked about are designed in 2015 to do both those things, not just in this year, but in next year. So that is the expansion of the sales team, two, infrastructure to penetrate radio debt budget is both of us selling sell through rates in local markets as well as in existing markets that we're already in and shifting more of the mix to local which drives up the average CPM and average rate to use your term.

We also are, the investments we are making in programmatic. For mobile where we can be a true leader we can introduce mobile programmatic and data driven buying to the mobile world, because we are one of the few publishers and there's a handful of us who will be able to do this well. We believe that both will drive our ability to sell, to display inventory specifically on mobile more efficiently and clear at higher CPMs, because we can do the right targeting, retargeting in audience discovery that advertisers demand from digital advertising today.

Operator

Your next question comes from Peter Stabler with Wells Fargo.

Blake Nelson - Wells Fargo

Hi, this is Blake Nelson calling on behalf of Peter. Just hoping again, that you'll maybe elaborate more on the pricing, especially around the local. I mean given the targeting capabilities that you guys have over Terrestrial radio, can you charge a premium and then just to follow up on that is, how do you demonstrate the ROI to local advertisers, how do you convince people that are stubborn to make a transfer?

Brian McAndrews

We definitely believe we can charge more than terrestrial radio and do so and I think we continue to see big opportunities moving to local. And I think in terms of accountability, again we're – first of all local advertisers tend to understand their markets quite well and see more direct results quickly in store or whatever business they are in and have found ways to track using promotion codes and things like that. You add in the extra accountability that we have because we're digital and we believe we can absolutely compete and exceed what terrestrial radio can do in terms of pointing people directly to advertisers to promotions, linking to their website and the like.

Operator

Your next question comes from Jason Helfstein with Oppenheimer.

Jason Helfstein - Oppenheimer

Hi, thanks guys. Can you talk to us a bit more about the marketing invest – well, excuse me. So on the revenue guidance, would you largely say the weaker than expected annual revenue is due to national only or is it a combination

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of national and local and then on the expense guidance and in your comment about doubling down in sales and marketing, can you go into a bit more detail. How much of that is specific investment in more sales people either local and national or other initiatives whether it's more integration with ad tech and investments around that. Just give us some more color. Thank you.

Brian McAndrews

So the reference around national is in terms of the three verticals that we thought, the weakness that we did not expect in Q4 and those three verticals are heavily weighted in the year in that quarter, so that's why it had such an impact in the historical financials.

As we looked into this year, we don't see any specific weakness and a national or local. In fact we are adding resources into our sales team, because we think there is still lots of room to grow and room to expand both in national and local advertising budgets for Pandora.

In terms of how we are going to spend dollars to invest, I think it covers a few areas. We'll definitely add sales people, local and national to take advantage of the opportunity right in front of us. That's where the low hanging fruit is, that's where we are seeing growth and that's where we have a competitive advantage and continue to do that.

We are also going to invest which is somewhat new in rolling out platforms and we talked about on iOS and on android, rolling out the initial frameworks for programmatic buying on mobile using Pandora's specific targeting methods, which is unique to publishers that have logged in databases that can be linked to web data, that can be linked to external data, that allows for a programmatic environment, data driven environment for advertising.

So that's a new thing. We set those vectors to contribute this year. Potentially become material and meaningful vectors of growth by the end of this year or in 2016 and beyond.

Operator

Your next question comes from Nat Schindler with BOA/Merrill Lynch.

Nat Schindler - BOA/Merrill Lynch

Hi guys. I just want to try to understand your spend and how your working in your investments for next year. It seems like a pretty high – given that your expecting 400 basis points of margin improvement on gross profit, its hard to see where you could really throw that kind of money if your really going to grow revenue to $1.16 billion. Are you looking to do substantial, consumer based advertising to drive usage and if so, if you did that, how would you drive the gross profit, because that doesn't necessarily sell but drives content price.

Brian McAndrews

Yes, it drives content price, but it also expands inventory. If we didn't feel confident that we could drive monetization at the same time, we wouldn't be investing to drive users to your point. I mean that's the transition we sort of made in the back half of this year, where we have historically never driven and spent dollars to drive users or only spent very small amounts in for a specific market.

This year we transitioned to a year where RPMs are reaching a point where the gross profits are such that we can justify spending to drive additional traffic and so that spending that we are talking about to your point is driving traffic we believe we can monetize.

You know exiting this year with mobile RPM as high as they are gives us really confidence. I mean its mobile advertising RPMs at $44.37 in Q4 and $48 overall exiting Q4. Of course those get harder to do in Q1 with the weaker market that we think that those will year-over-year continue to be stepping up nicely. There is a return on driving those additional users and hours and we can realize that through our monetization efforts. So those things go together quite nicely at this stage of the business.

Operator

Your next question comes from Stephen Ju with Credit Suisse.

Nick Hrynkiewicz - Credit Suisse

Hey Mike, this is Nick on for Stephen. Kind of staying in the same vein there, is there any update on the consumer

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marketing innovative, are the ROI parameters still valid or has there been any change in? Is it your anticipation right now that the majority of the newer reengage users will be ad supported versus subscriber supportive? Thanks.

Brian McAndrews

Yes, it's absolutely still valid. I mean if you look at the dollars we spent this quarter, we definitely saw a return on that in terms of driving users and hours, both of which ending at 81 million users at the end of December, certainly there is a seasonal effect of that, but we also had a lift on that from intentionally driving users and hours.

Hours reaching 5.2 billion, you know obviously a high water mark from an hours perspective. And despite that denominator growing significantly, we monetized at record levels. So the ROI story is definitely in tact and that doesn't change. If anything, it reinforces our commitment to continuing to drive our footprint.

To answer your second quarter quickly, when we think about the ROI, we focus almost exclusively on what the lifetime value or first year value, depending on how we are looking at it, is of the ad supported user, rather than a subscriber at this point. It sits there, the large majority of our users. We have a different view of acquiring subscribers over time into our areas of business developments and efforts for example where we would use a subscriber value in determining the likelihood of making that investment. But when we are looking at pure traffic acquisition, we focus solely of the advertiser supported used.

Operator

Our next question comes from Laura Martin with Needham.

Laura Martin - Needham & Co.

Hey there. So Brian, the stocks down 20% right now and in the last 15 months its about half. So I guess my question is, just as you think through data inputs on what your next capital allocation decision is and what the next percents you're going to take, I'm interested in how you think about the input of that sort of Wall Street report card on your next activity.

And then for Mike, I get that we are not give guidance any more on the adjusted EPS because the tax is super hard to forecast. But by implication and since you are going to give it on the EBITDA number, should we presume that you have more clarity or more visibility on that number, so that the guidance will be closer for us going forward. What do you say?

Brian McAndrews

I'm not sure it gives us much difference from a guidance perspective in terms of clarity. Our net income and our EBITDA number from a non-GAAP perspective excluding taxes is not significantly different, because depreciation and amortization is not a huge line for Pandora, so its very similar forecasting exercise.

The reason we are moving to EBITDA is because of the complexities of communicating this non-GAAP tax effect, which puts a rent, even though we are not going to be cash paying, tax cash payer for years, from this point it would imply that we are paying a significant amount of cash out in taxes, which is misleading I think. So we want to make sure that the EBITDA number is what people focus on, because it gives a better sense of what the true operating cash flows are of business. And then I'll let Brian answer your first question.

Mike Herring

Yes Laura, I mean obviously it's disappointing to see the stock be so volatile and down and particularly at this point. But having said that, we are focused on the long game, we are focused on investing for the long term as I talked about in my remarks.

We really believe we have a huge opportunity and so while its unfortunate and there are distractions in front us of like that, we really just want to stay focused on the long game and it really, it won't impact the kind of investments we are doing, the strategy we have. Those will be impacted as we learn and optimize on that front. But right now we feel like we are doing the right thing for the long term and our job is to help convince our investors that here and on our analyst day and on other opportunities.

Operator

Your next question comes from Matthew Thornton with SunTrust.

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Matthew Thornton - SunTrust

So my question, two if I could. First Brian or Mike, the user number was actually a little bit better than most people thought by about 3%, but you have the listeners hours and in total it was about 3% shy of kind of what people were looking for which kind of begs the question of where are the listeners kind of splitting their time. I guess did you see anything kind of pop up on the competitive front over the course of the quarter?

And then secondly, related to the three verticals that kind of fell off, I'm assuming that the fall off was late in the quarter and based on 1Q guidance, I think revenue we have down 17% the mid point versus the last two years was more like 10% to 12%. So I'm assuming that those verticals remained weak into the New Year. And my question is, do you just pull your guidance assume that those three verticals do not come back. Thank you.

Mike Herring

Yes. So we think we have a plan to address those verticals. They've been good verticals for us for years. The fact that they have fluctuations in their own businesses effect Pandora's advertising business. When we look at this year, certainly we look at the health of our advertisers in the market generally when we try and estimate what advertising dollars are going to be, but we don't feel like that there is going to be a dramatic change based upon what occurred in Q4. That was largely in December.

Literally the change occurred suddenly and it was expectation things that we expected, that we had seen year-over-year to change dramatically and we were optimistic that if things move with the market, those could come back.

In terms of the drop year-over-year, like last year I looked back at advertising revenue from Q4 to 2013, Q1 2014 the drop is about 15%. So I think we are pretty consistent looking at the drop quarter-over-quarter.

You might be looking at ad revenue or total revenue, which has its subscription component, which is going to be a smaller component this year than it was last year. Just because advertising revenue has grown in 2014 much faster than the subscription component because we didn't have the mechanism of limiting hours that drove a substantial number of subscribers in 2013.

So a little bit of nit-picking on the timing of things, but when you step back I think it's very consistent with historical patterns and we try and be very accurate with estimating what we think the business opportunity is.

Brian McAndrews

To answer the listeners question, listeners and hours and we saw you know 15% growth in hours and 7% growth in listeners year-to-year and from quarter-to-quarter 6% growth in MAUs and 4% in listeners. So its not a huge gap and in fact that you are brining in new listeners you expect them to bring down the average listening sum as well, because they are new and our job is to keep them in the fold. We did have record peaks during the quarter as I mentioned in my comments. So that was certainly encouraging and obviously it was driven by a number of those new users.

Operator

Your next question comes from Benjamin Swinburne with Morgan Stanley.

Ryan Fiftal - Morgan Stanley

Hi, this is Ryan Fiftal for Ben. Two questions if I may. First, you mentioned a few of the ad verticals that were softer and I apologize if I missed it, but I don't think I caught anything about political and contribution. So could you maybe size or help us think about how impactful that was and your outlook maybe for further cycles.

And then my second question is on maintaining the 15% listening hours growth rate going forward. I think this quarter that growth was kind of evenly split between active user growth and hour per listener growth and we've seen each year active user growth slowing.

So do you think you can stop that deceleration or I guess alternately can you accelerate hours per listener. So I guess for either of those what are the key drivers that get you there. Thank you.

Brian McAndrews

So, when you look at political advertising, I mean 2014 was a step up from 2013, which was a relatively quiet political year and we did see a decent amount in Q4. It was single digit millions in terms of the total dollar spend in the quarter.

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So while we – again we saw some, it was very focused on global campaigns or at least locally focused from a targeting populations perspective and not a big driver or put a plus or minus in the ending number. It was really focused on December normal seasonality that didn't occur in the CE telecom and retail spaces in those verticals.

When we talk about user growth. At the size we are, which is a large percentage of connected Americans already, growth is naturally from our large numbers going to be difficult to accelerate year-over-year. We believe, we think that number will continue to grow as people get more connected, demand accessing their media in a lot of more connected fashion. We've benefited from those trends obviously to-date gaining $81.5 million at the end of 2014, but we expect that that is still going to grow, but its not going to be growing quickly.

We have focused a lot of growing that hours per user. If you look at 22 hours per user where we are today, its significantly year-over-year. Its been growing nicely. Its one of the reasons we focus on ubiquity, it's the reasons we focus on product to really drive kind of a healthy hours for user growth. That engagement is the differentiator of Pandora between and really any other kind of media.

Brian mentioned in his comments the comScore rankings that show that engage on a minute per user where we eclipse every other mobile property out there. Whether they are a show or gaming or anything else and its on a minutes per user basis. Pandora is a dominant force in the mobile world and its something we're proud of, something we protect, something we plan to grow and we think its critical in the next phase, both from a user growth perspective, as well as a monetization growth efforts in the next two years.

Operator

Your next question comes from Douglas Anmuth with JP Morgan.

James Mak - JP Morgan

Hi, this is James Mak in for Dough. So two questions if I may. For your 2015 revenue guidance, did you include any possible positive impact from the programmatic roll out and for my second question, how many new sales people do you expect to hire this year? Thank you.

Brian McAndrews

Yes, so we will talk a lot about our sales hiring growth next quarter in specific. We're in the middle of that now. We did finish the year with 353 quarter bearing sales reps, which is up from Q4 only about eight reps, but most of that hiring occurs in January, February, March and April. So we expect a similar amount of hiring than we did last year. It depends a lot on the success of our recruiting efforts and we're actively out there making that happen.

We do expect to display advertising generally to have a good year this year in order to reach our goals from a revenue perspective. Programmatic platforms, especially in mobile are brand new, they are nascent and that use of demand needs to be formed as much as delivering the product. We will be evangelists when it comes to that and alongside others who have the unique advantage as we do and our optimism is that that has a long-term significant growth trajectory. It probably isn't going to be a very material one this year, but it will be part of an overall package that we deliver to advertisers and it sets us up well for future growth.

I do want to make one quick comment that you know I guess we didn't mention Pandora One sub numbers in the initial prepared remarks and we finish the year at $3.6 million, that's up from $3.5 million at the end of Q3.

Operator

Your next question comes from Heath Terry with Goldman Sachs.

Heath Terry - Goldman Sachs

Great thanks. Just wondering, particularly during the end of the quarter you guys seem to be relatively active around, I'm sure a lot of it was holiday related, in terms of trying to drive incremental engagements through notifications on mobile and direct email. I guess one, is that perception accurate and if so, does it give you any or can you give us any sense as to what the kind of increase promotion had on users and whether or not its something that we should expect to see from you more as a way to drive not only new growth, but also user engagement around listener hours.

Brian McAndrews

I think the short answer is yes. We did do probably more of it in the quarter. We released notification earlier in the

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year, so we've been using those. We've obviously had to email for a while, but we are always testing and improving and learning and trying to figure out the best ways to engage people and I think we've gotten better at it and we invested more in it and I think you will continue to see it and obviously we are not going to bombard our listeners, but we are going to target them and try to hit them with compelling reasons to come back. And we actually think its works and we're able to measures and figure out where it does and doesn't work and double down where it does.

Mike Herring

I would just add to that, you are all probably, if you are using Pandora, first of all thank you, but second of all you've seen the rollout of our new UI and a big part of the new UI that's now lead out with 100% of users is the servicing of the notification alerts functionality a lot more aggressively. Not in a way that it gets in the users way, but that it makes a lot clear that there are notifications stations recommendations. It provides more channels for us to communicate with users like the inbox functionality etcetera.

So while you might see more activity from us on that front, we are finding the right ways to do that within the listener experience to make it additive to the listener experience rather than distracting.

Brian McAndrews

And with that we have come to the end of our call. Again, to register for the March 5 Analyst Day, its going to be the afternoon, please send in an email to investor@pandora.com to get registered and to attend the event.

Other than that, thank you for taking the time and we wish the many academy and nominees for the Grammies this weekend. Good luck. Operator, can you please take us back to Pandora.

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Pandora Media Inc at Nomura[¢]#]#s Digital Media Conference - Final

Presentation

MIKE RIETBROCK, ANALYST, NOMURA: Hey, everybody. Good morning. My name's Mike Rietbrock. I'm Nomura's Head of Global Research. On behalf of both Nomura and Internet, I just wanted to welcome you guys to our Digital Media Conference. I think this is our fourth or fifth annual Media Conference. I think we've got, Anthony, 15 companies --

ANTHONY DICLEMENTE, ANALYST, NOMURA: 13.

MIKE RIETBROCK: 13 companies today, something like 250 investors who must have all been watching tennis last night. But, I just wanted to say that strong research and particularly TMT research has always been a hallmark of Nomura's business. In the U.S. we're really proud to have added Anthony last year, Adam, to what was already a really strong TMT group.

Going forward, our plans are to continue to grow. In the U.S. we've got 25, 26 analysts. That will probably approach 30 this year. And Nomura's U.S. business has become a really, really big percentage of Nomura's business overall so we're really happy with what we're doing and we hope you guys feel the same way as clients. Thanks for being our guests today. We'll do everything we can to make your time here productive and profitable. And with that, I'll turn it over to Anthony and Adam.

ANTHONY DICLEMENTE: Thanks, Mike. Just to echo Mike's remarks, welcome and thanks, everyone, for coming. I think we have a great lineup today. I couldn't be more excited about the day. And I also want to thank Mike and Michael Lean in research for all of their support to support Nomura. You know, since I joined last November, I've had just incredibly positive experience here and very excited to be a part of what this firm is building in terms of this department and, more broadly, in terms of the broader Nomura initiatives.

So, about the conference, when we titled this conference Digital Media Conference, there was some confusion about the line-up, who would be attending. Some traditional media companies didn't know if they wanted to attend, saying it was unclear whether this is a media or an internet conference. And so, as we know, the most topical question in media is the future of how TV and film content is consumed on digital platforms. And, as we look at that convergence, my research team's hope is that, by virtue of our coverage of companies like Facebook, Twitter, Google, YouTube, and Pandora who'll kick us off, that, in addition to traditional large-cap media, we might be able to, in a deeper way, understand convergence and digital distribution. So, hopefully today's conference and the line-up we have in front of you will be a stepping stone towards that understanding and we'll be asking and I'll ask for your help in asking questions of the executives we have today in terms of how they are best preparing their organizations for a digital media future.

So, on behalf of Adam Ilkowitz, who covers Cable, Satellite, Telco for Nomura, myself, and the department, thanks for coming. And why don't we kick off the day? So, to start, we have Mike Herring. Mike is the EVP and CFO of Pandora. Mike served as VP of Operations at Adobe for over three years before joining Pandora. Come on up Mike. And previous to that, he was the CFO of Omniture.

Questions and Answers

ANTHONY DICLEMENTE: Alright. Well, thanks for coming this morning. I guess to start off, if we think about the market opportunity in terms of streaming audio and the digital audio landscape, if I bucket the business models online into three; say, add-supported models like Pandora, number one; subscription services like Spotify, secondly; and a la carte music purchases like iTunes; can you sort of size the longer-term addressable market opportunity for those three? And the question underlying that is; is it possible for those three models to co-exist or will one take share of another as we move forward?

MIKE HERRING, CFO, PANDORA MEDIA, INC.: So, if you think about just music in general in a connected world, those are kind of the three areas. I think the ownership side of it, the purchase of actual downloads or purchase of physical music is obviously in just a pretty steep decline. It had its lowest week ever recorded, since SoundScan started, just a couple weeks ago and that included downloading purchases, etc. So, I think the shift is really to this rental model and how that gets consumed and paid for. And that's between the subscription side of things or an ad-supported side of the world.

And most free music sites are not true ad-supported or third-party supported sites. They're freemium models. They're trying to like drive a free product, maybe with advertising to sustain it at some level, but the end game is to drive subscription and that view is something that Pandora doesn't take. We do have a subscription product. It's about 4% of our listeners. It's about 3.5 million subscribers. But, we look at that more as a feature of an overall product set and that the advertising opportunity is really where the bigger opportunity is.

If you think of total addressable market, it's hard to -- in the United States there's only about 20%, maybe 15% of Americans that spend really any meaningful dollars on music; less and less on ownership, more and more on the rental side of things. And that is a decent market but there's a lot of competitors in there. Apple, Google, Amazon are all playing in that space. Spotify is squarely in that space. There are some startups in that from a subscription perspective. And that, I think, is a good market, but I don't think that's the bigger market.

We have 80% of listening that occurs today in a free environment whether it's radio or otherwise. Pandora is internet radio and we're funding that through advertising sales and really the only ones focusing on that as our primary business model. And that addresses a much bigger total advertising pie. There's $15 billion in radio advertising that's been in traditional radio historically that Pandora is rapidly gaining its market share and then another $40 billion-plus coming into mobile streaming and mobile advertising generally over the next few years that we'll be competing for advertising dollars there with Facebook and Google and such. And I think we do pretty well there. We're in the top-five mobile advertisers in the world right now. So we think just a much bigger opportunity because it addresses, really, the way most Americans consume music or want to consume music today.

ANTHONY DICLEMENTE: And just once again on the competitive landscape, I mean there have been so many entrants into the streaming music space. You guys have grown through a lot of the competitive entry points. If I think about things like Songza and if you just take a step back and think about the edge that Pandora's had since it was founded, the Music Genome Project, the ability to personalize a radio station for a specific consumer; do you still have that edge? Are the barriers to entry lower or higher today than they were when Pandora was founded? And how can that competitive advantage continue to persist over time?

MIKE HERRING: Yes. I think lumping us in with Songza and Spotify and such confuses the issue as to what is competitive with Pandora. Those services are one-to-many services, generally. They play a specific song list or you go in and have an on-demand experience. It's a very different music experience than what Pandora does, which is individualized for a person, a series of songs in a laid-back manner. So, you just turn it on and you play it.

That is very different than what Songza did. And it's hard to really understand that until you get into the complexities of how Pandora built its product versus the way these other companies have built their product. And it's fantastically hard to create a service that personalizes music for 76 million people concurrently, playing all over across many genres and across many demographics and in every part of the United States.

So, that has really separated us. It started with the Music Genome Project. We really deconstruct the way the music fits with other music then we apply on to that billions of thumbs, over 40 billion thumbs or interactions of our users with the music, 6 billion stations created. And that data just keeps getting added to. That's an immense competitive advantage.

You add on to that our ability to actually monetize that in a profitable way. There's a reason why companies like Songza end up getting acquired. Beats spent tens of millions of dollars to get launched and had 100,000 subscribers. We have 76 million people. The scale of that is really different. And it's because it's really hard to build an audience because it's really hard to create a positive listening experience for music.

ANTHONY DICLEMENTE: But I mean Songza was acquired by Google so arguably you have a company that cares less about profitability and is just kind of willing to either have a zero ad load or go after consumers with kind of an ad-free experience with other strategic benefits in mind. How do you think about competing services within a larger company like Google or Amazon where management is less concerned about margins than you are, let's say?

MIKE HERRING: I think in the context of music, because the costs are so high, that's a big gamble. There has to be significant reasons to provide a free product out there. I mean iTunes radio is ad-supported. A lot of effort went behind that launch last year. I mean our stock had a lot of ups and downs in the two years leading up to it just on rumors. And it has had minimal to zero effect on our ability to retain listeners. And the monetization aspect of our business isn't something that prevents people from listening. Poor music choice prevents people from listening. So, as long as we do the product well, I think that's our big competitive advantage.

The fact that we can monetize effectively and operate as a business is also a significant competitive advantage. We have the infrastructure from a sales perspective. We were able to monetize on an incremental level in a meaningful way and that's unique to Pandora as a standalone service. We are profitable today and we will continue to be so.

So, I think all those things coming together makes it really hard to compete. For nine years we've had competitors large and small, well-funded, that have come and gone. It's a difficult industry, both from a consumer fickleness as well as ability to monetize ahead of licensing costs. And the fact that we have been able to succeed and continue to grow speaks to our expertise in this space and the competitive advantage, I think, just continues to grow.

ANTHONY DICLEMENTE: So, you mentioned content costs and that's front of mind for many investors. So, let's talk about the partnership deal that you signed earlier this -- last month now, with Merlin. It's your first private label deal. I think investors would love to hear from you; why is that deal significant? What does that mean for your relationships with artists? Which maybe we can get into in a little bit? But then, more importantly, what I'd like to hear is you haven't released terms of that deal; but how do the per-song rates compare to what the compulsory rates are? And what would kind of your forging that deal mean for CRB SoundExchange arbitration next year, if anything? And how should kind of investors think about that in terms of content costs, that private label deal?

MIKE HERRING: Well, that was a long question.

ANTHONY DICLEMENTE: Yes, I know.

MIKE HERRING: So, there's a lot in there. So, Pandora has always operated under statutory rates. So, we've never had direct deals with the sound recording side of the business, the label side of the business, until now. Merlin is an organization that represents thousands of labels, really several hundred really critical labels on the indie side of the business. And so it was natural that we started with a group of labels that really understood the importance of Pandora in the future of music, especially indie music, in this case.

We play 100,000 different artists across thousands of genres every month. Traditional radio plays hundreds maybe thousands of different artists. There are literally tens of thousands of artists that only get play on Pandora. And so, that aspect of our business, I think, has been underappreciated by the music industry and is something that Pandora, frankly, hasn't done a lot to surface. So, what the Merlin deal does, it does a couple things, as you sort of touched on in your question, for Pandora. And it's a beginning of a next phase.

So, the idea was to look and create relationships with the music industry that's a win-win. So, a win for Pandora, but a win for the labels associated with this deal as well, and on many labels. I mean one of the things that Pandora would like to change is historically we've been a royalty payer. We pay for the music that we use in the service. We pay a lot. We paid $340 million in 2013. We'll pay significantly more than that this year. Half of all royalties paid by radio were paid by Pandora. So, we pay a pretty healthy percentage of those dollars. But, we don't do anything else so we haven't done anything to really show that we can create value to the music industry outside of writing a check.

And what this deal does is, it has a royalty component, the details of which are confidential, but, generally, it gives comfort to the labels that they're not going to receive dollars that are going to be less than they would have otherwise. But, it gives opportunity for Pandora to have certainty in costs and have opportunities to leverage that relationship to improve the cost structure over time. So, there's win-win aspects to the royalty structure.

And that was really important for this first deal, to make sure that things were done above board. I mean, for example, all the payments go through SoundExchange. Now, that may seem like no big deal because we already pay through SoundExchange, but paying directly through SoundExchange gives the artists comfort that they're getting their 50% of the royalty versus paying directly through the labels associated in the deal and having that be a black box. That's important for the artist relationship to know that transparency of how payments are being made and what they're getting.

The second big piece, and really the game-changer of the deal is related to the opening up of Pandora's platform to the labels that are associated with the deal. So, that gives them access to data about their artists. It gives them access to promotional opportunities within the platform to help existing artists that are working artists plan tours, understand where their audience is, connect with their audience, release music in a way that can get it out to their fans more quickly to test and understand which songs are a better single versus others in an album context.

These are things we've never done with the music industry. That sort of non-financial benefit is new to the discussion. And we that, if we can create a value exchange that has more components, we can create a win-win where Pandora and the labels are on the same side of the table. We are doing things to help them improve their business and they can then, therefore, be excited about Pandora improving our business.

ANTHONY DICLEMENTE: Clearly that data that you mention, whether it's user preferences, song rating, personalized data about a new band, that's more important to a smaller artist. I mean it's not as important to, I guess, a Demi Lovato or Katy Perry, right? So, I mean the fact that this deal with Merlin is with an indie label, is that sort of intuitive in the sense that **Pandora's** democratizing the listenership of smaller artists or maybe older artists, right? Now what about kind of the antagonism with larger artists, be it like a Coldplay that may, let's say, need **Pandora** a little bit less than the longer-tail artist. How should we think about that bifurcation?

MIKE HERRING: Yes. That's an interesting question. Needing **Pandora**; that's what we're addressing here. I mean maybe Bruno Mars doesn't need **Pandora** to popularize his music but we still introduce him into many different genres across our platform. He still gets paid significant royalties out of our system.

And large artists also would value the data that comes out of **Pandora** pretty dramatically. I mean to know what regions your music playing in and where their audience where their fan pockets really are. I mean I remember sitting down with Macklemore a year ago and it was after they had had their meteoric rise. They had gone on **Pandora** from 25,000 stations in August 2012 to 1.2 million on **Pandora** in January 2013; so, in like five months.

But, when we showed him the heat map of the United States where the obvious places for him like Pacific Northwest and Minnesota, like Michigan; a lot of his fans really came out of being played alongside in the Eminem channel, in the Tupac channel. So, he had a lot of crossover fans early on because they were introduced to Macklemore through **Pandora**. All that said, there were pockets in Virginia and in the South that he had never been, never been really out of the Western United States, where they immediately were like that's the place they ought to think about taking their next tour or building a tour in that area.

So, I think there's a variety of ways large artists benefit also from **Pandora's** platform. But it is really true, if you say like percentage of album sales disproportionately goes to the top-10 artists and then you compare that percentage to streaming revenues that come from **Pandora**, it's going to be a smaller percentage because ours are spread over a much larger artist population. I think that's good for the ecosystem overall. And I don't think it's really been something that's eaten into the psyche of the top-10 artists.

ANTHONY DICLEMENTE: So, let's talk auto; potentially a big, longer-term growth driver for the Company. I think on your most recent call you said that you have 7 million active auto users or maybe a recent conference.

MIKE HERRING: Yes.

ANTHONY DICLEMENTE: How fast is **Pandora** usage in the car growing? And at what point does this really become a needle mover in terms of monetization and in terms of the financials?

MIKE HERRING: Well, the second part of that question is really hard to -- we've been working for years on the auto opportunity because it takes years to penetrate it. As auto makers have become more willing to open up their infotainment systems for third-party apps like **Pandora**, we've been the first ones there, oftentimes being the test case, the first sort of beta app in that place. And it takes a lot of trust-building and relationships to get there.

And last year was really our kind of watershed year from a critical mass perspective in cars sold in the United States. We're in a 135 models, 10 of the top-10 sellers, about a third of all cars that are sold in the United States last year and this year. So, that took us from a million activations a year-and-a-half ago to 7 million today. You know, that's still a relatively small percentage of our own listeners --

ANTHONY DICLEMENTE: Of cars on the road.

MIKE HERRING: -- or cars on the road. I mean it takes a long time to make that penetration. I think that that works for us longer term. Right now it adds hours on a per-user basis. For those active integrations, the average user listens about 20% to 30% more in a month once they've activated it within the car. So, it helps us build those hours.

And that's been a real focus in **Pandora**. If you look at the last year, we've increased our average hours per user from 17 hours a month to 21 hours a month, which is a very high engagement metric across 76 million users. And pieces of that are all driven by efforts, efforts like the auto integration, like being integrated into CE devices; Samsung televisions, XFINITY box. We've spent a lot of time being ubiquitous across wherever people want to listen to **Pandora**, auto being a key piece of that.

Now, we just started monetizing auto about six months ago. When you roll into these new platforms, it takes a while to get enough critical mass to sell advertising. And auto is going to be different than what we serve on the phones because there's video or digital companion piece. So, it's part of our Audio Everywhere product, which is pure audio. And then, in auto, as a specific example, advertisers really like that experience, especially traditional radio advertisers, so we've been able to sell that pretty aggressively. But we're slowly rolling the ad load into that piece. It probably won't be material even to our top line for another year or two, I would guess.

ANTHONY DICLEMENTE: Okay. You mentioned listener hours per user. Is the market too caught up with the number of users at this point? I think you've grown active users to, you said, 76 million. Listener hours recently have accelerated to over 20%, but the one consistent question we get is that active listener year-over-year growth has decelerated I think to 7.5% last quarter. So, can you just talk about that dynamic and how we should think about that?

MIKE HERRING: Yes. So, I mean active users matter. To say that that isn't an important metric would not be an accurate statement. It matters a lot and we think about it a lot internally in **Pandora**. I would say in the last year-and-a-half, 2013, 2014, we have been more focused on hours because that is what drive costs, not users. Also driving hours on a per-user basis, that engagement, increases loyalty of users. It increases ad effectiveness because an engaged user creates a better environment for our advertisers from an ROI perspective. There's lots of reasons why that matters.

A year ago today we were limiting hours and trying to keep people from listening. We were still in the mobile hour cap, 40 hour cap. We released that cap last September. We were limiting mobile listeners to only 40 hours a month. That resulted in a spike up to 4.5 billion hours in Q4 last year. We're now at 5 billion hours two quarters later, 500 million more hours of listening in our seasonally third-highest quarter. So, the hours have really accelerated. And that, in a business like ours where maintaining gross margin growth through monetization is really important, we have to choose how we grow the business. We have to grow monetization alongside audience growth or it causes the financial model to flip upside down. And I think right now **Pandora** is doing an outstanding job balancing those two things.

But I think you've got to put users in context. We have 76 million users today. That's 70% or so of internet radio listening. Well, if that 70% of internet radio listening, we're talking about 100 million to 110 million who are listening to connected radio today. There's 240 million people listening to terrestrial radio today. And as devices get more connected and awareness kicks in and every TV you buy is connected and cars start being connected as a hot spot themselves, internet radio is going to continue to grow as a pie. We believe strongly that that 110 million goes to 150 million, goes to 200 million. It dramatically -- it takes over what radio listening is in the United States over the long term.

Whether we maintain 70% market share or we have 60% market share or 50% market share, I would rather have 50% market share of 200 million people than 70% market share of 100 million people. So, I think the idea is that market is growing. As that market grows, we will retain market share. I believe that we'll easily cross 100 million users over the next few years in a combination of our ability to grow our business as well as the market itself growing.

We really haven't spent any dollars in customer acquisition in the Company's history. It's purely been word of mouth and driven by partners like the autos pushing **Pandora** capability as a feature. I think as that changes, it gets a little more competitive, we have the resources to acquire users. We think that we have a very unique listening proposition. That's proven out in the market today. So, as that market continues to grow, I think we easily continue to grow alongside it.

ANTHONY DICLEMENTE: Okay, I'll ask one more and then we'll open it up for questions from the audience. So, there's a great slide in your investor presentation about unpacking RPM. And so for investors to look at key monetization metric being RPM, the three drivers of that being ad inventory, sell-through rate, and CPMs. Thinking about that and those drivers, which of those three do you see as the kind of inflection point or needle movers on RPMs in the next year or two for **Pandora**?

MIKE HERRING: Yes. So I think it's shifting a little bit right now. In the last year-and-a-half I would have told you it's about sell-through rate and price. Sell-through rate, that's what investment in hiring salespeople is all about; the infrastructure investments, back-office stuff, the slingshot. If go look, we've talked about it historically, the integrations into the ad-buying platforms; Media Ocean, Strata, Telmar, from a planning perspective, getting our data measured by Triton in radio terms and MRC-certified in all 276 DMAs in the United States. All that investment is about empowering a salesforce of 343 people, quota-bearing sales reps, to go out and sell aggressively into this massive amount of inventory we have; more inventory than we historically have been able to sell, driving that sell-through rate up.

But it's not sell anything at all costs. And my salespeople will tell you that the way we manage them, they could sell more in the short term if we didn't work on quality. And that's what pricing is all about. We've driven our average effective CPM up something like six quarters in a row now. So, we're growing sell-through rates while also growing price. That is a really challenging thing to do in a digital marketplace where everyone thinks everything gets commoditized. Not in the mobile world, right? There's no cookie here. The power has shifted from the advertiser to the publisher. And so it allows a lot more control, and this is true for Facebook, Twitter, anyone who has a massive mobile world, the power, the segmentation, and the pricing control is shifting back to the publisher like it was 15 years ago on the internet. We'll see how it --

ANTHONY DICLEMENTE: And why is that? Is it standard ad format? Is it higher ROI? Is it targetability?

MIKE HERRING: It comes down specifically to targetability and the lack of a cookie. And so, the rise of the ad networks where you could have cross-domain tracking commoditized publishing in the 2000's. I was a big part of that at Omniture. That's what we did, right? We helped you optimize advertising across many platforms.

In the mobile world that doesn't happen. In the mobile world there are no cookies so there's no persistent ID that's easy to track. That's why everyone tries to get logins. You know why logins are so important? It's why Google+ exists. Google+ exists not because they really want you to connect with your friends, right? They want to know who you are in the mobile world so they can connect all the data they have on you and of the other parts of the world to your mobile ID. So, that aspect of it is really important. So, sell-through rate and price, driving that up is really important.

We've held inventory back historically because it costs money to drive hours. Inventory is a function of hours times ad load. We haven't increased our ad load in almost a year now because we've been pushing sell-through rate up into that inventory level and driving inventory up through hours; over 5 billion hours, like I mentioned, last quarter, a new high-water mark.

As we get bigger, how we grow revenue -- RPMs, we want RPMs to grow. But, at some point, RPMs get high enough above LPMs, which is our licensing costs for 1,000 hours, that gross margin is meaningful. We've gone from $24 a year-and-a-half ago in RPM to $44 last quarter. Our LPMs are $21. So we went from a $3 gross profit on every 1,000 hours to a $23 gross profit on every 1,000 hours. Every time we improve monetization RPMs that's pure profit over that LPM number.

When I give my employees talks on how our business works I'm like; that's the only number that matters. RPM, how do we drive it? Sell-through rate, maintain pricing, increase inventory through giving out creative ad loads, and driving hours. And if we do all that stuff in a way that builds a long-term business, like takes a long view on how we build revenue, then RPMs, we get that to $55, $60 with LPMs at $21, that's our target, content costs drop to 40% of revenue and we have a very healthy profitable model to be as aggressive as we can get on growth.

So that was kind of a lot to answer that question, but that is the business model in **Pandora**. We do have a high cost structure but it's a fixed-cost structure and that's an incredible advantage to **Pandora**. Like it's difficult to get over that so there's a huge barrier to entry for anyone trying to enter in this space, but once you're over it, like **Pandora** is, then monetization becomes purely back to the benefit of the business.

ANTHONY DICLEMENTE: Got it. Questions from the audience?

UNIDENTIFIED AUDIENCE MEMBER: (inaudible - microphone inaccessible). Another separate question just on developing content. Do you guys intend to go into talk radio and sports and other non-music programming?

SX EX. 092-7-RP

MIKE HERRING: Yes. So, on the royalty rate --

ANTHONY DICLEMENTE: Could you just repeat the question real quick for the webcast?

MIKE HERRING: The question was you're royalties are higher -- the statement was royalties are higher than Sirius and Spotify and that someone told you that rates are going up in 2017.

Let's talk about that for a second. So, they're really not comparable to Spotify or Sirius. I mean Sirius pays 8% or 9% of revenue, which is obviously much less as a percentage of revenue than we do. But they're under a completely different royalty structure from a statutory perspective. Spotify is a completely different business model and it's an on-demand business model. They do deals directly with the music industry. They have a lot of functionality that **Pandora** doesn't have.

We have very specific rules around what we can play. It's forced us to be really good. We can only play -- if you put in Demi Lovato -- well she'd not -- if you put in Pitbull into **Pandora**, we can play Pitbull three times in a two-hour period. So we have to figure out what the other 30 songs are going to play in that two-hour period to make it a Pitbull station or make it a station that fits your need. That forcing function is actually what's made **Pandora** great. So, it's a hugely different thing but it also means that the licensing structure is different because we don't have a lot of the rights that Spotify has. And Spotify's licensing structure is its own animal.

I think one of the issues the industry has generally is that music industry has not been willing to give licensing structures that allow businesses to actually thrive in a profitable manner from a distribution perspective and that balance has to come into play. That's the idea. Merlin is kind of trying to give an example of how that can work, our deal with Merlin.

So, we are in the process with the Copyright Royalty Board. It's an arbitration to set rates for the next five years after December 2015. So, actually, 2016 is when the rates change. It is unknown what's going to happen then. I mean there's certainly people who think the rates will go up. There are people who think they'll stay the same. There are people who think they'll decline. It's a process. We're heavily involved in that process.

I think the key to **Pandora** is that, at that point, we get five years' clarity on rates. And if we're monetizing effectively, as long as we know clearly what those rates are and -- if they go down or stay the same, everything's great. If they go up, it depends on how much up. If they go up by 10X, that's a problem, but that's completely unlikely. I think the worst case scenario is they go up by like 50% or something. That would be not great for us, but because the business model is so good, I don't think it would be a problem. We'd survive but there would be no innovation in the space. I don't think that's going to happen, but it's a long process. We don't really know what's going to kick in.

I can't remember the second part of your question.

UNIDENTIFIED AUDIENCE MEMBER: (inaudible - microphone inaccessible).

MIKE HERRING: So, other forms of content. Yes, that's a great question. We have always done just music. I think that focus is something that has been a big part of the secret of **Pandora's** success; is we just do one thing really, really well. That said, as we get on more platforms and we get larger from a base, there's opportunity to provide other kinds of content, potentially. It all depends on the availability of the content, the cost of that content, and really what the demand for that content is from our users. And that business case is being worked on Sara Clemens, our new Chief Strategy Officer and, of course, myself, and the rest of the management team at **Pandora**. But, I think the core of our business still has so much potential that anything that takes our eye off the ball, I think, really has to have a pretty high bar for us to take it on.

ANTHONY DICLEMENTE: Other questions?

 SX EX. 092-8-RP

UNIDENTIFIED AUDIENCE MEMBER: Just following on the last question with respect to royalty rates; could you talk a little bit about the process in Canada? What the process was, what the outcome was?

And then, the next question is; once you're able to get RPMs to sort of $55 or $60, you're generating quite a bit more gross profit. How do you allocate that gross profit to drive your growth?

MIKE HERRING: Yes. So, Canada has a CRB process, really the only place outside of the United States that has that same governmental process to set rates. They went through that process, which we participated in, and they set the core rate at about 15% of what the U.S. rate is; so, a very favorable rate to **Pandora**. But, there are many other pieces of licensing that need to be in place in order to operate in Canada and those don't exist today. So, we can't launch tomorrow because of that reason. It does give us hope that, if all that can be sorted out, we can launch in Canada.

There's a reason there are no music services in Canada. They do what's called -- what it is effectively, is retroactive rate setting. So, instead of we get our rates with the CRB for the next five years, they set, at the end of five years, the rates for the last five years. So you don't know what you owe until they tell you what the rate is. It's like renting an apartment for a year and then you find out, you thought it was $1,000 a month, now it's $20,000 a month. If you're a real business that doesn't make any sense. So, I think we need to see what happens there I think a lot -- not just **Pandora** -- I think a lot of music services are looking to see if Canada can straighten that out in a way that allows services to launch there.

In terms of allocating gross profit, our goal has been to show profitability, show that we can be profitable, but we think we have a huge opportunity that we ought to invest in. And the program there has been sales and engineering; sales for this year and next year, engineering for next year and the future. So, in terms of driving product expansion and driving revenue expansion. So, if you look at where our hiring has been in the last year-and-a-half, two years, we've gone from 35 engineers to over 150. That's still a fraction of what Facebook and Twitter have. But, they're an outstanding team and are really producing a lot of great work. And then we've gone, salespeople, we've tripled in that timeframe. So we take that gross profit and we reinvest it back in the business while at the same time slowly increasing operating margins; so, year-over-year operating margin improvements, year-over-year EPS improvements.

That is as important to prove that the model can be profitable as it is to be at a position of strength. When you are negotiating with music industry or you're going through these processes, it's important that you come at it from a position of strength. It was one of the reasons we raised money a year ago, is to have a balance sheet that we could rely on. It was important to get our financial model working so we had an income statement that was profitable so that when we go into these conversations we're not being held over a barrel. And I think finding that balance is tricky and I think as a management team we're doing a pretty good job.

ANTHONY DICLEMENTE: We probably have time for one last question.

UNIDENTIFIED AUDIENCE MEMBER: Yes. Two questions. One is; what is your ability or inclination to try and negotiate directly with the record companies? Does it make any sense for you?

And then, secondly; just as you look out a couple years, what do you think your incremental gross margin could be on revenues in three or four years?

MIKE HERRING: So, the first question is about negotiating directly with the labels. I think that's really important for **Pandora**. It's not required in order to keep operating our business, but if we want to go internationally, it has to be largely direct.

And I think as an industry we'd be a lot healthier if we worked together. And so, creating win-win opportunities in direct relationships, if we can do that, where we're helping them improve their businesses alongside of them providing infrastructure and the inputs that go into our business that allow us to grow and be healthy and profitable, that win-win structure creates a much better music industry over the long term. That really is our goal. I think we've always been open to direct deals. We just did our first one because it took this long for us to find a way to create a win-win situation. I think, as we open up the power of our platform and our platform continues to get bigger from a promotional perspective, that dynamic should accelerate and we'll see.

In terms of incremental gross profit over the next four or five years, our target model says we get content costs about 40% of revenue. That's generally based on the trajectory of the CRB rates today and our ability to get RPMs in this $55 to $60 level, which is within striking distance of where we are today. In fact, our web business, which is about 20% of the business, already is north of $60 RPMs at the ad loads we're at today. So, I think at that level, gross margins at the 55% to 60%, we can drive operating margins at that point to close to 20%.

From there, it's all monetization above that. I think, if you think four or five years, if we're international by that point, we're still growing, we're still expanding, RPMs are going to be held down by hours growth at that point. It's a headwind. Growth is a headwind to monetization, which would say that the faster we're growing, the slower expansion in gross margin happens. But, that's a nice problem to have. So, I hope we're in that situation.

If we're not there -- terrestrial radio monetizes north of $70 RPM today. I don't think we'd monetize the same way but I think it shows, since we're at 60%, 65% of their monetization today at less than 10% of their ad load, I think we definitely could achieve that. I think with digital and subscription and other forms of monetization, we already are having RPMs well north of that in certain key markets. That would imply gross margins could be higher than that.

So, I think the power is in the financial model. The challenge is in the input. It's in growing users, growing hours, getting international, and solving licensing problems. I'm not here usually to point out all the problems that I have, but I think it's important because the challenges we have are also the opportunities. And also, what separates **Pandora** from our competition is nobody else can really solve these problems but us or has been able to so far.

ANTHONY DICLEMENTE: Well, thanks Mike, for joining us. That's all the time we have.

MIKE HERRING: Thank you, appreciate it.

ANTHONY DICLEMENTE: Appreciate it.

CONFERENCE CALL ITSELF AND THE APPLICABLE COMPANY'S SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.]

---- Index References ----

Company: ADOBE SYSTEMS INC; AMAZON COM INC; APPLE INC; FSC AARONS ASC LLC; IT MATTERS; **PANDORA** MEDIA INC; RPM INTERNATIONAL INC; SAMSUNG ELECTRONICS CO LTD; SONGZA LLC; STRATA MINERALS INC; THOMSON FINANCIAL SERVICES LLC

Industry: (Antennas, Towers & Transmitters (1AN97); Broadcast Technology (1BR27); Entertainment (1EN08); Entertainment Technology (1EN50); Internet (1IN27); Internet Media (1IN67); Music (1MU57); Online Music (1ON32); Online Social Media (1ON38))

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SX EX. 093 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 094 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

Before the
UNITED STATES COPYRIGHT ROYALTY JUDGES
Library of Congress
Washington, DC

In re	)	**DOCKET NO. 14-CRB-0001-WR (2016-2020)**
DETERMINATION OF ROYALTY RATES AND TERMS FOR EPHEMERAL RECORDING AND DIGITAL PERFORMANCE OF SOUND RECORDINGS (*WEB IV*)	)	

TESTIMONY OF

MARC RYSMAN, PH.D.

February 23, 2015

PUBLIC VERSION

Witness for SoundExchange, Inc.

Table of Contents

I. QUALIFICATIONS

1. My name is Marc Rysman and I am a Professor of Economics at Boston University, where I teach courses on industrial organization, econometrics, antitrust, and regulation. I received my Ph.D. in Economics from the University of Wisconsin at Madison in 1999. My research focuses on industrial organization and competition, and the related issues of antitrust and regulation. I have investigated a variety of industries, including telecommunication, Yellow Pages directories, payment cards, and consumer electronics. My research is primarily empirical, ranging from research that is heavily motivated by theory as well as work that is primarily descriptive.

2. Since 2009, I have been a Visiting Scholar at the Federal Reserve Bank of Boston. I have been a Visiting Associate Professor at MIT (2007-2008), a Visiting Scholar at Harvard University (2003-2004, 2014-2015), a Visiting Fellow at Northwestern University (2003), and a Visiting Scholar at the Federal Reserve Bank of Minneapolis (2003).

3. I have won numerous teaching and research awards, including the Neu Family Award for Teaching Excellence in Economics (2006 and 2012), Networks, Electronic Commerce and Telecommunications (NET) Institute Grants (2003, 2006, and 2009), National Science Foundation Grants (2001, 2004, 2006, and 2009), and the Christensen Award in Empirical Economics (1997, with Phil Haile).

4. I have published numerous articles in top peer-reviewed journals in the field of Economics, including in the *Journal of Political Economy, Journal of Economic Perspectives, Journal of Industrial Economics, International Journal of Industrial Organization, and RAND Journal of Economics*. I am an Editor of the *RAND Journal of Economics* and the *Review of Network Economics.* A copy of my *curriculum vitae*, which includes a list of my publications, is attached as **Appendix A** to this report.

II. ASSIGNMENT

5. I have been asked by counsel for SoundExchange, Inc. to review and respond to claims by certain participants in this proceeding that the Copyright Royalty Board ("CRB") should establish royalty rates that account for the current profitability or unprofitability of specific webcasters or the webcasting industry. These claims are made by certain witnesses testifying on behalf of Pandora,[1] iHeartMedia,[2] and the National Association of Broadcasters ("NAB").[3]

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[1] Written Direct Testimony of Simon Fleming-Wood, Chief Marketing Officer of Pandora, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 6, 2014 ("Fleming-Wood Testimony"); Written Direct Testimony of Michael Herring, Chief Financial Officer of Pandora, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 6, 2014 ("Herring Testimony").

6. In preparing my report, I, and staff working under my direction, have reviewed data and documents submitted as part of the *Web IV* proceedings, including testimony submitted to the Copyright Royalty Judges by SoundExchange, iHeartMedia, NAB, and Pandora. I have also reviewed public disclosures made by Pandora, as well as documents produced in discovery in this proceeding. I have also used both the free and subscription-based webcasting services offered by Pandora, iHeartMedia, Spotify, Songza and AccuRadio. In addition, I have relied on my background and experience as an economist, as well as the relevant economic literature and my knowledge of the consumer electronics industry and network effects, which I have studied extensively over the last 15 years.

7. A list of materials I reviewed and relied upon in forming my opinions is presented in **Appendix B**. I am being compensated for my time at the rate of $700 per hour and my compensation does not depend on the outcome of these proceedings.

III. SUMMARY OF CONCLUSIONS

8. Like other internet media industries, the webcasting industry exhibits certain features that favor scale and market leadership, including network effects, economies of scale, seller learning and switching costs. Due to the presence of these features, it is rational for webcasters to sacrifice current profitability in exchange for growth and for future profitability.

9. Based on the observed behavior of certain webcasters as well as their public statements, I conclude that certain firms in this industry have, in fact, engaged in high-growth strategies that focus on future profits and growth at the expense of current profits. As an internal strategy presentation to iHeartMedia's board of directors put it: [redacted]

10. Accordingly, a rate setting approach that focuses on current profits ignores a fundamental feature of the webcasting industry – the fact that industry participants are

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2 Testimony of David B. Pakman, Partner at Venrock, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 7, 2014.

3 Written Direct Testimony of Robert Francis Kocak (Buzz Knight), Vice President of Program Development at Greater Media, Inc., In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 3, 2014; Written Direct Testimony of Julie Koehn, President and General Manager of Lenawee Broadcasting Company, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 6, 2014; Written Direct Testimony of Ben Downs, Vice President and General Manager of Bryan Broadcasting, Inc., In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 6, 2014; and Written Direct Testimony of John Dimick, Senior Vice President of Programming & Operations at Lincoln Financial Media Company, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 7, 2014.

4 Exhibit 3, [redacted]

oriented towards growth, market leadership, and future profits and not towards short-term profitability. A rate setting approach centered on current profits would fail to account for webcasters' willingness to invest in their growth and scale by accepting rates that may result in current or short-run losses or modest profits.

IV. THE ECONOMICS OF DEFERRED PROFITS

11. Firms must often choose between current profits and future profits. A firm that builds a manufacturing plant for a new product will face large expenditures today, while that same firm may not see any rewards for these expenditures until sometime in the future when the plant generates sufficient products that can be sold to consumers. Making good decisions in light of this dynamic trade-off is central to the decision-making of business executives, and such calculations are at the core of training in fields such as accounting, finance and management strategy. Calculating the net present value of a firm's investment is considered a standard skill for any manager.[5]

12. Investments in future profitability can take many forms. While building a manufacturing plant for a new product is a standard example, even a firm that is already selling a product may face a trade-off between current and future profitability. Why would a firm ever engage in selling a product below costs, when it obviously leads to immediate losses? Such behavior is rational if it enables the firm to increase future profitability. That is, selling at a loss in the short run can make sense if it leads to increased profits in the long run. Selling at a loss today can be an investment in future profitability, like building a large manufacturing plant.

13. In this report, I focus on firms that currently sell or face selling their products at prices below their current costs. A number of the participants in this proceeding, including Pandora, iHeartMedia, and NAB (on behalf of its members) claim to be in this position. For the purposes of my analysis, I assume that these participants are correct about this claim.

14. I discuss four separate features of markets that explain why a firm may conclude that selling at a loss today (the short run) can lead to future profitability (the long run). These features are: a) network effects, b) economies of scale, c) seller learning and d) switching costs. These features allow a firm to attract consumers, maintain consumers, and/or raise the profitability of consumers. These features lead to profitability by allowing the firm to: charge consumers higher prices; up-sell consumers on premium products or services or sell consumers add-on products or services; increase the number of ads, scope of the ads, or price of the ads sold to advertisers trying to reach the firm's consumers; be acquired by another firm, or contribute to a firm's other business lines.

[5] The net present value of an investment is defined as the discounted future cash flows generated from that investment– to compensate for the time value of money (i.e., a dollar today is worth more than a dollar tomorrow) – less the costs of the investment.

A. Network Effects

15. Network effects arise when a consumer's value of a good depends on how many other consumers also buy the good, or how frequently other consumers use the good. Network effects can be direct or indirect.

16. Direct network effects arise when the increased use of a particular good leads to a direct increase in the value of that good to other users. For example, consumers value e-mail when other consumers also have e-mail accounts, since the value to send and receive e-mail is determined by the extent to which others can also send and receive e-mail.

17. By comparison, indirect network effects arise when the value to consumers of an initial good comes through some complementary good, the availability of which depends on how many consumers buy or use the initial good. For example, the value of YouTube depends on how many videos (the complementary good) are uploaded to the service (the initial good), and the number of videos uploaded rises as more consumers use the service, thus, increasing the value of YouTube as a service.[6] This virtuous circle (or feedback loop) creates network effects, since consumers now care how many other consumers use YouTube, albeit indirectly through the number of videos available.

18. In a market with network effects, a consumer is more likely to purchase a product or service from a large firm (e.g., YouTube with an estimated 300 hours of video uploaded every minute[7]) in the industry since switching to a smaller firm (e.g., Vimeo with an estimated 500 hours of video uploaded every hour as of July 2014[8]) means forgoing all the complementary products associated with the large firm's consumer base. Consumers looking for an online site to watch videos are likely to choose YouTube, in part because it has the most videos available to view.

19. Firms may price below cost in order to take advantage of network effects.[9] By selling an initial product or service at a low price, the firm attracts consumers, which in turn attracts more providers of complementary products or services, which leads to even more consumers purchasing the initial product or service, and so on. Over time, the

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6 Some products or services, like YouTube, can exhibit both direct and indirect network effects. Because YouTube allows for the more efficient sharing of videos between YouTube users, the value of YouTube to each user increases as the number of users increases, which is a direct network effect.

7 YouTube, "Statistics," available at http://www.youtube.com/yt/press/statistics.html (accessed on February 16, 2015).

8 Stephen Shankland, "Vimeo tech chief takes on 'terrifying' online video challenges (Q&A)," CNET Magazine, October 24, 2014, available at http://www.cnet.com/news/vimeo-cto-takes-on-terrifying-online-video-challenges-q-a/ (accessed on February 18, 2015).

9 *See*, for example, Michael L. Katz and Carl Shapiro, *Technology Adoption in the Presence of Network Externalities*, Journal of Political Economy, Vol. 94, No. 4, 1986 ("Katz & Shapiro 1986"), pp. 822-841, in particular p. 825 ("…[A] supplier will be willing to make investment in the form of penetration pricing to establish the technology because such investments can later be recouped by pricing in excess of marginal costs.") and p. 834 ("Firm B is willing to make below-cost sales to first-period consumers because their presence on its network raises the value of technology B to second-period consumers. The sponsor can internalize the external benefits generated when first-period consumers choose the sponsor's technology.").

existence of a large number of consumers that purchase the initial product or service and the size and breadth of complementary goods or services makes it difficult for new entrants to compete. After the network is established, the successful network firm can extract more revenue than it would absent network effects and lock-in.[10] The firm's increase in revenue may rely on higher prices to consumers, but is often represented by add-on goods or concessions from providers of the complementary goods.[11]

20. In the case of YouTube, the network effects may translate to YouTube having the ability to sell more advertising to advertisers or advertising spots at a higher price. YouTube's large installed consumer base and the ability of YouTube to allow advertisers to reach specific groups of customers in the advertiser's target demographic[12] – both of which are valued by advertisers – flows directly from these network effects.

B. Economies of Scale

21. Economies of scale exist when the average cost of producing a good declines as the firm produces more of the good. In such cases, large firms with higher output can produce at lower average cost than small firms with lower output.[13] Internet (or online) firms (e.g., e-commerce firms like Amazon; financial trading firms like E-trade, etc.) are believed to exhibit important economies of scale.[14]

22. Establishing operations on the Internet often requires that the entrant incur substantial fixed costs, such as building front-end applications (like a website with which the consumer interacts directly), as well as building back-end applications (like warehousing and shipping systems, account management systems, payment systems, etc.). Although the fixed costs of entry are high, the incremental cost of selling another unit may be remarkably low.[15] For example, to create its search engine

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10 Katz & Shapiro 1986, p. 825 ("Our analysis supports the conventional view that the technology that is superior today has a strategic, first-mover advantage: it can become locked in as the standard.").

11 *See*, for example, David S. Evans and Richard Schmalensee, *Some Economic Aspects of Antitrust Analysis in Dynamically Competitive Industries*, National Bureau of Economic Research, Working Paper No. 8268, May 2001, p. 13 ("In some high technology industries, especially those based on the Internet, network effects and scale economies are so pronounced that many firms give away their products for extended periods of time, both to gain market penetration and to affect the evolution of technical standards.") *See* also David S. Evans, Andrei Hagiu, and Richard Schmalensee (2006), *Invisible Engines: How Software Platforms Drive Innovation and Transform Industries*, Cambridge Massachusetts: MIT Press ("Evans, Hagiu, & Schmalensee"), p. 64 ("One way [to get both sides on board] is to obtain a critical mass of users on one side of the market by giving them the service for free or even paying them to take it. Especially at the entry phase of firms in multisided markets, it is not uncommon to see precisely this strategy.")

12 Google Inc., Form 10-K for the fiscal year ended December 31, 2014, p. 4.

13 *See*, for example, Carlton, Dennis W. and Jeffrey M. Perloff, (2005), Modern Industrial Organization, 4th ed., Boston, MA: Pearson Addison Wesley ("Carlton & Perloff"), pp. 36-40.

14 *See*, for example, Jonathan D. Levin, *The Economics of Internet Markets*, National Bureau of Economic Research, Working Paper 16852, March 2011.

15 *See* Carl Shapiro and Hal Varian (1999), *Information Rules: A Strategic Guide to The Network Economy*, Boston, Massachusetts: Harvard Business School Press ("Shapiro & Varian"), p. 21 ("The variable costs of information production also have an unusual structure: the cost of producing an additional copy typically does

business Google had to invest money up front in developing its search algorithm, developing an algorithm to constantly index webpages, and servers on which all of this could be done. All of this had to be done *before* consumers could use Google as a search engine, and consumers would have to use Google as a search engine before Google could earn revenue from their product.[16] Once established, however, the incremental cost to Google of generating results for a consumer's search was low.

23. Generally, in instances where a firm has high fixed costs, a firm's ability to produce more goods allows the firm to amortize the fixed costs of entry across more units, and thus, reduces the firm's average cost. As is commonly understood in the economic literature, there is generally a point at which any economies of scale are exhausted. That is, there is some quantity above which further production raises the firm's marginal cost and eventually, its average cost.[17] However, some Internet firms, like Amazon[18] and Google,[19] appear to exhibit economies of scale for very high quantities.[20]

24. Since larger firms with higher output can potentially operate at lower average cost than smaller firms with lower output, economies of scale provide a clear advantage to firms that can obtain them. In this setting, a firm will typically want to price low in order to sell more of its product to consumers. This strategy results in higher production volumes, and thus, lower average costs. Although the price at which the firm sells its product may be below its initial costs, the increased production results in lower future costs, such that the firm's initial price eventually becomes profitable.

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not increase, even if a great many copies are made. Unlike Boeing, Microsoft does not face appreciable and lasting capacity constraints. Normally there are no natural limits to the production of additional copies of information: if you can produce one copy you can produce a million copies, or 10 million copies, at roughly the same unit cost.").

16 As an example of the costs in building a search service, consider the costs of Microsoft's decision to do so. *See* Charles Arthur (2012), *Digital Wars: Apple, Google, Microsoft and the Battle for the Internet*, London: Kogan Page Ltd. ("Digital Wars by C. Arthur"), p. 50 ("Mehdi gave Payne the task of persuading the top brass that they should invest the hundreds of millions of dollars required. It was a daunting task…Building a search engine that would 'scale' as demand rose meant developing software to manage thousands of servers and storing and distributing a compressed version of the internet among them, and coming up with a new ranking algorithm. It also meant finding a new way to sell advertisements. Do all that, do it better than Google, and make it pay as well.").

17 *See*, for example, Carlton & Perloff, pp. 39-40.

18 Amazon has recognized and acknowledged the importance of its scale in achieving its long-term business goals: "We will balance our focus on growth with emphasis on long-term profitability and capital management. At this stage, we choose to prioritize growth because we believe that scale is central to achieving the potential of our business model." Amazon.com 1997 Letter to Shareholders reprinted in Amazon.com 2013 Annual Report, p. 10, available at http://phx.corporate-ir net/phoenix.zhtml?c=97664&p=irol-reportsAnnual (accessed on February 16, 2015). *See* also Brad Stone (2013), *The Everything Store: Jeff Bezos and the Age of Amazon*, New York: Little, Brown and Company.

19 *See*, for example, Google, "Google Apps and the cloud: Maximum economies of scale," Official Google for Work Blog, April 20, 2010, available at http://googleforwork.blogspot.com/2010/04/google-apps-and-cloud-maximum-economies html (accessed on February 16, 2015) (Google discussing the economies of scale from its Google for Work cloud computing platform). *See* also Digital Wars by C. Arthur referenced herein.

20 Shapiro & Varian, p. 28 ("The key to reducing average cost in information markets is to increase sales *volume*." [emphasis in the original]).

C. Seller Learning

25. While the previous two features have long histories in the economics literature, the third feature – sellers learning about consumers – is a topic that has undergone much less scrutiny among economists, yet it is arguably of heightened importance in Internet markets.[21] Under seller learning, the seller learns from the consumer's behavior with that seller. The more the seller knows about its consumers, the better the seller's ability to tailor its presentation to the consumer, enabling the seller to increase its revenue beyond what would be possible without this knowledge.

26. For example, a search website (e.g., Google) may learn where a consumer lives and thereby deliver more precise search results that are more useful to the consumer. Perhaps the consumer searches for gymnastics schools. By knowing the consumer is located in Boston, Massachusetts, the search website is able to provide the consumer with more targeted information about gymnastics schools located close to the consumer. Without this information, the consumer would, potentially, need to sift through information about gymnastics schools in places like Charlotte, North Carolina or Washington, D.C.

27. Seller learning is particularly valuable to advertising-based services. Advertisers often value the ability to show advertisements to consumers who are most likely to be interested. For example, a car dealership in Boston would prefer to run an advertisement to individuals located in the Boston Metropolitan area instead of to all users visiting a particular website – many of whom will not be located in the Boston Metropolitan area. That same dealership might also prefer to target its advertising to individuals in a certain age or income group because these individuals may be most likely to buy the dealer's cars. Because advertisers know that targeted advertisements reach the consumers they are most interested in, such advertisements can be sold for a higher price.[22]

28. More generally, sellers can often use consumer information to raise their revenue. This revenue may come from consumers, via higher prices or sales of better targeted add-on services, or from advertisers or providers of complementary goods. For example, Amazon is able to learn about a user based on the user's browsing history and prior purchases at Amazon. Amazon then uses this information to offer the user

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[21] "The other primary way to learn about your customers is by observing their on-line behavior … Knowing what your users are looking for—and whether they find it—is extremely valuable information; save it and analyze it. In addition to monitoring searches, you should also monitor your customers' 'clickstream,' the sequence of actions they take while visiting your site." *See* Shapiro & Varian, p. 36. Shapiro & Varian have an entire chapter devoted to seller learning in the context of internet and information goods (*See* Chapter 3, pp. 53-81).

[22] *See*, for example, Google, "Ad Targeting: About interest-based advertising," available at https://support.google.com/adsense/answer/113771?hl=en&ref_topic=1628432 (accessed on February 18, 2015) ("Interest-based advertising enables advertisers to reach users based on their inferred interests and demographics (e.g. 'sports enthusiasts'). It also allows advertisers to show ads based on a user's previous interactions with them, such as visits to advertiser websites…Interest-based advertising should help monetize your website more efficiently, increase value for advertisers, and provide a better experience for users."). *See* also Pandora, "Pandora Advertising," available at http://advertising.pandora.com/ (accessed on February 15, 2015) (discussing Pandora's "Precision Targeting Platform").

recommendations.[23] Similarly, Netflix learns about a user's tastes and preferences and recommends videos to the user based on this knowledge.[24]

D. Switching Costs

29. Switching costs arise if a buyer (a consumer) "will find it costly to switch from one seller to another."[25] In other words, switching costs arise when a consumer faces an extra cost to changing the product or brand the consumer uses. While the physical purchase of a product is an investment in itself, the consumer can also invest in the product in other ways, such as taking the time to learn how to use the product; establishing a relationship with the seller (perhaps through good customer service experiences); or becoming attached (psychologically) to the product or certain characteristics of the product.[26]

30. Switching costs are not static and can increase over time.[27] This can occur as users invest more time or resources using a product or service. Alternatively, switching costs can increase as a product or service introduces complementary products, services, or features that the user also uses. For example, initially users would have experienced low switching costs for Gmail, Google's e-mail service. Users could have simply downloaded their e-mails and switched providers. But, over time, as Gmail was integrated with Google's calendar and other features (e.g., Google Docs, Google+ social network, Google Wallet) and with mobile devices, the cost of switching from Google would have increased to those users taking advantage of Google's expanded service offerings.

31. Switching costs lead to consumer lock-in, meaning in instances where switching costs are high, a consumer is more likely to purchase from the same seller, rather than switch sellers.[28] Sellers with locked-in consumers are able to extract more revenue from those consumers, perhaps by raising price or through some other strategy, such as selling add-on products to the consumer.

32. Lock-in may not and need not be perfect. Even where a consumer experiences switching costs and lock-in, there is typically some price high enough that would

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[23] Amazon, "About Recommendations," available at http://www.amazon.com/gp/help/customer/display html/ref=hp_left_sib?ie=UTF8&nodeId=16465251 (accessed on February 17, 2015).

[24] Netflix, "Netflix Taste Preferences & Recommendations," available at https://help netflix.com/en/node/9898 (accessed on February 15, 2015).

[25] Joseph Farrell and Paul Klemperer (2007), "Coordination and Lock-in: Competition with Switching Costs and Network Effects," in *Handbook of Industrial Organization*, Volume 3, ed, Mark Armstrong and Robert Porter, North-Holland, pp. 1967 – 2072, at p. 1972 ("Farrell & Klemperer").

[26] *See,* for example, Paul Klemperer, *Competition when Consumers have Switching Costs: An Overview with Applications to Industrial Organization, Macroeconomics, and International Trade,* Review of Economic Studies, Vol. 62, Issue 4, 1995, pp. 515-539, at pp. 517-518.

[27] *See,* for example, Shapiro & Varian, p. 142 ("Aim for customer entrenchment, not mere sampling. Design your products and promotions so that customers continue to invest in your product or system and become more and more committed to you over time. Incorporate proprietary improvements into your system to lengthen the lock-in cycle and convince customers to reaffirm their choice at the next brand selection point.").

[28] Farrell & Klemperer, p. 1972.

cause the consumer to switch to a different seller. Regardless, switching costs enable firms to increase revenue from that consumer beyond what would be possible in the absence of switching costs.[29]

33. YouTube presents a classic example of switching costs. A user of YouTube is able to set up an account online whereby the user can upload videos and watch videos uploaded by other YouTube users.[30] Users can search for videos posted by other users (e.g., key lime pie recipes) and can develop “Playlists” of their favorite videos (e.g., best pie baking videos).[31] These playlists are available to the user each time the user logs into her YouTube account and can be used by the user over and over again.[32] **Exhibit 1** shows how these features appear to users.

34. YouTube users are also able to browse pre-established YouTube Channels created by other YouTube users (e.g., The Tonight Show with Jimmy Fallon) and subscribe to those channels by clicking “Subscribe.” YouTube stores the user’s subscriptions under “My Subscriptions,” so that the user can view any new videos posted to the subscribed video feed and access those channels from the user’s homepage. See **Exhibit 1** for a visual presentation of these features.

35. In addition, YouTube users can flag videos to be watched later by selecting the “Watch Later” button on any video. YouTube stores the video in the user’s “Watch Later” folder for when the user returns and is ready to watch the video. Furthermore, all videos viewed by the user are stored in the user’s “History,” so that the user can come back to YouTube to watch the video over-and-over again (as long as the owner of the video keeps the video uploaded to YouTube). Users have the ability to search videos within their histories and clear videos from their histories. See **Exhibit 1** for a visual presentation of these features.

36. The more a consumer makes use of these features of YouTube, the more customized the YouTube experience becomes. The user no longer has to search for her favorite videos or video channels. Users learn which video channels best fit their viewing preferences and subscribe to those channels. If a user wanted to use another video website, like Vimeo[33] or Yahoo! Screen,[34] she would be required to execute her video searches again (e.g., key lime pie recipes) and reestablish her favorite videos (e.g., best pie baking videos) with no guarantee that the user would be able to access the same exact videos she had been accessing on YouTube. Furthermore, the user would no longer have access to her history of videos viewed or channels subscribed to on

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29 *See* Shapiro & Varian, p. 46 “…[S]witching costs can dramatically alter firms' strategies and options. In fact, the magnitude of switching costs is itself a strategic choice made by the producer of the system.” *See* Shapiro & Varian p. 12. “If you are selling a good that has big switching costs…, then it pays you to offer deep discounts to get consumers ‘addicted’ to your product.”; and p. 108 ”… even when switching costs appear low, they can be critical for strategy.”

30 YouTube, “Making the most out of YouTube,” (“YouTube Features”) available at https://support.google.com/youtube/answer/3309389 (accessed on February 17, 2015).

31 *See* YouTube Features.

32 *See* YouTube Features.

33 *See* Vimeo website, available at https://vimeo.com/ (accessed on February 17, 2015).

34 *See* Yahoo! Screen website, available at https://screen.yahoo.com/ (accessed on February 17, 2015).

the new video website and would need to reestablish those videos on the new video website, if such videos were even available. As a result, the YouTube user would naturally be more likely to continue using YouTube to bypass the time it would take to reestablish her video preferences on another video website like Vimeo or Yahoo! Screen. Thus, this consumer faces a switching cost to use Vimeo or Yahoo! Screen rather than YouTube.

37. These switching costs lock the consumer into using YouTube. The more the consumer uses YouTube in this way– and the consumer is likely to use YouTube given the costs she would incur to switch to Vimeo or Yahoo! Screen – the more locked-in to YouTube the consumer becomes. This lock-in enables YouTube to increase its revenue from this consumer beyond what would be possible absent the lock-in.

38. Furthermore, the YouTube user has formed a habit of utilizing YouTube to fulfill the user's demand for videos. The user has learned how to use YouTube and is accustomed to consuming videos in a certain way. Consequently, the YouTube user also incurs a "psychological cost" to switch video websites. As a result, the YouTube user may require a special inducement from other video websites to switch away from YouTube. These "psychological costs" are a type of switching costs that also lock the consumer into using YouTube. In marketing, these types of psychological costs of switching products are sometimes referred to as "brand loyalty."[35]

39. While I use YouTube as an example to discuss network effects and switching costs, many industries are characterized by network effects and switching costs, such as: telephone/mobile phone service providers, yellow pages, social networks (e.g., Facebook), video game consoles, computer operating systems (e.g., Microsoft), and credit or debit cards.[36]

E. Market Competition

40. Industries that exhibit these four features – switching costs, seller learning, and, particularly, network effects and economies of scale – tend to be characterized by a distinctive form of competition. Aggressive, winner-take-all competition is possible, as firms compete for the benefits of increased revenue and profitability with the

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35 *See*, for example, Edgar A. Pessemier, *A New Way to Determine Buying Decisions*, Journal of Marketing, Vol. 24, No. 2, 1959, pp. 41-46 and Jagmohan S. Raju, V. Srinivasan, and Rajiv Lal, *The Effects of Brand Loyalty on Competitive Price Promotional Strategies*, Management Science, Vol. 36, No. 3, 1990, pp. 276-304.

36 *See*, for example, Michael L. Katz and Carl Shapiro, *Systems Competition and Network Effects*, The Journal of Economic Perspectives, Vol. 8, Issue 2, Spring 1994 ("Katz and Shapiro 1994"), pp. 93-115; Nicholas Economides and Lawrence J. White, *One-Way Networks, Two-Way Networks, Compatibility, and Public Policy*, December 1994, available at http://www.stern.nyu.edu/networks/One-Way_Networks_Two-way_Networks_Compatibility_and_Public_Policy.pdf (accessed on February 16, 2015); and Nicholas Economides and Steven C. Salop, *Competition and Integration Among Complements, and Network Market Structure*, The Journal of Industrial Economics, Vol. XL, No. 1, March 1992, pp. 105-123.

purpose of achieving market leadership.[37] As a result, short-run pricing strategies can be dramatic, with prices set below costs, and in some circumstances, prices set to zero.[38]

41. Such below-cost pricing is sometimes referred to as penetration pricing,[39] since the firm is pricing low in the short run to penetrate the market, with the understanding that it will be able to raise its revenue (and profitability) in the long run, when it can capitalize on the switching costs, network effects, economies of scale and/or seller learning.[40]

42. These markets are said to exhibit "tipping," since relatively small factors can tip the market in favor of one firm or another.[41] Inexorably, the firm to which the market tipped grows larger relative to its peers as it benefits from network effects, economies of scale, seller learning and switching costs.[42] Tipping further exacerbates the incentives of firms in these markets to rationally forgo profits in the short run as an investment in obtaining higher profits in the long run.

V. THE ECONOMICS OF INTERNET MEDIA FIRMS

43. In this section, I present the economics of Internet media firms as it pertains to webcasting and the *Web IV* proceedings.

44. Internet media firms display entertainment and information over the Internet, such as movies, news and music. Whereas other types of Internet commerce firms typically sell products that will be delivered to the consumer by postal mail or a shipping logistics company, Internet media firms deliver their product directly over the Internet to consumers who consume the product immediately in real-time.

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[37] *See*, for example, Katz and Shapiro 1994, p. 107 ("Because a firm with a small, initial advantage in a network market may be able to parlay its advantage into a larger, lasting one, competition in network industries can be especially intense – at least until a clear winner emerges.").

[38] At its conception, Google, an illustrative example of the winner-take all strategy, did "not seek to make as much money as it could in the short run." David A, Vise (2008), *The Google Story*, 2nd Ed., New York: Delacorte Press, p. 6.

[39] "Firms sometimes engage in 'penetration pricing': they charge low introductory prices to get the attention of buyers and penetrate a new market, then raise these prices over time as the market matures." Evans, Hagiu, & Schmalensee, p. 277.

[40] *See*, for example, Katz and Shapiro 1994, p. 107 ("For example, dramatic penetration pricing may emerge as the equilibrium outcome, as each firm seeks to establish an installed base and achieve leadership in a systems market.").

[41] *See*, for example, Stanley M. Besen and Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization,* Journal of Economic Perspectives, Vol. 8, No. 2, Spring 1994, pp. 117-131 at p. 118 ("…[N]etwork markets are 'tippy': the coexistence of incompatible products may be unstable, with a single winning standard dominating the market.").

[42] *See*, for example, Katz & Shapiro 1994, pp. 105-106 ("In markets with network effects, there is natural tendency toward de facto standardization, which means everyone using the same system. Because of the strong positive-feedback elements, systems markets are especially prone to 'tipping,' which is the tendency of one system to pull away from its rivals in popularity once it has gained an initial edge. Tipping has been observed in many situations, including AM stereo radio (Besen and Johnson, 1986); FM vs. AM radio (Besen, 1992); color vs. black and white television (Farrell and Shapiro, 1992); VHS vs. Beta in videocassette recorders (Cusumano et al., 1990); and typewriter keyboards (David, 1985).").

45. Like any media company, Internet media companies must obtain access to content to deliver to consumers, package that content into a form that is useful and appealing to consumers, and develop a strategy for selling to consumers, including establishing the price or prices at which the content will be sold to consumers. Internet media companies will often have the opportunity to sell advertisements (viewed by consumers of the content) to advertisers, in addition to providing content to consumers.

46. Essentially, Internet media companies create revenue in three different ways. First, Internet media companies create revenue through the price they charge to consumers for their content. For example, Netflix charges consumers a monthly fee for access to its entire library,[43] whereas Vudu requires a consumer to pay per show.[44] Second, Internet media companies may sell advertisements. For example, YouTube sometimes shows an advertisement to viewers after several videos and allows the user to "skip" the advertisement after the advertisement has run for several seconds.[45] By comparison, Hulu runs advertisements throughout a television episode and sometimes allows the user to pick one of two advertisements to watch.[46] Third, an Internet media company may integrate with a larger Internet company that then creates additional revenue by including the media services as part of the Internet media company's larger portfolio. For example, Yahoo! produces a news website for which it actively recruits quality journalists, whose work is distributed for free. Presumably, Yahoo! benefits from this by attracting consumers to the "Yahoo! ecosystem," where it attracts consumers to its range of other services. Similarly, Google's purchase of YouTube allowed it to benefit from the inclusion of the extensive network of YouTube users in Google's system of services.

47. Inclusion in a larger portfolio of Internet services is one way Internet media companies generate revenue. Inclusion creates several benefits for both the larger Internet company and the webcaster. For consumers, they can log into a single account and obtain access to a range of services, such as their e-mail, calendar and music selections. For the larger Internet company, consumers that value a single point of access to these services will be more likely to consume each individual service from that company. This phenomenon contributes to lock-in of the consumer with regard to individual services. It is possible that the larger Internet company can now learn more about the individual. For instance, if the company observes shopping behavior, it could combine that data with music listening behavior to sell more valuable advertisements in both services. Additionally, the larger company may

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[43] *See* Netflix website, available at https://www netflix.com/us/ (accessed on February 13, 2015).

[44] *See* HomeTheaterReview.com website, available at http://hometheaterreview.com/vudu/ (accessed on February 17, 2015).

[45] Tim Nudd, "Agency Tries to Make Ad That's All but Unskippable as YouTube Preroll," Adweek.com, July 29, 2014, available at http://www.adweek.com/adfreak/agency-tries-make-ad-thats-all-unskippable-youtube-preroll-159183 (accessed on February 13, 2015).

[46] *See* Hulu website, available at http://www.hulu.com/advertising/ (accessed on February 13, 2015). How consumers decide which advertisements to view and for how long can be useful information to advertisers, which falls under the concept of seller learning that we discuss in Section IV.

benefit from sales of associated hardware.[47] For the music service, inclusion further creates value by driving consumers to the music service, and increasing the ubiquity of the music service. Thus, the music service provides value as part of a larger "Internet ecosystem."

48. To be clear, inclusion in a larger Internet company can be accomplished either by having one firm purchase the other, or via contract. That is, companies do not necessarily have to merge in order to achieve the benefits envisioned here.

49. Internet media companies are not tied to a particular business strategy in perpetuity. In fact, Internet media firms do change strategy over time. Online news sites, such as the *New York Times* online, provide an excellent example. The *New York Times* online began as a free service for consumers that essentially raised revenue by selling advertisements. However, in 2011, the *New York Times* introduced a "metered paywall," in which readers get a certain number of articles free per month but then must pay a subscription fee to obtain more.[48] *The Times* of London (controlled by News Corp[49]) underwent a similar transformation, but switched to a "hard paywall," in which no articles are available for free.[50] Many other news sites have moved in a similar direction, such as *The New Yorker* magazine.[51] The public statements surrounding these changes suggested that executives felt that free distribution made sense when these products were first introduced, but that eventually, the sites had to find ways to increase revenue.[52] That is, the public statements suggested that the free period represented a penetration period, in which websites invested in their consumer base by trying to lock customers into their website as an online news source.

VI. WEBCASTING SERVICES COVERED BY THE STATUTORY LICENSES

50. Webcasting services deliver audio entertainment over the Internet to digital devices such as computers, tablets and mobile phones. Because the content is streamed, the user does not download the content. Webcasting services covered by the statutory licenses at issue in the *Web IV* proceedings exhibit the four features I described in

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47 For example, an early benefit of Apple's iTunes music market was the increased sales of iPods. RealNetwork was a relatively early participant in Internet media whose provision of media offerings benefited its sales of server equipment. *See*, for example, Evans, Hagiu, & Schmalensee, pp. 228-234.

48 The New York Times, "A Letter to Our Readers About Digital Subscriptions," March 17, 2011, available at http://www nytimes.com/2011/03/18/opinion/l18times.html (accessed on February 9, 2015).

49 News Corp, Form 10-K for the fiscal year ended June 30, 2014, p. 7.

50 Emma Goodman, "Times and Sunday Times start charging online: will it work?," World Association of Newspapers and News Publishers, July 2, 2014, available at http://www.editorsweblog.org/2010/07/02/times-and-sunday-times-start-charging-online-will-it-work (accessed on February 9, 2015).

51 Ravi Somaiya, "The New Yorker Alters Its Online Strategy," The New York Times, July 8, 2014, available at http://www nytimes.com/2014/07/09/business/media/the-new-yorker-alters-its-online-strategy.html (accessed on February 9, 2015).

52 *See*, for example, Jeremy W. Peters, "The Times Announces Digital Subscription Plan," The New York Times, March 17, 2011, available at http://www nytimes.com/2011/03/18/business/media/18times.html?pagewanted=all&_r=0 (accessed on February 13, 2015); and Ryan Chittum, "Murdoch's hard-paywall success," Columbia Journalism Review, February 19, 2014, available at http://www.cjr.org/the_audit/murdochs_hard-paywall_success.php (accessed on February 13, 2015).

Section IV that lead firms to choose to forgo profits early in their life cycle in order to increase profits later.[53] Below I discuss each of these features and how they relate to webcasting.

A. Network Effects

51. Network effects play a role in webcasting.[54] One mechanism through which network effects are important is through device ubiquity. For instance, when a device manufacturer chooses which applications should be most easily available from these devices, the manufacturer is likely to turn to the most popular applications. For example, Internet-connected DVD players (e.g., Samsung's Blu-ray players) can stream media, such as YouTube, Facebook, and Pandora.[55] Over the last several years, device manufacturers have increasingly incorporated Pandora into their devices.[56]

52. Pandora has adopted a strategy that they call "Pandora Everywhere," which focuses on integrating Pandora into consumer electronic devices such as automobiles, mobile phones/tablets, alarm clocks, gaming systems, and even refrigerators.[57] [redacted]

53. Pandora is currently available on over 1,000 third-party in-home consumer electronics devices from manufacturers, such as Samsung, Roku, and DirecTV.[60] [redacted]

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53 References to webcasting herein refer only to those webcasting services subject to the statutory licenses at issue in the *Web IV* proceedings.

54 Unlike some Internet services, webcasting generally does not involve a feedback loop between customer usage and content, whereby more consumer usage results in more content, which in turn results in more consumer usage. Such content-related network effects are generally not a factor for webcasting services that are covered by the statutory license because these webcasters can obtain access to the content they need through the compulsory license.

55 *See*, for example, the Samsung BD-D5500 3D Blue-ray Disc Player, available at http://www.amazon.com/Samsung-BD-D5500-Blu-ray-Player-Black/dp/B004N85YBA/ref=dp_ob_title_ce, (accessed on February 9, 2015). ("Samsung Apps is a growing collection of apps specifically built for your TV, connecting you to your favorite digital content like videos, sports, games, social networking, and much more. With web-connected apps on your BD-D5500, you can stream movies from Netflix or Blockbuster, TV shows from Hulu, videos from YouTube, Next Level sports information from ESPN, *music from Pandora* and view updates on your Facebook or Twitter accounts." [Emphasis added])

56 Exhibit 6, [[redacted] *See* also Exhibit 7, [[redacted]

57 Fleming-Wood Testimony, ¶21; [redacted]]; Exhibit 7 [[redacted]

58 Exhibit 4, [[redacted]]

59 [[redacted]

60 Fleming-Wood Testimony, ¶25, Footnote 4. [[redacted]

[redacted]

54. Pandora is currently pre-installed in more than 150 cars and truck models encompassing more than 26 brands[63] with an estimated [[redacted]] of Pandora at the end of 2014.[64] Pandora is also integrated into stereo receivers produced by the following aftermarket in-car audio manufacturers: Alpine, Pioneer, JVC, Dual, Kenwood, Sony, Clarion, and Audiovox.[65] Pandora estimated that by the end of 2014 it would have over [[redacted]] In fact, Pandora estimates that one-third of all new cars in 2014 will have Pandora integrated.[67]

55. Pandora sees the expansion of its reach as its "principal growth opportunity going forward, particularly during the 2016-2020 license period."[68] "A key element of our strategy to expand the reach of our service and increase the number of our listeners and listener hours is to establish and maintain relationships with automakers, automotive suppliers and consumer electronics manufacturers that integrate our service into and with their products."[69] According to Pandora half of *all* radio listening takes place in the car and Pandora sees integrating its service into car stereos as "our greatest opportunity to grow."[70]

56. Most in-car integration of Pandora requires a user's mobile device or smartphone whereby the mobile device links with the car's sound system using Bluetooth technology and allows for in-dash control of Pandora.[71] Pandora has invested more than [redacted]] in developing the technology necessary for Pandora to transfer data between a user's mobile device and a car's in-dash entertainment system.[72] Some

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61 Exhibit 6,[[redacted]

62 Exhibit 5, [redacted]

63 Fleming-Wood Testimony, ¶26. *See* also Pandora, "Listen to Pandora in your car," available at http://www.pandora.com/everywhere/auto (accessed on February 6, 2015).

64 Exhibit 6,[[redacted]

65 Pandora, "Listen to Pandora in your car," available at http://www.pandora.com/everywhere/auto (accessed on February 6, 2015). *See* also, Fleming-Wood Testimony, ¶26.

66 Exhibit 5 [redacted]]

67 Fleming-Wood Testimony, ¶26.

68 Fleming-Wood Testimony, ¶21.

69 Pandora Media, Inc., Form 10-K for the transition period February 1, 2013 to December 31, 2013 ("Pandora FY 2013 10-K"), p. 17.

70 Fleming-Wood Testimony, ¶24.

71 Fleming-Wood Testimony, ¶¶22-25.

72 Fleming-Wood Testimony, ¶25. Pandora users may also listen to Pandora through their mobile devices in older cars using the headphone jack of a user's mobile device and connecting the device to the car's auxiliary input or a cassette adapter. Furthermore, some cars come with integrated "iPod" or "MP3" systems that allow the user to control the mobile device through an in-dash touch panel or steering wheel controls (or both). For example, the 2015 Honda Accord comes with auxiliary jack (MP3/AUX Jack), as well as an integrated MP3 audio interface (USB Audio Interface). *See* http://automobiles.honda.com/accord-sedan/audio.aspx (accessed on February 13, 2015).

cars, like certain Volvo models, have embedded modems (often referred to as Connected Cars) making a smartphone unnecessary.[73] "The principal goal with respect to expanding into the connected car is to have the Pandora listening experience more closely mirror that of terrestrial radio: that is, you turn on the car, and Pandora is on."[74]

57. Pandora's large installed consumer base (which increased to a record 81.5 million users in the fourth quarter of 2014[75]) makes it a desirable option to automobile and consumer electronics manufacturers and makes these manufacturers want to offer their customers Pandora as a feature. As more manufacturers offer Pandora as a feature, consumers are more likely to use Pandora (as opposed to other webcasting services) due to this device and platform ubiquity.[76] This creates a positive feedback loop in which the more Pandora is integrated with the services of automobile manufacturers and manufacturers of other consumer electronic devices, the more consumers that use Pandora, and the more manufacturers that want to integrate Pandora with their other offerings.[77]

58. Recognizing this competitive dynamic, other companies are also attempting to integrate their products with automobiles. For example, iHeartMedia recently announced a partnership with Subaru.[78] Similarly, Apple and Google are also looking to have their products integrated into the dashboard of automobiles through the "Carplay"[79] and "Android Auto"[80] programs.

59. Network effects, such as caused by automobile integration, interact with switching costs and the lock-in effect. For example, a consumer that purchases an automobile that is integrated with a particular webcasting service is more likely to stick with that service if she already uses it. If she does not use the service, she has an additional incentive to try the service and to begin listening to her stations or channels on other

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73 Mark Sullivan, "5 Million new Pandora users have signed up in the car," VentureBeat.com, July 10, 2014 ("Sullivan-VentureBeat.com Article"), available at http://venturebeat.com/2014/07/10/5-million-new-pandora-users-have-signed-up-in-the-car-in-2014/ (accessed on February 6, 2015). *See* also Fleming-Wood Testimony, ¶25.

74 Fleming-Wood Testimony, ¶25.

75 Pandora Media Earnings Report: Q4 2014, Conference Call Transcript, February 5, 2015, p. 2 ("Pandora Q4-2014 Earnings Transcript") (available at http://www.thestreet.com/story/13037677/1/pandora-media-p-earnings-report-q4-2014-conference-call-transcript html (accessed on February 10, 2015).

76 Exhibit 5, [[redacted]

77 [redacted] Exhibit 6, [[redacted]]

78 *See,* for example, iHeartMedia, Inc. Press Release, "Clear Channel Media and Entertainment Extends Its Automotive Reach In the Connected Dashboard Announcing Integration With New Subaru Vehicles," iHeartMedia.com, available at http://www.iheartmedia.com/Pages/Clear-Channel-Media-and-Entertainment-Extends-Its-Automotive-Reach-In-The-Connected-Dashboard-Announcing-Integration-With-N.aspx (accessed on February 18, 2015).

79 Phil LeBeau, "The real battle Apple is waging in autos," CNBC.com, February 17, 2015, available at http://www.cnbc.com/id/102431818 (accessed on February 18, 2015).

80 *See* Android Auto, available at http://www.android.com/auto/ (accessed on February 19, 2015).

devices and platforms. For example, the consumer may want to set up a station on her personal computer that she can then listen to in her car. As the consumer invests in using the webcaster in these different settings, the consumer experiences switching costs due to the stations that the consumer has cultivated, all of which are available on each device, as well as due to all the devices owned by the consumer that are compatible with her webcaster. Eventually, when the consumer purchases a new automobile or device, she has an incentive to select one that is integrated with the webcasting service she uses on her other devices.

60. Furthermore, a large user base can benefit a webcaster's customization and prediction algorithms. For example, Pandora's large user base benefits Pandora's learning algorithm, the Music Genome Project ("MGP"). More Pandora users mean more "thumb-up" or "thumb-down" actions, which allows Pandora to further refine the MGP to make better predictions, which in turn increases the number of users on Pandora, and so on.[81]

61. Pandora may exhibit a direct network effect as well. Pandora allows sharing and publishing of a listener's radio stations.[82] By making the listener's profile "Public" all other Pandora users are able to see that listener's profile, including the listener's radio stations and the songs the listener has "thumbed-up" or "thumbed-down." Pandora listeners can also "share" the radio station or song they are listening to through an on-screen share button that allows the listener to post to the listener's Facebook page or e-mail the song or station to a friend or family member directly. The more consumers that engage in this kind of sharing, the more that these features become valuable to other consumers.

B. Economies of Scale

62. Webcasting, like many Internet media markets, exhibits economies of scale. The main costs for a webcaster are server capacity, web and mobile interface, and access to content, such as music.[83] Some webcasters also employ a sales force to sell advertisements.[84] Most of these costs are fixed costs, in that they are expenditures to the webcaster regardless of how many consumers the webcaster serves. The per-consumer expenditures represent licensing fees (based on the per performance rate), and the Internet service required to deliver the audio stream.[85] Besides royalty rates,

[81] Exhibit 7, [redacted] *See* also Exhibit 8, [redacted]

[82] Fleming-Wood Testimony, ¶10.

[83] Fleming-Wood Testimony, ¶22 (discussing the time and costs involved in Pandora's roll out of its mobile delivery platform). *See* also Pandora FY 2013 10-K (discussing Pandora's use of servers for storing its music and its costs to access music).

[84] *See*, for example, Pandora FY 2013 10-K, pp. 5 and 7.

[85] There is a subtle issue here, which is that the cost of server capacity may scale up with the number of consumers the firm can potentially expect to serve at once. However, server capacity still represents a fixed cost, in the sense that the webcasting firm invests in it before serving any consumers, and the firm pays for that capacity regardless of how many consumers actually make use of the service. To a certain extent, webcasting firms can contract for server capacity or other features from third parties, and the cost of those contracts may scale with

which are what is at issue in this proceeding, almost the entire cost of a webcasting operation is tied up in fixed costs. Thus, average cost declines with the number of users, which puts webcasters in a position in which growth in their user base is extremely valuable.

63. According to Pandora, "[w]e have scale. The scale is tremendously important. Scale is important."[86] Pandora's investment in its MGP provides an illustrative example. The MGP "uses the musical content of songs to determine matches based on objective data."[87] According to Pandora the MGP algorithm maps the "DNA" of a song and links songs with similar "DNA" together. Pandora has spent a total of [redacted]] to develop and improve the MGP.[88] If Pandora had only a small number of users, it would be forced to extract a great deal of revenue per consumer in order to recoup the costs of this investment. However, Pandora's large established customer base of over 80 million users[89] makes this unnecessary.[90]

C. Seller Learning

64. Seller learning is also a feature of webcasting. Most webcasters require consumers to sign up for an account, which allows the consumer to access their favorite stations across different listening sessions. This also allows webcasters to learn about consumers' interests. For instance, a consumer that typically listens to hits from the 1980s is likely different in predictable ways from a consumer who listens to the very latest pop hits, who is again different from someone who primarily listens to classical music. Learning this information allows the webcaster to offer specialized services to the listener, thus, making the webcaster more valuable to consumers. Because groups of consumers with particular characteristics can be identified, the webcaster is also more valuable to advertisers who are trying to reach these consumers.

65. Seller learning is important for Pandora. Pandora learns about consumers in a variety of ways. Pandora users are consistently interacting with Pandora through the "thumbs-up" or "thumb-down" feature and the seeding of stations. One way that Pandora can leverage this information is to [redacted]

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the amount of usage. Nonetheless, whatever Internet presence a webcaster wants typically involves substantial fixed cost.

86 Pandora Media, Inc. at Needham & Company LLC Internet and Digital Media Conference Transcript, Thomson Reuters, PAN_CRB_00067819 in PAN_CRB_00067807-825.

87 Written Direct Testimony of Timothy Westergren, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), October 6, 2014 ("Westergren Testimony"), ¶30.

88 Westergren Testimony, ¶30.

89 Pandora Q4-2014 Earnings Transcript, p. 2.

90 [redacted] *See*, for example, Exhibit 9, [redacted]

[redacted]

66. Pandora can also see additional information about a listener, including whether the consumer listens on a computer or phone or in a car, and how long a consumer listens for.[92] Pandora also sees some demographic information (e.g., age, gender, and zip code) and other personal characteristics of the consumer through the consumer's decision to share information through the consumer's Pandora profile and during registration. [93] This information can be valuable to advertisers. For example, Pandora claims to have the ability to [redacted][94] Similarly, Pandora's ability to successfully carry out a marriage proposal by using a highly-targeted mobile advertisement is indicative of its ability to identify its user base with specificity.[95]

67. Advertisers value the ability to reach targeted groups of consumers.[96] Pandora recognizes this importance when selling advertising to advertisers through what Pandora calls its "Precision Targeting Platform:" "[w]here others see targets, we see bulls-eyes."[97] Pandora also bills itself as being able to connect local advertisers with their targeted audience.[98]

68. Furthermore, user information is also valuable to Pandora, who uses the information to better refine its MGP to offer users a more targeted music experience: "…we marry [the musical attributes of a song] with an extensive set of algorithms that take your personal feedback, your thumbs up and thumbs down, and make the station better for just you literally after you give up a thumbs up or thumbs down there's a decent

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91 Exhibit 4,[redacted]

92 Pandora, "Pandora Media, Inc. Privacy Policy (Effective as of December 17, 2013)," available at http://www.pandora.com/privacy (accessed on February 15, 2015) (discussing Pandora's ability to track a user's listening activity).

93 Exhibit 4,[redacted]

94 [redacted]

95 [redacted]

96 Exhibit 4, [redacted]

97 Pandora, "Pandora Advertising," available at http://advertising.pandora.com/ (accessed on February 15, 2015). ("With a 100% registered user base, there is no guesswork. Registered users provide age, gender and zip. We know what they listen to and how they interact with music. Other insights, such as interests and psychographics, provide additional audience segments. Whether you want to reach moms in South Dakota or teens who love to rock in L.A., Pandora's targeting platform allows us to zero in on your audience.") [redacted]

98 Pandora, "Pandora Advertising," available at http://advertising.pandora.com/ (accessed on February 15, 2015). *See* also Pandora: Investor Presentation, Q3 CY2014, available at http://investor.pandora.com/phoenix.zhtml?c=227956&p=irol-presentations (accessed on February 15, 2015), Slides 22-27.

chance the very next song that plays is different as a consequence. We literally operate in real-time with those algorithms."[99]

69. Notice that there is an interesting interaction between seller learning and economies of scale. Advertisers look for relatively large audiences for their advertisements, all else equal. This creates a trade-off for the webcaster between offering advertisers a large group of consumers or a set of consumers with particular characteristics. However, as a webcaster obtains large scale, it can offer advertisers both a large number of consumers, as well as groups of consumers with distinctive characteristics. This creates a feedback loop between scale, seller learning and revenue. As the webcaster attains large scale and learns about its consumers, it is able to monetize that in the form of higher advertising revenue, which further justifies early investment in consumer market share as a business strategy.

D. Switching Costs

70. Webcasting typically involves some form of switching costs. For example, consumers must learn to navigate a particular webcasting service, through web interfaces, a mobile application, or often both. For webcasting services that offer customizable stations (such as Pandora), the switching cost is even more apparent.

71. For example, Pandora's "thumbs-up" or "thumbs-down" feature and radio playlist development (through the MGP) has the effect of locking consumers into using Pandora's service. Users of Pandora can establish a customized radio station by "seeding" that station using an artist's name (e.g., Imagine Dragons), genre (e.g., 1970s), or song title (e.g., "On Top of the World").[100] Through the MGP, Pandora creates a station centered on the user's selected seed. The "thumbs-up" or "thumbs-down" feature allows Pandora listeners to indicate whether they enjoyed hearing a certain track and influences whether the listener will hear more songs like it in the future.[101] Users of Pandora develop their radio stations over time. These stations are cultivated when users continually interact with the "thumbs-up" or "thumbs-down" feature to improve their listening experience.[102] These "thumbs" cannot be transferred to another webcasting service. Since Pandora's launch, [redacted]

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99 Pandora Media, Inc. at Needham & Company LLC Internet and Digital Media Conference Transcript, Thomson Reuters, PAN_CRB_00067821 in PAN_CRB_00067807-825

100 Fleming-Wood Testimony, ¶8.

101 Fleming-Wood Testimony, ¶9. ("Pandora also features a unique feedback system, whereby listeners can further indicate their music preferences by pressing a "thumbs-up" or "thumbs-down" icon while a song is playing. A "thumbs-up" indicates a listener enjoys a song and would like to hear more songs like it. A "thumbs down" indicates the listener does not enjoy the song; in addition to storing the feedback, Pandora skips "thumbed-down" songs (within certain limits per hour). Pandora records this listener feedback and uses it to shape future playlists generated for that particular listener and for other listeners who listen to similar music.")

102 Furthermore, listeners are not eternally locked into their "thumbs-down" or "thumbs-up" selections. If the listener decides he made the wrong decision for a certain song, the listener can remove the "thumbed-up" or "thumbed-down" track or tracks from their radio station, further cultivating the radio station to meet the listener's unique preferences. *See* Pandora website, available at www.Pandora.com (accessed on February 13, 2015).

[redacted] See **Exhibit 2** for a visual representation of Pandora's customization features.

72. In addition to the "thumbs-up" or "thumbs-down" feature, Pandora listeners are able to adjust their station preferences by adding or deleting station seeds, further personalizing their musical selections and further locking the consumer into Pandora as its webcasting service of choice.

73. As I discussed in Section IV, switching costs are not necessarily static. Switching costs can increase with the amount of time a consumer spends using a product or service and or in response to new features or complementary goods offered by the seller. Such is the case for Pandora users as a result of Pandora's recent introduction of additional personalization options that increase the personalization of listeners' stations and, accordingly, increase the user's switching costs.[105] For example, a Pandora user can view his "Thumb History," as well as his "Session History," the latter of which allows the user to go back and review played tracks and, in hindsight, provide a "thumbs-up" or "thumbs-down" to the track. Pandora also introduced a new "Mini-Player" that allows the user to "control your music while you browse your track history."

74. Because the user has cultivated his station (or stations) around his preferences and musical tastes, switching to a new webcasting service for his music would require the user to start recreate his radio station (or stations) from scratch or that he locate another radio station (or stations) that reflect his preferences and musical tastes. Having entered seeds and "thumbs" and having developed a portfolio of stations on Pandora means users face a switching cost, and are likely to continue to use Pandora in the future rather than switch to another webcasting service.

75. [redacted] This is another illustration of a webcaster's ability to increase switching costs over time.

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103 Fleming-Wood Testimony, ¶9.

104 Fleming-Wood Testimony, ¶9.

105 *See* Pandora, "Experience a More Personal Pandora," available at http://www.pandora.com/newpandora (accessed on February 15, 2015)

106 Exhibit 5, [redacted]

107 Exhibit 5, [redacted]

76. Furthermore, webcasting is a new industry. Much of its consumer attention will likely come at the expense of alternative methods of listening to music, such as terrestrial radio, CD purchases, and digital downloads. Because many consumers are used to listening to music in a particular way, it may take additional incentives to get some consumers to switch. To encourage consumers to switch to webcasting, webcasters may introduce their product on especially attractive terms, such as by making it free and/or by offering consumers an advertising-free listening experience. The idea is that on these attractive terms, consumers may be more likely to experiment with a new product or service. As webcasting is more widely accepted, the firm can alter its strategy in order to increase revenue.

E. Webcasters Have Adopted Growth Strategies

77. Because network effects, economies of scale, seller learning and switching costs are all features of the webcasting industry, we would expect webcasters to adopt strategies designed to achieve growth and scale instead of current profits. This strategy is rationalized by the understanding that the webcaster is investing in future profitability.

78. Webcasters clearly understand and have adopted this strategy.

79. iHeartMedia is a striking example of a webcaster's orientation towards future profits rather than current profits. [redacted]

80. iHeartMedia has followed through on this [[redacted]]. In addition to its simulcast offerings, the iHeartRadio service allows users to build customized radio stations, similar to Pandora's service. Consumers pay no fees for either the simulcast or customized stations. In addition, customized stations on the iHeartRadio service play with no advertisements at all,[109] and, according to iHeartMedia, advertisers pay little extra for simulcast advertisements.[110]

81. Songza is another example of a webcaster oriented to future profits. Songza allows users to search for stations using keywords, such as an artist's name or the name of a music track. Songza also offers a Concierge service whereby users can select from a variety of pre-designed Internet radio stations to match a particular mood (e.g., funky,

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[108] Exhibit 3, [[redacted]

[109] iHeartRadio, "Welcome to iHeartRadio," available at http://news.iheart.com/articles/about-iheartradio-390884/welcome-to-iheartradio-6906244/ (accessed on February 12, 2015). ("Simply pick a song or artist to create your own commercial-free, uninterrupted Custom Station featuring music from that artist and similar ones. Choose from our catalog of over 20 million songs and 450,000 artists. Use iHeartRadio's exclusive Discovery Tuner to control how much variety you want in your music.") iHeartRadio sells display advertisements that appear on iHeartRadio's website while consumers stream music.

[110] Amended Testimony of Daniel R. Fischel & Douglas G. Lichtman, In re: *Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, Docket No. 14-CRB-0001-WR (2016-2020), January 12, 2015, ¶99.

mellow), activity (e.g., getting married, pool party, slow dancing), genre (e.g., bluegrass, dance, classic rock), or decade (e.g., 1980s, 60s R&B).[111] As with iHeartRadio, Songza plays no advertisements in between song tracks.[112] Songza's strategy appears to have paid off, as it was acquired by Google in July 2014.[113]

82. Pandora has also focused on future profitability. Michael Herring, Chief Financial Officer of Pandora Media, testified in the *Web IV* proceedings that "Pandora recognized that it would have to endure potentially significant financial losses for a period of time in order to grow an audience large enough to attract local advertisers and thereby effectively monetize our listener hours and become a profitable business."[114] This belief still holds true for Pandora today: "[w]hile we think it is important to continue to improve margins and maintain profitability, now is not the time to optimize either, but rather maximize the potential for long-term growth."[115] This has been Pandora's strategy all along:

2011: *"While aggressively pursuing listener growth and this large distribution footprint, we have known all along that our future rested on a successful marriage of an advertising platform with a great user experience."*[116]

2012: *"...we are about maximizing the long-term value here."*[117]

2013: *"Given our substantial market opportunity, our bias is revenue and market share growth over profitability at this time."*[118]

83. Pandora has successfully executed this strategy, growing both the number of users of its service and the number of hours that users spend listening to its service. "A key element of our strategy is to increase the number of listeners and listener hours to increase our market penetration…"[119] [redacted]] Since its Initial Public Offering ("IPO") in 2011, Pandora has almost tripled its number of users, growing from 29

111 *See* Songza website, available at www.songza.com (accessed February 12, 2015).

112 Songza collects advertising fees through sponsored stations, such as a station that is oriented towards Taco Bell. Furthermore, Songza sells display advertisements that appear on Songza's website while consumers stream music. *See* Kelly Faircloth, "Songza Just Raised $4.7M for More Brand-Sponsored Playlists," Observer.com, September 10, 2013, available at http://observer.com/2013/09/songza-just-raised-4-7m-for-more-brand-sponsored-playlists/ (accessed on February 13, 2015).

113 Amit Chowdhry, "Google Has Acquired Music Streaming Startup Songza," Forbes, available at http://www forbes.com/sites/amitchowdhry/2014/07/01/google-has-acquired-music-streaming-startup-songza/, (accessed February 13, 2015).

114 Herring Testimony, ¶12.

115 Pandora Q4-2014 Earnings Transcript, p. 8.

116 Pandora Media Inc., Analyst Meeting Transcript, July 12, 2011, p. 3.

117 Pandora Media, Inc. at Needham & Company LLC Internet and Digital Media Conference Transcript, June 5, 2012, PAN_CRB_00067811 in PAN_CRB_00067807-825.

118 Pandora Media Earnings Report: Q3 2013, Conference Call Transcript, November 21, 2013, p. 4.

119 Pandora FY 2013 10-K, p. 11.

120 Exhibit 4, [redacted]

million users in 2011[121] to over 80 million users at the end of the fourth quarter of 2014.[122]

84. Now that Pandora has begun to achieve scale,[123] it has started focusing on targeted advertising that can take advantage of this scale and the unique data that Pandora is able to provide advertisers about users (e.g., listening habits, shopping habits, etc.). "Pandora's secret weapon against traditional radio may be its advertising tech. Ads on Pandora in the car may be more effective that [sic] ads on terrestrial radio."[124] [redacted]

85. Whether the webcasting industry will "tip" to a single firm is unknown. However, the industry exhibits features that can lead to tipping. While each feature would lead a firm to accept short-term losses for increased long-term profitability, the extent to which tipping is a likely outcome further exacerbates those incentives.

VII. CONCLUSION

86. The webcasting industry exhibits four features that result in firms forgoing short-run profits in exchange for long-run profits – network effects, economies of scale, seller learning and switching costs. Therefore, it is economically rational for Pandora to adopt a strategy focusing on long-run profitability at the expense of short-run profits. Pandora, and webcasters like Pandora, such as iHeartRadio recognize the salient characteristics of the industry in which they operate and understand that short run growth is the path to long-term profitability.

87. Consequently, a rate setting approach that focuses on short-run profitability ignores the keystone of the webcasting industry – an orientation toward growth, market leadership, and future profits.

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121 Pandora Media, Inc., Form 10-K for the twelve months ending January 31, 2013, p. 45.

122 Pandora Q4-2014 Earnings Transcript, p. 2.

123 Pandora testified that its scale was similar to terrestrial radio. *See* Fleming-Wood Testimony, ¶15.

124 *See* Sullivan-VentureBeat.com Article. *See* also, Exhibit 4 [redacted]

125 Exhibit 4, [redacted]

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Local Organizer, Summer Meetings of the North American Econometric Society, Boston University, 2009.

Refereed Journal Publications

Jin, G and Rysman, M. (In Press) Platform Pricing at Sportscard Conventions. *Journal of Industrial Economics.*

Gowrisnkaran, G and Rysman, M. (2012) Dynamics of Consumer Demand for New Durable Goods. *Journal of Political Economy, 120,* 1173-1219.

Rysman, M and Simcoe, T. (2011) A NAASTy Alternative to RAND Pricing. *Telecommunication Policy, 35,* 1010-1017.

Crowe, M., Rysman, M. and Stavins, J. (2010). Mobile Payments in the United States at Retail Point of Sale: Current Market and Future Prospects. *Review of Network Economics 9,* Article 2.

Mehta, A, Rysman, M. and Simcoe, T. (2010). Identifying the Age Profile of Patent Citations. *Journal of Applied Econometrics*, *25,* 1179–1204.

De Stefano, M. & Rysman, M. (2010). Competition Policy as Strategic Trade with Differentiated Products. *Review of International Economics*, *18,* 758-771.

Rysman, M. (2009). The Economics of Two-Sided Markets. *Journal of Economic Perspectives*, *23,* 125-144.

Rysman, M. & Simcoe, T. (2008). Patents and the Performance of Voluntary Standard Setting Organizations. *Management Science, 54,* 1920-1934.

Rysman, M., (2007). Empirical Analysis of Payment Card Usage. *Journal of Industrial Economics, 60,* 1-36.

Augereau, A., Greenstein, S., & Rysman, M. (2006). Coordination vs. Differentiation in a Standards War: 56K Modems. *RAND Journal of Economics, 37,* 887-909.

Ackerberg, D.A., & Rysman, M. (2005). Unobservable Product Differentiation in Discrete Choice Models: Estimating Price Elasticities and Welfare Effects. *RAND Journal of Economics, 36*, 771-788.

Busse, M., & Rysman, M. (2005). Competition and Price Discrimination in Yellow Pages Advertising. *RAND Journal of Economics, 36,* 378-390.

Rysman, M., & Greenstein, S. (2005). Testing for Agglomeration and Dispersion. *Economics Letters, 86*, 405-411.

Rysman, M. (2004). Competition Between Networks: A Study of the Market for Yellow Pages, *Review of Economic Studies*, *71*, 483-512.

Rysman, M. (2001). How Many Franchises in a Market? *International Journal of Industrial Organization*, *19*, 519-542.

Other Publications

Rysman, M. (2013). Exclusionary Practices in Two-Sided Markets. In B.E. Hawk (Ed.) *Proceedings of the 39th Fordham Competition Law Institute International Conference on Antitrust Law and Policy* (pp. 537-564). New York: Juris.

Rysman, M. (2010). Consumer Payment Choice: Measurement Topics. In *The Changing Retail Payments Landscape: What Role for Central Banks? An International Payment Policy Conference Sponsored by the Federal Reserve Bank of Kansas City* (pp. 61-81).

Rysman, M. (2007). The Empirics of Antitrust in Two-Sided Markets. *Competition Policy International,* 3, 197-209.

Greenstein, S. & Rysman, M. (2007). Coordination Costs and Standard Setting: Lessons from 56K Modems. In S. Greenstein & V. Stango (Eds.), *Standards and Public Policy.* Cambridge University Press. 123-159.

Rysman, M., & Simcoe T. (2007). The Performance of Standard Setting Organizations: Using Patent Data for Evaluation. *Journal of IT Standards and Standardization Research*, 5 25-40.

Rysman, M. & Simcoe, T. (2006). Measuring the Performance of Standard Setting Organizations," *International Standardization as a Strategic Tool: Commended Papers from the IEC Centenary Challenge 2006,* Geneva: IEC Press.

Rysman, M., & Simcoe, T. (2005). Evaluating the Performance of Standard Setting Organizations with Patent Data. In T.M. Egyedi & M.H. Sherif (Eds.) *Proceedings of the 4th International Conference on Standardization and Innovation in Information Technology* (pp. 195-206). Geneva: IEEE.

Rysman, M. (2002). [Review of the book *The Economics of Network Industries,* by Oz Shy]. *Journal of Economic Literature, 40* , 556-557.

Working papers and works in progress

"Adoption and Use of Payment Instruments by US Consumers." With Sergei Koulayev, Scott Schuh and Joanna Stavins. *Under revision for the RAND Journal of Economics*.

"Estimating Network Effects in a Dynamic Environment." with Gautam Gowrisankaran and Minsoo Park.

"Computing Price Cost Margins in a Durable Goods Environment." With Gautam Gowrisankaran and Grace Yu.

"Payment Choice for Groceries." With Michael Cohen

"Discrete adjustment costs, investment dynamics, and productivity growth: Evidence from Chilean manufacturing plants" with Olga Fuentes and Simon Gilchrist (BU).

"A Structural Model of Network Formation: Air Services Agreements," with Phillip McCalman.

"Adoption Delay in a Standards War," July 2003.

Rysman, M. (2000). Competition Policy as Strategic Trade. Industry Studies Project *Working Paper, #100*, Boston University

Grant Activity

"Estimation and Computation of Dynamic Oligopoly and Network Effects Models", with Gautam Gowrisankaran. National Science Foundation, SES-0922629, 2009-2013. ($230,115).

"Dynamic Demand for New Durable Goods: An Empirical Model and Applications to Pricing and Welfare," with Gautam Gowrisankaran. National Science Foundation, SES-0551348, 2006-2009.

"Discrete adjustment costs, investment dynamics, and productivity growth: Evidence from Chilean manufacturing plants", with Simon Gilchrist Nation Science Foundation, SES-0351454, 2004-2006 ($202,514).

"Empirical Studies of Network Effects", National Science Foundation, SES-0112527, 2001-2002 ($67,277).

Presentations

"Two-sided Markets, Market Power and Exclusionary Behavior," Japanese Federal Trade Commission International Symposium, Tokyo, March 2014.

"Antitrust in Digital Platform Markets," ABA Antitrust Group Brown-Bag Forum.

"Predation and Exclusion in Two-Sided Markets," Fordham Competition Law Institute, 39th Annual Conference on International Antitrust Law and Policy, New York. September, 2012.

"Adoption and Use of Payment Instruments by US Consumers" Directorate General of Competition, European Commission, Belgium, March 2012.

Keynote Speech at conference entitled "Payments Markets: Theory, Evidence and Policy" organized the central bank of Spain. Granada, Spain. June, 2010.

"Consumer Payment Choice: Measurement Topics" Invited Lecture at conference involving academics, policy-makers and private sector executives entitled "The Changing Retail Payments Landscape: What Role for Central Banks," at the Federal Reserve Bank of Kansas City, November 2009.

I taught a full day in a week-long program at Fordham University that trained economists at competition agencies from around the world in the latest developments in antitrust in the U.S. and Europe. Formally, the program was called the Fordham Competition Law Institute Training for Agency Economists and my presentation was titled "Network Effects, Two-Sided Markets and Standard Setting." I taught in every year the program ran, which was from 2007-2013.

I have presented at the Federal Trade Commission several times:
"Computing Price Cost-Margins in a Durable Goods Environment," November, 2014.
"Patents and the Performance of Voluntary Standard Setting Organizations," July 2006.

I have presented at the Antitrust Analysis Group of the Department of Justice several times:
"Coordination vs. Differentiation in the Adoption of High Speed Modems," October, 2002.
"Competition Between Networks: A Study of the Market for Yellow Pages," October, 2000.

.

"Lessons in Standard Setting from 56K Modems," Conference on Standards and Public Policy, Federal Reserve Bank of Chicago, May 2004

Consulting and Testifying Experience

Provided deposition in: *Sharon Cobb, et al v. BSH Home Appliances*, US District Court Central District of California Southern Division, Case No. SACV 10-711, Deposition July, 2014.

Provided testimony and deposition in: *Grant/Seebeck International, LLC. V. First Data Merchant Services Corporation*, AAA Case No. 32 199 00799, Deposition June, 2013, and Trial Testimony March, 2013.

Provided testimony and deposition in: *Elizabeth Beninati v. Steven Borghi et al.*, Suffolk Superior Court, MA, # 2012-1985-BLS2 and #2013-1772-BLS2 (Consolidated), Deposition September, 2013 and Trial Testimony October, 2013.

Served as an academic consultant to the Consumer Payments Research Center at the Federal Reserve Bank of Boston since 2009.

Contracted by Visa International to write a paper reviewing the economics of interchange fees, 2011.

Served as a consultant to the Association of Directory Publishers in their advocacy to various state and municipal governments on the benefits of competition in the Yellow pages market, 2007.

Received financial support from Visa to study proprietary data on consumer card choice and merchant card acceptance, 2004.

Commissioned to write and present a paper on interchange fee policy and its effect on competition in the payments card market to the members of the Board of Governors of the Federal Reserve Bank. The paper was entitled “Payment Networks,” and the event was formally titled as the “Academic Consultant’s Conference for the members of the Board of Governors.” September 2012. I presented directly to Chairman Bernanke, Vice Chairman Yellen and the rest of the Board of the Governors.

Documents Relied Upon by Marc Rysman, Ph.D.

Testimony before the Copyright Royalty Board

In the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Before the United States Copyright Royalty Judges, Library of Congress, Docket No. 2009-1 CRB *(Web III)*:

Testimony of George S. Ford, President, Applied Economic Studies, September 29, 2009

Designated Testimony Hearing Transcript, Volume II, April 20, 2010

Final Determination of Rates and Terms, January 5, 2011

In the Matter of Determination of Royalty Rates for Digital Performance in Sound Recordings and Ephemeral Recordings (Web IV), United States Copyright Royalty Board, Library of Congress, Docket No. 14-CRB-0001-WR (2016-2020):

AccuRadio

Direct Testimony of Kurt Hanson, Founder/CEO of AccuRadio, October 6, 2014

GEO Music

Written Direct Statement of GEO Music Group, Volume 1, October 10, 2014

Written Direct Statement of GEO Music Group, Volume 2, Exhibits, October 10, 2014

Amended Testimony and Written Direct Statement of George D. Johnson, an Individual d.b.a GEO Music Group, Volume 1, January 13, 2015 (including accompanying exhibits)

Amended Testimony and Written Direct Statement of George D. Johnson, an Individual d.b.a GEO Music Group, Volume 2, January 13, 2015 (exhibits)

Intercollegiate Broadcasting System, Inc. (IBS)

Written Testimony of Frederick J. Kass on behalf of Intercollegiate Broadcasting System, Volunteer CEO of Intercollegiate Broadcasting System, Inc., October 7, 2014

iHeartMedia

Written Direct Case of iHeartMedia, Inc., Volume I, October 7, 2014 (including accompanying exhibits)

Introductory Memorandum to the Written Direct Case of iHeartMedia, Inc., October 7, 2014

Proposed Rates and Terms of iHeartMedia, Inc., October 7, 2014

Declaration and Certification of John Thorne on Behalf of iHeartMedia, Inc., Counsel for iHeartMedia, October 7, 2014

Redaction Log for the Written Direct Statement of iHeartMedia, Inc., October 7, 2014

Testimony of Brett Danaher, Professor of Economics, Wellesley College, October 6, 2014

Corrected Testimony of Brett Danaher, Professor of Economics, Wellesley College, December 2, 2014

Testimony of Daniel R. Fischel and Douglas G. Lichtman, October 6, 2014 (including all accompanying exhibits)

Amended Testimony of Daniel R. Fischel & Douglas G. Lichtman (with Exhibits A-F and Appendices A-E), January 12, 2015

Declaration and Certification of John Thorne on Behalf of iHeartMedia, Inc., Counsel for iHeartMedia, January 13, 2015 (re: Amended Testimony of Daniel R. Fischel and Douglas G. Lichtman)

Erratum to Amended Testimony of Daniel R. Fischel and Douglas G. Lichtman, January 20, 2015

Testimony of Robert Pittman, Chief Executive Officer and Chairman of the Board of Directors of iHeartMedia, Inc., October 6, 2014

Testimony of Steven Cutler, Executive Vice President, Business Development and Corporate Strategy, iHeartMedia, Inc., October 7, 2014 (including accompanying exhibits)

Testimony of Tom Poleman, President of National Programming Platforms, iHeartMedia, Inc., October 7, 2014 (including accompanying exhibits)

Testimony of Jeffrey L. Littlejohn, Executive Vice President for Engineering and Systems Integration, iHeartMedia, Inc., October 7, 2014

Testimony of David B. Pakman, Partner at Venrock, October 7, 2014

National Association of Broadcasters (NAB)

Written Direct Statement of the National Association of Broadcasters, Volume 1 of 3, October 7, 2014

Written Direct Statement of the National Association of Broadcasters, Volume 2 of 3, October 7, 2014

Written Direct Statement of the National Association of Broadcasters, Exhibits, Volume 3 of 3, October 7, 2014

Written Direct Testimony of Ben Downs, Vice President and General Manager of Bryan Broadcasting, Inc., On behalf of the National Association of Broadcasters, October 6, 2014

Written Direct Testimony of Michael L. Katz, Sarin Chair in Strategy and Leadership at the University of California at Berkeley, On behalf of the National Association of Broadcasters, October 7, 2014

Written Direct Testimony of John Dimick, Senior Vice President of Programming and Operations at Lincoln Financial Media Company, October 7, 2014

Written Direct Testimony of Robert Francis Kocak (Buzz Knight), October 3, 2014

Written Direct Testimony of Julie Koehn, President and General Manager of Lenawee Broadcasting Company, October 6, 2014

National Public Radio (NPR)

Written Direct Case of the Corporation for Public Broadcasting, On Behalf of National Public Radio, Inc., Including National Public Radio, Inc.’s Member Stations, American Public Media, Public Radio International, and Public Radio Exchange Broadcasting, October 7, 2014 (including accompanying exhibits)

Introductory Memorandum to the Written Direct Case of the Corporation for Public Broadcasting On Behalf of National Public Radio, Inc., Including National Public Radio, Inc.’s Member Stations, American Public Media, Public Radio International and Public Radio October 7, 2014 (including accompanying exhibits)

Written Direct Statement of the National Religious Broadcasters Noncommercial Music License Committee, Including Educational Media Foundation, October 7, 2014

Written Direct Testimony of Gene Henes, The Praise Network, Inc., On behalf of National Religious Broadcasters Noncommercial Music License Committee, October 23, 2014

Written Direct Testimony of Michael Riksen, Vice President of Policy and Representation National Public Radio, Inc., October 7, 2014

Testimony of Keith Waehrer, Ph.D., Partner, Bates White LLC, October 7, 2014

Pandora

Introductory Memorandum to the Written Direct Statement of Pandora Media, Inc., October 7, 2014

Proposed Rates and Terms of Pandora Media, Inc., October 6, 2014 (including accompanying exhibits)

Written Direct Testimony of Stephan McBride, Researcher on the Science Team at Pandora, October 6, 2014 (including accompanying exhibits)

Written Direct Testimony of Michael Herring, Chief Financial Officer of Pandora, October 6, 2014 (including accompanying exhibits)

Written Direct Testimony of Timothy Westergren, Founder of Pandora Media, Inc., October 6, 2014

Written Direct Testimony of Simon Fleming-Wood, Chief Marketing Officer at Pandora, October 6, 2014 (including accompanying exhibits)

Written Direct Testimony of Carl Shapiro, Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley, October 6, 2014 (including accompanying exhibits)

Sirius

Written Direct Statement of Sirius XM Radio Inc., October 7, 2014 (including all accompanying testimony and exhibits)

SoundExchange

Introductory Memorandum to the Written Direct Statement of SoundExchange, Inc., October 7, 2014

Proposed Rates and Terms of SoundExchange, Inc., October 7, 2014

Testimony of Dennis Kooker, President, Global Digital Business and U.S. Sales, Sony Music Entertainment, October 6, 2014

Testimony of Ron Wilcox, Executive Counsel, Business Affairs, Strategic and Digital Initiatives Warner Music Group, October 6, 2014

Testimony of Aaron Harrison, Senior Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc., October 6, 2014

Corrected Testimony of Aaron Harrison, Senior Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc., October 6, 2014

Testimony of Jeffrey S. Harleston, General Counsel and Executive Vice President for Business and Legal Affairs for North America for Universal Music Group, October 6, 2014

Testimony of Simon Wheeler, Director of Digital, Beggars Group, October 6, 2014

Testimony of Darius Van Arman, Co-Founder and Co-Owner of Secretly Group, October 6, 2014

Testimony of Fletcher Foster, President, CEO and Co-Founder of Iconic Entertainment Group, October 6, 2014

Testimony of Raymond M. Hair, Jr., International President of the American Federation of Musicians of the United States and Canada, October 1, 2014

Testimony of Michael Huppe, President and CEO SoundExchange, Inc., October 6, 2014

Testimony of Jonathan Bender, Chief Operating Officer, SoundExchange, Inc., October 6, 2014

Testimony of Daniel L. Rubinfeld, Robert L. Bridges Professor of Law and Professor of Economics Emeritus at the University of California, Berkeley and Professor of Law at New York University, October 6, 2014

Corrected Testimony of Daniel L. Rubinfeld, Robert L. Bridges, Professor of Law and Professor of Economics Emeritus at the University of California, Berkeley and Professor of Law at New York University, October 6, 2014

Testimony of Thomas Z. Lys, Ph.D., Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management, Kellogg School of Management, Northwestern University, October 6, 2014

Corrected Testimony of Thomas Z. Lys, Ph.D., Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management, Kellogg School of Management, Northwestern University, October 6, 2014

Report of David Blackburn, Ph.D., on behalf of SoundExchange, Vice President, NERA Economic Consulting, October 6, 2014

Testimony of Daniel L. McFadden, Emeritus Professor of Economics University of California at Berkeley and Presidential Professor of Health Economics University of Southern California, October 6, 2014

<u>Harvard Broadcasting Co., Inc. (WHRB)</u>

Written Testimony of Michael Papish on behalf of Harvard Radio Broadcasting Co., Inc., Before the Copyright Royalty Board in the Library of Congress, October 7, 2014

Bates Stamped Documents

IHM_0000135

PAN_CRB_00000004 - 21

PAN_CRB_00000056 - 77

PAN_CRB_00001787 - 832

PAN_CRB_00004099 - 109

PAN_CRB_00032275 - 457

PAN_CRB_00036002 - 36

PAN_CRB_00038571 - 661

PAN_CRB_00038797 - 850

PAN_CRB_00064802 - 23

PAN_CRB_00066079 - 115

PAN_CRB_00066177 - 212

PAN_CRB_00067807 - 25

PAN_CRB_00068331 - 82

PAN_CRB_00068415 - 419

PAN_CRB_00076349 - 75

PAN_CRB_00079361 - 407

PAN_CRB_00081927

PAN_CRB_00097728 - 48

PAN_CRB_00098050 - 71

PAN_CRB_00147035 – 91

PAN_CRB_00156236 - 407

PAN_CRB_00160312 - 560

Financial Information

<u>Pandora Financials</u>

<u>2011 Conferences</u>

Pandora Media Inc. at Citi Global Technology Conference - Final, September 6, 2011

Pandora Media Inc. at Goldman Sachs Communacopia Conference - Final, September 22, 2011

Pandora Media Inc. at Credit Suisse Group Technology Conference - Final, November 29, 2011

Pandora Media Inc. at JPMorgan Smid Cap Conference - Final, December 1, 2011

2012 Conferences

Pandora Media Inc. at Citi 2012 Entertainment, Media and Telecommunications Conference - Final, January 4, 2012

Pandora Media, Inc. at Needham Growth Conference - Final, January 10, 2012

Pandora Media, Inc. at Deutsche Bank Media and Telecommunications Conference - Final, February 27, 2012

Pandora Media, Inc. at Wedbush Securities Inc. Technology, Media & Telecommunications Conference - Final, March 8, 2012

Pandora Media, Inc. at Barrington Research Technology Conference - Final, March 15, 2012

Pandora Chief Financial Officer to Present at the Wells Fargo Securities Tech Transformation Summit - Final, April 3, 2012

Pandora Media, Inc. at Bank of America Merrill Lynch Global Technology Conference - Final, May 9, 2012

Pandora Media, Inc. at JMP Group Inc. Research Conference - Final, May 14, 2012

Pandora Media, Inc. at JP Morgan TMT Conference - Final, May 15, 2012

Pandora Media, Inc. at DBL Investors Conference - Final, June 4, 2012

Pandora Media, Inc. at Needham & Company LLC Internet & Digital Media Conference - Final, June 5, 2012

Pandora Chairman and Chief Executive Officer, Joe Kennedy will host Lazard Capital Markets Investor Tour - Final, June 7, 2012

Pandora Chairman and Chief Executive Officer to Present at the William Blair Growth Stock Conference - Final, June 12, 2012

Pandora CTO and EVP of Products to Participate in the "Mobile Social Awareness Panel" at the Stifel Nicolaus 2012 Internet & Media Conference - Final, June 19, 2012

Pandora Media, Inc. at Stifel Nicolaus Internet, Media and Publishing Conference - Final, June 19, 2012

Pandora Media, Inc. at Pacific Crest Global Leadership Technology Forum - Final, August 13, 2012

Pandora Media, Inc. at Canaccord Genuity's Global Growth Conference - Final, August 15, 2012

Pandora Media, Inc. at Oppenheimer Holdings Inc. Technology, Internet & Communications Conference - Final, August 15, 2012

Pandora Chairman and Chief Executive Officer to present at the 2012 Citi Technology Conference - Final, September 4, 2012

Pandora Vice President to Present at Bank of America Merrill Lynch 2012 Media, Communications & Entertainment Conference - Final, September 12, 2012

Presentation of Pandora Chairman and Chief Executive Officer Joe Kennedy at Deutsche Bank’s 2012 dbAccess Technology Conference – Final, September 13, 2012

Pandora Chairman and Chief Executive Officer to Present at the Goldman Sachs 21st Annual Communacopia Conference - Final, September 19, 2012

Pandora Chairman and Chief Executive Officer to Host Barrington Research Investor Bus Tour - Final, September 25, 2012

Pandora Media, Inc. at Telsey Advisory Group's 3rd Annual Fall Consumer Conference - Final, October 2, 2012

Presentation of Pandora Chairman and Chief Executive Officer Joe Kennedy at the Wells Fargo Securities Technology, Media & Telecom Conference - Final, November 7, 2012

Presentation of Pandora Vice President Dominic Paschel at the BMO Capital Markets 2012 Digital Media Conference - Final, November 8, 2012

2013 Conferences

Pandora Media, Inc. at Citi Global Internet, Media & Telecommunications Conference - Final, January 7, 2013

Pandora Media, Inc. at Needham Growth Conference - Final, January 15, 2013

Pandora Chairman and Chief Executive Officer will present at the 2013 Pacific Crest Emerging Technology Summit - Final, February 13, 2013

Pandora Chairman and Chief Executive Officer will present at the Goldman Sachs Technology and Internet Conference - Final, February 13, 2013

Pandora Media, Inc. at Piper Jaffray Technology, Media and Telecommunications Conference - Final, March 13, 2013

Pandora Media, Inc. at Roth Conference - Final, March 19, 2013

Pandora Media, Inc. at Wells Fargo Tech Transformation Summit Fireside Chat - Final, April 3, 2013

Pandora Media, Inc. at Telsey Advisory Group Spring Conference - Final, April 9, 2013

Pandora Media, Inc. at Morgan Stanley Internet Bus Tour Fireside Chat - Final, May 7, 2013

Pandora Media, Inc. at JMP Securities Research Conference - Final, May 13, 2013

Pandora Media, Inc. at JP Morgan Global Technology, Media and Telecom Conference - Final, May 15, 2013

Pandora Media, Inc. at Cowen Technology, Media & Telecom Conference - Final, May 29, 2013

Pandora Media, Inc. at Raymond James Internet/Software Crossover Conference - Final, May 30, 2013

Pandora Media, Inc. at Bank of America Merrill Lynch Global Technology Conference - Final, June 4, 2013

Pandora Media, Inc. at Needham Internet & Digital Media Conference - Final, June 4, 2013

Pandora Media, Inc. at William Blair Growth Stock Conference - Final, June 12, 2013

Pandora Media, Inc. at Pacific Crest Global Technology Leadership Forum - Final, August 12, 2013

Pandora Media, Inc. at Canaccord Genuity Growth Conference - Final, August 14, 2013

Pandora Media, Inc. at Bank of America Merrill Lynch Media, Communications & Entertainment Conference - Final, September 11, 2013

Pandora Media, Inc. at Goldman Sachs Communacopia Conference - Final, September 24, 2013

Pandora Media, Inc. at Telsey Advisory Group 4th Annual Fall Consumer Conference - Final, September 25, 2013

Pandora Media, Inc. at MKM Partners Entertainment & Leisure Conference - Final, September 26, 2013

Pandora Media, Inc. at Lazard Digital Media Day - Final, October 3, 2013

Pandora Media, Inc. at Pacific Crest Internet Innovations Technology Investor Forum - Final, November 5, 2013

Pandora Media, Inc. at Credit Suisse Technology Conference -Final, December 4, 2013

Pandora Media, Inc. at UBS Global Media and Communications Conference - Final, December 9, 2013

Pandora Media, Inc. at JP Morgan Small/Mid Cap Conference - Final, December 10, 2013

Pandora Media, Inc. at BMO Technology, Media & Entertainment Conference - Preliminary, December 11, 2013

2014 Conferences

Pandora Media, Inc. at Citi Internet Media & Telecommunications Conference - Final, January 6, 2014

Pandora Media, Inc. at Needham Growth Conference - Final, January 15, 2014

Pandora Media, Inc. at Stifel Technology, Internet & Media Conference - Final, February 11, 2014

Pandora Media, Inc. at Goldman Sachs Technology and Internet Conference - Final, February 13, 2014

Pandora Media, Inc. at Raymond James Financial Inc. Institutional Investors Conference - Final, March 3, 2014

Pandora Media, Inc. at JMP Securities Research Conference - Final, March 4, 2014

Pandora Media, Inc. at Morgan Stanley Technology, Media & Telecom Conference - Final, March 6, 2014

Pandora Media, Inc. at Roth Conference - Final, March 10, 2014

Pandora Media, Inc. at Jeffries Global Technology, Media & Telecom Conference - Preliminary, May 7, 2014

Pandora Media, Inc. at SunTrust Robinson Humphrey Internet & Digital Media Conference - Preliminary, May 14, 2014

Pandora Media, Inc. at B. Riley & Co. Investor Conference - Final, May 20, 2014

Pandora Media, Inc. at JPMorgan Global Technology, Media and Telecom Conference - Final, May 21, 2014

Pandora Media, Inc. at Cowen Technology, Media & Telecom Conference - Final, May 28, 2014

Pandora Media, Inc. at Raymond James Internet/Software Crossover Conference - Final, May 29, 2014

Pandora Media, Inc. at Bank of America Merrill Lynch Global Technology Conference - Final, June 3, 2014

Pandora Media, Inc. at Bernstein Future of Media Summit - Final, June 25, 2014

Pandora Media, Inc. at Needham Interconnect Conference - Final, August 5, 2014

Pandora Media, Inc. at Canaccord Genuity Growth Conference - Final, August 13, 2014

Pandora Media, Inc. at Oppenheimer Technology, Internet & Communications Conference - Final, August 13, 2014

Pandora Media, Inc. at Citi Global Technology Conference - Final, September 3, 2014

Pandora Media, Inc. at Nomura Digital Media Conference - Final, September 4, 2014

Pandora Media, Inc. at Goldman Sachs Communacopia Conference - Final, September 11, 2014

Pandora Media, Inc. at Bank of America Merill Lynch Media, Communications and Entertainment Conference - Final, September 16, 2014

Pandora Media, Inc. at MKM Partners Entertainment, Leisure & Internet Conference - Final, September 18, 2014

Earnings and Conference Calls

Pandora Media Inc. Analyst Meeting Transcript - Final, July 12, 2011

Fiscal Fourth Quarter and Full Year 2012 Financial Results Conference Call - Final, March 6, 2012

Q2 2012 Pandora Media Inc. Earnings Conference Call - Final, August 25, 2011

Q3 2012 Pandora Media Inc. Earnings Conference Call - Final, November 22, 2011

Q1 2013 Pandora Media, Inc. Earnings Conference Call - Final, May 23, 2012

Q2 2013 Pandora Media, Inc. Earnings Conference Call - Final, August 29, 2012

Q3 2013 Pandora Media, Inc. Earnings Conference Call - Final, December 4, 2012

Q4 2013 Pandora Media, Inc. Earnings Conference Call - Final, March 7, 2013

Q1 2014 Pandora Media, Inc. Earnings Conference Call - Final, May 23, 2013

Pandora Media, Inc. Conference Call to Discuss Change in Fiscal Year - Final, October 28, 2013

Pandora Media, Inc. November and December 2013 Stub Period and Calendar Q4 2013 Financial Results Conference Call - Final, February 5, 2014

Q1 2014 Pandora Media, Inc. Earnings Conference Call - Final, April 24, 2014

Q2 2014 Pandora Media, Inc. Earnings Conference Call - Final, August 22, 2013

Q2 2014 Pandora Media, Inc. Earnings Call - Final, July 24, 2014

Q3 2014 Pandora Media, Inc. Earnings Conference Call - Final, November 21, 2013

Q3 2014 Pandora Media, Inc. Investor Presentation - Final

Pandora Media Earnings Report: Q4 2014 Conference Call Transcript

Pandora Media, Inc. Conference Call to Discuss Web IV Proceeding - Final, November 18, 2014

<u>Press Releases</u>

Pandora Reports Record 2Q12 Financial Results

Pandora Reports Record 3Q12 Financial Results

Pandora Reports 4Q12 & Fiscal Year 2012 Financial Results

Pandora Reports 1Q13 Financial Results

Pandora Reports 2Q13 Financial Results

Pandora Reports 3Q13 Financial Results

Pandora Reports Record 4Q13 & Fiscal Year 2013 Financial Results

Pandora Reports Calendar Q4 and Calendar Year 2013 Financial Results

Pandora Reports Record 1Q14 Financial Results

Pandora Reports Record 2Q14 Financial Results

Pandora Reports Record 3QFY14 Financial Results

Pandora Reports Q1 2014 Financial Results

Pandora Reports Q2 2014 Financial Results

Pandora Reports Q3 2014 Financial Results

Annual Filings and Reports

Pandora 2012 Annual Report

Pandora Media, Inc. Form 10-K, for the fiscal year ended January 31, 2012

Pandora 2013 Annual Report

Pandora Media, Inc. Form 10-K, for the fiscal year ended January 31, 2013

Pandora Media, Inc., Form 10-K for the transition period from February 1, 2013 to December 31, 2013

Pandora 2014 Annual Report

Quarterly Filings and Reports

Pandora Media, Inc., Form 10-Q, Filed on September 2, 2011, Filed Period July 31, 2011

Pandora Media, Inc., Form 10-Q, Filed on November 29, 2011, Filed Period October 31, 2011

Pandora Media, Inc., Form 10-Q, for the quarterly period ended April 30, 2012

Pandora Media, Inc., Form 10-Q, for the quarterly period ended July 31, 2012

Pandora Media, Inc., Form 10-Q, for the quarterly period ended October 31, 2012

Pandora Media, Inc., Form 10-Q, for the quarterly period ended April 30, 2013

Pandora Media, Inc., Form 10-Q, for the quarterly period ended July 31, 2013

Pandora Media, Inc., Form 10-Q, for the quarterly period ended October 31, 2013

Pandora Media, Inc., Form 10-Q, for the quarterly period ended March 31, 2014

Pandora Media, Inc., Form 10-Q, for the quarterly period ended June 30, 2014

Pandora Media, Inc., Form 10-Q, for the quarterly period ended September 30, 2014

Pandora Historical Financial Results Three Months Ended September 30, 2014

Pandora 2014 Q3 Historical Detailed Financials.xlsx

Proxy Statements

Pandora Media, Inc., DEF 14A - Definitive proxy statements, Filed on April 25, 2012, Filed Period June 6, 2012

Pandora Media, Inc., Schedule 14A, Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, filed April 24, 2013

Pandora Media, Inc., Schedule 14A, Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934, filed April 22, 2014

Other Financials

Amazon.com 1997 Letter to Shareholders, reprinted in Amazon.com Annual Report, 2013, available at http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-reportsAnnual, accessed February 16, 2015

Google, Inc., Form 10-K for the fiscal year ended December 31, 2014

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Books and Literature

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I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 2/22/2015

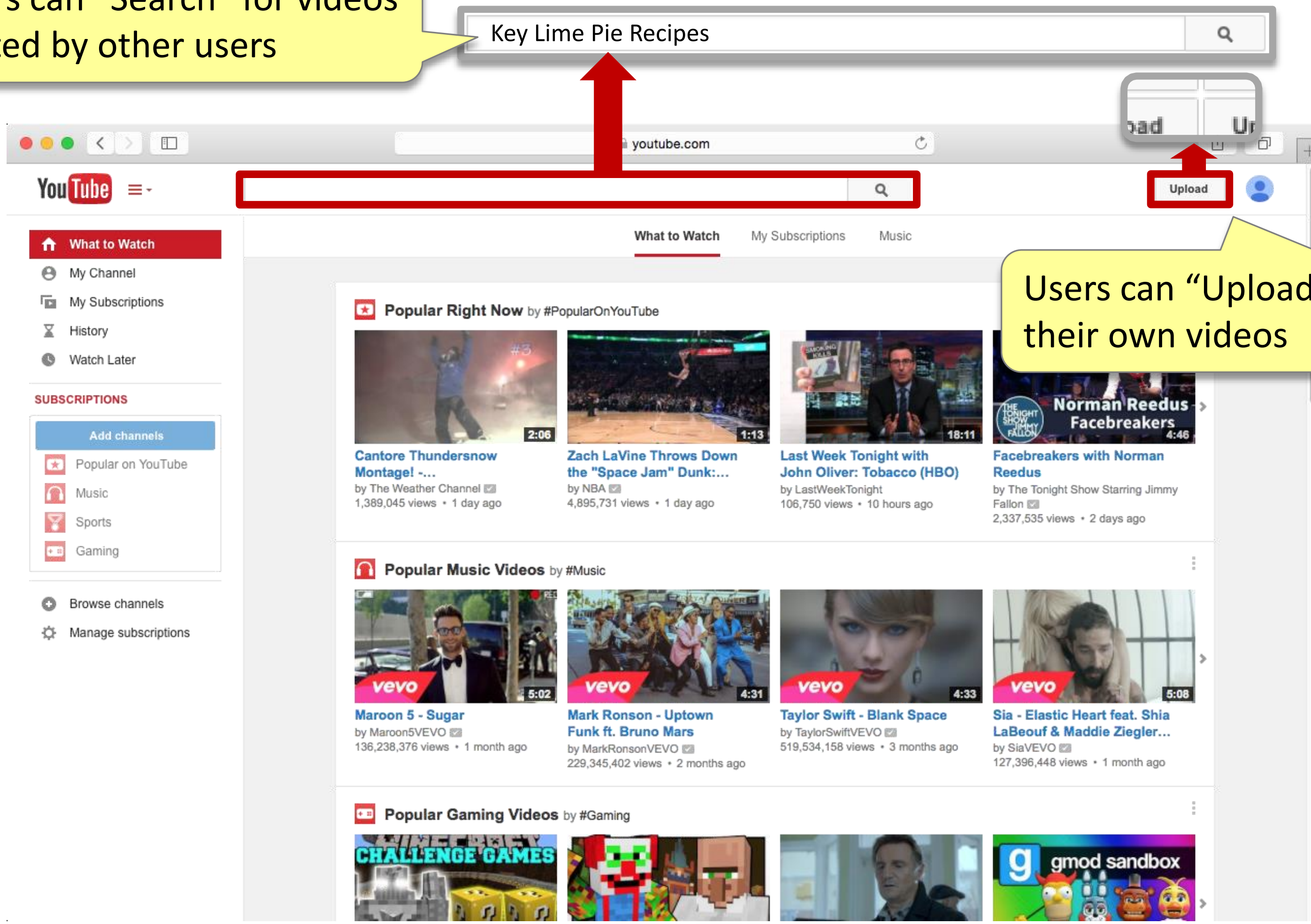
Marc Rysman

<u>Exhibits Sponsored By Marc Rysman, Ph.D.</u>

Exhibit No.	Sponsored By	Description
SX EX. 095- RP	Marc Rysman	Ex. 1 – YouTube Features
SX EX. 096- RP	Marc Rysman	Ex. 2 – Pandora Customization
SX EX. 097- RR	Marc Rysman	Ex. 3 – [redacted]
SX EX. 098- RR	Marc Rysman	Ex. 4 – [redacted]
SX EX. 099- RR	Marc Rysman	Ex. 5 – [[redacted]],
SX EX. 100- RR	Marc Rysman	Ex. 6 – [[redacted]
SX EX. 101- RR	Marc Rysman	Ex. 7– [[redacted]
SX EX. 102- RR	Marc Rysman	Ex. 8 – [[redacted]
SX EX. 103- RR	Marc Rysman	Ex. 9 – [[redacted]

YouTube

Users can “Search” for videos posted by other users

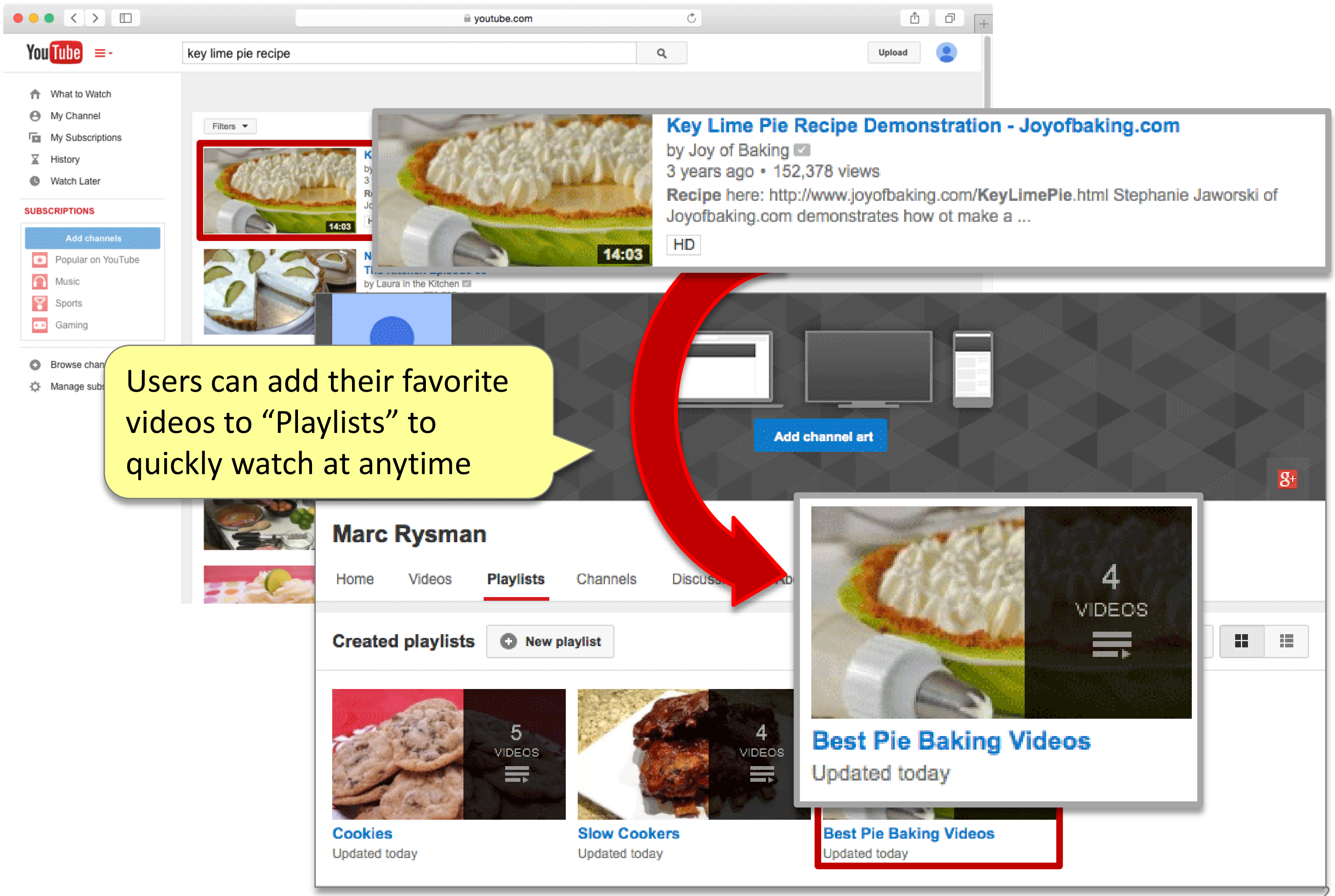


Users can “Upload” their own videos

Rysman - Exhibit 1

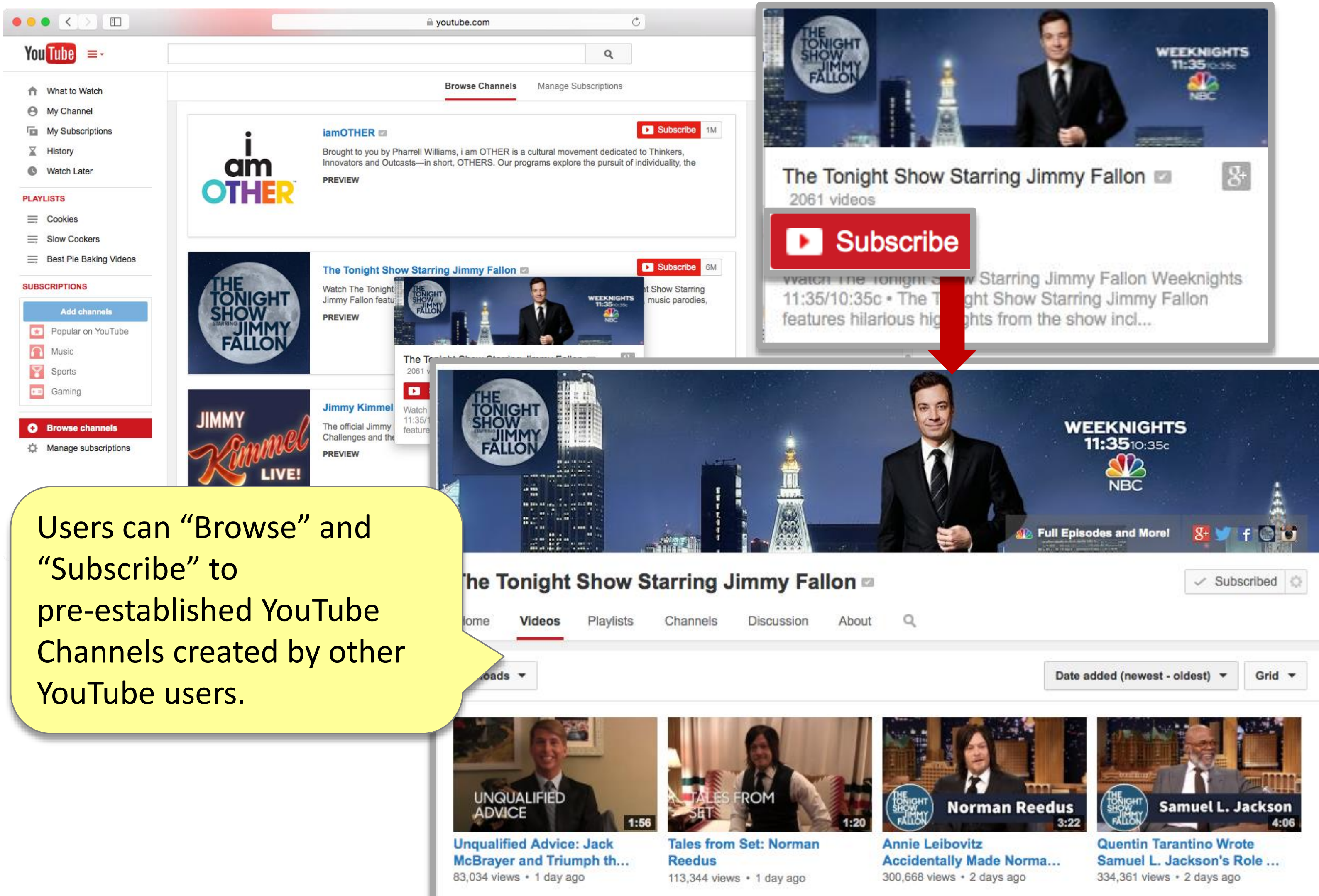
SX EX. 095-1-RP

YouTube



SX EX. 095-2-RP

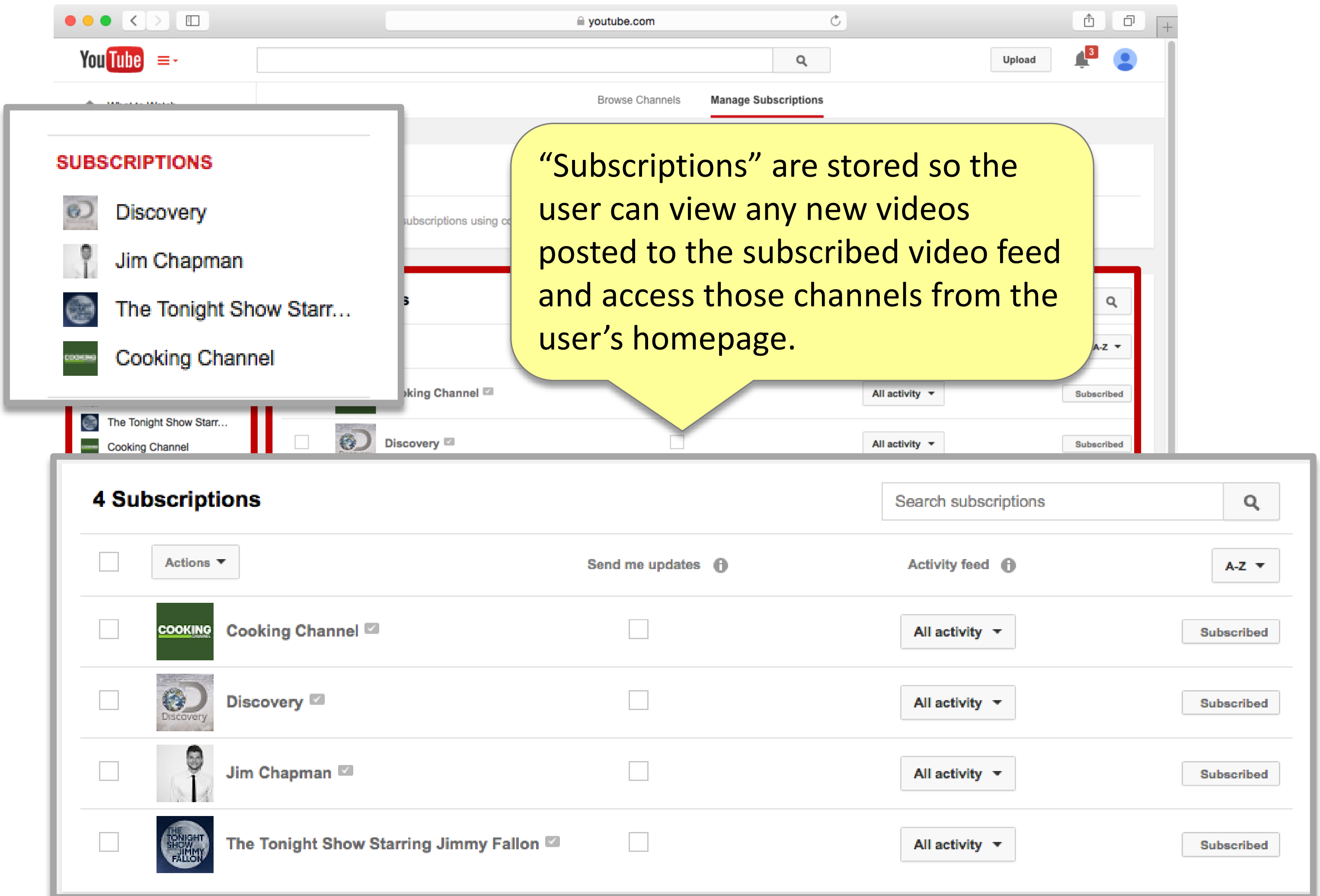
YouTube



Users can "Browse" and "Subscribe" to pre-established YouTube Channels created by other YouTube users.

SX EX. 095-3-RP

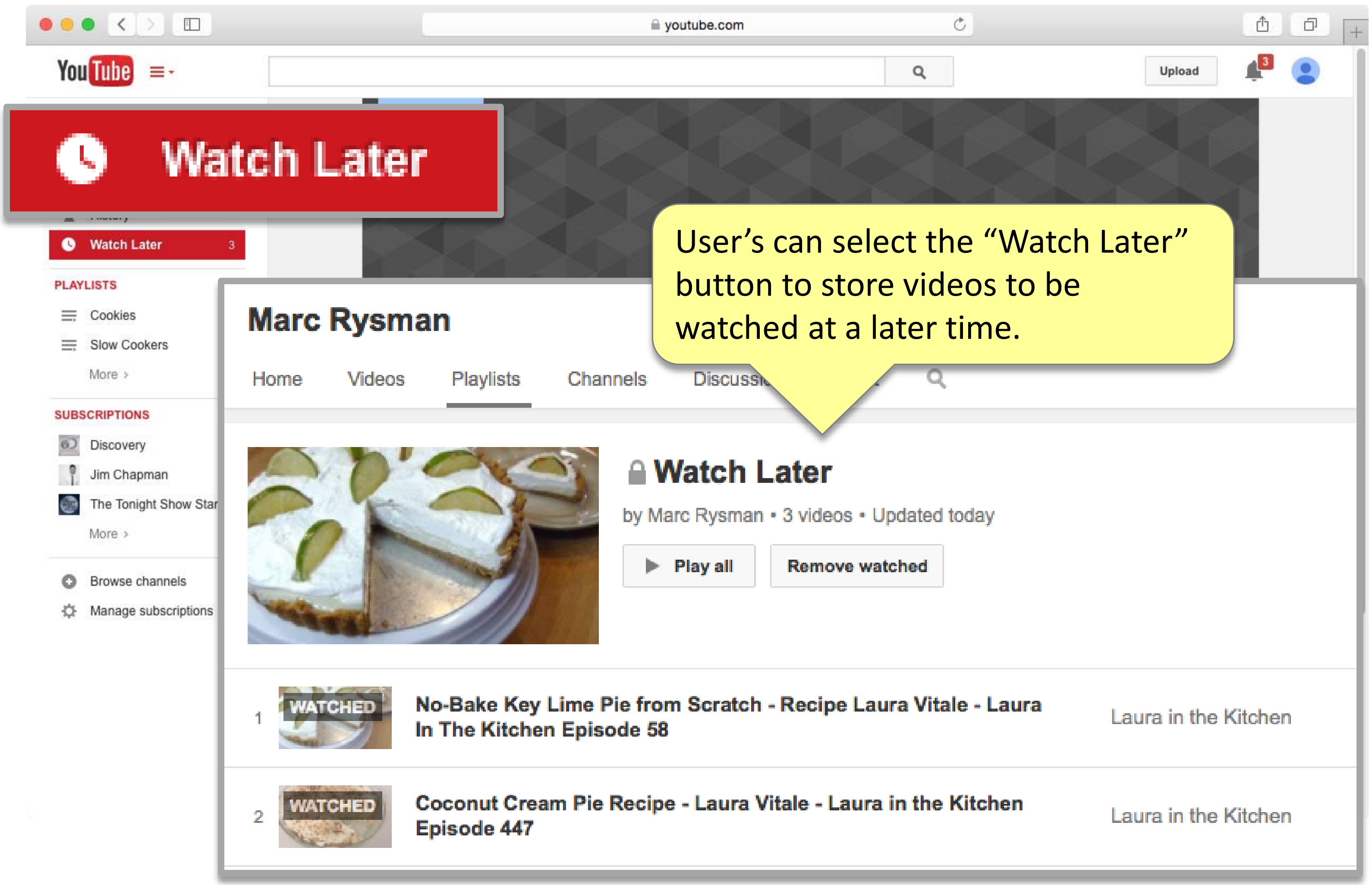
YouTube



"Subscriptions" are stored so the user can view any new videos posted to the subscribed video feed and access those channels from the user's homepage.

SX EX. 095-4-RP

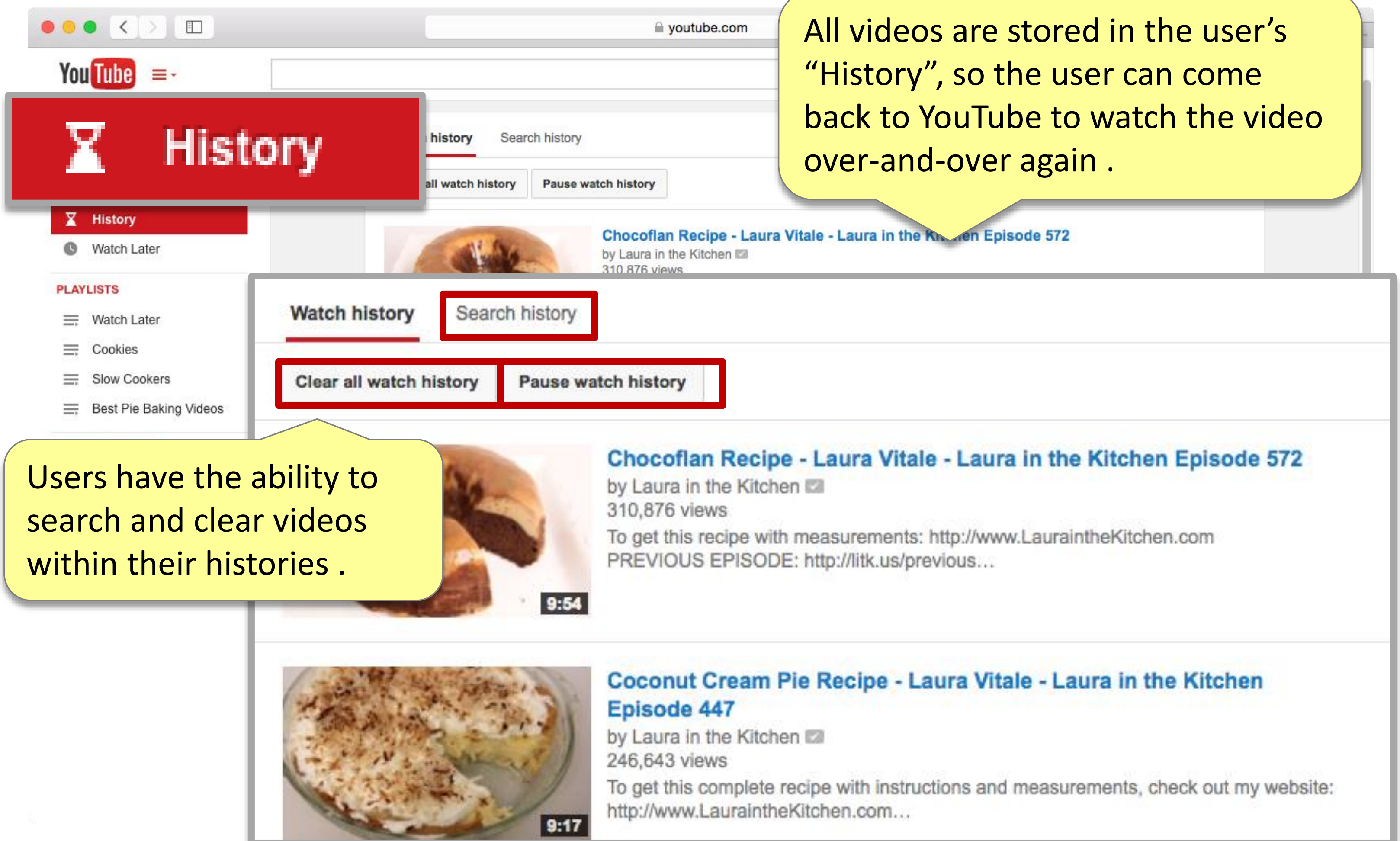
YouTube



User's can select the "Watch Later" button to store videos to be watched at a later time.

SX EX. 095-5-RP

YouTube



All videos are stored in the user's "History", so the user can come back to YouTube to watch the video over-and-over again .

Users have the ability to search and clear videos within their histories .

SX EX. 095-6-RP

Pandora

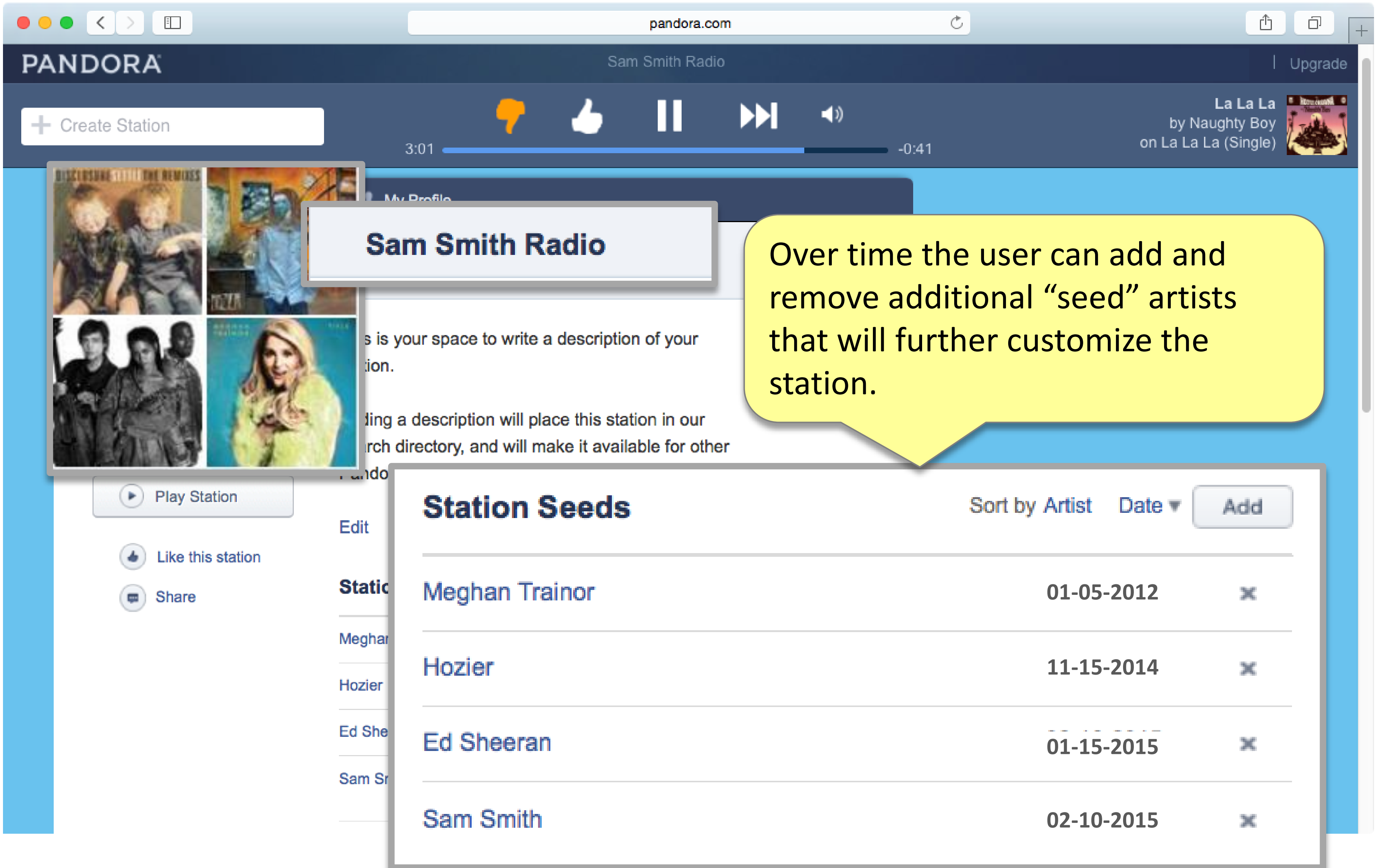
Users can “Thumbs Up” and “Thumbs Down” tracks to tailor their taste for a particular station .

The station becomes more custom over time as you “Thumbs Up” and “Thumbs Down” songs. These songs are stored for your review at anytime.

Rysman - Exhibit 2

SX EX. 096-1-RP

Pandora



SX EX. 096-2-RP

SX EX. 097 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 098 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 099 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 100 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 101 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 102 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)

SX EX. 103 -RR

RESTRICTED — Subject to Protective Order in Docket No. 14-CRB-0001-WR (2016-2020) (Web IV)