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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

WRITTEN DIRECT STATEMENT OF PANDORA MEDIA, INC.

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INTRODUCTORY MEMORANDUM TO THE WRITTEN DIRECT STATEMENT OF PANDORA MEDIA, INC.

Pandora Media, Inc. ("Pandora") hereby submits its Written Direct Statement to the Copyright Royalty Judges pursuant to 37 C.F.R. § 351.4. Pandora's proposed rates and terms for the compulsory license for making and distributing phonorecords during the 2018-2022 license period, the written direct testimony of Pandora's witnesses, and Pandora's exhibits are provided in subsequent tabs of this submission.

SUMMARY OF TESTIMONY

Until mid-September 2016, Pandora, the nation's largest music streaming service, operated exclusively as a noninteractive streaming service compliant with the statutory license for ephemeral recordings and digital performance of sound recordings available under sections 112 and 114 of the Copyright Act. To publicly perform the musical works embodied in the sound recordings used in connection with its service, Pandora has relied primarily on blanket licenses secured from performing rights organizations. Because noninteractive streaming does not implicate the mechanical rights associated with musical works, Pandora has not previously

operated under the statutory license at issue in this proceeding or otherwise needed to secure mechanical rights from music publishers.

Pandora, however, has undertaken a comprehensive redesign of its service in order to combine the features that have driven its success to date—an interface that is simple to use along with expert curation that makes Pandora an engine of highly personalized music discovery and enjoyment—with interactive features that it believes will enable it to attract millions of new listeners to on-demand streaming and improve the monetization of its service. As explained in the accompanying testimony of Christopher Phillips, Pandora's Chief Product Officer, Pandora just recently launched two of the three product tiers contemplated by its product redesign. The first product tier offers the same style of advertising-supported internet radio service that made Pandora the nation's leading provider of "lean back" listening, but users now have the opportunity to earn additional skips and, for the first time, limited replay functionality by engaging with additional advertising. Pandora also has introduced a subscription-based service known as Pandora Plus. Pandora Plus is also primarily an internet radio service, but it provides subscribers with greater functionality than Pandora's ad-supported tier provides, including more skips and the ability to replay the songs the user has recently listened to on the service without ad engagement, as well as the ability to listen offline to a limited number of cached stations. In the next few months, Pandora will introduce subscribers to the final tier of service contemplated by its redesign, Pandora Premium—a full on-demand offering with attributes that are unique to Pandora. Pandora Premium will combine Pandora's expert curation and ability to serve as an engine of music discovery, its hallmark ease-of-use, and the ability to select particular songs and the order in which those songs are played, when the user is in the mood for complete control of what they hear and when.

Pandora's decision to withhold full interactivity from Pandora Plus and its ad-supported offering was both deliberate and strategic. A meaningful number of consumers are not currently—and may never be—willing to pay $9.99 per month for access to music, even if they would enjoy on-demand functionality. Offering its differentiated products across a range of price points will allow Pandora to reach millions of additional consumers that it could not reach as an exclusively noninteractive service, and it will create opportunities to upsell, over time, many millions of listeners introduced to Pandora through its radio-style offerings to its premium-priced offering.

As explained in the accompanying testimony of Michael Herring, Pandora's President and Chief Financial Officer, Pandora made the decision to develop interactive features well aware that no on-demand service has ever been able to operate profitably in the U.S. for any sustained period, if at all. Pandora, moreover, already has spent—in addition to its multi-billion-dollar investments in creating and developing its Music Genome Project, proprietary algorithms, and pre-existing internet streaming platform—over $100 million to develop interactive features. Pandora has entered into thousands of new direct licenses with sound recording and musical work copyright holders to secure the additional rights needed to offer interactive streaming. No longer compliant with the limitations of the compulsory license for noninteractive streaming under sections 112 and 114 of the Copyright Act, Pandora is now subject to a much higher music royalty structure than it was before. In other words, Pandora undertook enormous risk and expense to redesign its service in advance of receiving any benefit from the mechanical rights license at issue here.

While Pandora's [redacted], and while Pandora does not expect to be profitable according to Generally

Accepted Accounting Principles ("GAAP") by 2018, the start of the next section 115 statutory license period, Pandora believes—over time, and provided there is no increase in musical work royalty obligations from current statutory rates—it ultimately will be able to operate a sustainable and profitable music streaming business. As a result of numerous innovations that have increased access to music and music discovery for consumers, Pandora has unique advantages that make the success of its redesigned service possible, but Pandora would not have been willing to make the investments to offer interactive streaming if the prevailing mechanical license rates were set at the rates the copyright-owner participants have indicated they will be seeking in this proceeding.

While the testimony and other evidence submitted as part of Pandora's written direct case provides ample basis to conclude that current rates should be lowered, Pandora conservatively proposes to carry over the existing rates and rate structure for the 2018-2022 statutory license period, subject only to modest modification. Thus, as more fully described in the next tab, Pandora proposes: (i) for interactive streaming under subpart B and limited offerings under subpart C, services should continue to pay an "all-in" rate of 10.5% of service revenues for both mechanical and performance rights, subject to certain minima that vary by service characteristic and are determined with reference to the number of subscribers or a percentage of payments made to record labels for sound recording rights; and (ii) services should be able to deduct their payments for performance rights to determine the pool of mechanical royalties to be paid under the statutory license and allocated to individual rightsholders. Pandora submits, however, that the mechanical rights-only royalty "floors" in subpart B of the current regulations that are applied following the deductions for performance rights payments are not appropriate for the 2018-2022 license period and has proposed to eliminate that feature of the current rate structure.

Professor Michael Katz, who holds the Sarin Chair in Strategy and Leadership at the University of California at Berkeley and has a joint appointment at the Haas School of Business Administration and the Department of Economics at Berkley, presents testimony that forms the economic basis for this rate proposal. Working within an economically appropriate framework that accounts for the rate-setting standard at issue in this proceeding—the section 801(b)(1) standard—Professor Katz explains why the industry-wide settlement that resulted in the current Section 115 license rates and terms (the "2012 Settlement") is an excellent benchmark for setting rates and terms for the 2018-2022 license period and requires only modest modification. Based on his analysis of the 2012 Settlement, and as described more fully below, Professor Katz concludes that (i) an "all-in" rate structure for both mechanical and performance rights remains sound, (ii) the existing "headline" rate of 10.5% of revenue is, if anything, too high, and (iii) the "mechanical only" royalty floor in 37 C.F.R. §385.13 is not warranted and should be eliminated. Professor Katz's conclusions, and the reasonableness of Pandora's rate proposal, are reinforced by his analyses of two other sets of benchmark agreements: the recent direct license agreements that Pandora has entered into with music publishers and the recent settlement between record labels and publishers concerning subpart A of 37 C.F.R. §385.

The remainder of this memorandum briefly describes the topics covered in the testimony of each of the fact and expert witnesses who will provide testimony in support of Pandora's rate request.

Fact Witnesses

Michael Herring

Michael Herring is Pandora's President and Chief Financial Officer. Mr. Herring's testimony begins with an overview of Pandora's history and evolution as a music service, from

an unsuccessful beginning as a business-to-business provider of music recommendations for retail sales outlets, through its development into the leading noninteractive streaming service in the U.S., to its recent transformation into a full-service provider that offers consumers broader choices in the way they listen to music. Mr. Herring describes Pandora's multi-billion dollar investments in creating and developing innovative products for making music accessible to the public, beginning with the Music Genome Project that lies at the heart of Pandora's service and the proprietary music selection algorithms that make Pandora an engine of music discovery, continuing through Pandora's initiative to make music accessible to consumers anytime, anywhere, and finishing with the massive investments associated with the redesign of Pandora's service to include interactive features. Mr. Herring also explains the impact of music rights license fees on Pandora's finances and financial viability. Even though Pandora is the leading music streaming service in the U.S., with nearly 78 million active users and well over $1 billion in annual revenues, it remains unprofitable according to GAAP as a result of a dramatic disconnect between prevailing music royalty rates and the massive investments required to build and sustain a lawful music streaming service. Mr. Herring concludes his testimony by explaining the business rationale for the specific changes that Pandora proposes to the current statutory rates and terms.

Christopher Phillips

Christopher Phillips is Pandora's Chief Product Officer, a position he has held since he joined the company in 2014. Mr. Phillips provides an overview of Pandora's service and evolving features, and he compares the noninteractive service that was at issue in the *Web IV* proceeding with the offerings emerging from Pandora's redesign. Mr. Phillips explains why consumer research and feedback led Pandora to develop interactive features, and he describes

each of the three tiers of the redesigned service. Mr. Phillips also describes Pandora's development of proprietary technology to optimize the delivery of advertising and messaging to users and explains why this "intelligent interruptions" initiative is critical to Pandora's ability to grow its service, attract new listeners to the market for on-demand streaming, maximize connections between artists and their fans, and increase the revenues it earns and, consequently, the music royalties it pays.

Adam Parness

Adam Parness joined Pandora in 2016 as Head of Publisher Licensing and Relations. Mr. Parness previously worked for other leading digital music services, including Amazon Digital Music, where he led the company's music publishing initiatives and helped launch its Prime Music service, and Rhapsody, where he served as Vice President of Music Licensing. Mr. Parness was an active participant in prior industry efforts that led to settlements in the *Phonorecords I* and *Phonorecords II* proceedings. Mr. Parness's testimony has two components. First, he explains the rationales for the settlements in *Phonorecords I* and *Phonorecords II*. Second, he addresses germane changes in the music industry since the 2012 Settlement that pretermitted the *Phonorecords II* proceeding before discovery or the participants' submission of written direct cases. In particular, Mr. Parness explains the significant changes in the marketplace for performing rights licenses, the likelihood of further destabilization and uncertainty, and why a continuation of a "mechanical only" floor fee would contravene the statutory objectives for rate-setting here.

Expert Witnesses

In addition, Pandora will present the testimony of the following expert witnesses:

Michael Katz

As noted above, Professor Michael Katz presents testimony concerning the economic basis for Pandora's rate proposal. Professor Katz begins his analysis by presenting an economic framework for evaluating the statutory objectives of section 801(b)(1). Working within that framework, Professor Katz analyzes whether the 2012 Settlement is a good benchmark for setting rates and terms for the 2018-2022 license period, and he determines that it is an excellent one. Professor Katz ultimately concludes, after evaluating the relevant changes that have taken place in the marketplace, that the structure of the current section 115 license generally remains sound, and requires only modest modification. As Professor Katz explains, elimination of the "mechanical only" royalty floor in 37 C.F.R. § 385.13 is warranted because of significant and unexpected changes in the marketplace in which musical works performance rights are licensed that have led to, and are expected to continue to lead to, exploitations of market power on the part of PROs and music publishers. Because of the way the current "mechanical only" royalty floor operates, this exploitation of market power on the part of PROs and music publishers when licensing performance rights increases the effective rates paid by statutory licensees to musical work rightsholders without any increase in the value of the licensed mechanical and performance rights. As a result, Professor Katz concludes that the "mechanical only" floor should be eliminated.

With respect to the rate level, Professor Katz concludes, again based on an analysis of the relevant changes in the marketplace, that the 10.5% headline rate currently in place is, if anything, too high. Of central importance is that, since the 2012 Settlement was reached, the

production of new musical works remains robust, the number of songwriters has increased, and music publishers remain profitable, all while interactive services continue to struggle. As a result, Professor Katz concludes that, under the section 801(b)(1) standard, the current 10.5% headline rate should serve as an upper bound on the combined mechanical and public performance license fee to be paid by interactive services.

Professor Katz also analyzes two other sets of benchmark agreements. First, Professor Katz evaluates the recent direct license agreements that Pandora has entered into with music publishers. As Professor Katz explains, these agreements support maintaining the current rate structure with the one modification discussed above. Professor Katz then evaluates the recent settlement between record labels and publishers concerning subpart A of 37 C.F.R. §385. As Professor Katz demonstrates, this recent settlement suggests that, if anything, the current 10.5% headline rate for interactive streaming under subpart B and for limited offerings under subpart C is above the reasonable level, further confirming the conclusions that Professor Katz draws from his evaluation of his primary benchmark—the 2012 Settlement.

David Pakman

Google Inc., Spotify USA Inc., Amazon Digital Services, LLC, and Pandora are jointly presenting the expert testimony of David Pakman. Mr. Pakman is a partner at the venture capital firm Venrock. Relying on nearly a quarter of a century of experience in the digital music industry, first as an executive and now as an investor, Mr. Pakman describes why digital music services, specifically on-demand streaming services, have fared poorly. Mr. Pakman explains that the primary reason for this is the high music licensing royalty rates, including payments made to music publishers. High music royalty payments, which constitute the principal expense for digital music services, have led to dismally high failure rates for digital music services and

low investment in the industry, as compared to other digital businesses. Mr. Pakman explains that lower royalty rates would lead to more investment, more innovation, more growth, and ultimately higher total dollars in royalty payments for music rightsholders.

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Respectfully submitted,

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PROPOSED RATES AND TERMS OF PANDORA MEDIA, INC.

Pursuant to 37 C.F.R. §351.4(b)(3), Pandora Media, Inc. ("Pandora") proposes the following rates and terms for making and distributing phonorecords under the statutory license provided by 17 U.S.C. 115 during the period January, 1, 2018 through December 31, 2022.

Proposed Rates

As to rates for interactive streaming and limited downloads governed by 37 C.F.R. §385 Subpart B, Pandora proposes to preserve the current rates and rate structure, in which statutory licensees pay the greater of 10.5% of service revenue and certain minima that vary by type of service, less applicable performance royalties paid in connection with the licensed activity, except that Pandora proposes to eliminate the per subscriber royalty "floors" in §385.13 for the reasons discussed in the Written Direct Testimonies of Michael Katz (Pandora's retained economic expert), Michael Herring (Pandora's President and Chief Financial Officer), and Adam Parness (Pandora's Head of Publisher Licensing and Relations).

As to rates for limited offerings governed by 37 C.F.R. §385 Subpart C, Pandora proposes to preserve the current rates and rate structure.

Pandora takes no position as to rates under Subpart A or for types of services licensed under Subpart C other than limited offerings.

Proposed Terms

The attached proposed terms include Pandora's proposal for changes to the current regulations set forth in 37 C.F.R. §385 Subparts B and C. Other than certain technical or conforming changes, proposed changes are discussed in the written direct testimony of Michael Herring, Pandora's President and Chief Financial Officer and Michael Katz. Pandora takes no position on whether changes to the current regulations set forth in 37 C.F.R. §385 Subpart A are warranted. The changes Pandora proposes to the current regulations set forth in 37 C.F.R. §385 Subparts B and C are shown in redline below.

Subpart B—Interactive Streaming and Limited Downloads

§385.10 General.

(a) *Scope.* This subpart establishes rates and terms of royalty payments for interactive streams and limited downloads of musical works by subscription and nonsubscription digital music services in accordance with the provisions of 17 U.S.C. 115.

(b) *Legal compliance.* A licensee that, pursuant to 17 U.S.C. 115, makes or authorizes interactive streams or limited downloads of musical works through subscription or nonsubscription digital music services shall comply with the requirements of that section, the rates and terms of this subpart, and any other applicable regulations, with respect to such musical works and uses licensed pursuant to 17 U.S.C. 115.

(c) *Interpretation.* This subpart is intended only to set rates and terms for situations in which the exclusive rights of a musical work copyright owner are implicated and a compulsory license pursuant to 17 U.S.C. 115 is obtained. Neither this subpart nor the act of obtaining a license under 17 U.S.C. 115 is intended to express or imply any conclusion as to the circumstances in which any of the exclusive rights of a copyright owner are implicated or a license, including a compulsory license pursuant to 17 U.S.C. 115, must be obtained.

(d) *Relationship to voluntary agreements.* Notwithstanding the royalty rates and terms established in this subpart, the rates and terms of any license agreements entered into by copyright owners and Licensees (as defined below) concerning rights within the scope of 17 U.S.C. 115, shall apply in lieu of the rates and terms of this subpart to the use of musical works within the scope of such agreements.

[74 FR 4529, Jan. 26, 2009, as amended at 78 FR 67942, Nov. 13, 2013]

§385.11 Definitions.

For purposes of this subpart, the following definitions shall apply:

Affiliate means an entity controlling, controlled by, or under common control with another entity, except that an affiliate of a record company shall not include a copyright owner of musical works to the extent it is engaging in business as to musical works.

Applicable consideration means anything of value given for the identified rights to undertake the licensed activity, including, without limitation, ownership equity, monetary advances, barter or any other monetary and/or nonmonetary consideration, whether such consideration is conveyed via a single agreement, multiple agreements and/or agreements that do not themselves authorize the licensed activity but nevertheless provide consideration for the identified rights to undertake the licensed activity, and including any such value given to an affiliate of a record company for such rights to undertake the licensed activity. For the avoidance of doubt, value given to a copyright owner of musical works that is controlling, controlled by, or under common control with a record company for rights to undertake the licensed activity shall

not be considered value given to the record company. Notwithstanding the foregoing, applicable consideration shall not include in-kind promotional consideration given to a record company (or affiliate thereof) that is used to promote the sale or paid use of sound recordings embodying musical works or the paid use of music services through which sound recordings embodying musical works are available where such in-kind promotional consideration is given in connection with a use that qualifies for licensing under 17 U.S.C. 115.

Family plan means a single subscription account that authorizes access to a digital music service for up to six listener profiles for a single discounted fee payable via one form of payment.

GAAP means U.S. Generally Accepted Accounting Principles, except that if the U.S. Securities and Exchange Commission permits or requires entities with securities that are publicly traded in the U.S. to employ International Financial Reporting Standards, as issued by the International Accounting Standards Board, or as accepted by the Securities and Exchange Commission if different from that issued by the International Accounting Standards Board, in lieu of Generally Accepted Accounting Principles, then an entity may employ International Financial Reporting Standards as "GAAP" for purposes of this subpart.

Interactive stream means a stream of a sound recording of a musical work, where the performance of the sound recording by means of the stream is not exempt under 17 U.S.C. 114(d)(1) and does not in itself or as a result of a program in which it is included qualify for statutory licensing under 17 U.S.C. 114(d)(2).

Licensee means a person that has obtained a compulsory license under 17 U.S.C. 115 and its implementing regulations.

Licensed activity means interactive streams or limited downloads of musical works, as applicable, licensed pursuant to this subpart B.

Limited download means a digital transmission of a sound recording of a musical work to an end user, other than a stream, that results in a specifically identifiable reproduction of that sound recording that is only accessible for listening for—

(1) An amount of time not to exceed 1 month from the time of the transmission (unless the service provider, in lieu of retransmitting the same sound recording as another limited download, separately and upon specific request of the end user made through a live network connection, reauthorizes use for another time period not to exceed 1 month), or in the case of a subscription transmission, a period of time following the end of the applicable subscription no longer than a subscription renewal period or 3 months, whichever is shorter; or

(2) A specified number of times not to exceed 12 (unless the service provider, in lieu of retransmitting the same sound recording as another limited download, separately and upon specific request of the end user made through a live network connection, reauthorizes use of another series of 12 or fewer plays), or in the case of a subscription transmission, 12 times after the end of the applicable subscription.

(3) A limited download is a general digital phonorecord delivery under 17 U.S.C. 115(c)(3)(C) and (D).

Offering means a service provider's offering of licensed activity that is subject to a particular rate set forth in §385.13(a) (e.g., a particular subscription plan available through the service provider).

Promotional royalty rate means the statutory royalty rate of zero in the case of certain promotional interactive streams and certain promotional limited downloads, as provided in §385.14.

Record company means a person or entity that

(1) Is a copyright owner of a sound recording of a musical work;

(2) In the case of a sound recording of a musical work fixed before February 15, 1972, has rights to the sound recording, under the common law or statutes of any State, that are equivalent to the rights of a copyright owner of a sound recording of a musical work under title 17, United States Code;

(3) Is an exclusive licensee of the rights to reproduce and distribute a sound recording of a musical work; or

(4) Performs the functions of marketing and authorizing the distribution of a sound recording of a musical work under its own label, under the authority of the copyright owner of the sound recording.

Relevant page means a page (including a Web page, screen or display) from which licensed activity offered by a service provider is directly available to end users, but only where the offering of licensed activity and content that directly relates to the offering of licensed activity (e.g., an image of the artist or artwork closely associated with such offering, artist or album information, reviews of such offering, credits and music player controls) comprises 75% or more of the space on that page, excluding any space occupied by advertising. A licensed activity is directly available to end users from a page if sound recordings of musical works can be accessed by end users for licensed activity from such page (in most cases this will be the page where the limited download or interactive stream takes place).

Service provider means that entity (which may or may not be the licensee) that, with respect to the licensed activity,

(1) Contracts with or has a direct relationship with end users in a case where a contract or relationship exists, or otherwise controls the content made available to end users;

(2) Is able to report fully on service revenue from the provision of the licensed activity to the public, and to the extent applicable, verify service revenue through an audit; and

(3) Is able to report fully on usage of musical works by the service, or procure such reporting, and to the extent applicable, verify usage through an audit.

Service revenue. (1) Subject to paragraphs (2) through (5) of the definition of "Service revenue," and subject to GAAP, *service revenue* shall mean the following:

(i) All revenue recognized by the service provider from end users from the provision of licensed activity;

(ii) All revenue recognized by the service provider by way of sponsorship and commissions as a result of the inclusion of third-party "in-stream" or "in-download" advertising as part of licensed activity (*i.e.*, advertising placed immediately at the start, end or during the actual delivery, by way of interactive streaming or limited downloads, as applicable, of a musical work); and

(iii) All revenue recognized by the service provider, including by way of sponsorship and commissions, as a result of the placement of third-party advertising on a relevant page of the service or on any page that directly follows such relevant page leading up to and including the limited download or interactive streaming, as applicable, of a musical work; provided that, in the case where more than one service is actually available to end users from a relevant page, any advertising revenue shall be allocated between such services on the basis of the relative amounts of the page they occupy.

(2) In each of the cases identified in paragraph (1) of the definition of "Service revenue," such revenue shall, for the avoidance of doubt, include:

(i) ~~Include a~~Any such revenue recognized by the service provider, or if not recognized by the service provider, by any associate, affiliate, agent or representative of such service provider in lieu of its being recognized by the service provider;

(ii) ~~Include t~~The value of any barter or other nonmonetary consideration; and

~~(iii) Not be reduced by credit card commissions or similar payment process charges; and~~

(~~iv~~iii) Except as expressly set forth in this subpart, not be subject to any other deduction or set-off other than refunds to end users for licensed activity that they were unable to use due to technical faults in the licensed activity or other bona fide refunds or credits issued to end users in the ordinary course of business.

(3) In each of the cases identified in paragraph (1) of the definition of "Service revenue," such revenue shall, for the avoidance of doubt, exclude ~~revenue~~:

(i) Revenue derived solely in connection with services and activities other than licensed activity, provided that advertising or sponsorship revenue shall be treated as

provided in paragraphs (2) and (4) of the definition of "Service revenue." By way of example, the following kinds of revenue shall be excluded:

(~~i~~A) Revenue derived from predominantly non-music voice, content and text services such as, by way of example and not limitation, news, talk, sports, weather, traffic, and comedy programming, or podcasts of any of the foregoing;

(~~ii~~B) Revenue derived from other non-music products and services (including ticketing for live events or concerts, search services, sponsored searches and click-through commissions); and

(~~iii~~C) Revenue derived from music or music-related products and services that are not or do not include licensed activity.

(4) For purposes of paragraph (1) of the definition of "Service revenue":

~~," advertising or~~ (i) Advertising, sponsorship~~-~~, and subscription revenue shall be reduced by the actual cost (whether internal or paid to a third party) of obtaining such revenue (including credit card commissions, app store commissions, and similar payment process charges), not to exceed 15%.

(5) Where the licensed activity is provided to end users as part of the same transaction with one or more other products or services that are not a music service engaged in licensed activity, then the revenue deemed to be recognized from end users for the service for the purpose of the definition in paragraph (1) of the definition of "Service revenue" shall be the revenue recognized from end users for the bundle less the standalone published price for end users for each of the other component(s) of the bundle; provided that, if there is no such standalone published price for a component of the bundle, then the average standalone published price for end users for the most closely comparable product or service in the U.S. shall be used or, if more than one such comparable exists, the average of such standalone prices for such comparables shall be used.

Stream means the digital transmission of a sound recording of a musical work to an end user—

(1) To allow the end user to listen to the sound recording, while maintaining a live network connection to the transmitting service, substantially at the time of transmission, except to the extent that the sound recording remains accessible for future listening from a streaming cache reproduction;

(2) Using technology that is designed such that the sound recording does not remain accessible for future listening, except to the extent that the sound recording remains accessible for future listening from a streaming cache reproduction; and

(3) That is also subject to licensing as a public performance of the musical work.

Streaming cache reproduction means a reproduction of a sound recording of a musical work made on a computer or other receiving device by a service solely for the purpose of permitting an end user who has previously received a stream of such sound recording to play such sound recording again from local storage on such computer or other device rather than by means of a transmission; provided that the user is only able to do so while maintaining a live network connection to the service, and such reproduction is encrypted or otherwise protected consistent with prevailing industry standards to prevent it from being played in any other manner or on any device other than the computer or other device on which it was originally made.

Student plan means an individual subscription that meets at least the following criteria: the individual is enrolled in at least one course at a college or university geographically located in the United States.

Subscription service means a digital music service for which end users are required to pay a fee to access the service for defined subscription periods of 3 years or less (in contrast to, for example, a service where the basic charge to users is a payment per download or per play), whether such payment is made for access to the service on a standalone basis or as part of a bundle with one or more other products or services, and including any use of such a service on a trial basis without charge as described in §385.14(b).

[74 FR 4529, Jan. 26, 2009, as amended at 74 FR 6834, Feb. 11, 2009; 78 FR 67942, Nov. 13, 2013]

§385.12 Calculation of royalty payments in general.

(a) *Applicable royalty*. Licensees that make or authorize licensed activity pursuant to 17 U.S.C. 115 shall pay royalties therefor that are calculated as provided in this section, subject to the minimum royalties and subscriber-based royalty floors for specific types of services provided in §385.13, except as provided under §385.10(d) and for certain promotional uses in §385.14.

(b) *Rate calculation methodology*. Royalty payments for licensed activity in subpart B shall be calculated as provided in paragraph (b) of this section. If a service includes different offerings, royalties must be separately calculated with respect to each such offering taking into consideration service revenue and expenses associated with such offering. Uses subject to the promotional royalty rate shall be excluded from the calculation of royalties due, as further described in this section and the following §385.13.

(1) *Step 1:* Calculate the All-In Royalty for the Offering. For each accounting period, the all-in royalty for each offering of the service provider is the greater of

(i) The applicable percentage of service revenue associated with the relevant offering as set forth in paragraph (c) of this section (excluding any service revenue derived solely from licensed activity uses subject to the promotional royalty rate), and

(ii) The minimum specified in §385.13 of the offering involved.

(2) *Step 2:* Determine the Payable Royalty Pool by Subtracting Applicable Performance Royalties. From the amount determined in step 1 in paragraph (b)(1) of this section, for each offering of the service provider, subtract the total amount of royalties for public performance of musical works that has been or will be expensed pursuant to public performance licenses in connection with uses of musical works through such offering during the accounting period that constitute licensed activity (other than licensed activity subject to the promotional royalty rate). Although this amount may be the total of the service's payments for that offering for the accounting period, it will be less than the total of such public performance payments if the service is also engaging in public performance of musical works that does not constitute licensed activity. In the case where the service is also engaging in the public performance of musical works that does not constitute licensed activity, the amount to be subtracted for public performance payments shall be the amount of such payments allocable to licensed activity uses (other than promotional royalty rate uses) through the relevant offering, as determined . If the payments allocable to licensed activity uses (other than promotional royalty rate uses) through the relevant offering are not readily distinguishable from payments for public performances not allocable to licensed activity uses, then the payments allocated to licensed activity uses (other than promotional royalty uses) for the accounting period shall be made on the basis of plays of musical works for licensed activity uses (other than promotional royalty uses) in relation to all uses of musical works for which the public performance payments are made for the accounting period. Such allocation shall be made on the basis of plays of musical works or, where per-play information is unavailable due to bona fide technical limitations as described in step 43 in paragraph (b)(43) of this section, using the same alternative methodology as provided in step 43.

(3) *Step 3:* Determine the Payable Royalty Pool. The payable royalty pool is the amount payable for the reproduction and distribution of all musical works used by the service provider by virtue of its licensed activity for a particular offering during the accounting period. This amount is the greater of

(i) The result determined in step 2 in paragraph (b)(2) of this section, and

(ii) The subscriber-based royalty floor resulting from the calculations described in §385.13.

(4) *Step 4:* Calculate the Per-Work Royalty Allocation for Each Relevant Work. This is the amount payable for the reproduction and distribution of each musical work used by the service provider by virtue of its licensed activity through a particular offering during the accounting period. To determine this amount, the result determined in step 32 in paragraph (b)(32) of this section must be allocated to each musical work used through the offering. The allocation shall be accomplished by dividing the payable royalty pool determined in step 32 for such offering by the total number of plays of all musical works through such offering during the accounting period (other than promotional royalty rate plays) to yield a per-play allocation, and multiplying that result by the number of plays of each musical work (other than promotional royalty rate plays) through the offering during the accounting period. For purposes of determining the per-work royalty allocation in all calculations under this step 43 only (*i.e.*, after the payable royalty pool has been determined), for sound recordings of musical works with a playing time of over 5 minutes, each play shall be counted as provided in paragraph (d) of this section. Notwithstanding the foregoing, if the service provider is not capable of tracking play

information due to bona fide limitations of the available technology for services of that nature or of devices useable with the service, the per-work royalty allocation may instead be accomplished in a manner consistent with the methodology used by the service provider for making royalty payment allocations for the use of individual sound recordings.

(c) *Percentage of service revenue.* The percentage of service revenue applicable under paragraph (b) of this section is 10.5%.

(d) *Overtime adjustment.* For purposes of the calculations in step ~~4~~3 in paragraph (b)(~~4~~3) of this section only, for sound recordings of musical works with a playing time of over 5 minutes, adjust the number of plays as follows:

(1) 5:01 to 6:00 minutes—Each play = 1.2 plays

(2) 6:01 to 7:00 minutes—Each play = 1.4 plays

(3) 7:01 to 8:00 minutes—Each play = 1.6 plays

(4) 8:01 to 9:00 minutes—Each play = 1.8 plays

(5) 9:01 to 10:00 minutes—Each play = 2.0 plays

(6) For playing times of greater than 10 minutes, continue to add .2 for each additional minute or fraction thereof.

(e) *Accounting.* The calculations required by paragraph (b) of this section shall be made in good faith and on the basis of the best knowledge, information and belief of the licensee at the time payment is due, and subject to the additional accounting and certification requirements of 17 U.S.C. 115(c)(5) and §201.19 of this title. Without limitation, a licensee's statements of account shall set forth each step of its calculations with sufficient information to allow the copyright owner to assess the accuracy and manner in which the licensee determined the payable royalty pool and per-play allocations (including information sufficient to demonstrate whether and how a minimum royalty ~~or subscriber based royalty floor~~ pursuant to §385.13 does or does not apply) and, for each offering reported, also indicate the type of licensed activity involved and the number of plays of each musical work (including an indication of any overtime adjustment applied) that is the basis of the per-work royalty allocation being paid.

[74 FR 4529, Jan. 26, 2009, as amended at 78 FR 67943, Nov. 13, 2013]

§385.13 Minimum royalty rates ~~and subscriber-based royalty floors~~ for specific types of services.

(a) *In general.* The following minimum royalty rates ~~and subscriber-based royalty floors~~ shall apply to the following types of licensed activity:

(1) *Standalone non-portable subscription—streaming only.* Except as provided in paragraph (a)(4) of this section, in the case of a subscription service through which an end user can listen to sound recordings only in the form of interactive streams and only from a non-portable device to which such streams are originally transmitted while the device has a live network connection, the minimum for use in step 1 of §385.12(b)(1)(ii) is the lesser of subminimum II as described in paragraph (c) of this section for the accounting period and the aggregate amount of 50 cents per subscriber per month. ~~The subscriber-based royalty floor for use in step 3 of §385.12(b)(3)(ii) is the aggregate amount of 15 cents per subscriber per month.~~

(2) *Standalone non-portable subscription—mixed.* Except as provided in paragraph (a)(4) of this section, in the case of a subscription service through which an end user can listen to sound recordings either in the form of interactive streams or limited downloads but only from a non-portable device to which such streams or downloads are originally transmitted, the minimum for use in step 1 of §385.12(b)(1)(ii) is the lesser of the subminimum I as described in paragraph (b) of this section for the accounting period and the aggregate amount of 50 cents per subscriber per month. ~~The subscriber-based royalty floor for use in step 3 of §385.12(b)(3)(ii) is the aggregate amount of 30 cents per subscriber per month.~~

(3) *Standalone portable subscription service.* Except as provided in paragraph (a)(4) of this section, in the case of a subscription service through which an end user can listen to sound recordings in the form of interactive streams or limited downloads from a portable device, the minimum for use in step 1 of §385.12(b)(1)(ii) is the lesser of subminimum I as described in paragraph (b) of this section for the accounting period and the aggregate amount of 80 cents per subscriber per month. ~~The subscriber-based royalty floor for use in step 3 of §385.12(b)(3)(ii) is the aggregate amount of 50 cents per subscriber per month.~~

(4) *Bundled subscription services.* In the case of a subscription service providing licensed activity that is made available to end users with one or more other products or services (including products or services subject to other subparts) as part of a single transaction without pricing for the subscription service providing licensed activity separate from the product(s) or service(s) with which it is made available (e.g., a case in which a user can buy a portable device and one-year access to a subscription service providing licensed activity for a single price), the minimum for use in step 1 of §385.12(b)(1)(ii) is subminimum I as described in paragraph (b) of this section for the accounting period. ~~The subscriber-based royalty floor for use in step 3 of §385.12(b)(3)(ii) is the aggregate amount of 25 cents per month for each end user who has made at least one play of a licensed work during such month (each such end user to be considered an "active subscriber").~~

(5) *Free nonsubscription/ad-supported services.* In the case of a service offering licensed activity free of any charge to the end user, the minimum for use in step 1 of §385.12(b)(1)(ii) is subminimum II described in paragraph (c) of this section for the accounting period. ~~There is no subscriber-based royalty floor for use in step 3 of §385.12(b)(3)(ii).~~

(b) *Computation of subminimum I.* For purposes of paragraphs (a)(2), (3), and (4) of this section, subminimum I for an accounting period means the aggregate of the following with

respect to all sound recordings of musical works used in the relevant offering of the service provider during the accounting period—

(1) In cases in which the record company is the licensee under 17 U.S.C. 115 and the record company has granted the rights to make interactive streams or limited downloads of a sound recording through the third-party service together with the right to reproduce and distribute the musical work embodied therein, 17.36% of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(2) In cases in which the record company is not the licensee under 17 U.S.C. 115 and the record company has granted the rights to make interactive streams or limited downloads of a sound recording through the third-party service without the right to reproduce and distribute the musical work embodied therein, 21% of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(c) *Computation of subminimum II.* For purposes of paragraphs (a)(1) and (5) of this section, subminimum II for an accounting period means the aggregate of the following with respect to all sound recordings of musical works used in the relevant offering of the service provider during the accounting period—

(1) In cases in which the record company is the licensee under 17 U.S.C. 115 and the record company has granted the rights to make interactive streams and limited downloads of a sound recording through the third-party service together with the right to reproduce and distribute the musical work embodied therein, 18% of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(2) In cases in which the record company is not the licensee under 17 U.S.C. 115 and the record company has granted the rights to make interactive streams or limited downloads of a sound recording through the third-party service without the right to reproduce and distribute the musical work embodied therein, 22% of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(d) *Payments made by third parties.* If a record company providing sound recording rights to the service provider for a licensed activity—

(1) Recognizes revenue (in accordance with GAAP, and including for the avoidance of doubt all applicable consideration with respect to such rights for the accounting

period, regardless of the form or timing of payment) from a person or entity other than the service provider providing the licensed activity and its affiliates, and

(2) Such revenue is received, in the context of the transactions involved, as applicable consideration for such rights,

(3) Then such revenue shall be added to the amounts expensed by the service provider solely for purposes of paragraphs(b)(1), (b)(2), (c)(1), or (c)(2) of this section, as applicable, if not already included in such expensed amounts. Where the service provider is the licensee, if the service provider provides the record company all information necessary for the record company to determine whether additional royalties are payable by the service provider hereunder as a result of revenue recognized from a person or entity other than the service provider as described in the immediately preceding sentence, then the record company shall provide such further information as necessary for the service provider to calculate the additional royalties and indemnify the service provider for such additional royalties. The sole obligation of the record company shall be to pay the licensee such additional royalties if actually payable as royalties hereunder; provided, however, that this shall not affect any otherwise existing right or remedy of the copyright owner nor diminish the licensee's obligations to the copyright owner.

(e) *Computation of subscriber-based royalty rates.* For purposes of paragraph (a) of this section, to determine the minimum ~~or subscriber-based royalty floor, as~~ applicable to any particular offering, the total number of subscriber-months for the accounting period, shall be calculated taking into account all end users who were subscribers for complete calendar months, prorating in the case of end users who were subscribers for only part of a calendar month, and deducting on a prorated basis for end users covered by a free trial period subject to the promotional royalty rate as described in §385.14(b)(2), except that in the case of a bundled subscription service, subscriber-months shall instead be determined with respect to active subscribers as defined in paragraph (a)(4) of this section. The product of the total number of subscriber-months for the accounting period and the specified number of cents per subscriber (or active subscriber, as the case may be) shall be used as the subscriber-based component of the minimum or subscriber-based royalty floor, as applicable, for the accounting period. A family plan shall be treated as 1.5 subscribers per month, prorated in the case of a family plan end user who subscribed for only part of a calendar month.

[74 FR 4529, Jan. 26, 2009, as amended at 78 FR 67943, Nov. 13, 2013]

§385.14 Promotional royalty rate.

(a) *General provisions.* (1) This section establishes a royalty rate of zero in the case of certain promotional interactive streaming activities, and of certain promotional limited downloads offered in the context of a free trial period for a digital music subscription service under a license pursuant to 17 U.S.C. 115. Subject to the requirements of 17 U.S.C. 115 and the additional provisions of paragraphs (b) through (e) of this section, the promotional royalty rate shall apply to a musical work when a record company transmits or authorizes the transmission of interactive streams or limited downloads of a sound recording that embodies such musical work, only if—

(i) The primary purpose of the record company in making or authorizing the interactive streams or limited downloads is to promote the sale or other paid use of sound recordings by the relevant artists, including such sound recording, through established retail channels or the paid use of one or more established retail music services through which the sound recording is available, and not to promote any other good or service;

(ii) Either—

(A) The sound recording (or a different version of the sound recording embodying the same musical work) is being lawfully distributed and offered to consumers through the established retail channels or services described in paragraph (a)(1)(i) of this section; or

(B) In the case of a sound recording of a musical work being prepared for commercial release but not yet released, the record company has a good faith intention of lawfully distributing and offering to consumers the sound recording (or a different version of the sound recording embodying the same musical work) through the established retail channels or services described in paragraph (a)(1)(i) of this section within 90 days after the commencement of the first promotional use authorized under this section (and in fact does so, unless it can demonstrate that notwithstanding its bona fide intention, it unexpectedly did not meet the scheduled release date);

(iii) In connection with authorizing the promotional interactive streams or limited downloads, the record company has obtained from the service provider it authorizes a written representation that—

(A) In the case of a promotional use other than interactive streaming subject to paragraph (d) of this section, the service provider agrees to maintain for a period of no less than 5 years from the conclusion of the promotional activity complete and accurate records of the relevant authorization and dates on which the promotion was conducted, and identifying each sound recording of a musical work made available through the promotion, the licensed activity involved, and the number of plays of such recording;

(B) The service provider is in all material respects operating with appropriate license authority with respect to the musical works it is using for promotional and other purposes; and

(C) The representation is signed by a person authorized to make the representation on behalf of the service provider;

(iv) Upon receipt by the record company of written notice from the copyright owner of a musical work or agent of the copyright owner stating in good faith that a particular service is in a material manner operating without appropriate license authority from such copyright owner, the record company shall within 5 business days withdraw by written notice its authorization of such uses of such copyright owner's musical works under the promotional royalty rate by that service;

(v) The interactive streams or limited downloads are offered free of any charge to the end user and, except in the case of interactive streaming subject to paragraph (d) of this section in the case of a free trial period for a digital music subscription service, no more than 5 sound recordings at a time are streamed in response to any individual request of an end user;

(vi) The interactive streams and limited downloads are offered in a manner such that the user is at the same time (e.g., on the same Web page) presented with a purchase opportunity for the relevant sound recording or an opportunity to subscribe to a paid service offering the sound recording, or a link to such a purchase or subscription opportunity, except—

(A) In the case of interactive streaming of a sound recording being prepared for commercial release but not yet released, certain mobile applications or other circumstances in which the foregoing is impracticable in view of the current state of the relevant technology; and

(B) In the case of a free trial period for a digital music subscription service, if end users are periodically offered an opportunity to subscribe to the service during such free trial period; and

(vii) The interactive streams and limited downloads are not provided in a manner that is likely to cause mistake, to confuse or to deceive, reasonable end users as to the endorsement or association of the author of the musical work with any product, service or activity other than the sale or paid use of sound recordings or paid use of a music service through which sound recordings are available. Without limiting the foregoing, upon receipt of written notice from the copyright owner of a musical work or agent of the copyright owner stating in good faith that a particular use of such work under this section violates the limitation set forth in this paragraph (a)(1)(vii), the record company shall promptly cease such use of that work, and within 5 business days withdraw by written notice its authorization of such use by all relevant third parties it has authorized under this section.

(2) To rely upon the promotional royalty rate, a record company making or authorizing interactive streams or limited downloads shall keep complete and accurate contemporaneous written records of such uses, including the sound recordings and musical works involved, the artists, the release dates of the sound recordings, a brief statement of the promotional activities authorized, the identity of the service or services where each promotion is authorized (including the Internet address if applicable), the beginning and end date of each period of promotional activity authorized, and the representation required by paragraph (a)(1)(iii) of this section; provided that, in the case of trial subscription uses, such records shall instead consist of the contractual terms that bear upon promotional uses by the particular digital music subscription services it authorizes; and further provided that, if the record company itself is conducting the promotion, it shall also maintain any additional records described in paragraph (a)(1)(iii)(A) of this section. The records required by this paragraph (a)(2) shall be maintained for no less time than the record company maintains records of usage of royalty-bearing uses involving the same type of licensed activity in the ordinary course of business, but in no event for less than 5 years from the conclusion of the promotional activity to which they pertain. If the copyright owner of a musical work or its agent requests a copy of the information to be

maintained under this paragraph (a)(2) with respect to a specific promotion or relating to a particular sound recording of a musical work, the record company shall provide complete and accurate documentation within 10 business days, except for any information required under paragraph (a)(1)(iii)(A) of this section, which shall be provided within 20 business days, and provided that if the copyright owner or agent requests information concerning a large volume of promotions or sound recordings, the record company shall have a reasonable time, in view of the amount of information requested, to respond to any request of such copyright owner or agent. If the record company does not provide required information within the required time, and upon receipt of written notice citing such failure does not provide such information within a further 10 business days, the uses will be considered not to be subject to the promotional royalty rate and the record company (but not any third-party service it has authorized) shall be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved.

(3) If the copyright owner of a musical work or its agent requests a copy of the information to be maintained under paragraph (a)(1)(iii)(A) of this section by a service authorized by a record company with respect to a specific promotion, the service provider shall provide complete and accurate documentation within 20 business days, provided that if the copyright owner or agent requests information concerning a large volume of promotions or sound recordings, the service provider shall have a reasonable time, in view of the amount of information requested, to respond to any request of such copyright owner or agent. If the service provider does not provide required information within the required time, and upon receipt of written notice citing such failure does not provide such information within a further 10 business days, the uses will be considered not to be subject to the promotional royalty rate and the service provider (but not the record company) will be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved.

(4) The promotional royalty rate is exclusively for audio-only interactive streaming and limited downloads of musical works subject to licensing under 17 U.S.C. 115. The promotional royalty rate does not apply to any other use under 17 U.S.C. 115; nor does it apply to public performances, audiovisual works, lyrics or other uses outside the scope of 17 U.S.C. 115. Without limitation, uses subject to licensing under 17 U.S.C. 115 that do not qualify for the promotional royalty rate (including without limitation interactive streaming or limited downloads of a musical work beyond the time limitations applicable to the promotional royalty rate) require payment of applicable royalties. This section is based on an understanding of industry practices and market conditions at the time of its development, among other things. The terms of this section shall be subject to de novo review and consideration (or elimination altogether) in future proceedings before the Copyright Royalty Judges. Nothing in this section shall be interpreted or construed in such a manner as to nullify or diminish any limitation, requirement or obligation of 17 U.S.C. 115 or other protection for musical works afforded by the Copyright Act, 17 U.S.C. 101 *et seq.*

(b) *Interactive streaming and limited downloads of full-length musical works through third-party services.* In addition to those of paragraph (a) of this section, the provisions of this paragraph (b) apply to interactive streaming, and limited downloads (in the context of a free trial

period for a digital music subscription service), authorized by record companies under the promotional royalty rate through third-party services (including Web sites) that is not subject to paragraphs (c) or (d) of this section. Such interactive streams and limited downloads may be made or authorized by a record company under the promotional royalty rate only if—

(1) No applicable consideration for making or authorizing the relevant interactive streams or limited downloads is received by the record company, any of its affiliates, or any other person or entity acting on behalf of or in lieu of the record company, except for in-kind promotional consideration given to a record company (or affiliate thereof) that is used to promote the sale or paid use of sound recordings or the paid use of music services through which sound recordings are available;

(2) In the case of interactive streaming and limited downloads offered in the context of a free trial period for a digital music subscription service, the free trial period does not exceed 30 consecutive days per subscriber per two-year period; and

(3) In contexts other than a free trial period for a digital music subscription service, interactive streaming subject to paragraph (b) of this section of a particular sound recording is authorized by the record company on no more than 60 days total for all services (*i.e.*, interactive streaming under paragraph (b) of this section of a particular sound recording may be authorized on no more than a total of 60 days, which need not be consecutive, and on any one such day, interactive streams may be offered on one or more services); provided, however, that an additional 60 days shall be available each time the sound recording is re-released by the record company in a remastered form or as a part of a compilation with a different set of sound recordings than the original release or any prior compilation including such sound recording.

(4) In the event that a record company authorizes promotional uses in excess of the time limitations of paragraph (b) of this section, the record company, and not the third-party service it has authorized, shall be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved. In the event that a third-party service exceeds the scope of any authorization by a record company, the service provider, and not the record company, shall be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved.

(c) *Interactive streaming of full-length musical works through record company and artist services.* In addition to those of paragraph (a) of this section, the provisions of this paragraph (c) apply to interactive streaming conducted or authorized by record companies under the promotional royalty rate through a service (e.g., a Web site) directly owned or operated by the record company, or directly owned or operated by a recording artist under the authorization of the record company, and that is not subject to paragraph (d) of this section. For the avoidance of doubt and without limitation, an artist page or site on a third-party service (e.g., a social networking service) shall not be considered a service operated by the record company or artist. Such interactive streams may be made or authorized by a record company under the promotional royalty rate only if—

(1) The interactive streaming subject to this paragraph (c) of a particular sound recording is offered or authorized by the record company on no more than 90 days total for all services (*i.e.*, interactive streaming under this paragraph (c) of a particular sound recording may be authorized on no more than a total of 90 days, which need not be consecutive, and on any such day, interactive streams may be offered on one or more services operated by the record company or artist, subject to the provisions of paragraph (b)(2) of this section); provided, however, that an additional 90 days shall be available each time the sound recording is re-released by the record company in a remastered form or as part of a compilation with a different set of sound recordings than prior compilations that include that sound recording;

(2) In the case of interactive streaming through a service devoted to one featured artist, the interactive streams subject to this paragraph (c) of this section of a particular sound recording are made or authorized by the record company on no more than one official artist site per artist and are recordings of that artist; and

(3) In the case of interactive streaming through a service that is not limited to a single featured artist, all interactive streaming on such service (whether eligible for the promotional royalty rate or not) is limited to sound recordings of a single record company and its affiliates and the service would not reasonably be considered to be a meaningful substitute for a paid music service.

(d) *Interactive streaming of clips.* In addition to those in paragraph (a) of this section, the provisions of this paragraph (d) apply to interactive streaming conducted or authorized by record companies under the promotional royalty rate of segments of sound recordings of musical works with a playing time that does not exceed 90 seconds. Such interactive streams may be made or authorized by a record company under the promotional royalty rate without any of the temporal limitations set forth in paragraphs (b) and (c) of this section (but subject to the other conditions of paragraphs (b) and (c) of this section, as applicable). For clarity, this paragraph (d) is strictly limited to the uses described herein and shall not be construed as permitting the creation or use of an excerpt of a musical work in violation of 17 U.S.C. 106(2) or 115(a)(2) or any other right of a musical work owner.

[74 FR 4529, Jan. 26, 2009, as amended at 74 FR 6834, Feb. 11, 2009; 78 FR 67944, Nov. 13, 2013]

§385.15 ~~[Reserved]~~Discounts for Student Plans

In calculating the royalty payments for licensed activity in §385.12, for each student plan, a service provider may discount the minimum royalty rate(s) as set forth in §385.13 commensurate with the discount off the retail price offered to student plan subscribers, not to exceed 50%.

§385.16 Reproduction and distribution rights covered.

A compulsory license under 17 U.S.C. 115 extends to all reproduction and distribution rights that may be necessary for the provision of the licensed activity, solely for the purpose of providing such licensed activity (and no other purpose).

§385.17 Effect of rates.

In any future proceedings under 17 U.S.C. 115(c)(3)(C) and (D), the royalty rates payable for a compulsory license shall be established de novo.

Subpart C—Limited Offerings, Mixed Service Bundles, Music Bundles, Paid Locker Services and Purchased Content Locker Services

SOURCE: 78 FR 67944, Nov. 13, 2013, unless otherwise noted.

§385.20 General.

(a) *Scope.* This subpart establishes rates and terms of royalty payments for certain reproductions or distributions of musical works through limited offerings, mixed service bundles, music bundles, paid locker services and purchased content locker services provided in accordance with the provisions of 17 U.S.C. 115. For the avoidance of doubt, to the extent that product configurations for which rates are specified in subpart A of this part are included within licensed subpart C activity, as defined in §385.21, the rates specified in subpart A of this part shall not apply, except that in the case of a music bundle the compulsory licensee may elect to pay royalties for the music bundle pursuant to subpart C of this part or for the components of the bundle pursuant to subpart A of this part.

(b) *Legal compliance.* A licensee that, pursuant to 17 U.S.C. 115, makes or authorizes reproduction or distribution of musical works in limited offerings, mixed service bundles, music bundles, paid locker services or purchased content locker services shall comply with the requirements of that section, the rates and terms of this subpart, and any other applicable regulations, with respect to such musical works and uses licensed pursuant to 17 U.S.C. 115.

(c) *Interpretation.* This subpart is intended only to set rates and terms for situations in which the exclusive rights of a copyright owner are implicated and a compulsory license pursuant to 17 U.S.C. 115 is obtained. Neither this subpart nor the act of obtaining a license under 17 U.S.C. 115 is intended to express or imply any conclusion as to the circumstances in which any of the exclusive rights of a copyright owner are implicated or a license, including a compulsory license pursuant to 17 U.S.C. 115, must be obtained.

(d) *Relationship to voluntary agreements.* Notwithstanding the royalty rates and terms established in this subpart, the rates and terms of any license agreements entered into by copyright owners and Licensees (as defined below) concerning rights within the scope of 17 U.S.C. 115, shall apply in lieu of the rates and terms of this subpart to the use of musical works within the scope of such agreements.

§385.21 Definitions.

For purposes of this subpart, the following definitions shall apply:

Affiliate shall have the meaning given in §385.11.

Applicable consideration shall have the meaning given in §385.11, except that for purposes of this subpart C, references in the definition of "Applicable consideration" in §385.11 to licensed activity shall mean licensed subpart C activity, as defined in this section.

Free trial royalty rate means the statutory royalty rate of zero in the case of certain free trial periods, as provided in §385.24.

GAAP shall have the meaning given in §385.11.

Interactive stream shall have the meaning given in §385.11.

Licensee shall have the meaning given in §385.11.

Licensed subpart C activity means, referring to subpart C of this part—

(1) In the case of a limited offering, the applicable interactive streams or limited downloads;

(2) In the case of a locker service, the applicable interactive streams, permanent digital downloads, restricted downloads or ringtones;

(3) In the case of a music bundle, the applicable reproduction or distribution of a physical phonorecord, permanent digital download or ringtone; and

(4) In the case of a mixed service bundle, the applicable—

(i) Permanent digital downloads;

(ii) Ringtones;

(iii) To the extent a limited offering is included in a mixed service bundle, interactive streams or limited downloads; or

(iv) To the extent a locker service is included in a mixed service bundle, interactive streams, permanent digital downloads, restricted downloads or ringtones.

Limited download shall have the meaning given in §385.11.

Limited offering means a subscription service providing interactive streams or limited downloads where—

(1) An end user is not provided the opportunity to listen initially to a particular sound recording chosen by the end user at a time chosen by the end user (i.e., the service does not provide interactive streams of individual recordings that are on-demand, and any limited downloads are rendered only as part of programs rather than as individual recordings that are on-demand); ~~or~~provided that the ability of an end user to replay a sound recording previously and recently provided to the end user on a noninteractive basis shall not be deemed for the purposes of this subparagraph (1) to be a sound recording chosen by the end user at a time chosen by the end user; or

(2) The particular sound recordings available to the end user over a period of time are substantially limited relative to services in the marketplace providing access to a comprehensive catalog of recordings (e.g., a service limited to a particular genre, or permitting interactive streaming only from a monthly playlist consisting of a limited set of recordings).

Locker service means a service providing access to sound recordings of musical works in the form of interactive streams, permanent digital downloads, restricted downloads or ringtones, where the service has reasonably determined that phonorecords of the applicable sound recordings have been purchased by the end user or are otherwise in the possession of the end user prior to the end user's first request to access such sound recordings by means of the service. The term locker service does not extend to any part of a service otherwise meeting this definition as to which a license is not obtained for the applicable reproductions and distributions of musical works.

Mixed service bundle means an offering of one or more of permanent digital downloads, ringtones, locker services or limited offerings, together with one or more of non-music services (e.g., Internet access service, mobile phone service) or non-music products (e.g., a device such as a phone) of more than token value, that is provided to users as part of one transaction without pricing for the music services or music products separate from the whole offering.

Music bundle means an offering of two or more of physical phonorecords, permanent digital downloads or ringtones provided to users as part of one transaction (e.g., download plus ringtone, CD plus downloads). A music bundle must contain at least two different product configurations and cannot be combined with any other offering containing licensed activity under subpart B of this part or subpart C of this part.

(1) In the case of music bundles containing one or more physical phonorecords, the physical phonorecord component of the music bundle must be sold under a single catalog number, and the musical works embodied in the digital phonorecord delivery configurations in the music bundle must be the same as, or a subset of, the musical works embodied in the physical phonorecords; provided that when the music bundle contains a set of digital phonorecord deliveries sold by the same record company under substantially the same title as the physical phonorecord (e.g., a corresponding digital album), up to 5 sound recordings of musical works that are included in the stand-alone version of such set of digital phonorecord deliveries but are not included on the physical phonorecord may be included among the digital phonorecord deliveries in the music bundle. In addition, the seller must permanently part with possession of the physical phonorecord or phonorecords sold as part of the music bundle.

(2) In the case of music bundles composed solely of digital phonorecord deliveries, the number of digital phonorecord deliveries in either configuration cannot exceed 20, and the musical works embodied in each configuration in the music bundle must be the same as, or a subset of, the musical works embodied in the configuration containing the most musical works.

Paid locker service means a locker service that is a subscription service.

Permanent digital download shall have the meaning given in §385.2.

Purchased content locker service means a locker service made available to end-user purchasers of permanent digital downloads, ringtones or physical phonorecords at no incremental charge above the otherwise applicable purchase price of the permanent digital downloads, ringtones or physical phonorecords, with respect to the sound recordings embodied in permanent digital downloads or ringtones or physical phonorecords purchased from a qualifying seller as described in paragraph (1) of this definition of "Purchased content locker service," whereby the locker service enables the purchaser to engage in one or both of the qualifying activities indentified in paragraph (2) of this definition of "Purchased content locker service." In addition, in the case of a locker service made available to end-user purchasers of physical phonorecords, the seller must permanently part with possession of the physical phonorecords.

(1) A qualifying seller for purposes of this definition of "purchased content locker service" is the same entity operating such locker service, one of its affiliates or predecessors, or—

(i) In the case of permanent digital downloads or ringtones, a seller having another legitimate connection to the locker service provider set forth in one or more written agreements (including that the locker service and permanent digital downloads or ringtones are offered through the same third party); or

(ii) In the case of physical phonorecords, a seller having an agreement with—

(A) The locker service provider whereby such parties establish an integrated offer that creates a consumer experience commensurate with having the same service both sell the physical phonorecord and offer the locker service; or

(B) A service provider that also has an agreement with the entity offering the locker service, where pursuant to those agreements the service provider has established an integrated offer that creates a consumer experience commensurate with having the same service both sell the physical phonorecord and offer the locker service.

(2) Qualifying activity for purposes of this definition of "purchased content locker service" is enabling the purchaser to—

(i) Receive one or more additional phonorecords of such purchased sound recordings of musical works in the form of permanent digital downloads or ringtones at the time of purchase, or

(ii) Subsequently access such purchased sound recordings of musical works in the form of interactive streams, additional permanent digital downloads, restricted downloads or ringtones.

Record company shall have the meaning given in §385.11.

Restricted download means a digital phonorecord delivery distributed in the form of a download that may not be retained and played on a permanent basis. The term restricted download includes a limited download.

Ringtone shall have the meaning given in §385.2.

Service provider shall have the meaning given in §385.11, except that for purposes of this subpart references in the definition of "Service provider" in §385.11 to licensed activity and service revenue shall mean licensed subpart C activity, as defined in this section, and subpart C service revenue, as defined in this section, respectively.

Subpart C offering means, referring to subpart C of this part, a service provider's offering of licensed subpart C activity, as defined in this section, that is subject to a particular rate set forth in §385.23(a) (e.g., a particular subscription plan available through the service provider).

Subpart C relevant page means, referring to subpart C of this part, a page (including a Web page, screen or display) from which licensed subpart C activity, as defined in this section, offered by a service provider is directly available to end users, but only where the offering of licensed subpart C activity, as defined in this section, and content that directly relates to the offering of licensed subpart C activity, as defined in this section, (e.g., an image of the artist or artwork closely associated with such offering, artist or album information, reviews of such offering, credits and music player controls) comprises 75% or more of the space on that page, excluding any space occupied by advertising. A licensed subpart C activity, as defined in this section, is directly available to end users from a page if sound recordings of musical works can be accessed by end users for licensed subpart C activity, as defined in this section, from such page (in most cases this will be the page where the transmission takes place).

Subpart C service revenue. (1) Subject to paragraphs (2) through (6) of the definition of "Subpart C service revenue," as defined in this section, and subject to GAAP, subpart C service revenue shall mean, referring to subpart C of this part, the following:

(i) All revenue recognized by the service provider from end users from the provision of licensed subpart C activity, as defined in this section;

(ii) All revenue recognized by the service provider by way of sponsorship and commissions as a result of the inclusion of third-party "in-stream" or "in-download" advertising as part of licensed subpart C activity, as defined in this section, (i.e., advertising placed immediately at the start, end or during the actual delivery, by way of transmissions of a musical work that constitute licensed subpart C activity, as defined in this section); and

(iii) All revenue recognized by the service provider, including by way of sponsorship and commissions, as a result of the placement of third-party advertising on a subpart C relevant page, as defined in this section, of the service or on any page that directly follows such subpart C relevant page, as defined in this section, leading up to and including the transmission of a musical work that constitutes licensed subpart C activity, as defined in this section; provided that, in the case where more than one service is actually available to end users

from a subpart C relevant page, as defined in this section, any advertising revenue shall be allocated between such services on the basis of the relative amounts of the page they occupy.

(2) In each of the cases identified in paragraph (1) of the definition of "Subpart C service revenue," of this section such revenue shall, for the avoidance of doubt, include:

(i) ~~Include a~~Any such revenue recognized by the service provider, or if not recognized by the service provider, by any associate, affiliate, agent or representative of such service provider in lieu of its being recognized by the service provider;

(ii) ~~Include t~~The value of any barter or other nonmonetary consideration; and

~~(iii) Not be reduced by credit card commissions or similar payment process charges; and~~

(~~iv~~iii) Except as expressly set forth in this subpart, not be subject to any other deduction or set-off other than refunds to end users for licensed subpart C activity, as defined in this section, that they were unable to use due to technical faults in the licensed subpart C activity, as defined in this section, or other bona fide refunds or credits issued to end users in the ordinary course of business.

(3) In each of the cases identified in paragraph (1) of the definition of "Subpart C service revenue" of this section, such revenue shall, for the avoidance of doubt, exclude ~~revenue~~:

(i) Revenue derived solely in connection with services and activities other than licensed subpart C activity, as defined in this section, provided that advertising or sponsorship revenue shall be treated as provided in paragraphs (2) and (4) of the definition of "Subpart C service revenue" of this section. By way of example, the following kinds of revenue shall be excluded:

(~~i~~A) Revenue derived from predominantly non-music voice, content and text services, such as, by way of example and not limitation, news, talk, sports, weather, traffic and comedy programming, or podcasts of any of the foregoing;

(~~ii~~B) Revenue derived from other non-music products and services (including ticketing for live events or concerts, search services, sponsored searches and click-through commissions);

(~~iii~~C) Revenue generated from the sale of actual locker service storage space to the extent that such storage space is sold at a separate retail price;

(~~iv~~D) In the case of a locker service, revenue derived from the sale of permanent digital downloads or ringtones; and

(~~v~~ii) Revenue derived from other music or music-related products and services that are not or do not include licensed subpart C activity, as defined in this section.

(4) For purposes of paragraph (1) of the definition of “Subpart C service revenue” of this section:

~~, advertising or~~ (i) Advertising, sponsorship~~-~~, and subscription revenue shall be reduced by the actual cost (whether internal or paid to a third party) of obtaining such revenue (including credit card commissions, app store commissions, and similar payment process charges), not to exceed 15%.

(5) In the case of a mixed service bundle, the revenue deemed to be recognized from end users for the service for the purpose of the definition in paragraph (1) of the definition of “Subpart C service revenue” of this section shall be the greater of—

(i) The revenue recognized from end users for the mixed service bundle less the standalone published price for end users for each of the non-music product or non-music service components of the bundle; provided that, if there is no such standalone published price for a non-music component of the bundle, then the average standalone published price for end users for the most closely comparable non-music product or non-music service in the U.S. shall be used or, if more than one such comparable exists, the average of such standalone prices for such comparables shall be used; and

(ii) Either—

(A) In the case of a mixed service bundle that either has 750,000 subscribers or other registered users, or is reasonably expected to have 750,000 subscribers or other registered users within 1 year after commencement of the mixed service bundle, 40% of the standalone published price of the licensed music component of the bundle (i.e., the permanent digital downloads, ringtones, locker service or limited offering); provided that, if there is no such standalone published price for the licensed music component of the bundle, then the average standalone published price for end users for the most closely comparable licensed music component in the U.S. shall be used or, if more than one such comparable exists, the average of such standalone prices for such comparables shall be used; and further provided that in any case in which royalties were paid based on this paragraph due to a reasonable expectation of reaching 750,000 subscribers or other registered users within 1 year after commencement of the mixed service bundle and that does not actually happen, applicable payments shall, in the accounting period next following the end of such 1-year period, retroactively be adjusted as if paragraph (5)(ii)(B) of the definition of “Subpart C service revenue” of this section applied; or

(B) Otherwise, 50% of the standalone published price of the licensed music component of the bundle (i.e., the permanent digital downloads, ringtones, locker service or limited offering); provided that, if there is no such standalone published price for the licensed music component of the bundle, then the average standalone published price for end users for the most closely comparable licensed music component in the U.S. shall be used or, if more than one such comparable exists, the average of such standalone prices for such comparables shall be used.

(6) In the case of a music bundle containing a physical phonorecord, where the music bundle is distributed by a record company for resale and the record company is the compulsory licensee—

(i) Service revenue shall be 150% of the record company's wholesale revenue from the music bundle; and

(ii) The times at which distribution and revenue recognition are deemed to occur shall be in accordance with §201.19 of this title.

Subscription service means a digital music service for which end users are required to pay a fee to access the service for defined subscription periods of 3 years or less (in contrast to, for example, a service where the basic charge to users is a payment per download or per play), whether such payment is made for access to the service on a standalone basis or as part of a bundle with one or more other products or services, and including any use of such a service on a trial basis without charge as described in §385.24.

§385.22 Calculation of royalty payments in general.

(a) *Applicable royalty.* Licensees that make or authorize licensed subpart C activity, as defined in §385.21, pursuant to 17 U.S.C. 115 shall pay royalties therefor that are calculated as provided in this section, subject to the royalty rates and subscriber-based royalty floors for specific types of services provided in §385.23, except as provided for certain free trial periods in §385.24.

(b) *Rate calculation methodology.* Royalty payments for licensed subpart C activity, as defined in §385.21, shall be calculated as provided in this paragraph (b). If a service provides different subpart C offerings, as defined in §385.21, royalties must be separately calculated with respect to each such subpart C offering, as defined in §385.21, taking into consideration service revenue and expenses associated with such offering. Uses subject to the free trial royalty rate shall be excluded from the calculation of royalties due, as further described in this section and §385.23.

(1) *Step 1:* Calculate the All-In Royalty for the Subpart C Offering, as Defined in §385.21. For each accounting period, the all-in royalty for each subpart C offering, as defined in §385.21, of the service provider is the greater of:

(i) The applicable percentage of subpart C service revenue, as defined in §385.21, associated with the relevant offering as set forth in §385.23(a) (excluding any subpart C service revenue, as defined in §385.21, derived solely from licensed subpart C activity, as defined in §385.21, uses subject to the free trial royalty rate); and

(ii) The minimum specified in §385.23(a) for the subpart C offering, as defined in §385.21, involved.

(2) *Step 2:* Subtract applicable performance royalties to determine the payable royalty pool, which is the amount payable for the reproduction and distribution of all musical works used by the service provider by virtue of its licensed subpart C activity, as defined in §385.21, for a particular subpart C offering, as defined in §385.21, during the accounting period. From the amount determined in step 1 in paragraph (b)(1) of this section, for each subpart C offering, as defined in §385.21, of the service provider, subtract the total amount of royalties for public performance of musical works that has been or will be expensed pursuant to public performance licenses in connection with uses of musical works through such subpart C offering, as defined in §385.21, during the accounting period that constitute licensed subpart C activity, as defined in §385.21, (other than licensed subpart C activity, as defined in §385.21, subject to the free trial royalty rate), or in connection with previewing of such subpart C offering, as defined in §385.21, during the accounting period. Although this amount may be the total of the payments with respect to the service for that subpart C offering, as defined in §385.21, for the accounting period, it will be less than the total of such public performance payments if the service is also engaging in public performance of musical works that does not constitute licensed subpart C activity, as defined in §385.21, or previewing of such licensed subpart C activity, as defined in §385.21. In the case where the service is also engaging in the public performance of musical works that does not constitute licensed subpart C activity, as defined in §385.21, the amount to be subtracted for public performance payments shall be the amount of such payments allocable to licensed subpart C activity, as defined in §385.21, uses (other than free trial royalty rate uses), and previewing of such uses, in connection with the relevant subpart C offering, as defined in §385.21, as determined in relation to all uses of musical works for which the public performance payments are made for the accounting period. Such allocation shall be made on the basis of plays of musical works or, where per-play information is unavailable due to bona fide technical limitations as described in step 3 in paragraph (b)(3) of this section, using the same alternative methodology as provided in step 3 in paragraph (b)(3) of this section.

(3) *Step 3:* Calculate the Per-Work Royalty Allocation for Each Relevant Work. This is the amount payable for the reproduction and distribution of each musical work used by the service provider by virtue of its licensed subpart C activity, as defined in §385.21, through a particular subpart C offering, as defined in §385.21, during the accounting period. To determine this amount, the result determined in step 2 in paragraph (b)(2) of this section must be allocated to each musical work used through the subpart C offering, as defined in §385.21. The allocation shall be accomplished as follows:

(i) In the case of limited offerings (but not limited offerings that are part of mixed service bundles), by dividing the payable royalty pool determined in step 2 in paragraph (b)(2) of this section for such offering by the total number of plays of all musical works through such offering during the accounting period (other than free trial royalty rate plays) to yield a per-play allocation, and multiplying that result by the number of plays of each musical work (other than free trial royalty rate plays) through the offering during the accounting period. For purposes of determining the per-work royalty allocation in all calculations under this step 3 only (i.e., after the payable royalty pool has been determined), for sound recordings of musical works with a playing time of over 5 minutes, each play shall be counted as provided in paragraph (c) of this section. Notwithstanding the foregoing, if the service provider is not capable of tracking play information due to bona fide limitations of the available technology for services of that nature or

of devices usable with the service, the per-work royalty allocation may instead be accomplished in a manner consistent with the methodology used by the service provider for making royalty payment allocations for the use of individual sound recordings.

(ii) In the case of mixed service bundles and locker services, by—

(A) Determining a constructive number of plays of all licensed musical works that is the sum of the total number of interactive streams of all licensed musical works made through such offering during the accounting period (other than free trial royalty rate interactive streams), plus the total number of plays of restricted downloads of all licensed musical works made through such offering during the accounting period as to which the service provider tracks plays (other than free trial royalty rate restricted downloads), plus 5 times the total number of downloads of all licensed musical works made through such offering during the accounting period as to which the service provider does not track plays (other than free trial royalty rate downloads);

(B) Determining a constructive per-play allocation that is the payable royalty pool determined in step 2 of paragraph (b)(2) of this section for such offering divided by the constructive number of plays of all licensed musical works determined in paragraph (b)(3)(ii)(A) of this section;

(C) For each licensed musical work, determining a constructive number of plays of that musical work that is the sum of the total number of interactive streams of such licensed musical work made through such offering during the accounting period (other than free trial royalty rate interactive streams), plus the total number of plays of restricted downloads of such licensed musical work made through such offering during the accounting period as to which the service provider tracks plays (other than free trial royalty rate restricted downloads), plus 5 times the total number of downloads of such licensed musical work made through such offering during the accounting period as to which the service provider does not track plays (other than free trial royalty rate downloads); and

(D) For each licensed musical work, determining the per-work royalty allocation by multiplying the constructive per-play allocation determined in paragraph (b)(3)(ii)(B) of this section by the constructive number of plays of that musical work determined in paragraph (b)(3)(ii)(C) of this section.

(E) Notwithstanding the foregoing, if a service provider offers both a paid locker service and a purchased content locker service, and with respect to the purchased content locker service there is no subpart C service revenue, as defined in §385.21, and the applicable subminimum is zero dollars, then the service provider shall be permitted to include within the calculation of constructive plays under paragraphs (b)(3)(ii)(A) and (C) of this section for the paid locker service, the licensed subpart C activity, as defined in §385.21, made through the purchased content locker service (i.e., the total number of interactive streams of all licensed musical works made through the purchased content locker service during the accounting period (other than free trial royalty rate interactive streams), plus the total number of plays of restricted downloads of all licensed musical works made through the purchased content locker service

during the accounting period as to which the service provider tracks plays (other than free trial royalty rate restricted downloads), plus 5 times the total number of downloads of all licensed musical works made through the purchased content locker service during the accounting period as to which the service provider does not track plays (other than free trial royalty rate downloads)); provided that the relevant licensed subpart C activity, as defined in §385.21, made through the purchased content locker service is similarly included within the play calculation for the paid locker service for the corresponding sound recording rights.

(iii) In the case of music bundles, by—

(A) Allocating the payable royalty pool determined in step 2 of paragraph (b)(2) of this section to separate pools for each type of product configuration included in the music bundle (e.g., CD, permanent digital download, ringtone) in accordance with the ratios that the standalone published prices of the products that are included in the music bundle bear to each other; provided that, if there is no such standalone published price for such a product, then the average standalone published price for end users for the most closely comparable product in the U.S. shall be used or, if more than one such comparable exists, the average of such standalone prices for such comparables shall be used; and

(B) Allocating the product configuration pools determined in paragraph (b)(3)(iii)(A) of this section to individual musical works by dividing each such pool by the total number of sound recordings of musical works included in products of that configuration in the music bundle.

(c) *Overtime adjustment.* For purposes of the calculations in step 3 of paragraph (b)(3)(i) of this section only, for sound recordings of musical works with a playing time of over 5 minutes, adjust the number of plays as follows:

(1) 5:01 to 6:00 minutes—Each play = 1.2 plays

(2) 6:01 to 7:00 minutes—Each play = 1.4 plays

(3) 7:01 to 8:00 minutes—Each play = 1.6 plays

(4) 8:01 to 9:00 minutes—Each play = 1.8 plays

(5) 9:01 to 10:00 minutes—Each play = 2.0 plays

(6) For playing times of greater than 10 minutes, continue to add .2 plays for each additional minute or fraction thereof.

§385.23 Royalty rates and subscriber-based royalty floors for specific types of services.

(a) *In general.* The following royalty rates and subscriber-based royalty floors shall apply to the following types of licensed subpart C activity, as defined in §385.21:

(1) *Mixed service bundle.* In the case of a mixed service bundle, the percentage of subpart C service revenue, as defined in §385.21, applicable in step 1 of §385.22(b)(1)(i) is 11.35%. The minimum for use in step 1 of §385.22(b)(1)(ii) is the appropriate subminimum as described in paragraph (b) of this section for the accounting period, where the all-in percentage applicable to §385.23(b)(1) is 17.36%, and the sound recording-only percentage applicable to §385.23(b)(2) is 21%.

(2) *Music bundle.* In the case of a music bundle, the percentage of subpart C service revenue, as defined in §385.21, applicable in step 1 of §385.22(b)(1)(i) is 11.35%. The minimum for use in step 1 of §385.22(b)(1)(ii) is the appropriate subminimum as described in paragraph (b) of this section for the accounting period, where the all-in percentage applicable to §385.23(b)(1) and (3) is 17.36%, and the sound recording-only percentage applicable to §385.23(b)(2) is 21%.

(3) *Limited offering.* In the case of a limited offering, the percentage of subpart C service revenue, as defined in §385.21, applicable in step 1 of §385.22(b)(1)(i) is 10.5%. The minimum for use in step 1 of §385.22(b)(1)(ii) is the greater of—

(i) The appropriate subminimum as described in paragraph (b) of this section for the accounting period, where the all-in percentage applicable to §385.23(b)(1) is 17.36%, and the sound recording-only percentage applicable to §385.23(b)(2) is 21%; and

(ii) The aggregate amount of 18 cents per subscriber per month.

(4) *Paid locker service.* In the case of a paid locker service, the percentage of subpart C service revenue, as defined in §385.21, applicable in step 1 of §385.22(b)(1)(i) is 12%. The minimum for use in step 1 of §385.22(b)(1)(ii) is the greater of—

(i) The appropriate subminimum as described in paragraph (b) of this section for the accounting period, where the all-in percentage applicable to §385.23(b)(1) is 17.11%, and the sound recording-only percentage applicable to §385.23(b)(2) is 20.65%; and

(ii) The aggregate amount of 17 cents per subscriber per month.

(5) *Purchased content locker service.* In the case of a purchased content locker service, the percentage of subpart C service revenue, as defined in §385.21, applicable in step 1 of §385.22(b)(1)(i) is 12%. For the avoidance of doubt, paragraph (1)(i) of the definition of "Subpart C service revenue," as defined in §385.21, shall not apply. The minimum for use in step 1 in §385.22(b)(1)(ii) is the appropriate subminimum as described in paragraph (b) of this section for the accounting period, where the all-in percentage applicable to §385.23(b)(1) is 18%, and the sound recording-only percentage applicable to §385.23(b)(2) is 22%, except that for purposes of paragraph (b) of this section the applicable consideration expensed by the service for the relevant rights shall consist only of applicable consideration expensed by the service, if any, that is incremental to the applicable consideration expensed for the rights to make the relevant permanent digital downloads and ringtones.

(b) *Computation of subminima.* For purposes of paragraph (a) of this section, the subminimum for an accounting period is the aggregate of the following with respect to all sound recordings of musical works used in the relevant subpart C offering, as defined in §385.21, of the service provider during the accounting period—

(1) Except as provided in paragraph (b)(3) of this section, in cases in which the record company is the licensee under 17 U.S.C. 115 and the record company has granted the rights to engage in licensed subpart C activity, as defined in §385.21, with respect to a sound recording through the third-party service together with the right to reproduce and distribute the musical work embodied therein, the appropriate all-in percentage from paragraph (a) of this section of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(2) In cases in which the record company is not the licensee under 17 U.S.C. 115 and the record company has granted the rights to engage in licensed subpart C activity, as defined in §385.21, with respect to a sound recording through the third-party service without the right to reproduce and distribute the musical work embodied therein, the appropriate sound recording-only percentage from paragraph (a) of this section of the total amount expensed by the service provider or any of its affiliates in accordance with GAAP for such rights for the accounting period, which amount shall equal the applicable consideration for such rights at the time such applicable consideration is properly recognized as an expense under GAAP.

(3) In the case of a music bundle containing a physical phonorecord, where the music bundle is distributed by a record company for resale and the record company is the compulsory licensee, the appropriate all-in percentage from paragraph (a) of this section of the record company's total wholesale revenue from the music bundle in accordance with GAAP for the accounting period, which amount shall equal the applicable consideration for such music bundle at the time such applicable consideration is properly recognized as revenue under GAAP, subject to the provisions of §201.19 of this title concerning the times at which distribution and revenue recognition are deemed to occur.

(4) If a record company providing sound recording rights to the service provider for a licensed subpart C activity, as defined in §385.21—

(i) Recognizes revenue (in accordance with GAAP, and including for the avoidance of doubt all applicable consideration with respect to such rights for the accounting period, regardless of the form or timing of payment) from a person or entity other than the service provider providing the licensed subpart C activity, as defined in §385.21, and its affiliates, and

(ii) Such revenue is received, in the context of the transactions involved, as applicable consideration for such rights,

(iii) Then such revenue shall be added to the amounts expensed by the service provider solely for purposes of paragraph (b)(1) or (2) of this section, as applicable, if not already included in such expensed amounts. Where the service provider is the licensee, if the service provider provides the record company all information necessary for the record company to determine whether additional royalties are payable by the service provider hereunder as a result of revenue recognized from a person or entity other than the service provider as described in the immediately preceding sentence, then the record company shall provide such further information as necessary for the service provider to calculate the additional royalties and indemnify the service provider for such additional royalties. The sole obligation of the record company shall be to pay the licensee such additional royalties if actually payable as royalties hereunder; provided, however, that this shall not affect any otherwise existing right or remedy of the copyright owner nor diminish the licensee's obligations to the copyright owner.

(c) *Computation of subscriber-based royalty rates.* For purposes of paragraphs (a)(3) and (4) of this section, to determine the subscriber-based minimum applicable to any particular subpart C offering, as defined in §385.21, the total number of subscriber-months for the accounting period shall be calculated, taking into account all end users who were subscribers for complete calendar months, prorating in the case of end users who were subscribers for only part of a calendar month, and deducting on a prorated basis for end users covered by a free trial period subject to the free trial royalty rate as described in §385.24. The product of the total number of subscriber-months for the accounting period and the specified number of cents per subscriber shall be used as the subscriber-based component of the minimum for the accounting period.

§385.24 Free trial periods.

(a) *General provisions.* This section establishes a royalty rate of zero in the case of certain free trial periods for mixed service bundles, paid locker services and limited offerings under a license pursuant to 17 U.S.C. 115. Subject to the requirements of 17 U.S.C. 115 and the additional provisions of paragraphs (b) through (e) of this section, the free trial royalty rate shall apply to a musical work when a record company transmits or authorizes the transmission, as part of a mixed service bundle, paid locker service or limited offering, of a sound recording that embodies such musical work, only if—

(1) The primary purpose of the record company in providing or authorizing the free trial period is to promote the applicable subpart C offering, as defined in §385.21;

(2) No applicable consideration for making or authorizing the transmissions is received by the record company, or any other person or entity acting on behalf of or in lieu of the record company, except for in-kind promotional consideration used to promote the sale or paid use of sound recordings or audiovisual works embodying musical works or the paid use of music services through which sound recordings or audiovisual works embodying musical works are available;

(3) The free trial period does not exceed 30 consecutive days per subscriber per two-year period;

(4) In connection with authorizing the transmissions, the record company has obtained from the service provider it authorizes a written representation that—

(i) The service provider agrees to maintain for a period of no less than 5 years from the end of each relevant accounting period complete and accurate records of the relevant authorization, and identifying each sound recording of a musical work made available through the free trial period, the licensed subpart C activity, as defined in §385.21, involved, and the number of plays or downloads, as applicable, of such recording;

(ii) The service is in all material respects operating with appropriate license authority with respect to the musical works it is using; and

(iii) The representation is signed by a person authorized to make the representation on behalf of the service provider;

(5) Upon receipt by the record company of written notice from the copyright owner of a musical work or agent of the copyright owner stating in good faith that a particular service is in a material manner operating without appropriate license authority from such copyright owner, the record company shall within 5 business days withdraw by written notice its authorization of such uses of such copyright owner's musical works under the free trial royalty rate by that service;

(6) The free trial period is offered free of any charge to the end user; and

(7) End users are periodically offered an opportunity to subscribe to the service during such free trial period.

(b) *Recordkeeping by record companies.* To rely upon the free trial royalty rate for a free trial period, a record company making or authorizing the free trial period shall keep complete and accurate contemporaneous written records of the contractual terms that bear upon the free trial period; and further provided that, if the record company itself is conducting the free trial period, it shall also maintain any additional records described in paragraph (a)(4)(i) of this section. The records required by this paragraph (b) shall be maintained for no less time than the record company maintains records of usage of royalty-bearing uses involving the same type of licensed subpart C activity, as defined in §385.21, in the ordinary course of business, but in no event for less than 5 years from the conclusion of the licensed subpart C activity, as defined in §385.21, to which they pertain. If the copyright owner of a musical work or its agent requests a copy of the information to be maintained under this paragraph (b) with respect to a specific free trial period, the record company shall provide complete and accurate documentation within 10 business days, except for any information required under paragraph (a)(4)(i) of this section, which shall be provided within 20 business days, and provided that if the copyright owner or agent requests information concerning a large volume of free trial periods or sound recordings, the record company shall have a reasonable time, in view of the amount of information requested, to respond to any request of such copyright owner or agent. If the record company does not provide required information within the required time, and upon receipt of written notice citing such failure does not provide such information within a further 10 business days,

the uses will be considered not to be subject to the free trial royalty rate and the record company (but not any third-party service it has authorized) shall be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved.

(c) *Recordkeeping by services.* If the copyright owner of a musical work or its agent requests a copy of the information to be maintained under paragraph (a)(4)(i) of this section by a service authorized by a record company with respect to a specific promotion, the service provider shall provide complete and accurate documentation within 20 business days, provided that if the copyright owner or agent requests information concerning a large volume of free trial periods or sound recordings, the service provider shall have a reasonable time, in view of the amount of information requested, to respond to any request of such copyright owner or agent. If the service provider does not provide required information within the required time, and upon receipt of written notice citing such failure does not provide such information within a further 10 business days, the uses will be considered not to be subject to the free trial royalty rate and the service provider (but not the record company) will be liable for any payment due for such uses; provided, however, that all rights and remedies of the copyright owner with respect to unauthorized uses shall be preserved.

(d) *Interpretation.* The free trial royalty rate is exclusively for audio-only licensed subpart C activity, as defined in §385.21, involving musical works subject to licensing under 17 U.S.C. 115. The free trial royalty rate does not apply to any other use under 17 U.S.C. 115; nor does it apply to public performances, audiovisual works, lyrics or other uses outside the scope of 17 U.S.C. 115. Without limitation, uses subject to licensing under 17 U.S.C. 115 that do not qualify for the free trial royalty rate (including without limitation licensed subpart C activity, as defined in §385.21, beyond the time limitations applicable to the free trial royalty rate) require payment of applicable royalties. This section is based on an understanding of industry practices and market conditions at the time of its development, among other things. The terms of this section shall be subject to de novo review and consideration (or elimination altogether) in future proceedings before the Copyright Royalty Judges. Nothing in this section shall be interpreted or construed in such a manner as to nullify or diminish any limitation, requirement or obligation of 17 U.S.C. 115 or other protection for musical works afforded by the Copyright Act, 17 U.S.C. 101, *et seq.*

§385.25 Reproduction and distribution rights covered.

A compulsory license under 17 U.S.C. 115 extends to all reproduction and distribution rights that may be necessary for the provision of the licensed subpart C activity, as defined in §385.21, solely for the purpose of providing such licensed subpart C activity, as defined in §385.21 (and no other purpose).

§385.26 Effect of rates.

In any future proceedings under 17 U.S.C. 115(c)(3)(C) and (D), the royalty rates payable for a compulsory license shall be established de novo.

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

INDEX OF PANDORA MEDIA, INC. WITNESS TESTIMONY

Witness	Title
Michael Herring	President and Chief Financial Officer, Pandora Media, Inc. (Restricted)
Christopher Phillips	Chief Product Officer, Pandora Media, Inc. (Restricted)
Adam Parness	Head of Publisher Licensing and Relations, Pandora Media, Inc.
Michael L. Katz	Professor of Strategy and Leadership, Haas School of Business, University of California at Berkeley (Restricted)
David B. Pakman	Partner, Venrock[1]

[1] The Testimony of David B. Pakman is jointly sponsored by Google Inc., Spotify USA Inc. and Amazon Digital Services, LLC. His testimony will be submitted along with the written direct statement of Google Inc.

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

INDEX OF PANDORA MEDIA, INC. EXHIBITS

Exhibit No.	Sponsoring Witness	Description
PAN Dir. Ex. 1	Adam Parness	Statement of the Department of Justice on the Closing of the Antitrust Division's Review of the ASCAP and BMI Consent Decrees, dated August 4, 2016
PAN Dir. Ex. 2	Christopher Phillips	Pandora Media, Inc. "Pandora Plus" Demo Video, dated September 20, 2016
PAN Dir. Ex. 3	Christopher Phillips	Music Watch, "Music Monitor" Presentation, dated July 2016 [Restricted]
PAN Dir. Ex. 4	Michael Herring	Pandora Media, Inc. Analyst Day Presentation, dated October 25, 2016
PAN Dir. Ex. 5	Michael Herring	Compendium of Materials Available on the AMP Playbook Website
PAN Dir. Ex. 6	Michael Herring	Sony/ATV Music Publishing LLC – Pandora Media, Inc. License Agreement, dated November 4, 2015 [Restricted]
PAN Dir. Ex. 7	Michael Herring	Warner/Chappell Music Inc. – Pandora Media, Inc. License Agreement, dated January 1, 2016 [Restricted]

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

DECLARATION AND CERTIFICATION OF BENJAMIN E. MARKS REGARDING RESTRICTED MATERIALS

(On behalf of Pandora Media, Inc.)

1. I am counsel for Pandora Media, Inc. ("Pandora" or the "Company") in the above-captioned case. I respectfully submit this declaration and certification pursuant to Rule 350.4(e)(1) of the Copyright Royalty Judges Rules and Procedures, 37 C.F.R. § 350.4(e)(1), and per the terms of the Protective Order issued July 27, 2016 ("Protective Order"). I am authorized by Pandora to submit this Declaration on Pandora's behalf.

2. I have reviewed the Pandora's Written Direct Statement, witness written direct testimony, exhibits, appendices, and Redaction Log submitted in this proceeding. I have also reviewed the definitions and terms provided in the Protective Order. After consultation with my client, I have determined to the best of my knowledge, information and belief that portions of Pandora's introductory memorandum, the written direct testimony of certain Pandora witnesses, and certain exhibits contain information that is "confidential information" as defined by the Protective Order ("Protected Material"). The Protected Material is identified in the Redaction Log, shaded in the printed copies of Pandora's filing, and described in more detail below.

3. Such Protected Material includes, but is not limited to, testimony and exhibits involving (a) contracts and contractual terms, that are not available to the public, highly competitively sensitive and, at times, subject to express confidentiality provisions with third parties; (b) highly confidential internal business information, financial projections, financial data, and competitive strategy that are proprietary, not available to the public, and commercially sensitive.

4. If this contractual, strategic, and financial information were to become public, it would place Pandora at a commercial and competitive disadvantage, unfairly advantage other parties to the detriment of Pandora, and jeopardize its business interests. Information related to confidential contracts or relationships with third-party content providers could be used by Pandora's competitors, or by other content providers, to formulate rival bids, bid up Pandora payments, or otherwise unfairly jeopardize Pandora's commercial and competitive interests.

5. With respect to the financial information in the Protected Material, I understand that Pandora has not disclosed to the public or the investment community the financial information that it seeks to restrict here (including spending and investment projections, specific royalty payment information, and the like). As a result, neither the Company's competitors nor the investing public has been privy to that information, which the Company has viewed as highly confidential and sensitive, and has guarded closely. In addition, when Pandora does disclose information about the Company's finances to the market as required by law, the Company provides accompanying analysis and commentary that contextualizes disclosures by its officers. The information that Pandora seeks to restrict under the Protective Order, while truthful and accurate to the best of each witness's knowledge, was not intended for public release or prepared with that audience in mind, and therefore was not accompanied by the type of detailed

explanation and context that usually accompanies such disclosures by a company officer. Moreover, the statements and exhibits containing the information have not been approved by Pandora's Board of Directors, as such sensitive disclosures usually are, or accompanied by the typical disclaimers that usually accompany such disclosures. Pandora could experience negative market repercussions, competitive disadvantage, and even possible legal exposure were this confidential information released publicly without proper context or explanation.

6. The introductory memorandum to Pandora's written direct statement contains sensitive, non-public financial information which is not publicly known. Disclosure of this information could, for reasons discussed in paragraphs 4 and 5 above among others, competitively disadvantage Pandora.

7. The written direct statement of Michael Herring, President and Chief Financial Officer of Pandora, contains material non-public information and figures concerning Pandora's song analyses, internal listener metrics, activations of Pandora's in-car integration, and investments in infrastructure and technology, including amounts spent to expand Pandora's ad infrastructure and ad sales organization and develop its song-matching technology. Mr. Herring's testimony also contains material non-public information concerning non-public license agreements, financial projections, and recent and anticipated expenditures in connection with Pandora's interactive service offering. In addition, two exhibits to Mr. Herring's testimony, PAN Dir. Exs. 6 and 7, contain non-public, competitively sensitive contracts. This information is not publicly known or available. Disclosure of this information could, for reasons discussed in paragraphs 4 and 5 above among others, competitively disadvantage Pandora.

8. The written direct statement of Christopher Phillips, Chief Product Officer for Pandora, contains material non-public information concerning listener metrics and, changes to

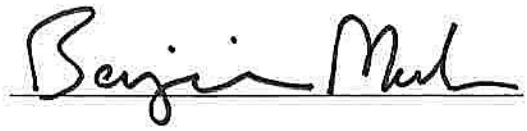
Pandora's product offerings. In addition, one exhibit to Mr. Phillips's testimony, PAN Dir. Ex. 3, contains proprietary third-party data provided to Pandora on a confidential basis. This information is not publicly known or available. Disclosure of this information could, for reasons discussed in paragraph 4 above among others, competitively disadvantage Pandora.

9. The written direct statement of Michael Katz, Professor of Strategy and Leadership at the Haas School of Business at the University of California at Berkeley contains material non-public information concerning terms of non-public contracts and negotiations. For the reasons discussed above, disclosure of the details of these contractual arrangements and financial information would competitively disadvantage Pandora. Mr. Katz's testimony also contains information designated Restricted by other participants in this proceeding.

10. The contractual, commercial and financial information described in the paragraphs above and detailed on the accompanying Redaction Log must be treated as Restricted Protected Material in order to prevent business and competitive harm that would result from the disclosure of such information while, at the same time, enabling Pandora to provide the Copyright Royalty Judges with the most complete record possible on which to base their determination in this proceeding.

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.

November 1, 2016
New York, NY



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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

REDACTION LOG FOR THE WRITTEN DIRECT STATEMENT OF PANDORA MEDIA, INC.

Pursuant to the requirements of the Protective Order entered by Judges on July 27, 2016, Pandora Media, Inc. ("Pandora" or the "Company") hereby submits the following list of redactions from its Written Direct Statement filed November 1, 2016, and the undersigned certify, in compliance with 37 C.F.R. § 350.4(e)(1), and based on the Declaration and Certification of Benjamin E. Marks submitted herewith, that the listed redacted materials meet the definition of "Restricted" contained in the Protective Order.

Document	Page/Paragraph/ Exhibit No.	General Description
Introductory Memorandum	Page 3, Lines 22-23	Contains material, non-public information concerning Pandora financial projections.
Written Direct Testimony of Michael Herring	Page 5, Paragraph 11	Contains material, non-public information concerning the number of songs analyzed by the Music Genome Project.
	Page 8, Paragraph 17	Contains material, non-public information concerning the number of songs analyzed by the Music Genome Project.

Document	Page/Paragraph/ Exhibit No.	General Description
	Page 9, Paragraph 19	Contains material, non-public information concerning unreleased features of Pandora's new product offerings.
	Page 10, Paragraph 20	Contains material, non-public financial data concerning Pandora's investments in developing and improving the Music Genome Project.
	Page 13, Paragraph 26	Contains material, non-public information concerning unreleased features of Pandora's new product offerings.
	Page 13, Paragraph 27	Contains material, non-public financial data concerning Pandora's investments.
	Page 15, Paragraph 32	Contains material, non-public information concerning the projected number of in-car Pandora activations by the end of 2016.
	Page 18, Paragraph 38	Contains material, non-public information concerning Pandora's recent and anticipated expenditures to develop its new product offerings.
	Page 19, Paragraph 40	Contains material, non-public information concerning the terms of Pandora's artist promotion agreements.

Document	Page/Paragraph/ Exhibit No.	General Description
	Page 22, Paragraph 45	Contains material, non-public financial data concerning the amount spent by Pandora to integrate Ticketfly offerings into Pandora's platform.
	Page 23, Paragraph 47	Contains material, non-public financial data concerning the amount spent by Pandora in its acquisitions of Next Big Sound and Rdio assets.
	Page 24, Paragraph 50	Contains material, non-public information concerning the number of record labels with which Pandora has direct agreements.
	Page 24, Paragraph 51	Contains material, non-public financial data concerning Pandora's anticipated costs to administer royalties in connection with its interactive service.
	Page 24, Paragraph 52	Contains material, non-public financial data concerning Pandora's anticipated marketing costs related to its interactive service.
	Page 25, Paragraph 53	Contains material, non-public financial data concerning Pandora's projected licensing fees in 2017 and the corresponding percentage increase from royalties paid in 2015.
	Page 25, Paragraph 54	Contains material, non-public financial data concerning Pandora's projected losses for 2016.

Document	Page/Paragraph/ Exhibit No.	General Description
Written Direct Testimony of Christopher Phillips	Page 4, Footnote 2	Contains material, non-public information concerning the percentage of overall non-music content listening hours on Pandora.
	Page 6-7, Footnote 3	Contains material, non-public information concerning a research study regarding cross-use of Pandora and other services.
	Page 9, Paragraph 19	Contains material, non-public information concerning the length of Pandora advertisements.
	Page 9, Footnote 5	Contains material, non-public information concerning Pandora's "replay" feature.
	Page 11, Paragraph 23	Contains material, non-public information regarding the amount of content on Pandora Plus cached stations.
	Page 11, Footnote 8	Contains material, non-public information concerning the functionality of cached stations on Pandora Plus.
	Page 13, Paragraph 29	Contains material, non-public information concerning Pandora Premium's enhanced search function.
	Page 13-14, Paragraph 30	Contains material, non-public information concerning a new Pandora Premium feature.
	Pages 14, Paragraph 31	Contains material, non-public information concerning a new Pandora Premium feature.

Document	Page/Paragraph/ Exhibit No.	General Description
	Page 15, Paragraph 33	Contains material, non-public information concerning technology developed to determine when to deliver advertisements.
	Page 16, Paragraph 34	Contains material, non-public information concerning technology developed to determine when to deliver advertisements.
	Page 17, Paragraph 35	Contains material, non-public information concerning technology developed to determine when to deliver advertisements.
Written Direct Testimony of Michael L. Katz	Page 26, Footnote 39	Contains material designated as Restricted by Spotify USA Inc.
	Page 27, Footnote 44	Contains material, non-public financial data concerning Pandora's investments.
	Page 31, Paragraph 42	Contains material designated as Restricted by the NMPA.
	Page 43-44, Paragraph 58	Contains material designated as Restricted by the NMPA.
	Page 42-43, Footnote 84	Contains non-public, proprietary information concerning consumer music purchasing trends.
	Page 44, Paragraph 59 & Footnotes 86-88	Contains material designated as Restricted by Sony/ATV Music Publishing, Universal Music Publishing Group. And Warner/Chappell Music.

Document	Page/Paragraph/ Exhibit No.	General Description
	Page 48, Paragraph 65 & Footnote 101	Contains material designated as Restricted by Spotify USA Inc.
	Page 61, Paragraph 83	Contains material, non-public information concerning negotiations of third-party license agreements.
	Page 71, Footnote 139, Lines 5-8	Contains material designated as Restricted by Universal Music Publishing Group.
	Page 72, Footnote 139, Lines 13-15	Contains material designated as Restricted by Warner/Chappell Music.
	Page 72, Footnote 139, Lines 17-20	Contains material designated as Restricted by Universal Music Publishing Group and Warner/Chappell Music.
	Page 73, Footnote 140	Contains material, non-public information concerning Pandora's publishing license agreements.
	Pages 74-75, Paragraph 100	Contains material, non-public information concerning Pandora's publishing license agreements.
	Pages 74-75, Footnote 142	Contains material, non-public information concerning Pandora's publishing license agreements.
	Pages 75-76, Paragraph 101	Contains material, non-public information concerning Pandora's publishing license agreements.

Document	Page/Paragraph/ Exhibit No.	General Description
	Page76, Paragraph 102	Contains material, non-public information concerning Pandora's publishing license agreements.
	Pages 77, Paragraph 103	Contains material, non-public information concerning Pandora's publishing license agreements.
	Page 77, Paragraph 104	Contains material, non-public information concerning Pandora's publishing license agreements.
	Page 77, Footnote 144	Contains material, non-public information concerning Pandora's publishing license agreements.
	Page 77, Footnote 145	Contains material, non-public information concerning Pandora's publishing license agreements.
	Page 77, Footnote 146	Contains material, non-public information concerning Pandora's publishing license agreements.
	Page 83, Paragraph 111 and Footnote 156	Contains material designated as Restricted by Spotify USA Inc.
Exhibits	PAN Dir. Ex. 3	Contains material, non-public information concerning a research study regarding cross-use of Pandora and other services.
	PAN Dir. Ex. 6	Confidential direct license pursuant to the terms of the agreement.

Document	Page/Paragraph/ Exhibit No.	General Description
	PAN Dir. Ex. 7	Confidential direct license pursuant to the terms of the agreement.

November 1, 2016

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on November 3, 2016, I caused a copy of the PUBLIC version of Pandora Media, Inc.'s Written Direct Statement and the Notice of Appearance of Jacob Ebin to be served by email and overnight mail to the participants and counsel listed below:

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Jennifer Ramos/dgf

Jennifer Ramos

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

WRITTEN DIRECT TESTIMONY OF MICHAEL HERRING

(On behalf of Pandora Media, Inc.)

INTRODUCTION

1. My name is Michael Herring. I am the President and Chief Financial Officer of Pandora Media, Inc. ("Pandora" or the "Company"). I report directly to Pandora's Chief Executive Officer, Tim Westergren, and I am a member of the Company's executive committee.

2. Before joining Pandora in 2013, I served as Vice President of Operations at Adobe Systems Incorporated, the well-known computer software company. I joined Adobe in 2009 from Omniture Inc., a company specializing in website analytics and online marketing automation. Beginning in 2004, I was Omniture's Executive Vice President and Chief Financial Officer. Before Omniture, I served as Chief Financial Officer of MyFamily.com (now Ancestry.com), having joined that company in October 2000. I came to MyFamily.com from ThirdAge Media, an internet company where I served as Vice President, Finance, and before that Anergen Inc., a Silicon Valley biotech firm, where I served as Controller. I am a Certified Public Accountant, and I graduated with a Bachelor of Arts in Economics and Political Science from UCLA in 1991.

3. As President and Chief Financial Officer, I am responsible for the overall financial management of Pandora, including its financial reporting and transparency in accordance with U.S. Securities and Exchange Commission ("SEC") regulations and industry guidelines. I oversee a staff of over 1,300 people who are responsible for all aspects of the Company's finances and accounting, including reporting to SEC and investor relations. Operationally, I help to drive the Company's monetization strategy, and I am responsible for the Company's business strategy both generally and with respect to our music licensing cost structure in particular. Pandora's Content Licensing department—which executes our content licensing strategies, including our relationships with music publishers and record companies—reports directly to me. Additionally, the following departments also report to me: Sales, Facilities/Real Estate, Revenue Operations, Finance, Accounting, Internal Audit, Investor Relations, Enterprise Systems, IT Support, Legal, Tax & Treasury, and Technical Operations.

4. I present this testimony to the Copyright Royalty Judges to: (i) provide an overview of Pandora's history and evolution as a music service; (ii) describe Pandora's multi-billion dollar investments in developing innovative products for making music accessible to the public; (iii) explain the impact of music rights license fees on Pandora's finances and financial viability; and (iv) comment on certain aspects of Pandora's proposed rates and terms for this proceeding.

AN OVERVIEW OF PANDORA[1]

5. In 2000, Tim Westergren, Will Glaser, and Jon Kraft started Savage Beast Technologies ("Savage Beast"), the company that would later become Pandora. Savage Beast was founded based on a vision of using the internet as a platform to deliver a smart recommendation service that could help listeners discover music that they would love and would give artists the opportunity to have their music discovered by fans who might not otherwise have learned about it. This vision grew into what is now known as the Music Genome Project (the "MGP"), which is a method of making music recommendations that forms the core of Pandora's service. The MGP is not the typical "people who bought this also bought that" recommendation methodology used by other collaborative filtering-based services, which are essentially popularity contests that favor already-established artists. Rather, the recommendation methodology behind the MGP is based on musical similarity, without regard to popularity—a level playing field for all music. The MGP, as more fully described in Paragraphs 13-18 below, utilizes technology and human talent to map out a song's key musical characteristics (or "genes"), which are expressed as numerical values, and uses mathematical algorithms to identify other songs with similar musical "DNA" to those a user already knew and liked.

6. Savage Beast's original business plan was to license the MGP technology as a recommendation tool to other companies. This initial strategy led Savage Beast to market the MGP as a tool that music retailers and music websites could use to drive new music sales and

[1] In written direct testimony submitted in the *Web IV* Copyright Royalty Board proceeding, Tim Westergren described Pandora's origins and the Music Genome Project in detail. I have incorporated relevant portions of Mr. Westergren's testimony here and in my description of the Music Genome Project. I am personally knowledgeable about the events that predate my arrival at Pandora from conversations over time with Mr. Westergren and others and from my familiarity with the testimony Mr. Westergren provided in *Web IV*.

consumption, including web tools that allowed customers to integrate the MGP technology into their websites through application programming interfaces as well as software for internet enabled kiosks located in "brick-and-mortar" retailers (like Tower Records, Best Buy, and Borders) that allowed consumers to discover new music that shared characteristics of the songs they already enjoyed.

7. This strategy was not successful, and Savage Beast struggled financially. The CD market was on the decline, internet portals and retailers were struggling, and retail stores were increasingly unwilling or unable to invest in listening kiosks. Savage Beast soon exhausted its initial investment and resorted to salary deferral for its employees. Mr. Westergren and the other founders took on substantial personal debt to keep the business alive.

8. In 2004, Savage Beast determined that the MGP would be better employed outside the music retail business. The team recognized that radio remained a robust business, and that radio listening was increasingly shifting to the internet. Believing that it could leverage its core technology to develop a customized radio product that was significantly easier to use and far more compelling than the online radio options available at the time, Savage Beast made the decision to shift to a consumer-based internet radio model. It repurposed the MGP tool into a playlist engine, renamed the company Pandora Media, and set about creating a consumer-facing product and brand.

9. In transitioning to radio, Pandora preserved the Company's core goals of connecting listeners with new music and helping artists find audiences for and earn income from their music. Since its launch in 2005, Pandora has become the leading music streaming service of any kind in the United States.

10. The creation of Pandora, in a way, was the creation of a new market for radio-style music streaming. Indeed, Pandora has been not just a newer, better, and more modernized version of traditional radio, it has been a highly promotional form of music delivery that drives discovery, which has led to further paid consumption through concerts, record sales, and on-demand streaming on other music services, to the benefit of the entire music ecosystem. Pandora has brought invaluable exposure to talented, but otherwise lesser-known, artists. Pandora's listeners frequently send feedback that this is precisely their experience when they listen to Pandora.

11. Pandora currently has just under 78 million active monthly users,[2] which is down modestly from a peak of more than 81.5 million active users in 2014. Since Pandora's launch, our listeners have created over 10 billion music stations. Pandora's MGP includes approximately [redacted] uniquely analyzed songs from over 150,000 artists and spanning over 600 genres and sub-genres. We have 75 billion "thumbs up" or "thumbs down" data points of feedback from users on individual recordings, and we collect 1 billion data points a day from listener behavior to leverage for personalization and product improvements. In addition, third-party research shows that Pandora continues to be the most popular source in the United States for listening time across both internet radio and other internet streaming audio services.[3]

12. The next phase in Pandora's evolution is its transition from a noninteractive service subject to the statutory license in section 114 of the Copyright Act to a service with interactive product offerings, including a forthcoming on-demand tier of service. As I explained

[2] Total monthly listeners 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. Actual as of September 2016 is 77.9 million.

[3] *See* PAN Dir. Ex. 4, at 5.

in my April 20, 2016 declaration in support of Pandora's opposition to the motion filed by the National Music Publishers Association, Harry Fox Agency LLC, Nashville Songwriters Association International, Church Music Publishers Association, and Songwriters of North America (the "Copyright Owners")[4] to deny Pandora's petition to participate in this proceeding, Pandora has been developing interactive product offerings to attract users who prefer, or retain users who at times prefer, an on-demand or "lean-forward" listening experience. The new tiers of service that Pandora is launching, and the rationale for them, are described in detail in the accompanying Written Direct Testimony of Christopher Phillips, Pandora's Chief Product Officer. This initiative has involved a complete redesign of Pandora's service, although the key elements that differentiate Pandora in the marketplace and that are responsible for our success to date remain at the core of the redesigned service. Indeed, Pandora's particular interactive product offerings would not have been possible without the tools developed, and the knowledge of user listening preferences acquired, in connection with our years of operating the noninteractive service.

PANDORA'S INVESTMENTS IN INNOVATION AND PRODUCT DEVELOPMENT

The Music Genome Project

13. The MGP has been developed and refined over the past 16 years. Shortly after the Company was founded (when it was still known as Savage Beast), the Company hired Dr. Nolan Gasser, a musicologist from Stanford, to help develop the MGP. Dr. Gasser and Mr. Westergren initially developed the "pop/rock" genome. While further refining the pop/rock genome, Dr. Gasser and Mr. Westergren also developed genomes for Jazz, Hip-Hop/Electronica, World Music, and Classical Music. These genomes formed the taxonomical

[4] I understand that several of the Copyright Owners have withdrawn from this proceeding.

structure subsequently used to map additional genres of music for the MGP.

14. Mr. Westergren and Dr. Gasser also developed a standardized process of analyzing each recording (listening and assigning a score to each gene based on its role in the work) and trained a team of music analysts to begin building the MGP's musical catalog. Today, Pandora has over 600 different genres and subgenres. Each genome contains a set of hundreds of individual "genes" or traits typically present in that genre of music, including granular details on instrumentation, tempo, form, melody, harmonic structure and lyrical content of the works.

15. The MGP remains the heart of Pandora, and it is the key feature that differentiates our service from those of our competitors in the music streaming space. The MGP that exists today represents an enormous and continuing investment in software, data, infrastructure, and content management. While the MGP retains much of the fundamental architecture and algorithms that were developed back in 2000, Pandora has spent, and continues to spend, significant resources to continue to develop it. Unlike some of Pandora's competitors (whose customized products incorporate fully computer-driven song-selection models), the MGP coding process relies extensively on input from over 80 highly trained Pandora employees, including expert music analysts, curators and scientists.[5]

[5] The expertise of these individuals comes at significant cost to Pandora. To determine whether the value we get from the MGP was worth the significant cost, Pandora has experimented with using only computer-driven tools for music selection. We have not been satisfied with the results of these experiments. Although computer-driven tools continue to be useful to Pandora as part of our team's analysis, the automated tools that are currently available cannot grasp the same musical subtleties as a trained human ear, and they are equally unable to surface effectively all the lesser-known music to which popularity-based algorithms are inherently blind.

16. Pandora's music curation team selects the music to be incorporated into the MGP, spending significant time and resources searching for new music through exhaustive research, chart tracking, as well as comprehensive coverage of a wide range of music publications, blogs, and other forms of commentary and criticism.[6]

17. Once the curators have chosen the songs to be included in the MGP, they pass the tracks on to Pandora's team of more than thirty music analysts, all of whom are musicians with deep academic grounding in music theory. The music analysts then study the songs and analyze them according to their component characteristics, or "genetic" parts, and create musical DNA for each song. Depending on the genre, each song will be analyzed by examining up to 450 musicological traits. Each trait represents an identifying element of the song that must be aurally detected and understood by the analyst. Through multiple listens, analysts evaluate each track according to both audible traits (such as tempo, vocal range, and instrumentation) and more stylistic traits (such as blues influence and lyrical quality). Over the sixteen years since the MGP was invented, our music analysts have devoted, collectively, hundreds of thousands of hours listening to and cataloging the musicological traits of approximately [redacted] tracks in the MGP. Our team currently analyzes approximately [redacted] additional tracks each month.

18. All of Pandora's music analysts have the training and musicological expertise to be able to identify and describe these musical characteristics and to assess them according to a uniform system, so that songs can be compared to one another on an objective basis. Pandora has rigorous hiring and training requirements to ensure maximal integrity of the MGP. Each

[6] Today, Pandora receives virtually all of its content in the form of direct feeds from content owners pursuant to license agreements but only a portion of the recordings to which Pandora has access are incorporated into the MGP. If the music curation team identifies music it wants to incorporate that is not covered by an existing license, Pandora's Content Licensing team is asked to secure a license.

prospective analyst must pass an exam even to be considered for a music analyst position. Once hired, music analysts in training must review the same song and compare results, and repeat that process until the results are consistent. The consistency that results from Pandora's rigorous hiring criteria and training method ensures the kind of accurate data that can be input into the mathematical algorithm that underlies the MGP.

Investments in Algorithms Used to Create Playlists

19. The MGP is the cornerstone of Pandora's playlist system and forms the musicological basis for connecting recordings on the service. However, the intellectual property of this system has expanded substantially. Pandora now uses dozens of different algorithms to determine what to play as the next track on a station, including, but not limited to: (i) Pandora's proprietary content-based recommender, the MGP algorithm; (ii) algorithms that are based on collective intelligence; and (iii) algorithms that are based on collaborative filtering. Together, using all of these varied approaches in combination has allowed us to create the best possible playlists for our users when they are in a radio-like "lean back" listening experience. With the launch of our new product offerings, these proprietary algorithms also will allow us to offer the best recommendations for users when they want on-demand or "lean forward" listening and the most desirable selections for new features [redacted].[7]

20. **The Music Genome Project Algorithm.** The MGP algorithm uses the musical traits of recordings (discussed above) to find recordings with similar musical DNA. The DNA of analyzed tracks are compared using patented technology developed by Pandora to identify songs

[7] *See* Written Direct Testimony of Christopher Phillips, ¶¶ 30-31.

with the greatest similarity across the traits. In brief, if a listener selects an artist or genre to "seed" a station, the MGP's patented song-matching technology identifies songs that share similar characteristics with the source song, and will populate a channel of music for the listener based on those attributes. The same process will occur for completing playlists and for the auto-play function on our on-demand tier of service. This process requires an extremely high-performance algorithm that can perform complex calculations across a vast and constantly growing database, in a fraction of a second. Pandora has spent more than [redacted] developing and improving the MGP.

21. The MGP's song-matching technology is entirely blind to the popularity of a given song. In fact, a user may be presented with tracks sharing similar musical DNA that are from disparate time periods, relatively unknown artists, or even different genres or cultures. The objective nature of the matching process makes the MGP a uniquely effective tool in helping listeners discover artists with whom they were not familiar. As a result, the MGP helps expose artists to millions of new listeners.[8]

22. The MGP algorithm is also the best methodology available to address the "cold-start" problem—the issue that arises when either new songs are used to seed stations or when a new user begins listening to the service (when nothing is known about his or her personal listening preferences). Most systems will fail dramatically in either of these scenarios, but Pandora can use the MGP algorithm to identify appropriate songs, using only the seed. A music service without the MGP or something comparable has to guess what music the listener is likely

[8] For example, as a result of Pandora's music discovery platform, Odesza gained an additional 14 million new listeners on the service between July 2014 and July 2015 alone, and Fetty Wap, who had no Pandora listeners in December 1, 2014, had over 33 million new listeners by August 1, 2015.

to enjoy, guessing which often creates a complete mismatch that can do substantial damage to the listener experience and to the reputation of the service. Pandora's ability to address the "cold start" problem is a large part of what allowed the service to grow so quickly from the very beginning. Our playlists are strong from the start, without requiring time-consuming data input on the part of the listener.

23. **Collective Intelligence Algorithms.** Another important component of Pandora's playlist-generation process is the "collective intelligence" strategy, which uses numerous different algorithms to capture feedback provided by listeners to further refine their playlists and to identify musical trends. Over time, Pandora has collected billions of combined "thumbs up", "thumbs down," and track skips from users. Using this data on both a collective and individual basis, Pandora can help correct instances where the MGP matches two songs with similar traits that, for whatever reason, do not appeal to the same audience. For example, if Song A is the seed song for a station, and Song B is the closest "relative" identified by the MGP, Pandora will monitor listener responses to Song B. If listener responses are negative (*i.e.*, a "thumbs down" or skip), then Pandora may stop playing Song B on stations where Song A is the seed song, even though the MGP might have otherwise determined that Song A and Song B should appeal to the same users.

24. **Collaborative Filtering Algorithms.** Pandora also employs algorithms that look at the "thumbs up" and "thumbs down" feedback an individual listener has provided on each of his or her stations to create or improve playlists. These algorithms use this thumbing information to improve the playlists of not only that listener, but also other listeners who have similar preferences as expressed through their own thumbing behaviors. For example, assume Listener A has thumbed-up Song A, and Listener B has thumbed-up both Song A and Song B. This

suggests, absent contrary information, that Listener A is likely to enjoy hearing Song B simply because both Listener A and Listener B thumbed-up Song A. This strategy thus develops "cohorts" with shared listening patterns that can improve their collective experience. Pandora continues to refine these algorithms by conducting experiments to determine how and if factors such as age, gender, and location (zip code) may impact listening behavior on an individual and collective basis.

25. **Experimentation.** Pandora is constantly experimenting with ways to improve the mix of songs presented to listeners and creating new algorithms to assist in that process. In the ordinary course of business, when there is a new idea for improving playlist quality, that idea will be tested on a small but statistically significant group of listeners. The results are evaluated to test listener satisfaction, including whether the listener changed the amount of time he or she spent listening to Pandora, or whether the listener changed the rates at which he or she returned to Pandora to listen. If listeners respond positively to the test, then the improvement may be rolled out to all Pandora listeners. At any given time, dozens of such experiments are being run simultaneously, with input from Pandora's in-house, cross-functional team of scientists, engineers and product managers.

26. Each of these tools, and algorithmic intelligence strategies, although developed initially for use in connection with our noninteractive service, has direct application to our new interactive features. As explained in the Written Direct Testimony of Christopher Phillips, Pandora's new interactive tiers of service include Pandora Plus, which is a limited interactive tier, and Pandora Premium, which offers subscribers a full on-demand listening experience. The user experience on Pandora's limited interactive tier, Pandora Plus, will be quite similar to the ad-free noninteractive service that was available to Pandora One subscribers, but it will also

include replay functionality, more skips, and offline listening to cached stations. The Pandora Plus limited interactive tier is still fundamentally a radio product. Pandora's MGP technology and algorithms will still control what songs are played and listeners will not have access to information about what songs will be played next. Pandora's fully interactive tier, Pandora Premium, will also rely heavily on the tools that comprise Pandora's recommendation engine, even though users will have the ability to select particular songs and the order in which they hear them, when they are in the mood for that level of control. While users of on-demand services sometimes know exactly what they want to hear, at other times, on-demand listening can suffer from option paralysis. In addition, the music on other on-demand services often will stop playing because the user is not in a position to program a new selection when his or her existing selection has finished playing (for example, while driving). Our best-in-class tools for music discovery and playlist creation help to solve these problems through music recommendation, [redacted].

27. Even before incurring the incremental expenses associated with redesigning the service to include interactive features, which I discuss in the following section, Pandora had spent more than [redacted] creating and refining the MGP, its proprietary algorithms, and the necessary infrastructure, hardware, and software to offer a world-class radio product for our nearly 78 million active users.

28. Pandora now streams more than 5.4 billion listener hours each quarter and, as noted above, plays songs from more than 150,000 artists each month. The vast majority of these artists are independent working musicians whose recordings receive little airplay, if any, on terrestrial radio.

Pandora's Significant Role in Making Music More Accessible

29. When Pandora first launched in 2005, it was available only as a website accessible from personal computers. Since then, Pandora has experienced tremendous growth, due in large part to our "Pandora Everywhere" initiative that enables listeners to have access to their stations across the greatest number of devices such that music is made available to users anytime, anywhere. Although we no longer use the "Pandora Everywhere" name for it, this initiative remains a critical component of Pandora's efforts to improve the customer experience and encourage the consumption of music.

30. Pandora's listener base increased dramatically with the debut of its mobile platform in approximately July 2008. That release took a tremendous amount of time, effort, and investment to realize. At that time, existing wireless networks did not have the signal strength or coverage that exist today, and Pandora faced considerable technological challenges in adapting a continuous streaming radio service to function on a mobile device. Creating a product capable of continuously and seamlessly accessing the listener's stations from a handheld device, while continuing to deliver high audio quality, was a major milestone that required significant resources on the technology side. Pandora has invested tens of millions of dollars in developing its mobile delivery platform.

31. Another significant driver of Pandora's growth has been the development of the ability to deliver its service in cars, where attention has long been dominated by terrestrial and satellite radio. Pandora's pre-installed integrations in the car allow for in-dash control of the Pandora application on the listener's mobile device. This means, in short, that users can control Pandora through the same interface on their car's dashboard that is used to control their AM/FM or satellite radio. For the majority of these integrations, the smartphone is the conduit through

which the internet signal and music stream is delivered. This requires specialized application protocol interfaces ("APIs") to transfer data between Pandora, the smartphone, and the in-dashboard entertainment system—all of which Pandora has developed and maintained at great expense. To date, Pandora has invested heavily in developing in-car technology. We also have begun to focus on the next generation of "connected car," in which the vehicle will have a modem installed directly, which will make it unnecessary to use your smartphone to connect with Pandora and will make Pandora as ubiquitous as terrestrial radio for in-car listening.

32. Today, Pandora comes pre-installed in more than 190 car and truck models across dozens of brands. It also is being integrated into numerous car stereo receivers produced by aftermarket manufacturers such as Sony, JVC, Pioneer, and Kenwood. Through these various integrations, Pandora is currently available on tens of millions of cars, out of a total of approximately 250 million cars on the road. By year-end, we expect to have reached more than [redacted] activations through these various in-car integrations, and the number of in-car users will grow over time. We estimate that nearly one-half of all new cars sold this year will have Pandora integrated.

33. In addition to mobile and in-car listening, Pandora also integrates its service into various consumer electronics products, such as home entertainment devices, gaming consoles, and even refrigerators. Today, approximately 1,800 consumer electronic devices from third-party distribution partners such as Samsung, Roku, and Sonos make Pandora available in the home. For example, users can access Pandora through "smart" television screens and listen through their home theater system—essentially no different than listening to more traditional cable and satellite television music offerings from Music Choice and Sirius XM (via Dish Network).

34. Overall, Pandora has incurred tens of millions of dollars to date in costs associated with the development of mobile listening platforms, in-car listening technologies, and integration into consumer electronic devices. Today, less than 15% of listening to Pandora takes place on personal computers.

Pandora's Development of a Market for Internet Radio Advertising

35. As I explained in greater detail in my written testimony in *Web IV*, in order to grow its business, Pandora expended significant resources and effort to create, essentially from scratch, a new market for internet radio advertising. Developing an economically viable ad-supported music streaming service has been critical for Pandora to fulfill its goal of making music more accessible to everyone, including those consumers who like music but currently cannot afford or are otherwise not willing to pay a fee—a market segment that currently comprises the majority of consumers in the U.S. The success of our ad-supported tier of service is critical to the success of our subscription tiers because we expect a significant number of users to convert to a subscription tier after being introduced to Pandora through the ad-supported offering and because knowledge about user preferences on our ad-supported tier helps us to improve the service across all tiers.

36. At the time of Pandora's launch, most internet radio services relied primarily on visual display ads (*i.e.*, banner ads) as there was no meaningful market for in-stream audio ads for internet radio, like the market for advertising on traditional terrestrial radio stations. However, with the introduction of the Pandora mobile application in 2008 and the dramatic shift from desktop to mobile listening, it became evident that Pandora could not rely on visual display ads alone. Digital banner ads became less attractive for Pandora's advertisers, since mobile listeners tend not to look at their screens to see the ads as much as desktop listeners. Mobile

access also led to a massive increase in listening hours. Spending on mobile advertising, however, lagged behind, making it difficult for Pandora to effectively monetize this massive change in listener behavior and find buyers for all the advertising space it had to offer.

37. Thus, Pandora recognized that it needed to tap into the massive radio advertising market, first by selling "national" audio ads, and eventually local advertising, which represents the largest and most lucrative component of the advertising market. To do so, Pandora had to overcome several hurdles. First, Pandora needed to have a way to communicate to radio advertisers Pandora's reach to audiences as compared to terrestrial radio stations. To address this issue, Pandora partnered with Triton Digital, a digital audience measurement service, to provide listening metrics (in a manner comparable to terrestrial radio ratings) for Pandora streams based on listener-supplied zip codes, age and gender. Second, Pandora's ability to break into the traditional radio advertising market was impeded by the fact that Pandora was not integrated into the ad-buying software platforms used by media buyers and ad agencies, through which most spot (*i.e.*, regionally or locally targeted) purchases are made. To address this issue, Pandora worked to ensure that Triton's metrics for Pandora would be integrated into the two most popular audio ad-buying platforms to facilitate comparisons between different audio advertising options and also into the advertising industry's leading strategy and planning platform used in connection with the ad-buying platforms. Finally, to get a foothold in the massive market for local advertising, Pandora developed the ability to use listener zip codes to track and serve users local advertisements. After starting with the top ten local radio markets in

the first quarter of 2012, Pandora now uses that capability to sell local ads across virtually all major metropolitan survey areas in the U.S.[9]

38. In conjunction with the above-described innovations—which have required payments to Triton in excess of [redacted] to date—Pandora has had to invest heavily in growing its sales organization. Today, Pandora operates local sales teams in radio markets, large and small, across the country. We now have local sales forces in over 39 radio markets, with plans to continue to invest more deeply in our existing markets and to expand physical coverage. Since Pandora launched, we have spent tens of millions in building this sales force and a robust sales support organization to assist it. For 2016, the total budget for our sales organization has increased to [redacted], our marketing budget is another [redacted], and our sales and marketing staffs comprise approximately [redacted]% of our employees.

Other Investments in Sales and Marketing

39. When it comes to marketing, internet music services have some great advantages over broadcast and satellite radio, namely, that streaming offers a personalized and connected medium. As a result, streaming services can deliver messages to listeners in a far more relevant and efficient way. This direct connection can be quite valuable to artists. For example, an emerging rock band can send targeted alerts to their fans in a particular city announcing an upcoming club date. In addition, a singer-songwriter can solicit donations from listeners who have thumbed-up her music to fund a new album. The possibilities are endless, and Pandora

[9] Most recently, Pandora has invested significant time and resources to develop a proprietary technology, referred to as intelligent interruptions, for serving advertisements. As described in greater detail in the Written Direct Testimony of Christopher Phillips, this intelligent interruption technology optimizes the delivery of advertising and messaging on Pandora to improve monetization without eroding our user base.

continues to invest heavily in building a platform that allows for such direct, intelligently targeted connections between artists and fans, including developing promotional programs which are specifically aimed at helping artists promote their music with Pandora's assistance.

40. Since 2011, Pandora has been involved in producing and promoting custom sponsored events where artists perform live before an audience of fans that Pandora identifies and invites. Pandora essentially plays the role of a concert producer and promoter, choosing the artist or artists that will best speak to that sponsor's target audience. [redacted]. Indeed, these types of events generate promotional effects for artists because they promote artists to their existing fan base, while also exposing them to an audience that might not otherwise be familiar with their music. The live event format also helps strengthen the connection between the artist and fans. For Pandora, the events are a beneficial marketing platform and overall value-add for the service.[10]

41. In addition to producing and promoting live events, Pandora also partners with artists to help live-stream their shows to increase the reach and impact of those events to audiences beyond those that are able to attend the concert in person. For example, Pandora recently partnered with Metallica as the exclusive U.S. streaming partner to amplify their live performance at U.S. Bank Stadium in Minneapolis.[11] Pandora's efforts included creation of: (i)

[10] Some examples of these events include "Metro PCS Powered by Pandora," "Pandora Holiday Live," and "Pandora Presents Women in Country." One of Pandora's most popular events is our annual "Summer Crush" concert. This year, Pandora invited teen and young adult listeners in downtown Los Angeles for a night of free performances from A-list pop talent. The event attracted over 4,000 attendees (more than three times last year's attendance) and 52,700 live-stream listeners.

[11] I understand that Metallica band members wrote most of the band's songs.

a custom-content station that contained a mixtape of songs curated by the band's members; (ii) a livestream station within the custom-content station on the day of the show that allowed listeners to listen to the live performance; (iii) a recurring loop of the livestream performance; and (iv) on-demand tracks of the live performances. Hundreds of thousands of Pandora users took advantage of these offerings for that one event alone.

42. In October 2014, Pandora also launched a program called the Artist Marketing Platform ("AMP"), which provides artists with certain Pandora usage metrics to understand how their music performs on Pandora. AMP is a free online service that gives artists and their managers a detailed view to understand and promote to their audience on our service.[12] Derived from tens of billions of hours of personalized listening, Pandora AMP offers data and insights to the more than 150,000 artists played on our service. The product is designed to help artists and their teams with critical decisions such as tour routing, single selection, set lists, audience targeting, and more. To promote singles, albums, shows or tours, artists can design and schedule integrated campaigns on AMP leveraging a combination of tools that drive listener engagement, including features such as (i) Artist Audio Messages, which let artists record a short audio message, customize the message with images or calls to action, set it to play before or after a specific track and geotarget fans in specific markets, and (ii) AMPcast, which allows artists to spontaneously communicate with fans, right from the Pandora application. In addition, our record label licensors have access to Featured Tracks, which gives them the ability to promote a new single widely across Pandora and receive real-time feedback such as the track's "thumb ratio" (the percentage of the track's total thumbs that were "thumbs up") and station creations to gauge listener affinity.

[12] *See* PAN Dir. Ex. 5; *see generally* www.amp.pandora.com and www.ampplaybook.com.

43. On October 17, 2016, Pandora launched a new version of AMP, which has been redesigned to make it even easier and faster for artists to grow an audience, track progress and connect with fans on Pandora. AMP now features a dynamic feed of an artist's campaign activity as well as performance metrics and suggestions for new campaigns. AMPcast, in limited release since it launched earlier this year, is now open to all artists. Its new features give artists the ability to geotarget Artist Audio Messages, share these messages via social networks or save draft messages to edit at a later time—all from the Pandora mobile app. The benefits of AMP to songwriters are direct and obvious for the many songwriters that perform their own songs. But songwriters, composers, and music publishers all benefit from AMP no matter who performs the songs, as they share in the benefits of increased album sales (in the form of mechanical royalties), increased concert attendance (in the form of performance royalties), and increased exposure generally.

44. In July 2015, as a complement to AMP, Pandora acquired Next Big Sound ("NBS"), an online music analytics and insights tracking program that tracks hundreds of thousands of artists around the world, including analyzing the popularity of musicians in social networks, streaming services, and radio. The NBS platform, which includes data from Facebook, Twitter and YouTube, combined with Pandora's data on music preferences, patterns and trends reflecting insights from Pandora's nearly 78 million active users, will allow Pandora AMP to deliver detailed analytics to the music industry and ultimately help artists, labels, and marketers better understand and reach their audiences to the benefit of the entire music ecosystem. Pandora's acquisition of NBS was a key element of our strategy to develop interactive features, and we will be able to use NBS data to satisfy certain reporting requirements contained in our direct licenses with sound recording and musical work copyright holders.

45. Recently, Pandora has increased its sales and marketing efforts on promoting live music events on the service to help bands sell out their shows. Indeed, while most artists earn a significant portion of their revenue through touring, an estimated 40% of concert tickets generally go unsold, mainly due to lack of awareness—fans find out too late (or not at all) that a favorite artist is playing a concert nearby. Pandora has perceived a significant opportunity to sell more tickets via targeted promotion on its service to the benefit of consumers, artists, music publishers, and songwriters alike. In October 2015, Pandora acquired Ticketfly, Inc., a leading live events technology company, to create a music platform for connecting fans, artists, and event promoters through the Pandora service. Ticketfly provides ticketing and marketing software for approximately 1,200 leading venues and event promoters across North America and makes it easy for fans to find and purchase tickets to events. The acquisition of Ticketfly was another step toward achieving Pandora's mission not only to help listeners find music they love but also to help artists connect with their fans and potential broader audience and drive greater artist income. Pandora spent more than $335 million to acquire Ticketfly, and we spent more than [redacted]o integrate Ticketfly's offerings into our platform.

Pandora's Development of Interactive Product Offerings

46. The development and launch of our new interactive features has been Pandora's most important strategic initiative over the past year. The product redesign has required massive investments. Including acquisitions, Pandora has spent over $100 million on this initiative to date before receiving any incremental revenue from the new product offerings and will have to spend more before the 2018-2022 license period even begins.

47. **Technology Acquisition, Product Engineering and Development Costs.** To facilitate the development of an on-demand listening experience, and as discussed in my April

20, 2016 Declaration previously submitted in connection with this proceeding, Pandora acquired certain intellectual property and technology assets from Rdio, an interactive music service that had operated, in part, pursuant to the license at issue in this proceeding. Pandora spent [redacted] on that transaction alone. To develop the Rdio assets for our use in our interactive product offerings, Pandora has spent many millions more on engineering and other development costs. Pandora incurred another [redacted] in acquiring NBS.

48. **Music Licensing and Royalty Administration Costs.** The transition from a noninteractive service that operated exclusively pursuant to the statutory license available under section 114 of the Copyright Act to a service with interactive features has required significant additional expense, not only in terms of the higher royalties that Pandora will pay to record labels and music publishers, but also in terms of the significant expenses associated with negotiating for and securing expanded grants of rights not available under a statutory license.

49. In the past year, Pandora negotiated for and secured expanded grants of rights from ASCAP, BMI, SESAC, and Global Music Rights, the four U.S. performing rights organizations (each, a "PRO"), as the mechanical rights at issue in this proceeding have no value to Pandora without the accompanying public performance rights to stream the compositions. These PRO licenses now authorize the public performance of the many millions of musical works in their collective repertories in connection with both our "lean back" offerings and as part of our forthcoming on-demand streaming tier. Since November 2015, Pandora has entered into direct licenses with thousands of music publishers that cover the mechanical rights that are at issue in this proceeding. Our direct licenses with many of the largest and most prominent music publishers, including Sony/ATV Music Publishing LLC, EMI Entertainment World, Inc., Warner-Chappell Music, Inc., Kobalt Music Publishing America, Inc., SONGS Music

Publishing, LLC, and Downtown Music Publishing LLC, also include performance rights.[13] Collectively, these direct licenses cover millions of musical works, and we would not have needed to acquire mechanical rights had Pandora continued to operate exclusively as a noninteractive service.

50. Pandora also has had to secure direct licenses from record labels to secure the rights necessary to operate outside the confines of the statutory license under section 114. In the past year, Pandora has reached agreements with [redacted] record labels, covering millions of sound recordings.

51. Pandora's music royalty expense will dramatically increase as a result of its interactive offerings, *see* Paragraph 53, but even the costs of negotiating and securing licenses for these additional rights have been significant. In order to negotiate licenses for the additional rights needed to operate the interactive features of the redesigned service, Pandora has needed to more than double the size of its Content Licensing team. In addition, because Pandora did not have the in-house capacity required to administer the royalty payments required of an interactive service, it has entered into an arrangement with Music Reports, Inc., a leading provider of royalty administration services, at an additional cost of approximately [redacted] per year (prorated for 2016).

52. **Incremental Marketing Costs.** To attract new subscribers and grow the market for on-demand streaming, Pandora is undertaking extensive marketing of its redesigned service. Marketing related specifically to the availability of new features cost approximately [redacted] in October alone, with significant additional expense expected with the forthcoming launch of Pandora Premium.

[13] *See, e.g.*, PAN Dir. Exs. 6-7.

THE IMPACT OF MUSIC RIGHTS LICENSE FEES ON PANDORA'S FINANCES AND ITS ABILITY TO GROW A VIABLE AND SUSTAINABLE BUSINESS

53. In addition to its massive investments across all aspects of its service to promote music discovery, greater access to music, and closer connections between artists and their fans, Pandora's commitment to supporting the broader music ecosystem is reflected in the more than two billion dollars it has paid to date in music rights royalties. As a noninteractive webcaster, Pandora paid over $588 million in 2015 (over half of its revenue) in the form of licensing fees to the music industry in connection with its noninteractive service. With the launch of its redesigned service, and the higher royalty rates Pandora will pay as a result, Pandora expects that its payment of licensing fees to the music industry will be [redacted] in 2017, an increase of [redacted] from royalties paid in 2015.

54. Music royalties have been and will continue to be the principal obstacle to Pandora's ability—or that of any interactive streaming service—to operate a sustainable, profitable business. Since it became a public company in 2011, Pandora has yet to have a profitable year according to generally accepted accounting principles ("GAAP"). Even though it earned more than $1.164 billion in 2015 alone, Pandora lost $169.7 million that year and had suffered cumulative losses of more than $366.7 million between 2005 and the end of 2015. Pandora expects to lose an additional [redacted] by the end of this year, for a cumulative loss of [redacted] through the end of 2016, according to GAAP.

55. Pandora's analyses and its decision to enter the market for on-demand streaming assumed no increase in the current statutory rates for the license at issue in this proceeding. Even at current rates, Pandora will not be profitable according to GAAP at the start of the 2018-2022 license period. If we meet our growth targets—which contemplate attracting millions of

new paid subscribers to on-demand streaming (not just new to Pandora)—we could become profitable during the license period if the Copyright Royalty Board were to adopt Pandora's Proposed Rates and Terms (submitted herewith). Given that Pandora is, and has been, one of the most successful music streaming services in the country, it is unlikely that other streaming services can be profitable if Pandora is unable to do so under the current rate structure.

56. With lower royalty rates, Pandora would be able to invest more heavily into sales, marketing, and product development, which would drive user growth and retention and attract more new users to subscription on-demand streaming, which would in turn drive greater royalty payments to music rightsholders.

PANDORA'S PROPOSED RATES AND TERMS

57. Pandora's Proposed Rates and Terms for the making and distributing of phonorecords pursuant to 17 U.S.C. § 115, during the period beginning January 1, 2018 and ending December 31, 2022, are being submitted herewith. As Pandora's President and Chief Financial Officer and a member of the executive team that decided that Pandora should undertake the significant investments necessary to develop interactive features, I offer the following observations in further support of Pandora's proposal.

58. First, in deciding to enter the market for on-demand streaming, we were and are well aware that no on-demand service has ever been able to operate profitably in the U.S. for any sustained period, if at all. Nonetheless, Pandora believes that—over time—it will be able to operate a sustainable and profitable music streaming business, if there is no increase in musical work royalty obligations from current statutory rates. We believe that we have some unique advantages that make the success of our redesigned service possible, but Pandora would not have been willing to make the investments to offer either the on-demand streaming of Pandora

Premium or the limited offering of Pandora Plus if the prevailing mechanical license rates were those proposed by the Copyright Owners in their Preliminary Disclosures. The historical lack of sustained profitability for interactive streaming services suggests to me that rates should be lower, not higher. Indeed, as noted above, I believe that lower royalty rates would lead to more investment, more innovation, more growth, and ultimately higher royalty payments.

59. Second, it is important to preserve an "all in" rate structure that takes into account fees paid for performance rights in determining fees payable for mechanical rights. The distinction between mechanical rights and performance rights is not a meaningful one to Pandora as a music service. The mechanical rights have no value to us unless we also have the performance rights, and for our redesigned service, the performance rights have no value unless we also have the mechanical rights. Moreover, the royalties are coming from the same place (Pandora) and ultimately going to the same places (music publishers, songwriters, and composers). The "all-in" rate structure is consistent with how our direct deals are structured for the majority of musical works we perform, as those deals include both mechanical and performance rights in exchange for a single payment stream. Relatedly, the per subscriber mechanical royalty floor in step three of 37 C.F.R. §385.12(b)(3)(ii) should be eliminated. It would undermine the careful balancing under section 801(b) if publishers could separately increase the effective percentage of revenue they receive by forcing music streaming services that need performance rights in order to operate lawfully to pay performance royalties that would trigger payment of a royalty floor for mechanical rights alone.

60. Third, given prevailing business models for on-demand music services, the "headline" royalty rate should remain a percentage of revenue. This rate structure aligns changes in royalty expenses to changes in revenues, given prevailing business models for on-demand

music services, in which subscribers pay a fixed monthly fee for unlimited access to on-demand music streaming. It is consistent, moreover, with the basis on which Pandora and, I understand, most other services pay record labels for the rights to offer interactive streaming of sound recordings. Accordingly, Pandora has proposed that the all-in rate should remain 10.5% of revenue for both stand-alone, portable, on-demand (such as Pandora Premium) and limited offerings (such as Pandora Plus).

61. Fourth, To the extent that per subscriber minima in the calculation of the all-in royalty pool under section 115 are preserved, these minima should reflect and encourage a variety of business models. For example, the minima should accommodate services such as Pandora that want to provide both "limited offerings" with less functionality and full-service, premium-price tiers in order to capture consumer demand for music most effectively. In addition, per subscriber minima should reasonably accommodate promotional efforts such as family plans, student discounts, and free trials without triggering an unwarranted increase in the effective percentage of revenue paid. Accordingly, Pandora has proposed to preserve the current per subscriber minima in 37 C.F.R. § 385.13(a)(3) and § 385.23(a)(3)(ii).

62. Fifth, the terms should make clear that for services that offer multiple product tiers, only some of which will rely on the statutory license, revenue from or subscribers to product tiers that do not utilize the statutory license are properly excluded from any royalty calculations. For example, Pandora will not be utilizing the statutory license at issue here for its ad-supported product tier, and revenues earned from that tier should have no bearing on royalties paid for the mechanical rights it is licensing for its other product tiers. Relatedly, Pandora proposes to clarify expressly that the terms of any direct licenses between copyright owners and statutory licensees that cover activity otherwise subject to the statutory license apply in lieu of

the statutory rates and terms to activity within the scope of the direct license.

63. Sixth, the definition of service revenue should be adjusted to exclude carrier billing, credit card transaction, and app-store fees, as these expenses for subscription services are analogous to the ad agency commissions that are permitted deductions for ad-supported services under the current regulations.

64. Pandora also has proposed certain technical and confirming changes to the current terms for clarity.

PUBLIC VERSION

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

In the Matter of:	Docket No. 16-CRB-0003-PR (2018-2022)
Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	

DECLARATION OF MICHAEL HERRING

I, Michael Herring, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief. Executed this 31st day of October 2016 in Oakland, California.

Michael Herring

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

WRITTEN DIRECT TESTIMONY OF CHRISTOPHER PHILLIPS

(On behalf of Pandora Media, Inc.)

INTRODUCTION

1. My name is Christopher Phillips. I am the Chief Product Officer of Pandora Media, Inc. ("Pandora" or "the Company"). I have served in that role since I joined the Company in October 2014.

2. Before joining Pandora in October 2014, I was the Director of Product Management and User Experience for Amazon Digital Music. I was responsible for the product roadmap and delivery of customer experiences across device platforms and international expansion. During my time at Amazon Digital Music, I was also responsible for the introduction of Amazon Prime Music. Prior to joining Amazon, I worked for Intuit as a Director of Offering Strategy and Product Management. Earlier in my career, I worked for Workspeed and Accenture. I graduated with a Bachelor of Science, Business Administration degree in Finance from The Ohio State University, Max M. Fisher College of Business in 1997.

3. As Pandora's Chief Product Officer, I am responsible for defining and leading the Company's overarching strategy and roadmap for product, engineering, and marketing. I

supervise a team of over 700 people to develop, deliver, and drive adoption of products that connect fans and artists in new ways and that help advertisers reach their audiences. My team has been responsible for the redesign of Pandora's service and the development of its new product offerings, including its forthcoming on-demand streaming service.

4. I present this testimony to the Copyright Royalty Judges: (i) to provide an overview of Pandora's service and evolving features, including a description of the new tiers of service; (ii) to explain the consumer research and feedback that led Pandora to redesign its service to include interactive features on its Pandora Plus and forthcoming Pandora Premium tiers of service; (iii) to describe Pandora's proprietary technology for optimizing the delivery of advertising and messaging to listeners, which is an important part of Pandora's strategy to grow its service and attract new listeners to interactive streaming; and (iv) to describe the product development team needed for these efforts.

PANDORA'S PREVIOUS NONINTERACTIVE PRODUCT OFFERINGS

5. Pandora is, and for some time has been, the leading internet radio service in the United States. Pandora is best known for its personalized, noninteractive radio stations that provide a "lean-back" or radio-style listening experience. Pandora's noninteractive, statutorily licensed service—the service at issue in the *Web IV* proceeding—included two tiers: an ad-supported tier, which was free to consumers, and the subscription-based Pandora One, which was ad-free. The primary competition for listeners for this type of radio-style listening experience has been from other radio providers such as terrestrial radio broadcasters, Sirius XM, and other noninteractive webcasters like iHeartRadio. Listeners could access the ad-supported Pandora and subscription Pandora One products on a wide variety of platforms, including desktop

computers or laptops via a web browser, smart phones and other mobile devices, and, increasingly, automobile and consumer electronic platforms.

6. Using Pandora for radio-style listening always has been, and after our redesign is fully implemented will remain, simple: after creating an account, a listener need only "seed" a station or select a "genre" station and then music will begin to play. To create a seeded station, the listener simply types in the name of an artist, composer (for classical music), or song title to serve as the starting point or "seed" for the station. Pandora then automatically creates a station centered around that seed, which—through use of our patented Music Genome Project technology and a combination of proprietary playlist algorithms—will play tracks whose musicological characteristics our Music Genome Project reveals as resembling those of the seed.[1] As an alternative, a user can select one of Pandora's genre stations, which begin as pre-programmed collections of tracks that reflect a certain musical style or preference. Pandora's genre stations range from hit-driven stations such as "Today's Hits" or "Today's Country" to highly specialized genres such as "Rockabilly" and "Classic Ska." Each genre station is initially populated with tracks that are hand-selected by Pandora's music curation team to reflect that musical genre or style.

7. When a user starts his or her experience by seeding a station, he or she can then influence the music played by adding information that we refer to as "variety," such as a favorite artist or song, or by "thumbing up" a song (indicating that he or she likes it) or "thumbing down" a song (indicating dislike of that song, or that he or she does not want that song to play on that station in the future). The user also has the ability to skip a track. Users typically have the

[1] The Music Genome Project and Pandora's proprietary playlist algorithms are described in more detail in the Written Direct Testimony of Michael Herring, Pandora's President and Chief Financial Officer.

option to view lyrics and an artist's biography for each track they hear. Prior to the product developments described below, users did not get to choose the tracks they listened to on their chosen station, did not have the ability to replay selections, and playlists comported with the sound recording performance complement in section 114(j)(13) of the Copyright Act, which limits the frequency with which an artist or album can be played by a statutory webcaster. This type of radio-style listening offers a very different user experience than that offered by on-demand products in which listeners select the tracks or albums they wish to hear and the order in which they will hear them.

8. In addition to music, Pandora users can also listen to comedy routines and other "spoken word" content, such as podcasts. In providing comedy content, Pandora leverages technology similar to the Music Genome Project referred to as the Comedy Genome Project and allows users to seed a comedian or select a comedy genre station and personalize the station with thumbs or by adding variety.[2]

CONSUMER DESIRE FOR INTERACTIVE FEATURES

9. In my experience, there is a broad spectrum of consumer desires for music consumption, ranging from consumers with little or no interest in music consumption to music "aficionados" who consume a great deal of music, care deeply about specifically what music they listen to, and are willing to spend more money on music than casual listeners. Most people fall somewhere in between, and their interest in control over music selection will fluctuate over the course of a given day, month, or year. To date, most consumers have been unwilling to

[2] Comedy and spoken word content represent a small but growing component of Pandora's service. Though comedy and podcasts currently constitute approximately [redacted]% of Pandora listener hours, millions of users listen to non-music offerings on the service in any given month. To date, 11 million listeners have streamed "Serial" and "This American Life" podcasts through Pandora.

spend money on subscribing to a music streaming service and prefer to utilize a "free" platform, including broadcast radio, Pandora's ad-supported tier, or other ad-supported options. In some instances, and particularly when legal options have not offered desired functionality or a sufficiently attractive value proposition, significant numbers of listeners have resorted to music piracy or the use of unlicensed, infringing services. At a minimum, however, millions of consumers have proven willing to spend $9.99 per month for on-demand listening, as Pandora has observed in the marketplace by watching the reported subscriber counts of popular subscription on-demand services.

10. Research commissioned by Pandora has shown that: (i) time spent listening to noninteractive webcasting typically has replaced other forms of noninteractive listening, such as broadcast radio, or is new listening time that would not have been spent consuming music at all, and (ii) most subscribers to on-demand music service also use noninteractive services. *See* Written Rebuttal Testimony of Larry Rosin, 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), at 12-13. In addition, we observed that a significant portion of our user base has been using Pandora's service in conjunction with other services offering features such as replays, offline listening, and on-demand streaming that Pandora, as a statutory webcaster, could not offer. In many cases, users have been continuing to rely on Pandora as their primary source for music consumption; in others, users have been migrating away from Pandora in favor of other options.[3] When I joined Pandora just over two years ago, it quickly became

[3] Pandora's monthly user count—after many years of strong growth—had been eroding since mid-2014. [redacted]

apparent to me that, in either case, Pandora was losing an opportunity to provide a meaningful segment of its customer base with products and features users wanted and could obtain elsewhere.

11. As part of Pandora's continuous efforts to maintain a market-leading position and to foster new opportunities for growth, we began to study this issue more intensely, including reviewing market research and analyzing our consumer feedback. We also commissioned surveys and studies by outside vendors at additional expense. Pandora's decision to redesign its service and develop interactive features evolved out of that process.

12. We learned that a significant number of our users wanted functionality beyond what a statutory webcasting service is allowed to provide, but users were not always motivated by the same feature or set of features. Desired options included:

- the ability to replay tracks they want to hear again;
- the ability to skip as many tracks as they want;
- the ability to save music for later listening, including offline use;
- the ability to hear a specific track on-demand;
- the ability to create playlists of their own choosing; and
- the ability to share music with other people.

13. In most cases, migration to other services for these other features has been temporary and to supplement, rather than replace, the Pandora experience. Through consumer feedback and our research, we have learned that listeners are more likely to leave Pandora at the moments when they experience a particular feature limitation—which we refer to as "pain

[redacted] *See* PAN Dir. Ex. 3 at 56.

points." For example, we learned that one of the pain points for Pandora users was hitting our self-imposed skip limit. Once certain users hit the skip limit, they would jump to another service in order to continue listening to music they wanted to hear, rather than remain on Pandora and listen to a track they would prefer to skip. Another pain point was the inability to replay a particular track. After discovering a new song they liked, or re-discovering an old one, users would leave Pandora and go to an on-demand service such as YouTube or Spotify in order to hear a recording again before returning to Pandora for more "lean back" listening.

14. We concluded that the absence of these additional features on Pandora's service was hurting our product and our ability to maximize our appeal to our listener base. This lack of functionality was inhibiting growth in listener hours, contributing to a decline in monthly users, and limiting our ability to attract new customers who wanted this additional functionality.

PANDORA'S NEW SERVICE OFFERINGS

15. In order to maintain our market-leading position and to fuel future growth, we recognized that Pandora could not rely solely on its noninteractive, statutorily compliant service, but rather would need to develop some of the features that were causing listeners to spend time on other services. However, it was important to us to preserve what has made Pandora the industry leader in music streaming to date: an interface that is simple to use with expert curation that makes Pandora an engine of highly personalized music discovery and enjoyment. To that end, a guiding principle in our product redesign was to introduce options for interactive features that consumers increasingly expect in their music listening experience without sacrificing the product attributes that have fueled Pandora's appeal to date.

16. Based on these parameters, we redesigned our service to offer a range of products, with price points and feature sets that vary to accommodate the range of consumer preferences

and willingness to pay for music. The redesigned Pandora offers three tiers: an ad-supported free tier just called "Pandora," a subscription-based mid-tier option called "Pandora Plus," and a forthcoming, fully on-demand, subscription-based option called "Pandora Premium."[4] The first two tiers launched in September of this year. We will be introducing Pandora Premium to subscribers in the next few months.

Tier One: Pandora (ad-supported radio)

17. The first part of Pandora's redesign was to update its market-leading, ad-supported radio product. The redesigned product, which keeps the same "Pandora" name under which it has been marketed to date, continues to offer listeners the same great "lean back" radio product for which Pandora is known, fueled by our Music Genome Project and our other proprietary algorithms, and supported by advertising. New features, including replays, additional skips, and improved delivery of advertising, have been incorporated in order to improve monetization and to help manage some of the pain points that have been causing consumers to migrate to other services to satisfy part of their music listening needs.

18. Just as before, Pandora allows users to start seeded stations (based on an artist or song) or to select genre stations. Pandora will then begin to play tracks from that station, as determined by the Music Genome Project and our proprietary algorithms. As with the prior ad-supported product, Pandora users will be able to pause or continue to play tracks, thumb tracks up or down, and input additional variety to influence what sorts of music is played on a station. Users also will still be able to view song lyrics and artist biographies. These features help further Pandora's desire to promote music discovery and a healthy music ecosystem.

[4] The features of the redesigned service are reflected in PAN Dir. Exs. 2, 4.

19. The most significant changes to Pandora's ad-supported tier concern skips and replay functionality. Pandora users have access to a limited number of skips, just as before, but now have the opportunity to obtain additional skips and, for the first time, limited replay functionality[5] if they choose to view a video ad. These advertisements vary in length, but typically will last approximately [redacted] seconds. Skip and replay rewards expire after a limited amount of time, if left unused.

20. Options to unlock additional skips or replays are offered throughout the time a user is listening to Pandora, such that if a user runs out of skips or replays, they will be presented with the option to engage with another video ad. This new feature aims to relieve some of the pain points for our listeners which historically have caused many listeners to leave our service, even if only temporarily, for another streaming service. At the same time, this function allows Pandora to improve its monetization by offering advertisers an effective and highly targeted new way to reach consumers.

21. Pandora intersperses these advertisements with targeted messages to upsell users of the ad-supported tier to the subscription-based Pandora Plus (and, when launched, also to Pandora Premium) to gain new subscribers from the pool of listeners that are exhibiting a desire for more control over at least some aspects of their music listening experience. Such efforts are already driving Pandora Plus subscriptions and additional engagement across the service.

Tier Two: Pandora Plus

22. The second tier of Pandora's redesigned product offering is marketed as Pandora Plus. Pandora Plus is a subscription-based product available to users at $4.99 per month that

[5] A "replay" on Pandora refers to the ability to play again, or replay, one of the sound recordings that the user has recently listened to on the Pandora service. [redacted]

replaces Pandora One.[6] The core functionality and listener experience of Pandora Plus is the same as the ad-supported Pandora product, including the ability to use thumbs, and view lyrics and artist biographies, except that the service is ad-free.[7] Unlike consumers of the ad-supported Pandora tier, however, Pandora Plus subscribers receive:

- access to Pandora's replay functionality (without engaging with advertising);
- more skips; and
- offline or "cached" listening to a limited number of stations.

23. The addition of offline listening to the Pandora Plus tier addresses another pain point identified by many of our Pandora users: the inability to listen to Pandora while not connected to the internet. This inability has been particularly problematic for users that have spotty or non-existent connections to the internet during the some of the most popular times for listening to our service: while commuting, traveling or exercising outdoors and during work. With Pandora Plus, users will have access to a limited number of cached radio stations, which they can listen to without an internet connection. The cached stations are chosen by Pandora, rather than the user, but generally influenced by the user's most frequently used stations during their recent listening history. The cache of stations will be refreshed multiple times a day by Pandora when the user's device is connected to the internet or, if the user is offline (without

[6] While we expect the typical subscriber for Pandora Plus will pay $4.99 per month, there may be some modest variation as a result of discounts we may decide to provide for annual subscriptions, grandfathering for long-time subscribers to Pandora One at their original subscription price, and the like.

[7] As described below, subscribers will receive Artist Audio Messages and promotional messaging from Pandora itself including efforts to upsell Pandora Plus subscribers to Pandora Premium after it launches.

internet access), stations will refresh when the user is next reconnected to the internet.[8] For Pandora Plus subscribers, offline listening will be the same "lean back" listening experience, with the songs and their sequence of play determined by the Music Genome Project and Pandora's proprietary algorithms, except that each cached station will contain approximately [redacted] worth of unique content.

24. As with users of the ad-supported Pandora tier, Pandora Plus subscribers do not know which track will be played next or which tracks are upcoming. Except for the potential to replay a recently heard track, Pandora Plus subscribers cannot select particular recordings to stream, and stations on Pandora Plus will otherwise abide by the sound recording performance complement of the statutory license under section 114, whether or not they are cached for offline listening.

25. The decision to include certain control features within Pandora Plus while withholding others was deliberate and strategic. We believe that a meaningful number of consumers are not currently, and may never be, willing to pay $9.99 per month for access to music—even if they would enjoy on-demand functionality—but are willing to pay for a lower-priced subscription. Offering a lower-priced product helps Pandora to grow its subscriber and revenue base by reaching these consumers, which in turn increases the royalty payments Pandora makes to sound recording and musical work rightsholders. We also believe that while a meaningful number of consumers are not currently willing to pay the prevailing market rate for access to full on-demand streaming today, they may transition to such a service over time. By adding some of the features that consumers find desirable to Pandora Plus, but withholding other

[8] [redacted]

significant features, we believe we are optimizing subscriber revenue by offering a sustainable and attractive mid-tier product which is not otherwise currently available in the market, while creating opportunities to upsell subscribers over time to our premium product offering.

Tier Three: Pandora Premium

26. With Pandora Premium, Pandora will be offering subscribers a full on-demand listening experience, although one that will be a uniquely Pandora experience. Pandora Premium, which will be available to subscribers at $9.99 per month, will offer its users an ad-free platform that provides both fully interactive and "lean back" radio listening experiences.

27. Pandora Premium subscribers will have access to all of the same features as Pandora Plus subscribers: the ability to start seeded stations and to select genre stations, the ability to thumb tracks up or down, unlimited skips, replay functionality, and access to cached stations for offline listening. But Pandora Premium will also offer a number of features that are not available on Pandora Plus, including:

- the ability to play any song, artist, or album in the Pandora library on demand;
- the ability to create and manage playlists and share them with other Pandora Premium subscribers; and
- enhanced offline listening that will enable subscribers to listen to selected songs, albums, stations and playlists of their own devising, in addition to the cached stations that are available with Pandora Plus.

28. The added functionality available on Pandora Premium will be competitive with the feature set of other on-demand music streaming services available in the marketplace, but the inclusion of our existing radio features, and the wealth of data about listener preferences we have built over time, will make our product unique. While users will have the ability to select

particular songs, they will do so in an environment curated by Pandora in which our incomparable knowledge of their music tastes, and the tastes of other users like them, will enable us to provide a much richer experience and to continue to serve as an engine of music discovery.

29. What will be distinctive about Pandora's new on-demand product is Pandora's signature ease of use. Pandora Premium will have a suite of features designed to make listening as easy and enjoyable as possible by leveraging Pandora's database of musical preferences (both personal to the user and collective across our entire user base) and its proprietary algorithms. These features will allow Pandora Premium subscribers to immediately start listening to music that they already love (*e.g.*, stations they already have listened to either on Pandora or Pandora Plus, and an on-demand library based on those stations and users' thumb preferences), introduce subscribers to music they have not heard before, and make recommendations of additional music they may want to add to a playlist. Pandora Premium also will allow users to move effortlessly between user-selected listening and Pandora-programmed listening as their activities change throughout the day, and as their listening habits change throughout their lives. The enhanced search function on Pandora Premium will enable users to easily search for a particular song, artist, or album. [redacted]

30. As part of the added value Pandora is bringing to the existing marketplace for on-demand music streaming, [redacted]

[redacted]

31. [redacted]

32. We expect that, by offering a unique combination of features that has not been available before and by leveraging the Music Genome Project, Pandora's proprietary algorithms,

and our extensive knowledge about listener preferences and behavior,[9] the redesigned service will attract a considerable number of subscribers who do not currently utilize on-demand streaming at all. To the extent that some of our users have been using Pandora for radio listening and music discovery in combination with an on-demand subscription service for those times during the day or week when they want to pick exactly what songs they want to hear, to listen to entire albums, or to hear only the music of a particular performing artist, we will be able to offer one-stop shopping and satisfy all of their music streaming needs in one place. Indeed, for the reasons stated above, we believe Pandora is positioned to provide an even better on-demand service than exists in the marketplace today. To the extent that some consumers are currently using other services but not using Pandora at all because we have not previously been able to offer the level of control those consumers want, the combination of on-demand streaming with our market-leading radio offering will help us attract additional new customers. And for the tens of millions of listeners that Pandora already has that currently rely exclusively on ad-supported or other free options, we believe that Pandora will be in a much better position than any other service to convert those users into paying subscribers.

PANDORA'S INNOVATIONS IN DELIVERING ADVERTISING AND PROMOTIONAL MESSAGING

33. Pandora has invested heavily to determine the best time to deliver an advertisement to a user. One of the most attractive features about Pandora to advertisers is the ability to deliver extremely targeted advertising to particular audiences. [redacted]

[9] Pandora collects approximately 1 billion data points a day from listeners to leverage for personalization.

[redacted]

34. [redacted]

35. [redacted]

PANDORA'S PRODUCT DEVELOPMENT TEAM

36. The redesign of Pandora's service and its development of interactive features have required a massive investment of time and effort from my team (as well as significant contributions from other parts of the organization). Since the project began, hundreds of employees have spent the majority of their time working on the product development aspects of this initiative, including members of our product development, product insight, product management, project management, product marketing, engineering, design, and programming departments. This team has included, by way of example, data scientists, software engineers,

quality assurance engineers, project managers, product analysts, lead product designers, and researchers.

37. Moreover, the product development work is far from over. Our team is still completing the development and engineering work necessary to launch the Pandora Premium tier. And, of course, the efforts will not stop there, as Pandora is continuously engaged in efforts to improve its service and promote a healthy music ecosystem.

PUBLIC VERSION

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

DECLARATION OF CHRISTOPHER PHILLIPS

I, Christopher Phillips, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief. Executed this 31st day of October 2016 in Oakland, California.

Christopher Phillips

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

WRITTEN DIRECT TESTIMONY OF ADAM PARNESS

(On behalf of Pandora Media, Inc.)

INTRODUCTION

1. My name is Adam Parness. I am the Head of Publisher Licensing and Relations at Pandora Media, Inc. ("Pandora" or "the Company") and have served in that position since I joined the Company in July 2016.

2. I have worked in the music industry for over fifteen years. Before joining Pandora, I was the Principal Content Acquisition Manager at Amazon Digital Music, where I led the company's music publishing initiatives and helped launch its Prime Music service. Before that, I worked at Rhapsody International Inc. ("Rhapsody") as Vice President of Music Licensing and at RealNetworks, Inc. ("RealNetworks") as Director of Music Licensing. Earlier in my career, I worked at AMI Entertainment Network, Inc. as Senior Licensing Coordinator. Prior to transitioning to working for content licensees, I worked as a Legal and Licensing Specialist for The Harry Fox Agency. I graduated in 2000 from New York University with a Bachelor of Music.

3. I present this testimony to the Copyright Royalty Judges to describe the negotiations that led to the settlements in *Phonorecords I* & *II* and to explain certain changes in the music industry since the *Phonorecords II* settlement was reached that warrant modification of the statutory rates for mechanical licenses for the period of 2018-2022.

THE *PHONORECORDS I* SETTLEMENT

4. The *Phonorecords I* proceeding commenced in 2006. In August 2006, I became the Director of Music Licensing for Real Networks. That proceeding, no differently than this one, affected three distinct segments of the music industry: (i) the music publishers, composers, and songwriters who owned or were otherwise entitled to royalties from the musical work copyrights at issue; (ii) the record labels who relied on the statutory license under section 115 to make and distribute phonorecords (the "Labels"); and (iii) music services that offered digital downloads, limited downloads, streaming, or other forms of access to music.

5. Music publishers, composers, and songwriters were represented in *Phonorecords I* by the National Music Publishers' Association, Nashville Songwriters Association International, and Songwriters Guild of America (collectively, the "Copyright Owners"). Record labels were represented by the Recording Industry Association of America, Inc. ("RIAA"). Music services were represented by the Digital Music Association ("DiMA") and its member companies at the time: AOL, Apple, MusicNet, Napster, RealNetworks, and Yahoo! (collectively, the "Music Service Participants"). I was actively involved on behalf of RealNetworks.

6. A key disputed issue at the time was whether music streaming implicated mechanical rights at all or merely required music services to secure rights of public performance. This issue and others were the subject of proposed rulemaking by the Copyright Office during

the litigation of the rate proceeding.[1] Moreover—if a mechanical right for streaming existed at all—the positions on reasonable rates and terms diverged wildly.

7. In late 2008, following the trial of *Phonorecords I* but before the Copyright Royalty Board ("CRB") had issued its decision, the Copyright Owners and the Music Service Participants reached a settlement of those issues pertaining to music streaming. For Music Service Participants, there were four key drivers of the settlement. First, the Copyright Owners agreed to forgo claims that noninteractive streaming implicated mechanical rights under section 115 or otherwise required license authority to use musical works beyond rights of public performance. Second, the Copyright Owners agreed to an "all-in" rate structure for interactive streaming that would allow interactive services to deduct their payments for performance rights from a "headline" royalty rate to determine the mechanical rights royalties owed. Third, the royalty structure would be a percentage of revenue, as the Music Service Participants preferred, albeit one subject to certain minima and floor payments. Fourth, the percentage of revenue that music services expected to pay for both mechanical rights and performance was 10.5% (and 8.5% for accounting periods prior to 2008)—an amount that was higher than we would have preferred to pay but was deemed acceptable by Music Service Participants given prevailing market conditions, the possibility that the CRB would adopt a different rate structure (in particular, a penny rate "per play"), and the finality settlement would provide to services, some of whom had been operating without rate certainty for years, with respect to both retroactive impact and going-forward rates.

8. At the time, the prevailing business model for interactive streaming was subscription-based, rather than ad-supported, and interactive streaming services were typically

[1] *See, e.g.*, 73 Fed. Reg. 66173-82.

charging subscribers $10-$15 per month, with prices that varied by service characteristic, such as whether the service was "portable" or "non-portable." In negotiations, the Copyright Owners expressed a concern that structuring the rate solely as a percentage of service revenue could lead to a sharp decline in royalty payments in the event of lower retail pricing by services. Accordingly, the Music Service Participants agreed to accept certain minima that varied by service characteristic that would ensure a base level of compensation to Copyright Owners for the combined mechanical and performance rights in the event of price declines or the emergence of business models that monetized streaming activity less effectively. These minima were set sufficiently below the rates interactive streaming services would pay under the percentage-of-revenue prong under prevailing market conditions that the Music Service Participants thought they were unlikely to be triggered.

9. In negotiations, the Copyright Owners also asked the Music Service Participants to accept a "floor" fee for mechanical rights royalties below which payments could not fall after deducting performance rights payments. As noted above, it had been quite important to the Music Service Participants to have an "all-in" rate structure for both mechanical rights and performance rights. The "floor" fee for interactive streaming was set low enough, however, that it was viewed by the Music Service Participants as extremely unlikely to be triggered and considered by us to be a negotiating concession without economic impact.

10. The *Phonorecords I* settlement determined the musical work royalties paid by interactive streaming services through December 31, 2012.

PHONORECORDS II SETTLEMENT

11. In 2011, the Copyright Royalty Board commenced the proceeding for the *Phonorecords II* royalty rate proceeding for the period of January 1, 2013 – December 31, 2017.[2] At that time, I was Vice President of Music Licensing at Rhapsody.

12. Many of the same participants from *Phonorecords I*, as well as a number of new digital music services, filed petitions to participate in *Phonorecords II*. That proceeding, however, settled in 2012 in advance of the submission of written direct cases (the "2012 Settlement").[3] The amendments to 37 C.F.R. § 385 were published in the Federal Register on November 13, 2013.[4]

13. With respect to the rates and terms covered by 37 C.F.R. § 385, Subpart B, the participants agreed to continue the royalty rates and rate structure from the *Phonorecords I* settlement, although they did propose certain amendments to other aspects of the regulations set forth in that subpart that were adopted by the CRB. [5] The *Phonorecords II* settlement also included the negotiation of rates and terms for various additional types of services that had emerged. Those rates and terms were adopted by the CRB and are now embodied in 37 C.F.R. § 385, Subpart C.[6]

14. The Subpart C rates we negotiated had similar elements to the Subpart B rates: an "all-in" rate structure for both mechanical and performing rights, a percentage-of-revenue rate structure with various minima that varied by service characteristics. There was one notable

[2] *See* 78 Fed. Reg. 67939.

[3] *Id*.

[4] 78 Fed. Reg. 67942-51.

[5] *See id.*

[6] *See id.*

difference, however. Subpart C does not contain a "floor" fee for mechanical rights following the deduction for performance rights payments.

CHANGING LANDSCAPE OF MUSIC PERFORMANCE RIGHTS

15. For many years, the acquisition of music performance rights was quite straightforward. Music publishers, composers, and songwriters affiliated with a performance rights organization ("PRO"), and the PRO would offer so-called "blanket" licenses to music users that authorized the use of any musical work in the PRO's repertory, without regard for which specific songs were played or how often, in exchange for a single fee. Since at least the middle of the last century through the time we reached an agreement to settle *Phonorecords II*, the rights to all musical works of any commercial significance could be obtained from at least one of three PROs operating in the U.S.: ASCAP, BMI, and SESAC. ASCAP and BMI are much larger than SESAC and have long been subject to consent decrees with the Antitrust Division of the U.S. Department of Justice ("DOJ").[7] These consent decrees, which were the result of antitrust litigation brought by the DOJ against those organizations, provide important protections for music users, including a right to a license upon application, protection against copyright infringement lawsuits while rates are negotiated, a prohibition against exclusive license arrangements such that affiliated publishers can grant direct licenses if they choose to do so, and in the event of a negotiating impasse, a right to have the federal court judge who supervises the decree set reasonable rates and terms in a litigated "rate court" proceeding.[8] These decrees are intended to address the market power that otherwise arises out of collective

[7] *See* PAN Dir. Ex. 1 at 1. (Statement of the Department of Justice on the Closing of the Antitrust Division's Review of the ASCAP and BMI Consent Decrees, dated August 4, 2016).

[8] *See id.* at 6-7.

licensing of performing rights by copyright owners.[9] SESAC is much smaller than ASCAP or BMI. It is not subject to an antitrust consent decree with DOJ, although its collective licensing practices create similar leverage over music users. On occasion, these practices have led to private antitrust litigation in which SESAC has agreed to settlements that addressed, at least in part, the plaintiffs' concerns.[10]

16. For many years, it had been prevailing practice for interactive streaming services to secure all of their rights to publicly perform musical works by taking a blanket license from each of ASCAP, BMI, and SESAC. In recent years, there has been fragmentation of the manner in which public performance rights are licensed by digital music services, and there is potential for significant additional fragmentation.

17. First, in 2011, ASCAP and BMI attempted to modify their practices to allow publishers to "partially withdraw," such that ASCAP and BMI would remain authorized to license certain categories of music users on their behalf, such as bars and restaurants, but would no longer be authorized to offer licenses that included their works to digital music services such as Pandora. EMI partially withdrew from ASCAP and BMI in 2011 but offered Pandora a direct license at the same percent-of-revenue rate as ASCAP had been charging. After the 2012 Settlement was reached, in late 2012 and early 2013, other major publishers partially withdrew from ASCAP and BMI and demanded significant increases from Pandora for public performance

[9] *See id.* at 1, 6-7.

[10] *See, e.g., Meredith Corp. v. SESAC, LLC*, 87 F. Supp. 3d 650, 657-59 (S.D.N.Y. 2015); *Meredith Corp. v. SESAC LLC*, 1 F.Supp.3d 180 (S.D.N.Y. 2014); Settlement Agreement in *Radio Music License Committee, Inc. v. SESAC, Inc., et al.*, No. 2:12-cv-05807-CDJ (E.D. Pa.), dated July 23, 2015, *available at* http://imgsrv.radiomlc.org/image/rmlc/UserFiles/File/Final%20SESAC% 20RMLC%20 Settlement%20Agreement.pdf.

rights.[11] These partial withdrawals—announced at a time when Pandora and other music services were already using their works and generally lacked access to reliable ownership information about which works were covered by the withdrawals—caused considerable chaos. They were ultimately determined to be inconsistent with ASCAP and BMI consent decrees, although, of course, music publishers are free to withdraw entirely from those PROs.[12] Several publishers of significant commercial importance have threatened to do just that. An on-demand service would not be viable in my view without a license to publicly perform the repertory of a major music publisher.

18. Second, in 2014, a fourth U.S. PRO known as Global Music Rights ("GMR") emerged. While the size of the GMR repertory is small in relation to ASCAP, BMI, and even SESAC, it has already attracted the rights to musical works performed by a significant number of marquee recording artists, including Bruce Springsteen, Bruno Mars, the Eagles, Pharrell Williams, and others, and it continues to grow. GMR is not subject to an antitrust consent decree.

19. In part because the PROs aggregate large numbers of commercially important rights owners into a single bundle, in part because music users lack real-time access to reliable ownership and PRO-affiliation information about the musical works they perform, and in part because the Copyright Act authorizes significant statutory damage awards for copyright

[11] *See generally In re Pandora Media, Inc.*, 6 F. Supp. 3d 317 (S.D.N.Y. 2014) ("*Pandora/ASCAP I*"), *aff'd, Pandora Media, Inc. v. Am. Soc'y of Authors, Composers and Publishers*, 785 F.3d 73, 77 (2d Cir. 2015) ("*Pandora/ASCAP II*").

[12] *See Pandora/ASCAP II*, 785 F.3d 73, 77 (2d Cir. 2015) ("[T]he plain language of the consent decree unambiguously precludes ASCAP from accepting such partial withdrawals."); *Broadcast Music, Inc. v. Pandora Media, Inc.*, 140 F. Supp. 3d 267, 275-77 (S.D.N.Y. 2015);

infringement, a license from each of the four PROs is a "must-have" for an interactive streaming service.

20. Third, the performing rights licensing marketplace has become further complicated by recent efforts by PROs to limit the blanket licenses they offer to the "fractional" interests owned by their respective members. While ASCAP and BMI have long touted that their blanket licenses offer the right to perform any of the millions of songs in their respective repertories and immediate access to new compositions created by their members, these benefits would no longer be available under fractional licenses. Many musical works are co-owned by multiple parties, who may affiliate with different PROs (and are not obligated to affiliate with a PRO at all). Under fractional licenses, interactive streaming services and other music users would need to know what share of a work is owned by the affiliate of the licensing organization and whether any remaining share is covered by an agreement with any other licensor. Pandora does not currently have access to that information.[13] Fractional licenses would give considerable leverage to owners of even very small partial interests in works. The DOJ earlier this year announced that the ASCAP and BMI consent decrees do not permit those organizations to offer fractional licenses and declined requests for modification by ASCAP and BMI.[14] On September 16, 2016, the federal judge who supervises the BMI consent decree disagreed as to BMI,[15] but there has not been an equivalent determination for the ASCAP consent decree or appellate review. Even though the value of the underlying rights has not changed, fractional licensing will

[13] *See* PAN Dir. Ex. 1 at 15 ("The Division's investigation uncovered that no such authoritative information source exists today, even for existing works, and, further, that songwriting credits for new releases may not be fully established until after the songs have been released.").

[14] *See id.* at 11-17.

[15] *See U.S. v. Broadcast Music, Inc.*, 64 Civ. 3787 (LLS), 2016 WL 4989938 (S.D.N.Y. Sept. 16, 2016).

almost certainly lead to higher total payments for performance rights, higher transactions costs, and greater uncertainty.

21. Rising prices for music performance rights make it increasingly likely that interactive streaming services operating under Subpart B category with a floor fee will trip the floor fee and pay an effective rate that is higher than 10.5% of revenue, even though the relative contribution of Copyright Owners to interactive streaming has not increased since the 2012 Settlement. The music services would not have agreed to extend the floor fee provisions in Subpart B in the 2012 Settlement if we had thought that services charging subscribers $9.99 per month might pay an effective percentage of revenue higher than 10.5%.

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DECLARATION OF ADAM PARNESS

I, Adam Parness, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief. Executed this 27 day of October 2016 in New York, New York.

Adam Parness

PUBLIC VERSION

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	**DOCKET NO. 16–CRB–0003–PR (2018–2022)**

WRITTEN TESTIMONY OF MICHAEL L. KATZ

(On behalf of Pandora Media, Inc.)

Submitted November 1, 2016

CONTENTS

I. INTRODUCTION

1. My name is Michael L. Katz. I begin my testimony by reviewing my qualifications, stating my assignment, and summarizing my principal conclusions.

A. QUALIFICATIONS

2. I hold the Sarin Chair in Strategy and Leadership at the University of California at Berkeley. I hold a joint appointment in the Haas School of Business Administration and in the Department of Economics. I have also served on the faculties of the Department of Economics at Princeton University and the Stern School of Business at New York University. I have twice served in government, once as Chief Economist at the Federal Communications Commission and once as Deputy Assistant Attorney General for Economic Analysis with the Antitrust Division of the U.S. Department of Justice. My title as Deputy Assistant Attorney General notwithstanding, I am not an attorney. I received my A.B. from Harvard University *summa cum laude* and my doctorate from Oxford University. Both degrees are in Economics.

3. I specialize in the economics of industrial organization, which includes the study of competition and pricing, as well as antitrust and regulatory policies. I am the co-author of a microeconomics textbook, and I have published numerous articles in academic journals and books. I have written academic articles on issues regarding the economic analysis of intellectual property law, the relationship between intellectual property law and antitrust policy, the economics of intellectual property licensing, and the economics of network industries and two-sided platforms. A more detailed description of my qualifications is provided in my curriculum vitae, which is attached to my testimony as Appendix A.

4. I have consulted on the application of economic analysis to public policy for a wide variety of clients, including the U.S. Department of Justice, the U.S. Federal Trade Commission, and the U.S. Federal Communications Commission on issues of antitrust and regulatory policy. I have served as an expert witness before state and federal courts, and I have provided testimony before state regulatory commissions and the U.S. Congress. In addition, I was commissioned by the Congressional Research Service to write a report on the economic effects of home copying on the markets for recorded music and for electronically recorded visual images.[1] I also submitted testimony before the Copyright Royalty Board ("CRB") in the recent *Web IV* proceeding.[2] A list of all matters in which I have provided testimony during the past four years is provided in Appendix B. Lastly, I have advised private clients on software licensing fees and product pricing.

B. OVERVIEW OF ASSIGNMENT

5. The Copyright Royalty Judges ("Judges") have commenced a proceeding to determine reasonable rates and terms for making and distributing phonorecords, under Section 115 of the Copyright Act, for the period beginning January 1, 2018, and ending

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1 Michael L. Katz, Home Copying and Its Economic Effects: An Approach for Analyzing the Home Copying Survey, Mar. 9, 1989, report commissioned by Congressional Research Service for Copyright and Home Copying: Technology Challenges the Law, October 1989.

2 Written Direct Testimony of Michael L. Katz, October 7, 2014, and Written Rebuttal Testimony of Michael L. Katz, February 23, 2015, amended April 21, 2015. I also gave live direct and rebuttal testimony in that proceeding.

December 31, 2022.[3] It is my understanding that the Judges are tasked with establishing reasonable royalty rates to be paid by interactive streaming services that are calculated to achieve the following objectives:[4]

> (A) To maximize the availability of creative works to the public.
>
> (B) To afford the copyright owner a fair return for his or her creative work and the copyright user a fair income under existing economic conditions.
>
> (C) To reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication.
>
> (D) To minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices.

6. At the request of counsel for Pandora Media, Inc. ("Pandora"), I have interpreted these statutory objectives from the perspective of economics and conducted an assessment of their implications for the appropriate structure and level of the statutory royalty rates for interactive music streaming services. I have also examined several potential "benchmark" agreements and assessed whether these benchmarks are informative to the rate-setting task at hand, and, if so, whether adjustments to these benchmarks are necessary to arrive at "reasonable" royalty rates and terms that best achieve the four statutory objectives.[5]

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[3] Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III), 81 FR 255 (January 5, 2016) (hereinafter, *Phonorecords III Commencement*).

[4] 17 U.S.C. §801(b)(1).

[5] I have focused my economic analysis on the principal financial provisions of these benchmarks. It is my understanding that the Judges will also make a determination with respect to other aspects of the statutory royalty scheme (*e.g.*, the treatment of the cost of obtaining sponsorship revenue in the calculation of the revenue base on which royalties

7. In undertaking this analysis, I have read prior decisions by the Judges (and their predecessors), as well as the testimony provided by various economists in some of those proceedings. I have also reviewed the written direct testimony of Michael Herring, Adam Parness, and Christopher Phillips filed in this proceeding, along with internal Pandora documents, documents produced in discovery, a variety of public materials, and economic literature relevant to my analysis. In addition, I have interviewed Pandora personnel. A list of materials that I have considered in preparing my testimony is provided in Appendix C.

8. I am being compensated for my work on this case at a rate of $1,300 per hour. My compensation is not dependent in any way on the opinions I express or the outcome of this matter.

C. SUMMARY OF CONCLUSIONS

9. My central finding is that the industry-wide, negotiated settlement that underlies the statutory license currently in effect (the "2012 Settlement") is an economically sound benchmark for setting statutory rates for the 2018-2022 license period, and that only minimal adjustments to this benchmark are required to arrive at reasonable rates that achieve the statutory objectives stated in Section 801(b)(1) of the Copyright Act.

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are assessed), and that various parties to this proceeding may propose that the statutory royalty scheme being determined in the present proceeding differ from the current statutory royalty in some of these respects. I reserve the right to analyze and testify regarding these other aspects of the royalty scheme if requested to do so by counsel for Pandora at a future date.

I also reserve the right to supplement or amend this testimony if my opinions change as the result of analyzing evidence that newly becomes available to me. Lastly, I anticipate responding to the testimony of other witnesses in this proceeding at a later date.

10. Turning to specific findings, drawing on my training and experience as an economist and my review of the materials discussed above, I find that:

- *Economics offers the following insights with respect to the interpretation and application of the 801(b)(1) objectives:*
  - **Maximize Availability:** The availability of creative works to the public depends on both the creation and distribution of such works.[6] Hence, the objective of maximizing the availability of creative works to the public will be achieved only if the royalty structure and rates are set to create the proper incentives for: (a) copyright owners to continue to create and publish new musical works, and (b) statutory licensees to invest in streaming services and offer them at prices and qualities that consumers find attractive. In other words, the statutory royalties should give both copyright owners and statutory licensees opportunities to earn adequate financial returns if they are able to create offerings that are attractive relative to those of their competitors.
  - **Afford Fair Return/Fair Income:** Although economics does not prescribe a specific notion of fairness, many economic policies are predicated on the idea that an outcome is fair if it corresponds to what would have happened in an

[6] Throughout my testimony, I use the term "distribution" as an economic rather than legal term to refer to any means of making the relevant content available to ultimate consumers. Thus, for example, record labels distribute music by producing and selling CDs, while permanent download services and music streaming services distribute music digitally. I also use the term "distributor" as an economic, rather than legal, concept.

effectively competitive market.[7] Under this conception of fairness, a fair return to a copyright owner and a fair income to a copyright user are the return and income that would arise in an effectively competitive market in the absence of a mandatory licensing requirement.[8] As with the availability objective, in applying the fairness objective, it is important to give appropriate consideration to costs that the copyright owner and copyright user have already incurred. Although certain costs may be considered "sunk" in the short run, most costs are variable over long time horizons and will be important determinants of a competitive outcome.

— **Reflect Relative Roles:** To a large extent, the objective of reflecting copyright owners' and users' relative roles in making contributions and incurring costs raises considerations similar to those raised by the first two statutory objectives. First, as with maximizing availability, a failure to reflect relative benefits contributed or costs incurred (including capital investments and risk) can lead either to owners failing to create and publish new works and/or to copyright users curtailing their investments in streaming distribution. Second, effective competition or bargaining by parties with comparable bargaining power would reflect relative contributions and costs. Thus, an

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7 As I will discuss below, certain bargaining outcomes can also be considered to be fair when the parties have comparable bargaining positions.

8 To the extent that the parties to a negotiation anticipate that, in the absence of a settlement, the Judges would determine a royalty rate that would reflect this standard, the presence of the compulsory licensing requirement will not distort the negotiated settlement. A similar point holds with respect to the relative-contribution objective.

outcome that does not reflect relative contributions and costs does not satisfy the competitive standard of fairness.

— **Minimize Disruptive Impact:** Maintaining the status quo with respect to licensing terms and conditions is the least disruptive action unless the industry is in a financial condition such that business as usual—at least with respect to the licensed activities—is unsustainable. Absent such a showing, maintaining the status quo—conditions to which the industry has already adapted—is the least disruptive path forward.

- *Mechanical rights and public performance rights are perfect complements, which implies that the sum of these rates is the relevant quantum for economic incentives and welfare.* Mechanical rights and public performance rights have value to interactive streaming services only when used together; a streaming service that had one type of right to a composition but not the other would be unable to offer the song to its customers without violating the law. Hence, a license to either type of right is worthless alone, but together the rights are valuable. As a result, there is no rigorous economic basis for allocating the total value that they create between the two types of rights. This fact is reflected in the 2012 Settlement, a key provision of which sets the *sum* of mechanical and public performance royalties equal to a percentage of service revenues (10.5 percent for many services).

- *The 2012 Settlement is an excellent benchmark for rate-setting here.* The 2012 Settlement is the result of a relatively recent negotiation that involved similar (and in some cases the same) parties negotiating over an identical set of rights. Moreover, the settlement was negotiated with all parties knowing that the alternative was a CRB proceeding governed by the same 801(b)(1) standard that applies here. The economics of bargaining indicates that, so long as there are not significant asymmetries in their ability to pursue litigation, private parties negotiating a settlement in the shadow of an 801(b)(1) proceeding will agree to terms and conditions that meet the 801(b)(1) objectives. I am unaware of any evidence that suggests that there were such asymmetries at the time of the negotiations that distorted the outcome. Nor am I aware of any evidence that suggests the settlement is the result of the exertion of excessive market power by one side over the other.

- *With one exception, the overall royalty structure of the 2012 Settlement remains economically sound and promotes achievement of the four statutory objectives.* For a service to which the statutory royalty scheme applies, the 2012 Settlement royalty structure contains: (a) a revenue-based prong equal to a percentage of service revenue less the royalties paid for performance rights (*i.e.*, there is an "all-in" or *headline rate* for the sum of mechanical and public performance royalties); (b) a *per-subscriber minimum* that applies to the sum of mechanical and public performance royalties; and, for certain types of services, (c) a *per-subscriber floor* on mechanical royalty payments (a "mechanical-only floor"). The specific

numerical values of all three components vary by service characteristic (*e.g.*, whether the service is limited to non-portable devices). Examination of changes in industry conditions since the 2012 Settlement was reached does not identify any reason to change the overall structure, but does identify one important modification:

— *Collecting total royalties for mechanical plus public performance rights on a percentage-of-revenue basis remains economically sound.* The two types of rights remain perfect economic complements for interactive streaming services, and I am unaware of any change in industry conditions since the 2012 Settlement was reached indicating that abandoning this approach is warranted. Indeed, imposing a new rate structure would run counter to the 801(b)(1) objective of minimizing disruption.

— *Having service-specific, per-subscriber floors for combined mechanical and public performance royalties remains sound.* Indeed, as the streaming industry continues to introduce innovative new types of services (*e.g.*, hybrid interactive/noninteractive services) and as streaming services are increasingly offered by companies as part of broader strategies of competitive ecosystems (*e.g.*, Amazon), allowing for minimums to address revenue-measurement issues while allowing flexibility for innovative, differentiated services remains appropriate.

— *As a result of past and potential future fragmentation of the licensing of musical compositions' public performance rights, per-subscriber floors applying only to mechanical royalties are no longer economically sound.* It is my understanding that, at the time the 2012 Settlement was negotiated, the marketplace in which licenses to musical works' public performance rights were negotiated was considered by rights users to be relatively stable and was expected to remain stable for the foreseeable future. As it turns out, these expectations were not met. Instead, the marketplace for negotiating musical works public performance rights licenses has become fragmented—and, importantly, threatens to become more so—with: the rise of Global Music Rights, a new Performing Rights Organization ("PRO"); recent efforts by at least some PROs to grant only "fractional" rights; and the threat of withdrawals by publishers from PROs. Based on well-accepted economic principles, the resulting fragmentation can be expected to lead to higher total royalties for performance rights. These higher performance rights royalties would interact with the current mechanical-only royalty floor to boost the effective "all-in" royalty rate above the rates contemplated by the 2012 Settlement. Royalty increases due to fragmentation represent the increased exercise of market power (and distortions arising from the so-called Cournot-complements problem), rather than an increase in the value of the underlying compositions and associated rights. Consequently, the mechanical-only royalty floor should be eliminated.

- *There have been no significant changes in industry conditions since the statutory rates that are currently in place were negotiated that would justify an upward adjustment to the headline rates.* If anything, examination of how industry conditions have and have not changed supports a conclusion that the 2012 Settlement headline royalty rate should be lowered for the 2018-2022 period to best achieve the four statutory objectives. Specifically: (a) interactive services have become an increasingly important source for the distribution of musical works; (b) interactive streaming services have proven to be very valuable to the music industry economically, as revenues from streaming services have contributed significantly to stabilizing the sharp declines in industry revenues that started in 1999 due to music digitization and piracy and have helped to combat piracy by providing a revenue-generating source of distribution to many consumers who would otherwise not pay for music; and (c) interactive services remain unprofitable (and some have gone out of business entirely) while music publishers remain profitable. In short, interactive streaming's relative contribution has increased but its relative returns have not, which raises concerns regarding availability, fairness, and reflecting relative roles.

- *Consideration of other candidate benchmarks reinforces these conclusions.* Consideration of two very recent benchmarks reinforces my conclusions summarized above:

— *Direct deals recently reached between Pandora and music publishers support the conclusion that the overall structure is sound subject to eliminating the mechanical-only floors.*

— *Music publishers have recently agreed to royalty rates for phonorecords and permanent digital downloads that, when stated in comparable terms, are lower than the corresponding statutory royalty rates currently in effect for interactive streaming, supporting the conclusion that the royalty rates at issue in this proceeding should not be raised above the level of the rates in the 2012 Settlement.*

11. The remainder of my written testimony explains these conclusions in greater depth and provides details of the facts and analyses that led me to reach them.

II. ECONOMIC INTERPRETATION OF THE STATUTORY STANDARD

12. Before I turn to my analysis of the industry participants involved in this proceeding, and my analysis of reasonable royalty rates and terms, I set forth my interpretation of the Section 801(b)(1) objectives from the perspective of economics.

A. MAXIMIZE AVAILABILITY

13. Creative works will be available to the public only if parties are willing to create and distribute those works. The availability of creative works to the public thus depends on the economic incentives and financial returns earned by both content creators (*e.g.*, songwriters, publishers, performing artists, and record labels) and content distributors (*e.g.*, streaming services). These parties will not have economic incentives to incur the

costs of creating and distributing creative works—including investment costs—unless they have prospects of earning sufficient financial returns. Hence, the objective of maximizing the availability of creative works to the public will be achieved only if the statutory royalties give both writers/publishers and streaming services opportunities to earn adequate financial returns if they are able to create offerings that are attractive relative to those of their competitors. Exclusive focus on the returns of only one part of the overall value chain will fail to promote availability to the greatest extent practicable.

14. The increasingly important role played by streaming services in overall music distribution implies that musical works will be fully available to the public only if the statutory royalties give streaming services opportunities to earn adequate financial returns on their investments if they are able to create offerings that are attractive relative to those of their competitors. Streaming services have been promoting availability in multiple ways. First, streaming services increase the availability of existing catalogs of music. Specifically, interactive music streaming services provide anytime, anywhere, convenient accessibility to a huge number of songs, and multiple paths to music discovery.[9] One recent research study found that users who switch from an ownership model (iTunes) to an access model (Spotify) increase total music consumption, increase the variety of music consumed, and are better able to discover valued works.[10] Second, by offering a substitute for piracy and increasing the value consumers can derive from music,

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[9] See discussion in Section III.A below.

[10] Hannes Datta, George Knox, and Bart Bronnenberg, "Changing their Tune: How Consumers' Adoption of Online Streaming Affects Music Consumption and Discovery," working paper, Tilburg University, February 9, 2016, at 30.

streaming serves to increase the revenues available to reward songwriters and publishers, as well as the streaming companies themselves.[11]

15. If interactive streaming services are unable to earn sufficient financial returns, then they will find additional investment to be unprofitable and will eventually cease operations (as several have done), eliminating what has been an increasingly important source of access to music that has benefited consumers and the music industry at large.[12] Moreover, even if interactive streaming services remain in business, availability will not be maximized if high royalty rates either induce the services to charge retail prices that discourage some consumers from subscribing to those services or induce the services to provide less attractive products (leading to less use of the services).

16. Songwriters and publishers should also earn sufficient pecuniary and non-pecuniary rewards to have the proper incentives to continue producing content. In this regard, it is important to recognize that royalties from the streaming services at issue in this proceeding are only one (albeit increasingly important) revenue stream for songwriters and publishers.[13] There are a variety of other revenue streams that must be considered when evaluating the availability factor from the copyright owner perspective.

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11 For a discussion of industry trends, see Section III.D below.

12 This factor applies to interactive streaming services broadly rather than any one service. In a competitive marketplace, there is no guarantee that any one supplier (here, streaming service) will succeed.

13 Non-financial rewards may also motivate songwriters.

B. AFFORD FAIR RETURN/FAIR INCOME

17. Economic logic does not prescribe a single conception of fairness as the appropriate one for all purposes. Instead, economists study the implications of adopting principles that are intuitively appealing and/or appear to be utilized by people in making actual decisions.

18. One important distinction among conceptions of fairness is whether the assessment of a particular outcome is made by reference to the characteristics of the outcome itself (*e.g.*, whether there is income inequality among different households) or whether the outcome is the result of a fair process or procedure (*e.g.*, asking whether there is equality of opportunity even if outcomes differ).[14]

19. It is difficult to see how notions of fairness based solely on the outcome could be meaningfully applied in the present context.[15] For example, trying to determine whether publishers or streaming services were more deserving of income at the margin would be almost impossible. Under such an approach, one would have to form views about what constitutes a fair societal distribution of wealth and then measure the wealth of the employees and owners of publishers and streaming services in order to evaluate the effects of any particular royalty payments. Moreover, such an approach would very

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[14] See, *e.g.*, Robert Nozick (1973) "Distributive Justice," *Philosophy & Public Affairs*, **3**(1): 45-126; Hal Varian (1975) "Distributive Justice, Welfare Economics and the Theory of Fairness," *Philosophy and Public Affairs*, **4**(3): 223-247.

[15] One of the leading conceptions of fairness regarding outcomes is that an outcome should be "envy free" in that no economic agent would rather trade places with another. See, for example, Hal Varian (1974) "Equity, envy, and efficiency," *Journal of Economic Theory*, **9**: 63-91.

likely turn on factors that have little or nothing to do with music publishing and streaming.[16]

20. Conceptions of fairness based on the idea that an outcome is fair if it is the result of a fair process is much more readily applicable to the present situation. Specifically, a bargain in which each party has equal knowledge, sophistication, and bargaining power is viewed by many economists to be a fair process. Indeed, many economic policies are (at least implicitly) predicated on the idea that an outcome is fair if it corresponds to what would have happened in an effectively competitive market that was not subject to other distortions. For example, the Acting Assistant Attorney General, Antitrust Division, recently stated:[17]

> The ultimate concern of antitrust law has always been protecting competition at all levels of the economy. Animating the beliefs of ordinary Americans who demand vigorous antitrust enforcement are the value of fairness and the belief that properly functioning competitive markets are themselves fair.

Under this conception of fairness, a fair return to a copyright owner and a fair income to a copyright user are the return and income that would arise in an effectively competitive market in the absence of a mandatory licensing requirement.

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16 For example, this approach might lead one to conclude that royalty rates should be reduced because shareholders of streaming services had reduced wealth as a result of having heavily invested in certain tech stocks that lost value.

17 Renata B. Hesse "And Never the Twain Shall Meet? Connecting Popular and Professional Visions for Antitrust Enforcement," speech presented September 20, 2016, *available at* https://www.justice.gov/opa/speech/acting-assistant-attorney-general-renata-hesse-antitrust-division-delivers-opening, site visited October 24, 2016, at 3. See also, *id.* at 2 ("[antitrust] professionals and the public are moving more toward a consensus vision of antitrust focused on protecting competition and the fairness inherent in it.").

21. In applying such an approach, it is important to account for sunk costs (*i.e.,* costs that a firm has already incurred and cannot recover). Although certain costs may be considered sunk in the short run, most costs are variable over long time horizons and would affect the competitive outcome. Stated another way, it is important to consider bargaining over the proper time frame. It is also important to observe that affording parties fair opportunities to earn incomes and returns does *not* imply that parties are entitled to guaranteed incomes or returns. Some parties will compete more successfully than others in effectively competitive markets, and both entry and exit are to be expected.

22. The so-called Shapley Value can also be interpreted as a process-based conception of fairness, and at least one academic article has suggested applying the Shapley Value to determine statutory royalty rates.[18] The Shapley Value provides an answer to the question of how to divide economic gains among parties that result when those parties cooperate with one another (*e.g.*, how to divide the overall profits available when some parties license their intellectual property to others).[19] In a remarkable paper, Professor Shapley demonstrated that, if one requires the solution or dividing rule to

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[18] Richard Watt (2011) "Fair Copyright Remuneration: The Case of Music Radio," *Review of Economic Research on Copyright Issues,* **7**(2): 21-37.

[19] Another well-known concept is the *core,* which consists of those allocations of the economic rewards having the property that no coalition (sub-group of the cooperating parties) receives less than it could obtain on its own (*i.e.,* that every coalition shares in the gains from trading with the others). The requirement that all coalitions benefit from participation can be interpreted as a fairness condition. Unfortunately, it is well known that there may be no such way of dividing the rewards (*i.e.,* the core is an empty set). (See, *e.g.,* Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green (1995) *Microeconomic Theory,* Oxford University Press at 677-678 ("Any empty core is indicative of competitive instability in the situation being modeled."); Varouj A. Aivazian and Jeffrey L. Callen (1981) "The Coase Theorem and the Empty Core," *Journal of Law and Economics,* **24**(1): 175-181 ("Examples of negotiations where the core does not exist are easy to concoct and may be quite common in practice.").)

possess certain properties (so-called axioms regarding what constitutes a reasonable outcome of a bargaining game), including one that is often interpreted as a fairness condition, then there is a unique formula for dividing the rewards that satisfies these properties.[20]

23. Although Shapley Value analysis may provide useful insights, the results of such an analysis should be examined with care. One reason for caution is that the Shapely Value takes the structure of the underlying situation or "game" as given and then characterizes the division of surplus among the players in a way that has been interpreted as "fair" *conditional on the structure of the game*. The Shapley Value says nothing about whether the structure of the game is itself fair. For example, in some situations, two parties can raise their share of the total rewards by "merging," so that they are treated as if they are a single entity when calculating the Shapley Value.[21] Many people would not consider it fair to allow many different suppliers to merge in order to increase their profits at the expense of consumers; yet the Shapley Value would itself be silent on this issue. Thus, in applying the Shapley Value, it is important to ensure that the structure of

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[20] Lloyd Shapley (1953) "A Value for n-Person Games," in Khun, H. and A. Tucker (eds.), *Contributions to the Theory of Games,* Vol. 2, Princeton: Princeton University Press. Subsequently, there have been many papers that provide alternative axioms generating the Shapley value as the solution. See, for example, André Casajus (2014) "The Shapley value without efficiency and additivity," *Mathematical Social Sciences,* **68**: 1-4.

[21] Richard Watt (2011) "Fair Copyright Remuneration: The Case of Music Radio," *Review of Economic Research on Copyright Issues*, **7**(2): 21-37, at 33-34, discusses a hypothetical numerical example illustrating this fact. See Ilya Segal (2003) "Collusion, Exclusion, and Inclusion in Random-Order Bargaining," *Review of Economic Studies*, **70**: 439-460 for a general analysis of the effects of such mergers or "collusion."

the underlying bargaining situation is itself fair (*i.e.,* no party has undue market or bargaining power and the process is sufficiently competitive).[22]

24. When applying the Shapley Value, it can be tempting to assume that many parties have merged in order to reduce the number of parties considered. This temptation can arise because the Shapley Value requires examining the economic rewards that each possible coalition (or sub-group) of economic agents could earn on its own, which can be a very large number.[23] If one considered each songwriter and streaming service to be a separate agent, the number of coalitions to be evaluated would be astronomical. Unfortunately, attempts to simplify the calculation by assuming that there are fewer songwriters or publishers can have the effect of increasing those parties' market power as reflected in the Shapley Value.[24] In summary, while the Shapley Value is a well-known (among economists) conception of fairness, it can be difficult to apply and must be used with care to avoid reaching misleading conclusions.

C. REFLECT RELATIVE ROLES

25. To a large extent, the objective of reflecting copyright owners' and users' relative "creative contribution, technological contribution, capital investment, cost, risk, and

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22 Interestingly, the notions of the Shapley Value and the competitive outcome converge. See, for example, Robert J. Aumann (1975) "Values of Markets with a Continuum of Traders," *Econometrica,* **43**(4): 611- 646.

23 When there are N agents, the number of possible coalitions is 2^N, which quickly becomes huge. For example, if there are 20 agents, there will be over one million coalitions (2^{20} equals 1,048,576).

24 If one attempts to simplify calculation of the Shapley Value by treating all writers and publishers as one agent and all streaming services as another, then the Shapley Value coincides with the Nash Bargaining Solution, which splits the gains from trade equally between the two bargaining parties.

contribution to the opening of new markets for creative expression and media for their communication" raises considerations similar to those raised by the first two statutory objectives.

26. Reflecting relative roles is similar to maximizing availability in that failure to reflect copyright owners' capital investments, costs, and risks can diminish the incentives to create and publish new works, while failure to reflect copyright users' capital investments, costs, and risks can lead to a curtailment of investments in streaming services. Moreover, the relative creative and technological contributions and contributions to opening up new markets capture the extent to which investments and other activities contribute to maximizing availability.

27. The objective of reflecting relative roles also raises issues similar to those raised by the fair income/fair return objective. In particular, failure to reflect the relative contributions parties make to the creation of benefits and the relative costs—including investment costs—that they incur to make those contributions, is unfair in the sense that effective competition or bargaining by parties with comparable bargaining power would reflect relative contributions and costs.[25]

28. From the perspective of economics, stating a separate objective of reflecting relative capital investment and risk also highlights the desirability of taking return on

[25] The long-run equilibrium price received by suppliers in a perfectly competitive market is equal to the suppliers' marginal cost, regardless of the suppliers' relative contribution to the creation of benefits. (See, *e.g.*, Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green (1995) *Microeconomic Theory*, Oxford University Press at 335-336.) Hence, were one to use *perfect* competition as the fairness notion, any return above cost would be unfair. However, consideration of effective competition or balanced bargaining leads to fair outcomes in which copyright owners share in the benefits created.

investments (including those that might be considered to be sunk costs) into account in determining statutory royalties. Stated differently, this factor counsels in favor of considering price setting in the context of a forward-looking process (*i.e.*, considering the effects on future investments).[26]

D. MINIMIZE DISRUPTIVE IMPACT

29. The final statutory objective—minimizing any disruptive impact on the structure of the industries involved and on generally prevailing industry practices—calls for an analysis of the impact that a change in the royalty rate paid by interactive streaming services would have on the music publishing and streaming industries. One might conclude that, logically, maintaining the status quo must be the least disruptive action. However, economic reasoning suggests that the issue is more complicated. Arguably, maintaining the status quo with respect to licensing terms and conditions would be disruptive if the current terms were creating, or are expected to create, financial conditions such that business as usual—at least with respect to the licensed activities—will be unsustainable over the 2018-2022 license period.

30. As discussed below, examination of available data demonstrates that, since the implementation of the 2012 Settlement, content creators have continued to develop new, high-quality music, and streaming services have become an increasingly popular and important source of content distribution. Thus, economic evidence points to an industry,

[26] One implication of taking the contrary position would be that the (now sunk) costs incurred to write existing songs should be ignored so that the writers of those songs would not be entitled to compensation.

that, while facing ongoing economic challenges (*e.g.*, piracy remains a threat), is likely to remain sustainable over the coming years. Therefore, the objective of minimizing disruption implies that it is desirable to avoid making major changes to the current statutory royalty scheme.

31. There is also a linkage between disruption and investment incentives, which ties back to the objectives of maximizing availability and affording parties fair incomes and fair returns. Consider what would happen, for example, if the royalty rates were dramatically increased. First, availability would be harmed because the incentives to make new investments in interactive streaming services would be reduced directly as the higher royalties resulted in lower expected returns on investment. Second, investment could be harmed by the fact that the change was disruptive—both incumbent interactive streaming services and potential entrants could become reluctant to invest because they perceive increased risks as a result of an inability to count on royalty rates remaining stable in the future. Moreover, to the extent that past investments were made with expectations regarding future royalties and those investments have not yet covered their costs, issues regarding the fairness of the effects on income would also be implicated.

III. INDUSTRY BACKGROUND

32. Before turning to the rate-setting task at hand, in this section, I present relevant background information regarding the music industry, including brief descriptions of the various relevant parties and an overview of sources of industry revenues and trends.

A. INTERACTIVE MUSIC STREAMING SERVICES

33. Streaming services are one of a variety of entities that distribute music. Music distribution platforms include traditional AM/FM radio stations, satellite radio, CD retailers, download retailers, pirate web sites, and streaming music services. Streaming services offer both noninteractive and interactive products. Noninteractive products are akin to traditional radio stations in that customers select a genre and the streaming service provides a curated playlist over which the customer has limited control.[27] In contrast, interactive products allow customers to pick and choose their own music "on demand" and to curate their own playlists.

34. Almost all of the major music streaming services still operating today became available to U.S. consumers in 2005 or later.[28] Pandora and iHeartRadio launched their Internet radio platforms in 2005[29] and 2008,[30] respectively; Spotify launched in the U.S.

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27 SoundExchange, "Licensing 101," *available at* http://www.soundexchange.com/service-provider/licensing-101/, site visited August 30, 2016.

28 An exception is Rhapsody, which launched in 2001 and has rebranded itself as Napster. (Benny Evangelista, "Music firms open online services, but will fans pay?" *SFGate*, December 3, 2001, *available at* http://www.sfgate.com/business/article/Music-firms-open-online-services-but-will-fans-2845907.php, site visited October 31, 2016; Janko Roettgers, "Napster Is Back as Rhapsody Rebrands Its Streaming Service," *Variety*, June 14, 2016, *available at* http://variety.com/2016/digital/news/rhapsody-napster-rebrand-1201795439/, site visited October 31, 2016.)

29 Erin Griffith, "As the music industry changes, Pandora's tune stays the same," *Fortune*, September 1, 2015, *available at* http://fortune.com/2015/09/01/pandora-ad-free/, site visited October 15, 2016.

30 "No AM/FM receiver required: Clear Channel brings top radio stations to Apple iPhone, iPod touch," *MacDailyNews*, October 13, 2008, *available at* http://macdailynews.com/2008/10/13/clear_channel_brings_top_radio_stations_to_apple_iphone_ipod_touch/, site visited September 1, 2016.

in 2011,[31] as did Google Play Music;[32] Amazon Prime Music launched in 2014,[33] as did Tidal;[34] and Apple Music launched in 2015.[35]

35. The various interactive streaming services—including Spotify, Apple Music, Rhapsody (now Napster), and Tidal—clearly compete with one another. Table 1 presents the estimated number of on-demand subscribers in the U.S. for these major streaming services.

Table 1: Shares of U.S. On-Demand Subscribers, March 2016

	Subscribers (in millions)	Share
Spotify	6.0	33.3%
Apple Music	4.0	22.2%
Rhapsody	2.0	11.1%
Tidal	2.0	11.1%
Others	4.0	22.2%
Total	18.0	100.0%

Source: Pandora, Board of Directors: Competitive Update, April 21, 2016.

31 *Id.*

32 Brennon Slattery, "Music Beta by Google To Launch Without Licenses," *PCWorld*, May 10, 2011, *available at* http://www.pcworld.com/article/227507/Music_Beta_by_Google_to_Launch_Without_Licenses.html, site visited September 1, 2016.

33 Chris Velazco, " What you need to know about Amazon Prime Music," *engadget.com*, June 12, 2014, *available at* https://www.engadget.com/2014/06/12/amazon-prime-music/, site visited October 16, 2016.

34 TIDAL, "TIDAL High Fidelity Music Streaming Service Launches Today," Press Release, October 28. 2014, *available at* http://news.cision.com/tidal/r/tidal-high-fidelity-music-streaming-service-launches-today,c9707115, site visited October 31, 2016.

35 Apple Press Info, "Introducing Apple Music—All The Ways You Love Music. All in One Place," June 8, 2015, *available at* https://www.apple.com/pr/library/2015/06/08Introducing-Apple-Music-All-The-Ways-You-Love-Music-All-in-One-Place-.html, site visited September 8, 2016.

36. These share figures understate the actual degree of competition that interactive music services face in attracting customers. First, other formats, including physical distribution, digital downloads, and noninteractive streaming services place some competitive pressure on interactive services.[36] Second, although interactive streaming has helped to combat music piracy, these services continue to face competitive pressure from unpaid file-sharing sites available to consumers.[37]

37. These share figures also overstate the actual market power or bargaining power that interactive music services have with respect to music publishers. When negotiating with an interactive streaming service, an economically rational music publisher will take into account its ability to reach consumers through alternative means. Thus, if consumers are willing to switch their listening to other interactive service providers or to other forms of music distribution in order to access particular music if it becomes unavailable from a given interactive streaming service, then that service will have a weak bargaining position. As a result, an interactive service will tend to have less market power or bargaining power with respect to content owners when music listeners engage in multi-

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[36] In *Web IV,* the Judges found that there is downstream competition between subscription interactive streaming services and subscription noninteractive streaming services. *Determination of Royalty Rates and Terms for Ephemeral Recording and Webcasting Digital Performance of Sound Recordings*, 81 Fed. Reg. 26,316, 26,347 (May 2, 2016) (hereinafter "*Web IV Final Determination*").

[37] Ryan Faughnder, "Music piracy is down but still very much in play," *Los Angeles Times*, June 28, 2015, *available at* http://www.latimes.com/business/la-et-ct-state-of-stealing-music-20150620-story.html, site visited September 21, 2016. ("Apple's biggest rival when it launches its $10-a-month streaming music service on Tuesday might not be Spotify or Tidal, but piracy."); United States Copyright Office, "Copyright and the Music Marketplace," February 2015, *available at* http://copyright.gov/policy/musiclicensingstudy/copyright-and-the-music-marketplace.pdf, site visited June 3, 2016 (hereinafter *Report on Music Licensing*) at 78-79.

homing (*i.e.,* listen to music on multiple distribution platforms) because consumer switching costs are particularly low—multi-homing consumers already patronize alternative access sources.[38] Notably, the data indicate there is extensive multi-homing.[39]

38. The competition to serve music listeners has resulted in high-quality, innovative streaming services for consumers. Significant innovations that benefit consumers include:

- **Access and Portability.** As one industry commentator notes, today "…we take for granted the ease with which we can access the entirety of recorded music through streaming."[40] That ease of access is the result of innovation and investment by streaming services. Interactive streaming services enable consumers to access an entire catalogue of music—potentially tens of millions of songs—on portable devices without having to physically store any of the music. Apple's 2001 advertising campaign for its iTunes download service touted the

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38 Interactive streaming services are examples of what are known as two-sided platforms. For analyses of the effects of multi-homing on the pricing of two-sided platforms, see Mark Armstrong (2006) "Competition in two-sided markets," *RAND Journal of Economics,* **37**(3): 668-691, and Jean-Charles Rochet and Jean Tirole (2003) "Platform Competition in Two-Sided Markets," *Journal of the European Economic Association,* **1**(4): 990-1029.

39 For instance, [redacted]. (SPOTCRB0001526-1564 at 1542.)

40 Tom Barnes, "16 Years Ago Today, Napster Changed Music as We Knew It," *Music.Mic*, June 1, 2015, *available at* https://mic.com/articles/119734/16-years-ago-today-napster-changed-music-as-we-knew-it#.Vm5kX2IEe, site visited September 1, 2016.

possibility of "1000 songs in your pocket;" today its Apple Music streaming service offers consumers access to over 30 million songs.[41]

- **Playlists and Music Discovery.** Interactive services, such as Spotify and Apple Music have algorithms that facilitate consumer discovery of new music based on their listening history.[42] Perhaps the best known recommendation engine is Pandora's Music Genome Project, which uses highly trained musicologists and software to map songs' key musicological characteristics and link them to other songs with similar musical "DNA."[43] That recommendation and discovery engine will soon be available through an interactive streaming service, as it will be incorporated into Pandora's forthcoming on-demand service.[44]

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41 John Patrick Pullen, "Streaming Showdown: Apple Music vs. Spotify vs. Pandora vs. Rdio," *Time.com*, June 9, 2015, *available at* http://time.com/3913955/apple-music-spotify-pandora-rdio-streaming/, site visited September 8, 2016.

42 Sarah Mitroff and Xiomara Blanco, "Apple Music vs Spotify: What's the difference?" CNET, July 2, 2015, *available at* https://www.cnet.com/news/apple-music-vs-spotify-whats-the-difference/, site visited October 28, 2016; Jordan Bromley, "Guest Column: Why Music Streaming Is Good for Creators and Consumers," *Billboard*, July 25, 2016, *available at* http://www.billboard.com/articles/business/7446721/5-reasons-subscribe-music-streaming-service, site visited September 1, 2016.

43 Written Direct Testimony of Michael Herring, Pandora Media Inc., ¶¶ 13-18. See also, Rob Walker, "The Song Decoders," *New York Times Magazine*, October 14, 2009, available at http://www.nytimes.com/2009/10/18/magazine/18Pandor-t.html, site visited October 29, 2016.

44 Written Direct Testimony of Christopher Phillips, Pandora Media Inc., ¶ 30. Pandora has incurred substantial expenses in connection with its Music Genome Project:

> Even before incurring the incremental expenses associated with redesigning the service to include interactive features, which I discuss in the following section, Pandora had spent more than [redacted] creating and refining the MGP, its proprietary algorithms, and the necessary infrastructure, hardware, and software to offer a world-class radio product for our nearly 78 million active users.

(Written Direct Testimony of Michael Herring, Pandora Media Inc., ¶ 27.)

- **Social Media.** With interactive streaming services, consumers can easily share music and communicate with friends, other fans, and even artists. For instance, Spotify's service is integrated into Facebook, allowing users to see what friends are listening to, share songs, and receive recommendations for live shows in the user's area.[45] Moreover, many streaming sites offer artist biographies, touring information, song lyrics, and other information to which consumers might not otherwise have convenient access, which can provide benefits to both consumers and artists.[46] Pandora's forthcoming interactive service will have similar functionality, including allowing subscribers to share their playlists with other subscribers.[47]

- **Sound Quality.** In 2014, Tidal launched, offering lossless, high-resolution audio.[48] And Deezer launched Deezer Elite, a high-fidelity streaming service.[49]

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45 Patrick Salyer, "5 Ways Spotify is Pioneering the Hyper-Social Business Model," March 22, 2012, *available at* http://mashable.com/2012/03/22/spotify-social-media/#HWZ3A_KCikqY, site visited October 18, 2016.

46 John Paul Titlow, "5 Ways Streaming Music Will Change in 2016," *Fast Company*, December 30, 2015, *available at* https://www.fastcompany.com/3054776/5-ways-streaming-music-will-change-in-2016, site visited September 1, 2016.

47 Written Direct Testimony of Christopher Phillips, Pandora Media Inc., ¶ 12.

48 TIDAL, "TIDAL High Fidelity Music Streaming Service Launches Today," Press Release, October 28. 2014, *available at* http://news.cision.com/tidal/r/tidal-high-fidelity-music-streaming-service-launches-today,c9707115, site visited October 31, 2016.

49 Glenn Peoples, "Deezer Finally Coming to America on September 15," *Billboard*, September 10, 2014, *available at* http://www.billboard.com/articles/business/6244190/deezer-expanding-united-states, site visited October 30, 2016 (announcing the launch of Deezer Elite in the United States on September 15, 2014).

- **Safety.** Obtaining access to music from interactive streaming services is also safer than obtaining music through pirate sites. Interactive streaming services, such as those offered by the participants in the present proceeding, are trusted sources that create little risk of spreading potentially malicious viruses with which consumer devices can be infected from otherwise untrustworthy, pirated file-sharing sites.[50]

39. As discussed in Section III.D below, the innovations brought about by interactive streaming services, and the resulting enhanced consumer experience, have helped increase paid consumption of music and stabilize music industry revenues.

B. SONGWRITERS AND PUBLISHERS

40. Composers, lyricists, and/or songwriters (collectively "songwriters") are the creators of musical works. Although many songwriters perform their own musical works, it is also common for songwriters to compose songs to be performed by others.[51] Songwriters typically enter into contractual arrangements with music publishers, which promote and license the songwriter's work, collect royalties on behalf of the songwriter,

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50 Max Eddy, "Game of Thrones Torrents are Perfect for Delivering Malware," *PC Watch*, April 05, 2013, *available at* http://securitywatch.pcmag.com/none/310063-game-of-thrones-torrents-are-perfect-for-delivering-malware, site visited September 1, 2016.

51 Billboard's list of recent top songwriters features a mix of singer-songwriters (*e.g.*, Adele) and songwriters who create music for others to perform (*e.g.*, Max Martin). (Ed Christman, "Publishers Quarterly: Warner/Chappell Has Its Best Quarter In 10 Years," *billboard*, May 5, 2016, *available at* http://www.billboard.com/biz/articles/news/publishing/7357837/publishers-quarterly-warnerchappell-has-its-best-quarter-in-10, site visited August 29, 2016.)

and sometimes offer financing in the form of advance payments.[52] Music publishers and songwriters negotiate a split of the royalty payments, with each often—but not always—receiving 50 percent.[53] In some cases, songwriters are commissioned to write a song and are compensated with a fee for the work, but give up ownership rights to the song.[54]

41. Music publishers and songwriters derive revenue from a variety of sources. Specifically, musical works are subject to several types of rights, the primary ones being:

- *Mechanical Licenses*: Mechanical licenses cover reproductions of music in both physical formats (*e.g.*, CDs, tapes, and vinyl) and digital formats (*e.g.*, downloads and interactive streams).[55]
- *Performance Licenses*: Performance licenses cover "public" performances of musical works—those that are performed live in a public setting or where a substantial number of persons are gathered, as well as musical works transmitted by, among others, radio, television, or digital music services.[56]

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52 See generally, *Report on Music Licensing* at 19.

53 *Id*. at 19.

54 Mary Dawson, "The Top Ten FAQs On the Business of Songwriting #10," *The Internet Writing Journal*, September 2001, available at http://www.writerswrite.com/journal/sep01/the-top-ten-faqs-on-the-business-of-songwriting-9015, site visited October 15, 2016.

55 *Report on Music Licensing* at 25. See also NMPA, "Music Publishing 101," available at http://nmpa.org/music-publishing-101/, site visited October 20, 2016.

56 *Id*.

- *Synchronization licenses*: Synchronization licenses cover music used in conjunction with video, including film, television, commercials, and music videos.[57]
- *Folio licenses*: Folio licenses cover music in written form, including lyrics and musical notations.[58]

42. Data indicate that mechanical license revenues from interactive streaming services are small relative to other sources of publisher revenues. For example, they amounted to just under [redacted] of total music publishing revenues in 2015.[59]

C. LICENSING OF MECHANICAL RIGHTS AND PUBLIC PERFORMANCE RIGHTS

43. In order to provide users with access to musical works, interactive streaming services must acquire both mechanical rights and public performance rights licenses for those works. Indeed, from the perspective of interactive streaming services, a mechanical license and a public performance license to a given musical composition are perfect complements: neither one has any value to the streaming service without the other. Thus, in making business decisions, a streaming service must consider the effects of its actions on the sum of the amounts paid for these licenses, and all else equal, an increase in the royalty charged for one type of license will lower a service's willingness to pay for the other. Coupled with the fact that the revenues that songwriters and publishers derive

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57 *Id.*

58 *Id.*

59 NMPA00001424.xlsx.

from licensing a composition to an interactive streaming service are equal to the sum of the public performance and mechanical royalties, this complementarity indicates that—from the perspective of economics—the two royalty rates should be jointly determined.

44. Because of this complementarity, it is necessary to understand how both mechanical rights and performance rights are acquired by interactive services and under what marketplace conditions they do so.

1. Mechanical Rights

45. To secure mechanical rights, interactive services typically either avail themselves of the statutory license at issue in this proceeding or negotiate directly with music publishers.

46. The music publishing industry is moderately concentrated. The four largest publishers—Sony/ATV (26.6 percent), Warner/Chappell (23 percent), Universal Music Publishing Group (12 percent), and Kobalt Music Publishing (11.7 percent)—collectively accounted for just over 73 percent of the top 100 radio songs tracked by Billboard as of the second quarter in 2016.[60] In addition, there are several other significant publishers, including BMG and Songs Music Publishing, and many thousands of smaller music publishers and self-publishing songwriters.[61]

47. The market share data might create the misimpression that private negotiations by interactive services to secure mechanical rights take place in an effectively competitive

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60 "Publisher Market Shares as reported by Billboard v2016-10-21.xlsx."

61 *Report on Music Licensing* at 19. See also Harry Fox Agency, "Why Affiliate with HFA," *available at* https://www.harryfox.com/publishers/why_affiliate.html, site visited June 3, 2016.

marketplace. However, evidence suggests that there is little competition among publishers in licensing mechanical rights to interactive streaming services.[62] Specifically, the evidence indicates that, from an interactive streaming service's point of view, the rights to the song portfolios of the largest publishers are complements rather than substitutes. This complementarity arises because an interactive streaming service would not be able to offer an attractive product without a license from at least each of the biggest publishers.[63] This is the case for two mutually reinforcing reasons. First, for an interactive streaming service to be competitive, it must offer listeners access to the songs to which they want to listen. Without a license covering the repertories of at least each of the larger publishers, the interactive service will be likely to fail to be able to do so. Second, because of a lack of transparency in the musical works licensing marketplace, interactive services often do not know which publishers control the rights to the works they want to perform. As a result, without a license from at least the larger publishers, interactive services run a significant risk of facing infringement lawsuits.[64]

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62 Moreover, as I explain in Sections III.C.2 and IV.C.3 below, there is a lack of competition among music publishers in the sale of public performance rights because of both the use of joint licensing agents (the performing rights organizations) and the must-have nature of some publishers.

63 Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶ 17 ("An on-demand service would not be viable in my view without a license to publicly perform the repertory of a major music publisher.").

64 Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶¶ 15-20. See also *Meredith Corp. v SESAC LLC*, 1 F. Supp. 3d 180 (S.D.N.Y., 2014) at 218, which addressed similar issues in a related context, stating:

> First, virtually all composers affiliate with only one of the three PROs. *See* Def. 56.1 ¶ 20; Pl. 56.1 ¶ 209; Jaffe Rep. 17. Second, almost all local [television] stations have licenses from all three PROs. *See* Pl. 56.1 ¶¶ 206, 207; Jaffe Rep. 22. As a practical matter, a station must have such licenses, because it is unable

48. Along similar lines, the Judges found in *Web IV* that licenses to the repertoires of the three largest record companies were "must haves" for interactive streaming services and, thus, were complements, rather than substitutes, for one another.[65] It is notable in this regard that, in 2015, the second and third largest record companies, Sony Music Entertainment and Warner Music Group, had revenue shares of 22.6 percent and 17.1 percent, respectively.[66] By contrast, the two largest music publishers, Sony/ATV and UMPG both had larger shares of music publishing revenues—26.6 percent and 23.1 percent, respectively.[67]

2. Public Performance Rights

49. To date, public performance licenses generally have been offered by PROs. The American Society of Composers, Authors and Publishers ("ASCAP")[68] and Broadcast

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> to control—or, sometimes, even identify— what music is contained within third-party programs. [Emphasis in original.]

65 See, *e.g.*, *Web IV Final Determination* at 26342. (quoting Shapiro WDT at 15):

> The evidence shows clearly that the major interactive services "must have" the music of each major record company to be commercially viable. The repertoires of the major record companies are not substitutes for each other in the eyes of either interactive services or the record companies themselves. This means that there is no true "buyer choice" in this market. Thus, the market for licensing recorded music to interactive services is not workably competitive.

66 "WMG makes biggest recorded music market share gains of 2015; indies cement publishing lead," *Music & Copyright*, April 28, 2016 *available at* https://musicandcopyright.wordpress.com/2016/04/28/wmg-makes-biggest-recorded-music-market-share-gains-of-2015-indies-cement-publishing-lead/, site visited October 30, 2016.

67 *Id.*

68 ASCAP is "[a] professional organization of 565,000 songwriters, composers and music publishers." (ASCAP, "We are ASCAP," *available at* http://www.ascap.com/, site visited June 3, 2016.)

Music, Inc. ("BMI")[69] are the two largest U.S. PROs and collectively provide the rights necessary to publicly perform more than 90 percent of musical works that require licenses.[70] Until relatively recently, SESAC, Inc., a third, smaller, U.S. PRO accounted for the balance.[71] Global Music Rights ("GMR"), a fourth U.S. PRO, recently launched and now also accounts for a small, but growing portion of musical works public performance rights licenses, including the works of popular song writers such as Pharrell Williams, members of Fleetwood Mac, and the estates of John Lennon and Ira Gershwin, among others.[72]

50. Because of strong concerns about the exercise of considerable market power, the United States Department of Justice ("DOJ") brought antitrust lawsuits against both ASCAP and BMI. Those suits were settled, and, as part of the settlements, ASCAP and BMI entered into consent decrees with DOJ that impose certain restrictions on those PROs, including requiring them to grant licenses on non-discriminatory terms to any user that requests one and by providing for a "rate court" that determines "reasonable"

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69 BMI represents "more than 10.5 million musical works created and owned by more than 700,000 songwriters, composers and music publishers." (BMI, "What We Do," *available at* http://www.bmi.com/about, site visited June 3, 2016.)

70 *Report on Music Licensing* at 20.

71 SESAC "currently licenses the public performances of more than 400,000 songs on behalf of its 30,000 affiliated songwriters, composers and music publishers …" (SESAC, "About Us," *available at* https://www.sesac.com/About/About.aspx, site visited August 26, 2016.)

72 Sarah Skates, "Global Music Rights Has Growing Roster, Negotiating Power," *Music Row*, October 30, 2014, *available at* https://www.musicrow.com/2014/10/global-music-rights-has-growing-roster-negotiating-power/, site visited October 27, 2016.

royalties in the event the PRO and licensee cannot agree on rates or terms for a license.[73] In this regard, it is worth noting that, although SESAC is not subject to an antitrust consent decree, it recently settled private litigation raising antitrust concerns that was brought against it by representatives of the terrestrial radio and local television industries.[74]

51. As I discuss in Section IV.C.3 below, evidence indicates that each of the four PROs is a "must have" from the perspective of interactive services. In addition, for similar reasons, were a large publisher to license its public performance rights directly to an interactive service rather than through a PRO, that publisher would also almost certainly be a "must have" licensor.

D. INDUSTRY TRENDS

52. In this section, I examine national and global trends in the music industry, with a focus on what has changed since the 2012 Settlement.[75] As I discuss below, music streaming services have helped the industry combat piracy and have been an important

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73 *Report on Music Licensing* at 36-37; *United States v. ASCAP*, No. 41–1395, 2001 WL 1589999, 2001–02 Trade Cas. (CCH) ¶ 73,474 (S.D.N.Y. June 11, 2001) ("ASCAP Consent Decree"), §§ VI, IX; *United States v. BMI*, 1966 Trade Cas. (CCH) ¶ 71,941 (S.D.N.Y.1966), *amended*, No. 64–CIV–3787, 1994 WL 901652, 1996–1 Trade Cas. (CCH) ¶ 71,378 (S.D.N.Y. Nov. 18, 1994) ("BMI Consent Decree"), § XIV.

74 In settling its litigation, SESAC agreed, with regard to its dealing with local television and radio broadcasters, to many of the same restrictions imposed on ASCAP and BMI by their consent decrees (*e.g.*, fee-setting by a neutral third party in the event of a negotiating impasse and mandatory licensing). (*Meredith Corp. v. SESAC LLC*, Opinion and Order, 09 Civ. 9177 (PAE), Feb. 19, 2015 at 8.))

75 Both global and national sales are relevant dimensions on which to consider the data. In particular, because musical compositions have almost no marginal costs associated with usage and a musical composition can be consumed anywhere in the world, the decision to produce music depends, in large part, on whether total global earnings will be sufficient to offset the fixed costs of creating the composition.

source of recent growth for the music industry, both in the U.S. and globally. In this way, the numerous innovations that streaming services have brought to the music industry have benefitted, among others, music publishers and songwriters.

53. Music industry retail revenues (including revenues earned from streaming) provide an indicator of the overall health of the music industry to all industry participants, including songwriters and music publishers. Figure 1 below shows inflation-adjusted revenue per capita for the U.S. music industry based on data reported by the Recording Industry Association of America ("RIAA").[76] As the figure shows, the dramatic decline in industry revenues (adjusted for inflation and population) began in 2000. Specifically, revenues in the U.S. peaked in 1999 at $14.6 billion ($20.7 billion in 2015 dollars) and were about $7 billion in 2015.[77] It should be noted that licensed streaming services had *de minimis* revenues prior to 2005. The fact that the drop in music industry revenues began years before paid streaming became popular indicates that licensed streaming services were not the cause of the decline in music industry revenues.

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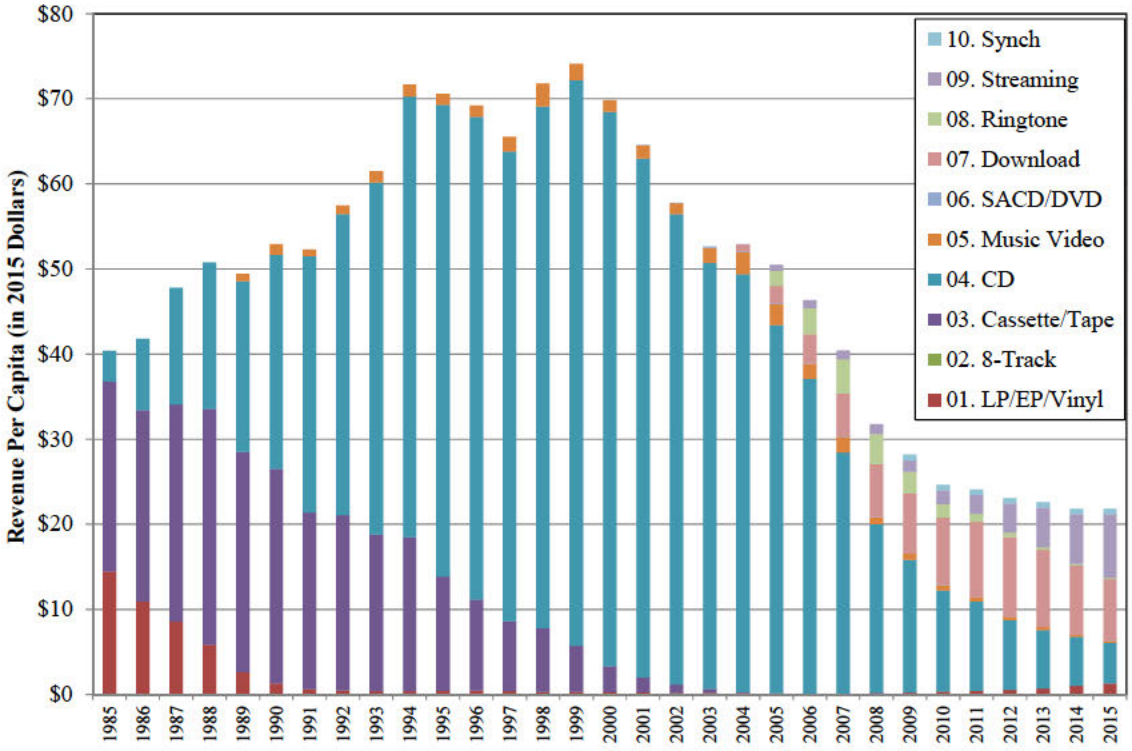
[76] Annual revenues are based on the estimated retail dollar value of music sales measured in 2015 dollars, and expressed as a fraction of annual U.S. population. (RIAA U.S. Sales Database, *available at* https://www.riaa.com/u-s-sales-database/, site visited August 31, 2016; U.S. Census Bureau population estimates.) Downloads includes downloads of singles, albums, music videos, and kiosk sales. Streaming includes revenues attributable to paid subscriptions (*e.g.*, paid subscriptions of Spotify, TIDAL, and Apple Music), streaming radio service revenues distributed by SoundExchange (*e.g.*, royalties from Pandora and SiriusXM), and other non-subscription (ad-supported) on-demand streaming (*e.g.*, YouTube, Vevo, and ad-supported Spotify). (Joshua P. Friedlander, "News and Notes on 2015 RIAA Shipment and Revenue Statistics," RIAA, *available at* https://www.riaa.com/wp-content/uploads/2016/03/RIAA-2015-Year-End-shipments-memo.pdf, site visited August 29, 2016.)

[77] RIAA U.S. Sales Database, *available at* https://www.riaa.com/u-s-sales-database/, site visited August 31, 2016.

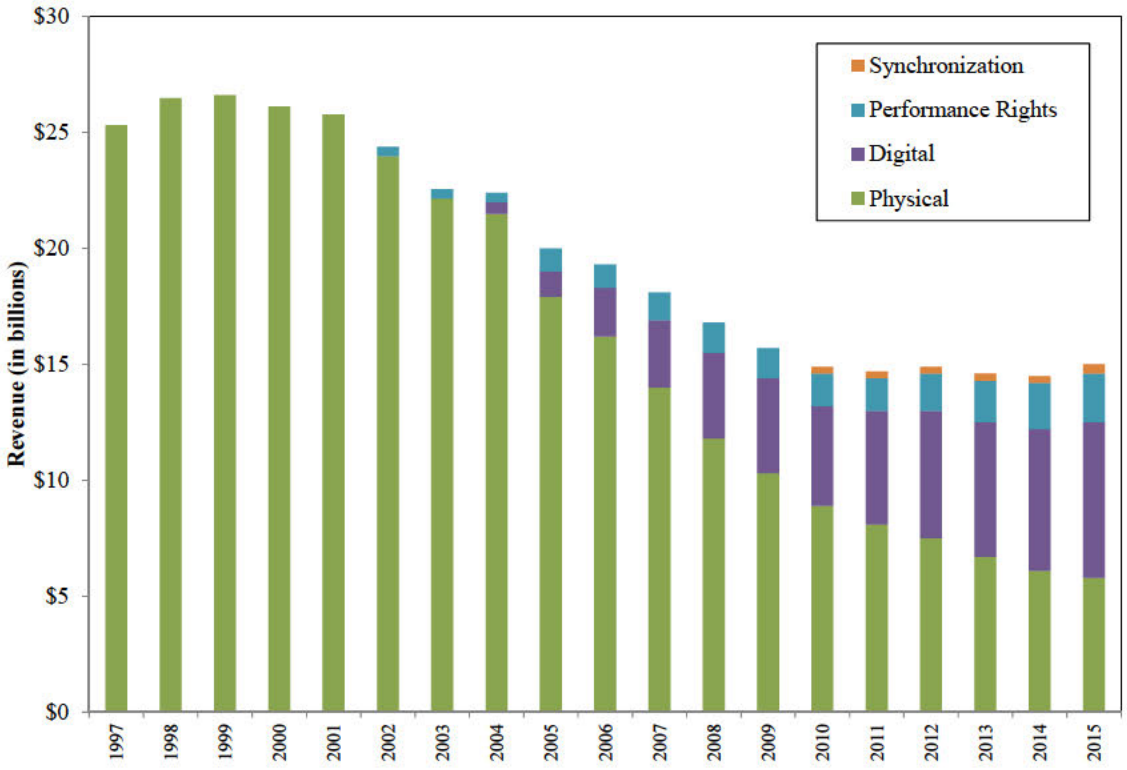
Figure 1: U.S. Music Revenue (per capita), 1985-2015



Sources: RIAA U.S. Sales Database (inflation-adjusted U.S. recorded music revenues by format); U.S. Census Bureau Population Data (U.S. census population estimates).

54. Figure 2 below presents worldwide revenues. As can be seen from the figure, worldwide revenues generally track the trends of U.S. revenues described immediately above. In particular, global music revenue also peaked in 1999 and underwent a substantial decline thereafter. In recent years, global music revenue has stabilized as digital sales have accounted for an increasing share of industry revenue.

Figure 2: Global Music Revenue, 1997-2015



Sources: IFPI Recording Industry in Numbers 2014 (SPOTCRB0003415); IFPI Global Music Report 2016 (SPOTCRB0000803).

55. Examination of Figures 1 and 2 suggests four broad points:

- There has been a history of new formats emerging to replace incumbent formats. For example, cassettes replaced vinyl, and then CDs replaced cassettes. When this substitution was among different revenue-generating formats, the new formats represented innovations that increased the value of music to consumers and facilitated the growth of industry revenues.

- From 2000 through 2014, the music industry's revenues suffered substantial losses each year relative to the previous year. The popular press, industry observers, and academic researchers widely attribute much, but not all, of this

decline to the digitization of music and rise of unlicensed music file-sharing sites, most notably starting with Napster in 1999.[78]

- The decline in music industry revenues was not triggered by licensed streaming services. For instance, in 2002, total music revenues declined by nearly $7 per person in the U.S., yet streaming services did not earn measurable amounts of revenues in that year according to RIAA.

- In fact, the data and industry analyses indicate that streaming (including interactive streaming) is stabilizing industry revenues. Figure 1 shows that streaming accounted for an increasing share of U.S. music revenue starting

[78] See, *e.g.*, David Goldman, "Music's lost decade: Sales cut in half," *CNN Money*, February 3, 2010, *available at* http://money.cnn.com/2010/02/02/news/companies/napster_music_industry/, site visited September 1, 2016: ("In the time between Napster's shuttering and iTunes' debut [2003], many of Napster's 60 million users found other online file sharing techniques to get music for free. Even after iTunes got people buying music tracks for just 99 cents, it wasn't as attractive as free."); Luis Aguiar, Nestor Duch-Brown, and Joel Waldfogel, "Revenue, New Products, and the Evolution of Music Quality since Napster," Institute for Prospective Technological Studies Digital Economy Working Paper 2015/03, European Commission JRC Technical Reports, 2016 ("With the appearance of Napster in 1999, revenue from recorded music began to fall in the US after rising for decades. In 2012 North American recorded music revenue was 75% below its 1998 level in real terms, and revenue in Europe was down by 70%. Industry observers have long viewed file sharing as the cause of the decline in revenue and have sought relief in the form of stronger copyright enforcement…."); ABC News, "RIAA: New Data Show Napster Hurt Sales," February 26, 2002, *available at* http://abcnews.go.com/Technology/story?id=98801, site visited October 27, 2016 ("Shipments of CD singles sank by 39 percent last year, according to data released by the Recording Industry Association of America. 'Napster hurt record sales,' said RIAA president Hilary Rosen. In particular, Rosen pointed to the drop in the sales of singles, once the format that fueled the music industry, as evidence of Napster's affect [sic].")

around 2011, when Spotify debuted in the United States.[79] Many commentators believe that streaming (including interactive streaming) has reduced piracy.[80]

56. This last point merits further discussion. The apparent freefall of revenues since 1999 has leveled off as revenues attributable to streaming have grown substantially in the last five years. According to data published by the RIAA, streaming revenues in the U.S. grew by more than 40 percent between 2012 and 2013, by 29 percent between 2013 and 2014, and by another 29 percent between 2014 and 2015.[81] During the first half of 2016,

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79 Other data also show that on-demand music streaming is increasing rapidly. According to Nielsen data, there were 317 billion on-demand music streams in 2015, up 93 percent from the prior year. And the first half of 2016 has continued to see growth with 209 billion on-demand streams, up 59 percent from the same period in 2015. (See Nielsen, "2015 Nielsen Music U.S. Report," p. 8; Nielsen, "2016 Nielsen Music U.S. Mid-Year Report" at 2.)

80 For example, a recent academic study finds that every 47 streams displaces one illegal download. (Luis Aguiar and Joel Waldfogel, "Streaming Reaches Flood Stage: Does Spotify Stimulate or Depress Music Sales?" Institute for Prospective Technological Studies Digital Economy Working Paper 2015/05, European Commission JRC Technical Reports, 2016.) And a study conducted by Spotify found that piracy in the Netherlands declined as Spotify gained popularity and that artists who have their music available on Spotify tended to experience fewer unpaid downloads from peer-to-peer file sharing sites such as BitTorrent. (Will Page, "Adventures in the Netherlands: Spotify, Piracy, and the new Dutch experience," *Spotify*, July 17, 2013, *available at* https://press.spotify.com/us/2013/07/17/adventures-in-netherlands/, site visited September 8, 2016.) The conclusions of those studies are supported by industry observation. For instance, one commentator notes that "[Spotify] has almost single-handedly stopped piracy's raid on the music business and handed the reins back to the industry that underestimated the modern digital landscape in the first place." (Ethan Wolff-Mann, "Spotify Doesn't Make (or Lose) Money for the Music Business. Here's Why That's Actually a Victory," *Money*, October 27, 2015, *available at* http://time.com/money/4086968/spotify-music-industry-revenues/, site visited September 1, 2016.)

81 Joshua P. Friedlander, "News and Notes on 2015 RIAA Shipment and Revenue Statistics," RIAA, *available at* https://www.riaa.com/wp-content/uploads/2016/03/RIAA-2015-Year-End-shipments-memo.pdf, site visited August 29, 2016; Joshua P. Friedlander, "News and Notes on 2014 RIAA Shipment and Revenue Statistics," RIAA, *available at* http://www.riaa.com/wp-content/uploads/2015/09/2013-2014_RIAA_YearEndShipmentData.pdf, site visited August 30, 2016.

music streaming revenues in the U.S. increased by 57 percent compared to the first half of 2015.[82] As one commentator noted, with regard to the growth of the global music industry, it "was the massive surge in streaming… that made the real difference."[83]

57. With this background in mind, I now turn to the changes that have taken place since the 2012 Settlement. First, overall album consumption has increased dramatically due, in part, to strong growth in streaming music. Figure 3 demonstrates that, since 2013 (the first year Nielsen included streaming equivalent albums in its estimates), overall album consumption has increased by 23 percent. This increase was primarily due to a 370-percent increase in streaming music, which more than offset a 28-percent decline in physical sales and digital downloads.[84]

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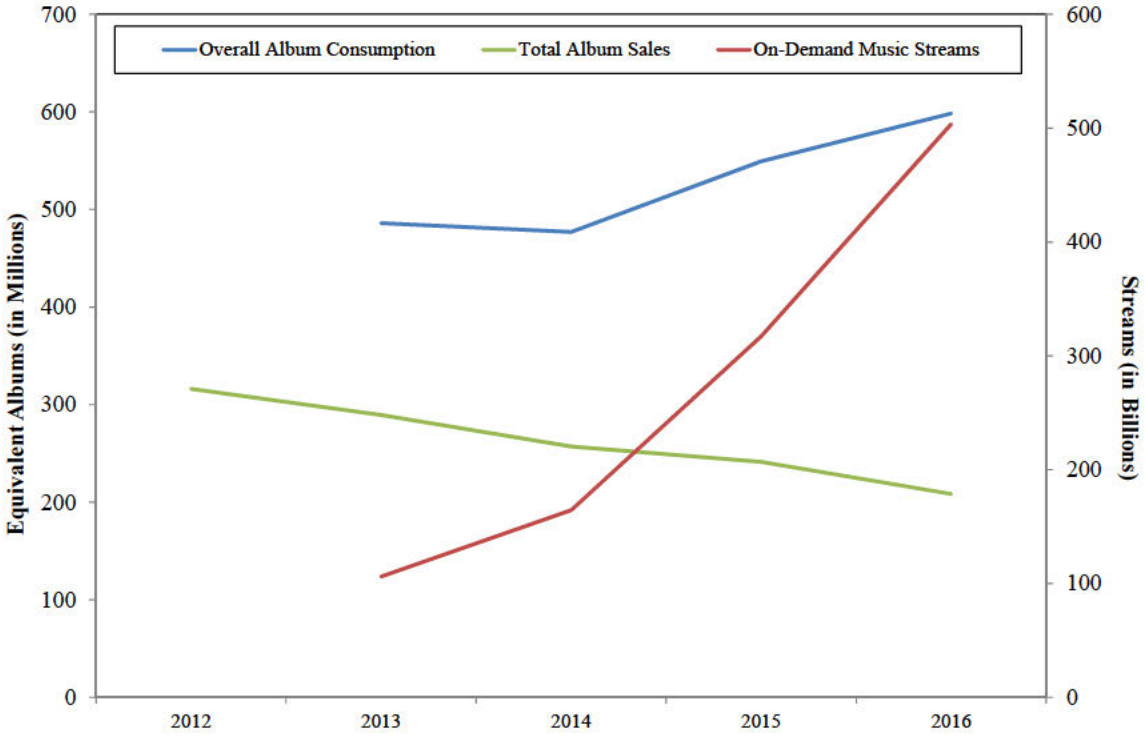
82 Joshua P. Friedlander, "News and Notes on 2016 Mid-Year RIAA Shipment and Revenue Statistics," RIAA, *available at* http://www.riaa.com/wp-content/uploads/2016/09/RIAAMidyear16.pdf, site visited September 21, 2016.

83 Craig Fitzpatrick, "Streaming drives reversal of music industry decline," newstalk.com, April, 13, 2016, *available at* http://www.newstalk.com/Streaming-drives-reversal-of-music-industry-decline, site visited September 8, 2016. See also Susmita Baral, "Spotify and Apple Music To The Rescue? Music Industry Growing For First Time Since 1990s Thanks To Streaming Services, *International Business Times*, September 20, 2016, *available at* http://www.ibtimes.com/spotify-apple-music-rescue-music-industry-growing-first-time-1990s-thanks-streaming-2419436, site visited October 26, 2016:

> This time around, the source of high sales are streaming services, like Spotify Ltd. and Apple Music, that give listeners access to an abundance of music at no cost in lieu of listening to ads or for a monthly fee. "It feels like the market is slowly recovering after years of being in crisis and shrinking," Zach Katz, the head of U.S. operations at BMG Rights Management GmbH, a record label and music publisher, told Bloomberg Technology. "It's absolutely a step in the right direction."

84 Nielsen Music Report 2013, 2014, 2015, and Mid-year Report 2016. Overall Album Consumption includes all albums and track equivalent albums and streaming equivalent albums (in millions); Total Album Sales includes CDs, cassettes, vinyl LPs, and digital albums (in millions); On-Demand Music Streams includes all on-demand audio and video music streams (in billions). 2016 figures are based on projection of mid-year values.

Figure 3: U.S. Music Consumption



Sources: Nielsen U.S. Music Reports 2013, 2014, 2015, and Mid-year 2016 (2016 numbers projected based on 2016 mid-year report).

58. With respect specifically to music publisher revenues, data from the NMPA indicate that, since the 2012 Settlement, publishing revenues have been [redacted].

Although streaming may have partially replaced physical sales and downloads, studies also suggest that there are other reasons why consumers stopped purchasing music, including the proliferation of more appealing non-music entertainment options (*e.g.*, Netflix, social media, and video games). For example, one study found that [redacted]

For example, the NMPA estimates that total publishing revenue declined by [redacted] between 2013 and 2014, but increased by [redacted] between 2014 and 2015.[85]

59. In 2015, the three largest publishers Sony/ATV, UMPG, and Warner/Chappell collectively earned over [redacted] in profits from U.S music publishing operations: Sony/ATV earned over [redacted],[86] UMPG earned over [redacted],[87] and Warner-Chappell earned nearly [redacted].[88]

60. Growth in the numbers of songwriters registering with U.S. PROs also suggests that the publishing industry has improved since the 2012 Settlement. As noted above, ASCAP and BMI are the two largest U.S. PROs and collectively represent the majority of composers and publishers in the U.S.[89] Membership in ASCAP and BMI has increased substantially over the last several years. For example, ASCAP membership increased from 460,000 in 2012 to 570,000 in 2015, an increase of 24 percent.[90] Similarly, BMI

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85 NMPA00001424.xlsx.

86 SONY-ATV00003701.xlsx. Profit is based on reported Net Income.

87 UMPG00002118.xlsx. Profit is based on reported earnings before interest and taxes ("EBIT").

88 WC00000829.xlsx. Profit is based on reported Net Result.

89 *Report on Music Licensing* at 20.

90 ASCAP Annual Report 2012, *available at* https://web.archive.org/web/20130903223522/http://www.ascap.com/~/media/files/pdf/about/annual-reports/2012-annual-report.pdf, site visited October 26, 2016; ASCAP Annual Report 2015, *available at* https://www.ascap.com/-/media/files/pdf/about/annual-reports/2015-annual-report.pdf, site visited October 26, 2016.

membership increased from 500,000 affiliates in 2012 to 700,000 affiliates in 2015, an increase of 40 percent.[91]

61. The number of musical works in ASCAP's repertory also grew from a reported 8.5 million works in 2011to 10 million works in 2015—an increase of nearly 18 percent. BMI's repertory has increased even more substantially during the same period—by over 60 percent, and, in 2015, included 10.5 million musical works.[92] This growth has contributed to substantial PRO revenue. For instance, ASCAP announced this year that its revenue has topped a "record-breaking" $1 billion for a second straight year.[93] BMI similarly reported "record-breaking" revenue of $1 billion.[94] SESAC also shows

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91 BMI Annual Report 2012, *available at* http://www.bmi.com/images/news/2012/AnnualReview_2011_2012.pdf, *BMI*, site visited October 31, 2016; BMI Annual Report 2015, *available at* http://www.bmi.com/pdfs/publications/2015/BMI_Annual_Review_2015.pdf, site visited October 31, 2016.

92 ASCAP Annual Report 2011; ASCAP Annual Report 2015, *available at* https://www.ascap.com/-/media/files/pdf/about/annual-reports/2015-annual-report.pdf, site visited October 26, 2016; BMI Annual Report 2011, *available at* http://www.bmi.com/pdfs/publications/2011/BMI_Annual_Review_2011.pdf, site visited October 26, 2016; BMI Annual Report 2015, *available at* http://www.bmi.com/pdfs/publications/2015/BMI_Annual_Review_2015.pdf, site visited October 31, 2016; and "ASCAP Reports Increased Revenues in 2011," March 8, 2012, *available at* www.ascap.com/press/2012/0308_ascap-reports.aspx, site visited October 19, 2016.

93 ASCAP, "ASCAP Revenue Tops $1 Billion for Second Year in a Row: Market-Leading PRO Strengthens Core Business, Continues Transformation," April 27, 2016, *available at* http://www.ascap.com/press/2016/0427-ascap-revenue-tops-one-billion-for-second-year.aspx, site visited September 14, 2016.

94 BMI, "BMI Reports Record-Breaking Revenues of Over $1 Billion," September 10, 2015, available at http://www.bmi.com/news/entry/bmi_reports_record_breaking_revenues_of_over_1_billion, site visited September 14, 2016.

evidence of growth—for instance, SESAC's revenue had grown to $182 million in 2014 from $167 million in 2013.[95]

62. These positive trends are projected to continue into the coming license term. A recent analyst report states that "[w]e expect 2016 to be the first year since 1998 in which the global music industry will grow revenues, and we expect this growth to accelerate in the next three years, driven by increased consumption of music on paid streaming platforms," and that 2016 is an "inflection point for global music revenues."[96] These trends are apparent in the U.S. as well. For instance, RIAA notes that the "first half 2016 results illustrate the emergence of paid [music streaming] subscriptions as a primary revenue driver for the United States music industry" and "strong growth in revenues from subscription streaming services more than offset declines in unit based sales of physical and digital music download products. Overall revenues at retail increased 8.1%... the strongest industry growth since the late 1990's."[97]

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95 Ed Christman, "SESAC Buys the Harry Fox Agency," *Billboard*, July 7, 2015, *available at* http://www.billboard.com/articles/news/6620210/sesac-buys-the-harry-fox-agency, site visited October 23, 2016.

96 Credit Suisse Global Equity Research, "Global Music," April 4, 2016.

97 Joshua P. Friedlander, "News and Notes on 2016 Mid-Year RIAA Shipment and Revenue Statistics," RIAA, *available at* http://www.riaa.com/wp-content/uploads/2016/09/RIAAMidyear16.pdf, site visited September 21, 2016. The RIAA data show that total U.S. revenues have grown by 8 percent between 1H 2015 and 1H 2016, led by a 112 percent increase in paid subscription streaming revenues during the same period.

63. Although interactive streaming has reduce the extent of piracy, it has not eliminated the threat of piracy entirely. For example, the U.S. Copyright Office reported that:[98]

> [i]n addition, a broad range of stakeholders—with the exception of the CFA and Public Knowledge—pointed to piracy as a continuing challenge that depresses revenues for both legal music providers and rightsholders. But piracy was not a significant focus of discussion. Unlike in the Napster era, stakeholders now seem resigned to this marketplace condition and the perhaps irreversible impact it has had on the industry. RIAA—which abandoned its lawsuits against individual file-sharers several years ago—observed that piracy "certainly is in the background when you talk about whether digital music services are earning enough money or paying enough money, [and] competing against free remains a problem." DiMA agreed that "the truth is that any legitimate digital service right now competes with free." This sentiment was echoed by Spotify as well: "We are competing with piracy. It's a reality that we all face on every level of the ecosystem. We are all competing with free." [Footnotes omitted.]

One implication of the remaining existence of piracy is that streaming music is likely to continue to displace a combination of unpaid listening of pirated music and paid listening of other formats.

64. Despite the role that interactive services have played in stabilizing the music industry since the 2012 Settlement, and in sharp contrast to music publishers, stand-alone interactive services generally remain unprofitable. One recent commentary about the financial health of the streaming industry notes that "[a]s the [streaming] industry gets more competitive, the possibility of profits looks even more unlikely."[99] Another industry commentator notes that:[100]

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98 *Report on Music Licensing* at 78-79.

99 Jeremy Bowman, "Music Streaming Is a Money Pit: As the industry gets more competitive, the possibility of profits looks even more unlikely," *The Motley Fool*,

> For record labels, music streaming is big business. They earned $2.2bn from services such as Spotify, Deezer and Pandora last year — a figure that has quintupled in five years. It is also a golden age for music lovers, as listening to songs has never been easier. But for the streaming services themselves, survival is a struggle. None of the most popular services has ever turned a profit and some people doubt any of them ever will.

65. As a pure-play, interactive streaming service and one of the industry leaders, Spotify's financial performance provides a useful benchmark for whether streaming services earn excess profits. In 2015, Spotify lost $192 million (€173 million).[101] In fact, Spotify has lost money every year since 2010, with total 2010-2015 losses amounting to [redacted].[102] Moreover, several interactive streaming services have

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September 18, 2016, *available at* http://www.fool.com/investing/2016/09/18/music-streaming-is-a-money-pit.aspx, site visited September 19, 2016. ("The music streaming wars are getting hotter. In recent weeks, Pandora Media […] announced plans for an on-demand streaming service to match Spotfiy and Apple […], Amazon.com […] said it plans to launch an on-demand service compatible with its voice-activated Echo device for just $5/month, and SoundCloud, after launching a subscription service earlier this year, is offering three months of SoundCloud Go for just $0.99. And those players are fighting with Jay-Z's Tidal, […] Google Play and YouTube, iHeartRadio, and other services for market share. There's a problem, here, though. No one is making any money.")

100 Robert Cookson, "Losses point to bleak future for music streaming services," *Financial Times*, December 3, 2015, *available at* http://www.ft.com/cms/s/0/160ad860-9840-11e5-95c7-d47aa298f769.html#axzz4KjutHMFz, site visited September 19, 2016.

101 Tim Ingham, "Spotify Revenues Topped $2BN Last Year as Losses Hit $194M," musicbusinessworldwide.com, May 23, 2016, *available at* http://www.musicbusinessworldwide.com/spotify-revenues-topped-2bn-last-year-as-losses-hit-194m/, sited visited October 3, 2016. See also SPOTCRB00058634. [redacted]. (SPOTCRB0005863.) Annual figures provided in Euros were converted to U.S. dollars using the corresponding annual exchange rate reported by the Federal Reserve (series AEXUSEU).

102 *Id.*

gone out of business in recent years, including Rdio (certain assets of which were acquired by Pandora), Rara and Beatport.[103]

IV. THE 2012 SETTLEMENT IS AN EXCELLENT BENCHMARK AND REQUIRES ONLY MINOR MODIFICATION HERE.

66. With this background, I now turn to my analysis of reasonable rates and terms for the statutory license at issue. In this section, I explain that, because the previous settlement was negotiated with all parties knowing that the alternative was a rate-setting proceeding governed by the 801(b)(1) standard, it is reasonable to assume that the prior agreement accounted for the four statutory factors. I then examine whether the marketplace has changed in ways that would call for an adjustment to the 2012 Settlement rates and terms. As discussed below, I find that: (a) the overall structure of the 2012 Settlement remains reasonable, except that—a as a result of the fragmentation taking place in the musical works public performance rights licensing marketplace—the mechanical royalty floors are no longer appropriate, and (b) there have been no changes of significance that support increasing the headline (or "all-in") statutory rates—if anything, the relevant changes suggest that rates should be lowered.

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[103] Andrew Flanagan, "Rdio's Bankruptcy: Inside a Failing Music Streaming Service," *Billboard*, September 26, 2015, *available at* http://www.billboard.com/articles/business/7519014/rdio-bankruptcy-story-how-it-happened-failing-streaming-service, site visited October 25, 2016; Tim Ingham, "Rara Will Be Shut Or Sold as CEO Jez Bell Exits," *MusicBusiness Worldwide*, March 13, 2015, *available at* http://www.musicbusinessworldwide.com/rara-must-be-sold-or-closed-as-ceo-exits/, site visited October 25, 2016; An Update on Beatport Services, *Beatport*, May 10, 2016, *available at* https://blog.beatport.com/en/an-update-on-beatport-services/, site visited October 25, 2016.

A. THE BENEFITS OF USING THE 2012 SETTLEMENT AS A BENCHMARK

67. In theory, one could determine reasonable rates by: (a) building a model of the industry; (b) using the model to predict what the industry outcome would be for each possible combination of royalty rate structure and rate levels; and (c) choose the combination of rate structure and levels that best achieves the four statutory objectives and, thus, is reasonable. Given the complexity of the industry and the data that would be needed to construct such a model, this approach is highly impractical and very likely unreliable.

68. An alternative approach is to rely on industry participants to identify rate structures and levels that are reasonable and promote attainment of the statutory objectives. These privately discovered solutions serve as benchmarks for determining a reasonable statutory rate structure and reasonable statutory rate levels. This is the approach that generally has been used in prior CRB proceedings, including *Phonorecords II*.

69. Of course, private agreements cannot all be expected to be equally good benchmarks. Some agreements may do poor jobs of attaining the statutory objectives because they were negotiated in the presence of distortionary differences in bargaining positions, or by parties in very different situations than those subject to the statutory license regime. Hence, it may be necessary to either disregard entirely certain benchmarks, or to make adjustments to account for differences between the benchmark market and the target market.

70. The process of adjusting benchmarks can be complex and subject to error. It is thus desirable to find benchmarks that are negotiated under conditions that make it unnecessary to make large adjustments. For example, benchmarks involving the same license rights and the same parties tend to need less adjustment than other benchmarks, all else equal. It is also important that there is reason to believe that the parties to the benchmark negotiation have incentives to reach an agreement that attains the statutory objectives (or comes reasonably close).

71. Fortunately, the 2012 Settlement requires only minor adjustment. This is so for several reasons:

- it involved similar (and in some cases the same) parties, and an identical set of rights;
- unlike some other potential benchmark agreements that cover other services and products (or were negotiated concurrently with agreements covering other services or products), the 2012 Settlement covered only the rights at issue in the present proceeding;
- it is relatively recent and an examination of how the industry has changed demonstrates that it is not an outdated benchmark;
- there do not appear to have been any asymmetries in market power or bargaining positions that would have distorted the outcome in favor of interactive streaming services; and

- the settlement was negotiated in the shadow of an 801(b)(1) rate-setting proceeding in which both sides could have litigated, and I am unaware of any evidence indicating that either side was disadvantaged with respect to the ability to pursue such litigation.

72. It is useful to consider the last point in greater detail. The economics of bargaining indicates that, as long as there are not significant asymmetries in the ability of either side to pursue litigation, private parties negotiating a settlement in the shadow of an 801(b)(1) proceeding will tend to agree to terms and conditions that promote the 801(b)(1) statutory objectives.[104] This is so because leading economic theories of bargaining demonstrate that disagreement points (*i.e.*, the economic payoffs that the bargaining parties will earn if they fail to reach agreement) play a key role in determining the bargaining outcome by providing baselines from which each party can assess its gains from reaching a particular agreement.[105] The more favorable is a party's disagreement point, the stronger its bargaining position and the greater its ability to negotiate an agreement favorable to it. If the parties fail to reach an agreement, they will very likely

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104 In the absence of a statutory shadow, one cannot assume that *every* negotiated agreement will achieve the availability objective to a reasonable extent (*e.g.*, there may be a problem due to one side's possessing monopoly power as in the case of major record companies negotiating with interactive streaming services for the licensing of public performance rights).

105 John F. Nash (1950) "The Bargaining Problem," *Econometrica,* **18**(2): 155-162; Ariel Rubinstein (1982) "Perfect Equilibrium in a Bargaining Model," *Econometrica,* **50**(1): 97-109; Ken Binmore, Ariel Rubinstein, and Asher Wolinsky (1986) "The Nash Bargaining Solution in Economic Modelling," *The RAND Journal of Economics,* **17**(2): 176-188; John Sutton (1986) "Non-Cooperative Bargaining Theory: An Introduction," *The Review of Economic Studies,* **53**(5): 709-724.

rely on the statutory license.[106] Hence, the Judges' anticipated interpretation of the statutory objectives will affect the disagreement points in the private bargaining. Consequently, the anticipated interpretation will be reflected in the bargaining outcome as long as the parties have roughly comparable abilities to litigate.

73. In addition to shadow effects, there are factors specific to each of the particular statutory objectives that lead to their being reflected in privately negotiated agreements. I consider each in turn:

- *Maximize Availability.* Economically rational parties negotiating a licensing agreement will seek to maximize availability, all else equal. To see why, consider a hypothetical bargaining situation in which content distributors had the ability to reach an agreement that was so one-sided that content creators would have little economic incentive to create new musical works and the supply of such works would fall dramatically. The expected result would be to suppress consumer demand for the distributors' services, reducing their profits. Hence, it would not

[106] There is an asymmetry in that the statutory license is compulsory for the licensor but not the licensee. However, there do not appear to have been any imbalances in market power or bargaining positions that would have allowed interactive streaming services to take advantage of this asymmetry to obtain unreasonably low rates. As of the fourth quarter of 2012, the four largest publishers at the time (Sony/ATV, Warner/Chappell, UMPG, and Kobalt Music Group) collectively accounted for over 72 percent of the Billboard top 100 songs. (Ed Chapman, "Sony/ATV Top Publisher for 2012's Fourth Quarter," *Billboard*, March 1, 2013, *available at* http://www.billboard.com/biz/articles/news/digital-and-mobile/1550519/sonyatv-top-publisher-for-2012s-fourth-quarter, site visited October 27, 2016.) Moreover, interactive streaming was a less important means of music access in 2012. The number of on demand streams has grown nearly fivefold between 2013 and 2016 (see Figure 3 above) and notable interactive streaming services, including those from Apple, Amazon, and Tidal, did not exist in 2012.

be in the self-interest of the distributors to reach such a deal—it would be more profitable to agree to a license that better supported the supply of new music.[107]

- *Afford Fair Return/Fair Income.* One conception of fairness is that copyright owners and users earn the returns and incomes that would arise in an effectively competitive market in the absence of a mandatory licensing requirement. When the parties are equally matched—and I am unaware of any evidence that suggests that they were not so matched at the time of the negotiations—the bargaining outcome can be seen as the outcome of effective competition.

- *Reflect Relative Roles.* As long as neither party has excessive market power or benefits from a governmental policy that "tips the scales in its favor," economic principles of bargaining indicate that negotiated settlements will reflect relative contributions. In particular, the parties' relative contributions will be reflected in their disagreement points—the less one party's relative contribution, the less favorable that party's disagreement point will be relative to the other party's. I am unaware of any evidence that either side had excessive market power or enjoyed other advantages that would have distorted the settlement agreement.

- *Minimize Disruptive Impact.* In assessing the costs and benefits of an agreement, the parties have economic incentives to account for disruption and to minimize

[107] Of course, there may be inherent tradeoffs between promoting availability and meeting other bargaining objectives, and the precise ways in which these tradeoffs will be resolved will depend, in part, on whether the parties have unbalanced bargaining power and whether there is a statutory backstop.

their collective costs of disruption in order to maximize their collective benefits from the agreement.

B. THE 2012 SETTLEMENT AND STATUTORY ROYALTIES CURRENTLY IN EFFECT

74. The current statutory rates, adopted in the prior proceeding, are based on the 2012 Settlement, which was reached on April 11, 2012 and became effective on January 1, 2014.[108] Subpart B of the regulations "establishes rates and terms of royalty payments for interactive streams and limited downloads of musical works by subscription and nonsubscription digital music services."[109] Subpart C of the regulations "establishes rates and terms of royalty payments for certain reproductions or distributions of musical works through limited offerings, mixed service bundles, music bundles, paid locker services and purchased content locker services."[110]

75. The 2012 Settlement has several elements:[111]

- *Headline Rates that Vary with Service Characteristics.* Under the revenue prong, a headline royalty rate is applied to applicable service revenue. The headline rate is 10.5 percent for services licensed under Subpart B.[112] The headline rates for

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108 Federal Register, Vol. 78, No. 219 at 67938-951.

109 37 CFR 385.10(a).

110 37 CFR 385.20(a).

111 There are also other, less central features that I will not discuss in the text, including overtime adjustments (37 CFR 385.12(d)) and promotional royalty rates (37 CFR 385.14).

112 37 CFR 385.12(c).

services licensed under Subpart C vary, ranging from 10.5 to 12 percent.[113] In accord with economic principles and the fact that mechanical and public performance rights are perfect complements from the perspective of an interactive streaming service, the headline rate covers both mechanical royalties and public performance royalties.

- *Per-subscriber Minimums that Vary with Service Characteristics.* There is a set of per-subscriber minimums that apply to the sum of mechanical and public performance royalties and which vary depending on the type of service.[114] For example, the minimum for a *non-portable stand-alone service* is equal to the lesser of $0.50 per subscriber per month and subminimum II,[115] while the minimum for a *portable service* is equal to the lesser of $0.80 per subscriber and subminimum I.[116]

- *Deduction for Performance Rights Royalties.* In order to determine the incremental payment due under the statutory license, a licensee may subtract the amounts paid for public performance rights from the total royalty payment.

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113 37 CFR 385.23(a).

114 37 CFR 385.13 and 37 CFR 385.23.

115 A non-portable stand-alone service is "a subscription service through which an end user can listen to sound recordings only in the form of interactive streams and only from a non-portable device to which such streams are originally transmitted while the device has a live network connection." (37 CFR 385.13(a)(1).) Subminimum II is defined in 37 CFR 385.13(c).

116 A portable service is "a subscription service through which an end user can listen to sound recordings in the form of interactive streams or limited downloads from a portable device." (37 CFR 385.13(a)(3).) Subminimum I is defined in 37 CFR 385.13(b).

- *A Mechanical-Only Floor*. For certain types of services operating under Subpart B, the mechanical royalty payment due after deduction of the performance rights payments is subject to a per-subscriber, mechanical-only floor. These floors vary by service, and free non-subscription/ad-supported services have no mechanical-only floor at all. There are no mechanical-only floors for any service operating under Subpart C.

76. Table 2 summarizes the baseline royalty rate and the associated minimums and floors for each type of subscription service under Subpart B, while Table 3 does so for Subpart C services.[117] For any given service, the smaller of the two applicable subminimum percentages reported in Tables 2 and 3 is used to calculate that component of the royalty formula when "the record company is the licensee,"[118] and the larger of the two percentages is used when it is not.[119] The percentage is generally applied to the service provider's payments to the record company.[120]

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117 Dollar amounts are per subscriber per month.

118 37 CFR 385.13(b)(1), 385.13(c)(1), 385.23(b)(1).

119 37 CFR 385.13(b)(2), 385.13(c)(2), 385.23(b)(2).

120 37 CFR 385.13(b), (c); 37 CFR 385.23(b). There is an exception for a music bundle containing a physical phonorecord when the music bundle is distributed by a record company for resale and the record company is the compulsory licensee; in this case, the percentages is applied to "the record company's total wholesale revenue from the music bundle." (37 CFR 385.23(b)(3).)

Table 2: Summary of Current Subpart B Licensing Rates

	(1) Standalone Non-Portable Subscription Streaming Only	(2) Standalone Non-Portable Subscription Mixed	(3) Standalone Portable Subscription Service	(4) Bundled Subscription Services	(5) Free Non-Subscription/Ad-Supported Services
Description	An interactive streaming subscription service accessed from a non-portable device	A subscription service allowing interactive streams or limited downloads but only from a non-portable device	A subscription service allowing interactive streams or limited downloads from a portable device	A subscription service made available to end users with one or more other products or services as part of a single transaction	A service offering free of any charge to the end use
Headline Rate	10.5%	10.5%	10.5%	10.5%	10.5%
Minimums	*Lesser of* $0.50 Subminimum II (18% or 22%)	*Lesser of* $0.50 Subminimum I (17.36% or 21%)	*Lesser of* $0.80 Subminimum I (17.36% or 21%)	N/A Subminimum I (17.36% or 21%)	N/A Subminimum II (18% or 22%)
Floor	$0.15	$0.30	$0.50	$0.25	N/A

Source: 37 CFR 385.12, 37 CFR 385.13.

Table 3: Summary of Current Subpart C Licensing Rates

	(1) Mixed Service Bundle	(2) Music Bundle	(3) Limited Offering	(4) Paid Locker Service	(5) Purchased Content Locker Service
Description	An offering of one or more music services (*e.g.*, downloads) together with one or more non-music services or products (*e.g.*, Internet service)	Offering of two or more of physical phonorecords, permanent downloads, or ringtones as part of one transaction	A subscription service offering either a limited catalog (*e.g.*, a particular genre) or streams of preprogrammed playlists	A service that provides online access to previously-purchased music	Services offered for free to purchasers of permanent downloads or physical phonorecords
Headline Rate	11.35%	11.35%	10.50%	12.00%	12.00%
Minimums	N/A Subminimum (17.36% or 21%)	N/A Subminimum (17.36% or 21%)	*Greater of* $0.18 Subminimum (17.36% or 21%)	*Greater of* $0.17 Subminimum (17.11% or 20.65%)	N/A Subminimum (18% or 22%)
Floor	N/A	N/A	N/A	N/A	N/A

Source: 37 CFR 385.23.

77. As noted above, because the 2012 Settlement was negotiated with all parties knowing that the alternative was a hearing governed by the 801(b)(1) standard, it is reasonable to assume that the prior agreement accounted for the four statutory factors. In the remaining two parts of this section, I examine whether the marketplace has changed in ways such that the terms of the settlement no longer achieve the four statutory objectives. As discussed below, I find that, with the exception of the mechanical royalty floor, the overall structure and rate levels remain economically sound.

C. RATE STRUCTURE

78. Even though the underlying settlement was negotiated fairly recently, it is still possible that there may be a need to adjust the rate structure and/or rate levels if either (i) industry conditions have changed markedly over time, or (ii) there is evidence that certain elements of the 2012 Settlement have led to problems achieving the statutory objectives.

79. First, consider whether there have been any changes in industry conditions that would warrant a change in the rate structure. As I will now discuss, the overall rate structure remains sound, but one modification would better attain the statutory objectives.

1. Royalties as a Percentage of Service Revenues Subject to a Per-Subscriber Minimum

80. In the 2012 Settlement, industry participants agreed to a rate structure that assessed total royalties for mechanical rights and public performance rights on a percentage-of-revenue basis subject to certain minimums and floors. My analysis has identified no changes in industry conditions since then that would require changing the

fundamental structure of the percentage-of-revenue prong or the minimums applied to the calculation of the available royalty pool in step one of the royalty calculation.

81. In *Web IV*, the Judges rejected calls to adopt a percentage-of-revenue structure for the statutory royalties determined in that proceeding. They did so based on the lack of record support, particularly in the light of the threat of industry disruption and the difficulty of measuring revenues in important instances.[121] The situation in the present proceeding is markedly different in critical respects. Perhaps the key difference is that there exists an industrywide settlement whose structure has been successfully adopted by industry participants. Hence, concerns regarding disruption run in the opposite direction (*i.e.*, they support having a percentage-of-revenue prong coupled with minimums).

82. There are, however, revenue measurement issues that arise in the present proceeding. Determining a licensee's applicable revenues is relatively straightforward when the licensee operates its interactive streaming service as a stand-alone, subscription-based, music-only business. However, when the streaming service is operated at least in part to generate other economic benefits for the parent company (*e.g.*, to foster broader and deeper relationships with customers that facilitate the profitable sales of other goods

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[121] See *Web IV Final Determination* at 26326:

> Relatedly, SoundExchange's rationale in support of a greater of structure that record companies should share in the upside if the Services monetize their models at a faster rate is wholly unconvincing. Absent proof that the per-play prong had been set too low, there is no justification for assuming that the record companies should share in that monetization through a percentage-of-revenue prong in the rate structure.

See also *id.*, citing NAB Ex. 4011 (Weil WRT) ("a percent-of-revenue rate would create uncertainty and controversy regarding the definition and allocation of revenue.").

and services) or incorporates non-music offerings to a significant degree, it can be difficult to accurately calculate the relevant music service revenue. Accounting difficulties also arise when a streaming service is sold as a part of a larger bundle of services, or when the service is advertising supported and the advertising is sold in bundles that include other outlets. Under these circumstances, any proposed allocation of revenues across services and goods is likely to be contentious.

83. Because of potential measurement problems, a royalty calculated purely as a percentage of revenues could be very difficult to apply. Inclusion of a per-subscriber minimum in the rate structure, as was done in the previous settlement, offers a solution to this problem. The minimum can be applied when the determination of applicable revenues is too difficult.[122] For example, it is my understanding that [redacted].

84. I also note that, in addition to raising measurement issues, I testified in *Web IV* that, because royalties assessed as a percentage of revenue would result in streaming services that were more successful at monetization paying more than services that were less successful, such royalties could inefficiently suppress innovation, run counter to the statutory objective of having the license fees reflect relative contributions to value, and

[122] A per-subscriber minimum would also protect publishers if a situation arose in which a streaming service was willing to "gamble" on future success by charging very low prices today in way that a publisher would not agree to do under conditions of effective competition.

have adverse implications for risk-sharing.[123] Although, as a matter of theory, these underlying principles hold for the licensing of musical compositions to interactive streaming services, there are significant differences between *Web IV* and the current proceeding. Most important, there exists evidence that interactive streaming services have continued to innovate under revenue-based royalties,[124] suggesting that the theoretical concern is not a practical concern in this instance, and that there is no need to abandon the current percentage-of-revenue structure to promote innovation.[125]

2. The Structure of Different Headline Rates and Minimums for Different Services should be Continued.

85. As describe above, both the headline royalty rates and the per-subscriber minimums vary across services depending on their characteristics (*e.g.*, portable or not; standalone or part of a music bundle). Economic analysis indicates that this structure should be maintained to facilitate continuing innovation, experimentation, and differentiation in means of making music accessible to consumers. Retaining this structure will have this effect by allowing royalty amounts to (partially) reflect

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123 Written Rebuttal Testimony of Michael L. Katz, February 23, 2015, amended April 21, 2015, § III.A.

124 See Section III.A above.

125 There are at least two other ways in which the situation here differs from that of *Web IV*. First, the proposed percentage rates are lower, which reduces the strength of any adverse effects. Second, interactive services rely on subscription-based revenue models to a greater extent than do noninteractive streaming services, which tend to rely on advertising-based revenue models. This difference is relevant because the price per-subscriber tends to be very close to a specific price point (*e.g.*, $10 per month), with the use of quality competition to attract more subscribers. Hence, a more successful service's costs would scale with the number of subscribers whether paying a royalty tied to revenues or a royalty tied to the number of subscribers. In contrast, it is my understanding that there are significant differences in revenues per subscriber earned by advertising-supported services.

differences in the underlying commercial economics of different types of services. For instance, consumers' willingness to pay for a service will tend to vary with the characteristics of that service (*e.g.*, consumers generally will be less willing to pay for a non-portable, limited service than for a portable, unlimited service).[126] A one-size-fits all royalty rate will not be able to reflect those differences, which could render certain types of services unprofitable even though—under an appropriate royalty scheme—such services would benefit music consumers, publishers, and streaming services by better meeting the needs of certain consumer segments.[127]

86. I am unaware of any change in industry conditions that would indicate a need to change this element of the rate structure, and maintaining the status quo structure will continue to facilitate the offering of a range of services, as well as the ongoing development of new and improved services through which to access music.

3. The Mechanical-Only Floors Should be Eliminated so that Minimums Apply only to the Total Royalties Paid by Streaming Services to Publishers.

87. There is one respect in which the industry has changed in ways that make a modification desirable: as the result of past and potential future fragmentation of the licensing of public performance rights, a separate floor on mechanical royalties no longer promotes the statutory objectives.

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126 Written Direct Testimony of Christopher Phillips, Pandora Media Inc., ¶¶ 16, 25.

127 Pandora's revised service offering will have multiple tiers of services that will qualify for the statutory license at issue in this proceeding, and those different tiers of service will have different price points. (Written Direct Testimony of Christopher Phillips, Pandora Media Inc., ¶¶ 17-32.)

88. As explained in Section III.C above, mechanical rights and public performance rights are perfect complements from the perspective of an interactive streaming service, and there is no economic rationale for setting the two rates separately from one another. Nevertheless, under the current framework, if public performance rights license fees increase sufficiently, then the total payment for public performance and mechanical rights will increase above the current headline rates.

89. To see the effect of increasing PRO payments, consider application of the 2012 Settlement to a hypothetical example in which Pandora offered a standalone portable service with a $10 per-month subscription fee. Applying the headline rate of 10.5 percent yields a provisional royalty of $1.05. Because $1.05 is greater than $0.80, and thus greater than the lesser of $0.80 and Subminimum I, the per-subscriber minimum is not binding in this hypothetical example. Therefore, the total royalty pool would be equal to $1.05.

- If Pandora's payments for performance rights equal 5 percent of revenue, then the mechanical royalty (before the floor) will be equal to the difference between the total royalty pool and the total performance rights license fees: 10.5 percent – 5 percent = 5.5 percent. Because 5.5 percent of $10 is $0.55, the mechanical-only floor of $0.50 has no impact. As a result, Pandora pays a total of 10.5 percent of revenue, or $1.05 per subscriber per month, for mechanical and performance rights.
- If Pandora's performance rights fees increase to 6 percent, then the result is a mechanical royalty (before the floor) of $0.45 (= 10.5 percent – 6 percent).

> Because this fee is below the floor, Pandora will pay the mechanical floor of $0.50 to the publishers for mechanical rights, in addition to paying 6 percent (or $0.60) to the publishers for performance rights. Combined, the all-in royalty increases to $1.10 per subscriber per month, or 11 percent of revenue, which is greater than the headline rate of 10.5 percent.

90. To understand why the mechanical-only floor is no longer warranted, it is critical to understand how the marketplace for performance rights licenses has changed and may continue to change. It is my understanding that, at the time of the 2012 Settlement, the PRO licensing marketplace was fairly stable. There were three U.S. PROs, two of which were subject to rate regulation under the terms of consent decrees with the DOJ. This stability had implications for the negotiations that led to the 2012 Settlement: a participant in those negotiations has testified that the mechanical-only floor, although agreed to as a concession to the publishers, was considered by the services to be a concession without economic impact because the services viewed it as highly unlikely that the mechanical-only floor would ever get triggered.[128]

91. After the 2012 Settlement was finalized, the performance rights marketplace began to change in unexpected ways. Among other things, a fourth U.S. PRO (GMR) emerged, creating another entity from which interactive streaming services have to secure

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[128] Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶ 21 ("The music services would not have agreed to extend the floor fee provisions in Subpart B in the 2012 Settlement if we had thought that services charging subscribers $9.99 per month might pay an effective percentage of revenue higher than 10.5%"); telephonic interview with Adam Parness, Head of Publisher Licensing and Relations, Pandora Media, Inc., October 30, 2016.

a license, this one not subject to rate-court oversight.[129] In addition, music publishers began to threaten to withdraw from the PROs, thereby further increasing the number of entities from which streaming services might potentially have to secure licenses.[130] Finally, at least some PROs are undertaking efforts to provide only "fractional" licenses to the works in their repertories, thereby requiring streaming services to secure licenses from every co-owner of a work, whether affiliated with a PRO or not.[131] Collectively, these changes threatened to increase (and in some cases did increase) the numbers of entities with which interactive services had to negotiate to secure performance rights.

92. To understand the significance of this unanticipated development in the music licensing marketplace, it is important to recognize that, from an interactive streaming service's point-of-view, the public performance rights sold by the various PROs (or by

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129 About Global Music Rights, *available at* http://globalmusicrights.com/, site visited October 25, 2016.

130 *Report on Music Licensing* at 151-152:

> With the petitions pending [to modify the consent decrees to allow partial withdrawals from PROs], however, both Sony/ATV and UMPG—which together represent some 50% of the music publishing market—have made it clear that they may well choose to withdraw *all* rights from the PROs in the future. The specter of across-the-board withdrawal by the major publishers from ASCAP and BMI is concerning to many in the music sector. … The Office agrees that the full withdrawal of leading publishers from ASCAP and BMI would likely significantly disrupt the music market by fundamentally altering the licensing and payment process for the public performance of musical works without an established framework to replace it, at least in the short run. [Emphasis in original.]

131 The BMI rate court recently ruled that the BMI Consent Decree does not address the issue of fractional licensing and that, consequently, BMI is free to issue fractional-rights licenses if it chooses to do so. (*U.S. v. Broadcast Music, Inc.*, Opinion & Declaratory Judgment, 64 Civ. 3787 (LLS), September 16, 2016, at 6.). See also, Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶ 20; Pandora / GMR license agreement, September 14, 2015, PAN_CRB115_00090960.

the larger publishers if they choose to license their portfolios themselves) are complements for one another. This complementarity arises for the same reasons that the mechanical rights licensed by large publishers are complements for one another from an interactive streaming service's perspective: these public performance rights are "must have." First, because an interactive streaming service is unable to offer an attractive product without access to the musical works covered by each of the PROs (and any publisher of sufficient size), it must secure licenses from all such entities. Second, because of a lack of transparency regarding which publishers or PROs control the rights to which works, it is costly and difficult for an interactive streaming service to protect itself from infringement suits unless it has coverage from all major performance rights licensing entities. This second problem is made even worse by the prospect of "fractional licenses."[132] Consequently, as Pandora's Head of Publisher Licensing and Relations describes, "a license from each of the four PROs is a 'must-have' for an interactive

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132 The U.S. Department of Justice recently reached the following conclusions regarding the effects of fractional licensing in its review of the ASCAP and BMI consent decrees:

> Allowing fractional licensing would also impair the functioning of the market for public performance licensing and potentially reduce the playing of music. If ASCAP and BMI were permitted to offer fractional licenses, music users seeking to avoid potential infringement liability would need to meticulously track song ownership before playing music. As the experience of ASCAP and BMI themselves shows, this would be no easy task. … The difficulties, delays, and imperfections that are tolerated in the context of PRO payments would prove fatal to the businesses of music users, who need to resolve ownership questions *before* playing music to avoid infringement exposure. [Emphasis in original.]

(U.S. Department of Justice, "Statement of the Department of Justice on the Closing of the Antitrust Division's Review of the ASCAP and BMI Consent Decrees," August 4, 2016, at 13-14.)

streaming service."[133] Moreover, given that several of the larger publishers have repertories that are larger than those of the two smaller U.S. PROs, one would expect that a similar relationship would hold if the larger music publishers were to license performance rights for their works on a publisher-by-publisher basis. And, indeed, Pandora's Head of Publisher Licensing and Relations has testified that "[a]n on-demand service would not be viable in my view without a license to publicly perform the repertory of a major music publisher."[134]

93. By logic first identified by Antoine Cournot in 1838, firms offering complementary products tend to set higher prices than would even a monopoly seller of the same products. This phenomenon arises because a monopoly seller of two complementary products would internalize the fact that lowering the price of one product would increase sales of both products, whereas a seller that internalizes the benefits of only one of the products has less incentive to lower the price.[135] Thus, fragmentation and

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133 Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶ 19:

> 19. In part because the PROs aggregate large numbers of commercially important rights owners into a single bundle, in part because music users lack real-time access to reliable ownership and PRO-affiliation information about the musical works they perform, and in part because the Copyright Act authorizes significant statutory damage awards for copyright infringement, a license from each of the four PROs is a "must-have" for an interactive streaming service.

134 Written Direct Testimony of Adam Parness, Pandora Media Inc., ¶ 17; see also Section III.C.1 above.

135 *Web IV Final Determination* at 26342:

> In the parlance of economics, the "must have" suppliers are complements, not substitutes, because buyers need each of them and cannot substitute one for another …. This concept is well known in economics. When two essential inputs must be used together, they are often referred to as

the associated necessity to separately negotiate with increasing numbers of complementary rightsholders will be a problem, at least until the rightsholders become so fragmented that no one is "must have."[136]

94. In sum, the various forms of (unanticipated) fragmentation in the performance rights marketplace threaten to increase performance rights license fees to the point that the mechanical-only floor is triggered. This triggering of the mechanical-only floor would have nothing to do with an increase in the intrinsic value of performance rights or mechanical rights. Rather, it would reflect the ability of copyright holders to exert market power over interactive services in the form of supra-competitive performance rights license fees. Allowing the publishers to benefit from such exertion of market power runs contrary to the 801(b)(1) objectives. Hence, the 2012 Settlement benchmark should be adjusted by eliminating the mechanical-only floor.

> "Cournot Complements." The evidence … shows that the repertoires of the major record companies are Cournot Complements for interactive services. [Quoting Shapiro WRT at 15.]

136 The U.S. Department of Justice described a version of the Cournot-complements problem (known as hold-out) that arises specifically from fractional licensing:

> allowing fractional licensing might also impede the licensed performance of many songs by incentivizing owners of fractional interests in songs to withhold their partial interests from the PROs. A user with a license from ASCAP or BMI would then be unable to play that song unless it acceded to the hold-out owner's demands, providing the hold-out owner substantial bargaining leverage to extract significant returns.

(U.S. Department of Justice, "Statement of the Department of Justice on the Closing of the Antitrust Division's Review of the ASCAP and BMI Consent Decrees," August 4, 2016, at 15.)

D. RATE LEVELS

95. As I now discuss, consideration of each of the four statutory objectives indicates that there have been no changes of significance since the 2012 Settlement was entered into that would justify an upward adjustment to the royalty rates. As noted above, music industry revenues are increasing, and evidence suggests that this increase is attributable to streaming innovation.

96. It is useful to consider each of the four objectives in turn:

- *Maximize Availability.* The availability of creative works to the public depends on both content creators (*i.e.*, songwriters and publishers) and content distributors (*e.g.*, streaming services) having sufficient financial incentives. As described in Section III.D above, the music publishing industry has stabilized and leading publishers have earned considerable profits, while interactive streaming services continue to be unprofitable. Hence, neither the current state of the industry, nor changes in industry conditions since the 2012 Settlement indicates that availability would be improved by increasing royalty rates. If anything, this factor counsels in favor of reducing rates to induce interactive streaming services, to invest, innovate, and enter to an even greater extent.

- *Afford Fair Return and Income.* The facts that the music industry has stabilized and publishers are currently more profitable than are interactive streaming services certainly does not suggest that royalty rates should be raised to promote fairness. Arguably, they suggest that rates should be lowered.

- *Reflect Relative Roles.* As described in Sections III.A and III.D above, interactive streaming has become an increasingly important form of music distribution, and there has been significant innovation by interactive music streaming services that is valuable to consumers and has helped stimulate music revenues and put a halt to the precipitous decline in music recording revenues that began in 2000. That innovation continues. Pandora's investment in its interactive service offerings has also been significant, including over $100 million on acquisitions (including the acquisition of certain intellectual property and technology assets from Rdio), product engineering and development costs, and incremental marketing costs.[137] Similarly, it has been reported that Spotify spent $159 million (€143.3 million) on research and development and $273.5 million (€246.5 million) on sales and marketing in 2015.[138] Music publishers spend relatively little to invest in the creation, marketing, and distribution of musical works,[139] while songwriters invest

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137 Written Direct Testimony of Michael Herring, Pandora Media Inc., ¶ 46.

138 Tim Ingham, "Spotify Revenues Topped $2BN Last Year as Losses Hit $194M," musicbusinessworldwide.com, May 23, 2016, *available at* http://www.musicbusinessworldwide.com/spotify-revenues-topped-2bn-last-year-as-losses-hit-194m/, site visited October 3, 2016.

139 Rebuttal Testimony of Charles Ciongoli, Before the COPYRIGHT ROYALTY BOARD, In the Matter of DIGITIAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS, Docket No. 2005-1 CRB DTRA, September 2006, at 54 ("Universal Publishing spends little or nothing to create, market, promote, manufacture and distribute copyrighted musical works."). [redacted] Travel and entertainment expenses are considered to be marketing-related by Universal's chief financial officer. (Rebuttal Testimony of Charles Ciongoli, Before the COPYRIGHT ROYALTY BOARD, In the Matter of DIGITIAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS, Docket No. 2005-1 CRB DTRA, September 2006, at 7-8.)

their time in the creation of musical works. All things considered, industry trends and conditions do not indicate that the statutory objective would be better achieved by raising rates.

- *Minimize Disruptive Impact.* This objective suggests that the status quo should be maintained. Although all parties in the music value chain face challenging economic conditions, under the current statutory rates there has been a strong supply of new, high-quality musical works and ongoing investment in the creation of innovative streaming services. Maintaining the current statutory rates would minimize any disruptive impact on the structure of the industries involved, as well as industry practices. Moreover, minimizing disruption can be expected to promote future investment. Rate stability facilitates the services' investment planning and promotes investment, all else equal. Hence, investment incentives are promoted by avoiding rate changes in the absence of strong reasons based on application of the other three factors.

Similarly, Warner-Chappell [redacted]

Publishers do not invest in traditional R&D. If one includes artists and repertoire (A&R) as a form of research and development, UMPG and Warner-Chappel [redacted]

V. EXAMINATION OF DIRECT DEALS CONFIRMS THAT EXTENDING THE CURRENT STRUCTURE AND RATES IS REASONABLE

97. I have examined two other candidate benchmarks: (a) direct deals between music publishers and Pandora, and (b) direct deals between music publishers and record companies. A virtue of these alternative benchmarks is that they are very recent. However, there are important differences in terms of the rights negotiated, so these benchmarks must be interpreted with care. As I now discuss, analysis of both of these alternative benchmarks supports the conclusion that adoption of a slightly modified version of the 2012 Settlement would promote achievement of the four 801(b)(1) factors going forward. Specifically, examination of these candidate benchmarks supports the conclusions that: (a) the overall structure remains reasonable but the fragmentation of the licensing of public performance rights has rendered the floors on mechanical royalties inappropriate, and (b) there are no sound grounds for increasing the headline (or "all-in") statutory rates.

A. DIRECT DEALS BETWEEN PANDORA AND MUSIC PUBLISHERS

98. Broadly speaking, Pandora has entered into two different types of license agreements with music publishers. First, Pandora has entered into agreements with some of the larger music publishers that specify the payments for all of the performance and mechanical rights that Pandora needs to offer interactive streaming, limited downloads, and its noninteractive streaming service.[140] Second, Pandora has entered into agreements with other publishers (including thousands of smaller publishers through Music Reports,

[140] As discussed below, Pandora's agreements with [redacted] are slightly more complicated, but their overall effect is similar.

Inc. ("MRI")) that specify the payments only for mechanical rights—the payments for performance rights are separately specified in agreements with the PROs.[141]

99. As I will now describe, collectively, these agreements support maintaining the structure of the 2012 Settlement with the one modification discussed above—elimination of the mechanical-only floor. Moreover, while one must be cautious about reading too much into any one rate in agreements that cover both interactive and noninteractive services, and involve tradeoffs among different rates and among rates and non-rate terms, Pandora's direct deals in no-way suggest that the statutory royalty rates should be raised from the levels of the 2012 Settlement.

100. A key feature of the terms in Pandora's agreements with some of the largest music publishers (covering the majority of publishing industry revenues) is that [redacted]

141 Written Direct Testimony of Michael Herring, Pandora Media Inc., ¶ 49; telephonic interview with Adam Parness, Head of Publisher Licensing and Relations, Pandora Media, Inc., October 30, 2016.

142 [redacted]

[redacted][143]

101. To see how this works, consider a standalone portable subscription service. The all-in royalty calculated in Step 1 of the statutory royalty calculation (Calculate the All-In Royalty for the Service) would be the greater of [redacted]

[redacted]

143 Telephonic interview with Steve Bene, General Counsel, Pandora Media Inc., October 25, 2016.

[redacted]

102. Working through this final formula, [redacted]

103. [redacted][146]

104. As noted above, Pandora has also entered into agreements with music publishers that specify payments only for mechanical rights—performance rights payments to these publishers are specified in Pandora's agreements with PROs. It is my understanding that, [redacted][147] Accordingly, Pandora's agreements with these publishers are consistent with the conclusion that the mechanical-only floor of the 2012 Settlement is no longer appropriate.

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144 Telephonic interview with Steve Bene, General Counsel, Pandora Media Inc., October 25, 2016; [redacted].

145 *Id.* [redacted] (Telephonic interview with Adam Parness, Head of Publisher Licensing and Relations, Pandora Media Inc., October 30, 2016.)

146 Pandora's agreement with [redacted]

147 Telephonic interview with Steve Bene, General Counsel, Pandora Media Inc., October 25, 2016.

105. Now, consider the implications that Pandora's direct deals with publishers have for determining reasonable rate levels. As with any negotiation that covers more than the precise rights that one is attempting to value, careful consideration must be given to the entirety of the relationship between the contracting parties. Specifically, Pandora's negotiated agreements contain rate and non-rate terms for three distinct tiers of service, including both subscription, interactive streaming and advertising-supported, noninteractive streaming. The simultaneous agreement with respect to multiple services can cloud the interpretation of any given number in a contract because the rates are negotiated as a package. That said, based on the information currently available to me, Pandora's agreements with music publishers certainly are consistent with the conclusion that the rates of the 2012 Settlement remain reasonable, and there is no evidence of which I am aware that suggests that these agreements, when properly evaluated, call for higher rates.

B. DIRECT DEALS BETWEEN MUSIC PUBLISHERS AND RECORD COMPANIES FOR MECHANICAL RIGHTS FOR PHYSICAL FORMATS AND PERMANENT DIGITAL DOWNLOADS

106. Music publishers have recently agreed to royalty rates for phonorecords and permanent digital downloads. As I now discuss, these agreed to rates are lower than the corresponding statutory royalty rates currently in effect for interactive streaming. As a result, this benchmark suggests that, if anything, the current headline rate in the 2012 Settlement is too high.

107. In June 2016, the NMPA, NSAI, the Church Music Publishers Association ("CMPA"), Songwriters of North America ("SONA") and the Harry Fox Agency

("HFA") reached a partial settlement with Universal Music Group ("UMG") and Warner Music Group ("WMG"), two of the three major record labels.[148] In October 2016, Sony Music Entertainment ("SME"), the third of the major record labels, also agreed to the settlement.[149] Under the terms of the proposed settlement, the mechanical royalties for physical phonorecords (*e.g.*, CDs, cassettes, and records) and permanent digital downloads would remain unchanged from the current rate of either $0.091 per song or $0.0175 cents per minute of playing time or fraction thereof, whichever amount is larger.[150]

108. This rate can be compared to the status quo for interactive services, expressed on either a percentage-of-revenue-basis or equivalent-plays basis.

109. I first note that, expressed as a share of an average retail price of approximately one dollar per track for a digital download, the $0.091 figure corresponds to a percentage royalty rate of just 9.2 percent, which is less than 10.5 percent.[151] As presented in Table

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148 81 FR 48371, July 25, 2016.

149 In the Matter of Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III), Docket No. 16-CRB-0003-PR (2018-2022), Motion to Adopt Settlement Industry-Wide, October 28, 2016.

150 See 81 FR 48371, July 25, 2016 ("The settlement proposes 'that the royalty rates and terms presently set forth in 37 C.F.R. Part 385 Subpart A should be continued for the rate period at issue in the Proceeding, with one minor conforming update…'."). See also 37 CFR 385.3(a). ("For every physical phonorecord and permanent digital download made and distributed, the royalty rate payable for each work embodied in such phonorecord shall be either 9.1 cents or 1.75 cents per minute of playing time or fraction thereof, whichever amount is larger.").

151 If a song is longer than 5.2 minutes (that is, $0.091/$0.0175), a royalty over $0.091 is applicable. (*Id.*) The vast majority of songs are less than 5.2 minutes long. One report suggests that the average length of songs in 2008 was 3.91 minutes with a standard deviation of 0.76 minutes. (Rhett Allain, "Why are Songs on the Radio About the Same Length?" *Wired*, July 11, 2014, *available at* https://www.wired.com/2014/07/why-are-

4, there has been an increase in the average price of single digital downloads, from $0.99 in 2006 to $1.20 in 2016, and a corresponding decline in the current statutory mechanical rate as a share of the price, from 9.2 percent to 7.6 percent.[152]

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songs-on-the-radio-about-the-same-length/, site visited October 27, 2016.) Assuming song length is approximately normally distributed, then approximately 97.5 percent of songs are less than 5.4 minutes long (close to the break-even value length of 5.2 minutes). Thus, the value $0.091 that I use in the calculations presented in this section is very close to the actual average royalty payment per song.

Data regarding the length of the top 200 streamed songs on Spotify in the U.S. during the week of October 20, 2016, also confirms that my use of $0.091 is reasonable. In particular, 190 out of the 200 songs (or 95 percent) were less than 5.2 minutes long, with a mean song length of 3.68 minutes and standard deviation of 0.72 minutes. (Spotify Top 200, *available at* https://spotifycharts.com/regional/us/weekly/latest, site visited October 27, 2016.) Weighted by the share of streams that each song accounted for during the period shows that 97.4 percent of the streamed songs were less than 5.2 minutes in length. And the stream-weighted average royalty payment, accounting for the length of song, is $0.0912, virtually equal to the $0.091 per-track royalty that I use in my analysis.

Use of a more comprehensive data source might generate slightly different results, but would be highly unlikely to alter the finding that the permanent digital download royalty rates are lower than the corresponding statutory royalty rates currently in effect for interactive streaming. For instance, even if only 80 percent of streamed songs were less than 5.2 minutes long, and the remaining 20 percent had lengths uniformly distributed between 5.20 and 8 minutes, the share-weighted average royalty payment per song would be $0.096. Using this amount, instead of $0.091, would not change the substantive conclusions discussed in the text.

152 Price per track is calculated as the average revenue per track for single digital downloads.

Table 4: The Current Statutory Rate As a Share of Price Per Digital Track

	Revenue (in millions)	Tracks (in millions)	Price Per Track	Royalty Per Track	Royalty as a Share of Price
2006	$581	586	$0.99	$0.091	9.2%
2007	$811	819	$0.99	$0.091	9.2%
2008	$1,032	1,043	$0.99	$0.091	9.2%
2009	$1,172	1,124	$1.04	$0.091	8.7%
2010	$1,336	1,177	$1.14	$0.091	8.0%
2011	$1,522	1,332	$1.14	$0.091	8.0%
2012	$1,624	1,392	$1.17	$0.091	7.8%
2013	$1,568	1,328	$1.18	$0.091	7.7%
2014	$1,408	1,199	$1.17	$0.091	7.8%
2015	$1,227	1,021	$1.20	$0.091	7.6%
2016 1H	$520	432	$1.20	$0.091	7.6%

Source: RIAA U.S. Sales Database.

110. Next, I consider the comparison on a royalty-per-equivalent-play basis, which converts unit sales of physical formats and permanent digital downloads into equivalent numbers of streams by applying a conversion ratio of streams per track. Nielsen uses a ratio of 150 streams per track for purposes of compiling the Billboard lists.[153] Other industry participants also use a ratio of 150 streams per track. For example, RIAA uses it to determine whether an album has attained platinum or gold status.[154] I note that a recent

[153] Specifically, starting in December 2014, Nielsen began calculating "album equivalents" based on the assumption that 10 tracks are equivalent to one album sale and 1,500 streams are equivalent to one album sale.

Billboard staff indicated that these ratios are based on "accepted industry benchmarks for digital and streaming data." (See "Billboard 200 Makeover: Album Chart to Incorporate Streams & Track Sales," *Billboard.com*, November 19, 2014, *available at* http://www.billboard.com/articles/columns/chart-beat/6320099/billboard-200-makeover-streams-digital-tracks, site visited September 7, 2016.)

[154] RIAA News Release, "RIAA Debuts Album Award with Streams," February 1, 2016, *available at* http://www.riaa.com/riaa-debuts-album-award-streams/, site visited September 8, 2016:

academic study by Dr. Aguiar and Professor Waldfogel suggests a conversion rate of approximately 137 streams per song based on a displacement study using data from Spotify, which is in line with the 150-to-1 conversion that I consider here.[155]

111. Table 5 shows the implied mechanical rate based on the permanent digital download rate as a function of hypothetical subscription services with a subscriber fee of $10 per subscriber per month. The average streams per user per month for Spotify's

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> After a comprehensive analysis of a variety of factors – including streaming and download consumption patterns and historical impact on the program – and also consultation with a myriad of industry colleagues, the RIAA set the new Album Award formula of 1,500 on-demand audio and/or video song streams = 10 track sales = 1 album sale. Also effective today, RIAA's Digital Single Award ratio will be updated from 100 on-demand streams = 1 download to 150 on-demand streams = 1 download to reflect the enormous growth of streaming consumption in the two plus years since that ratio was set. Just as RIAA announced when setting the initial formula in 2013, our analysis and the determination of a formula is based on comparative consumption patterns, not marketplace value.

In its earlier 2013 explanation of the conversion (100-to-1), the RIAA stated that the conversion they had established:

> was the culmination of a year-long project by the RIAA, led by [Cary] Sherman, and a variety of label marketing, business and data analysis executives, in which the RIAA examined comprehensive information comparing data on digital downloads to similar data on on-demand audio and video streams. The RIAA also closely consulted with NARM/digitalmusic.org, many digital music services, artist managers and industry leaders. It is important to note the new certification approach, including the formula of 100 streams being equivalent to one download, is an approximate barometer of comparative consumer activity; the financial value of streams and downloads were not factored into the equation.

(RIAA News Release, "RIAA Adds Digital Streams to Historic Gold & Platinum Awards," May 9, 2013, *available at* http://www.riaa.com/riaa-adds-digital-streams-to-historic-gold-platinum-awards/, site visited September 8, 2016.)

155 Luis Aguiar and Joel Waldfogel, "Streaming Reaches Flood Stage: Does Spotify Stimulate or Depress Music Sales?" Institute for Prospective Technological Studies Digital Economy Working Paper 2015/05, European Commission JRC Technical Reports, 2016.

premium ($10 per month) service is approximately [redacted].[156] Based on this usage rate and a $10 per subscriber per month subscription fee, the implied mechanical royalty revenue would be [redacted], substantially below the status quo.

Table 5: All-in Royalty Rate based on Permanent Digital Downloads Royalty and Conversion Ratio of 150-to-1

Streams per Subscriber per Month	Royalty per Sub per Month	Royalty as a Share of $10 Subscription
100	$0.061	0.61%
200	$0.121	1.21%
300	$0.182	1.82%
400	$0.243	2.43%
500	$0.303	3.03%
600	$0.364	3.64%
700	$0.425	4.25%
800	$0.485	4.85%
900	$0.546	5.46%
1000	$0.607	6.07%

112. The proposed settlement between music publishers and UMG, WMG, and SME further confirms the validity of maintaining the statutory royalty rates currently in effect. In particular, the fact that the publishers agreed to maintain the status quo rates indicates that neither new information nor changes in marketplace conditions warranted a change to the status quo. Indeed, after accounting for inflation, the publishers actually agreed to the equivalent of a lower percentage royalty rate.

156 Spotify streaming data [redacted]

113. In summary, examination of the agreements that music publishers have recently reached regarding royalty rates for phonorecords and permanent digital downloads supports the conclusion that royalty rates for interactive music streaming services should not be raised. Indeed, this examination suggests that these royalty rates should be lowered.

VI. CONCLUSION

114. Drawing on my training and experience as an economist, my examination of the public records of earlier proceedings, my analysis of the relevant industries, and my examination of the evidence produced in the present proceeding, I conclude that the royalty structure and rates of the 2012 Settlement—which underlies the statutory royalties currently in effect—provide an economically-sound basis on which to set the statutory rates going forward, and that only minimal adjustments to this benchmark are required to determine reasonable rates: namely, removing the mechanical-only royalty floors.

PUBLIC VERSION

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

In the Matter of: Determination of Rates and Terms for Making and Distributing Phonorecords (Phonorecords III)	Docket No. 16-CRB-0003-PR (2018-2022)

DECLARATION OF MICHAEL L. KATZ

I, Michael L. Katz, declare under penalty of perjury that the statements contained in my Written Direct Testimony in the above-captioned proceeding are true and correct to the best of my knowledge, information, and belief. Executed this 31st day of October, 2016 in London, United Kingdom.

Michael L. Katz

APPENDIX A

PUBLIC VERSION
October 2016

CURRICULUM VITAE OF MICHAEL L. KATZ

Haas School of Business
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EMPLOYMENT

July 1987 to present
Sarin Chair in Strategy and Leadership
Professor of Economics
University of California, Berkeley
Joint appointment in the Economics Department and Haas School of Business. Past service as member of Academic Senate Committee on Budget and Interdepartmental Relations, Director of the Institute for Business Innovation, Associate Dean for Academic Affairs, chair of Economic Analysis and Policy Group, chair of Strategic Planning Committee, and chair of Policy & Planning Committee. Research areas include competition and public policy in network and system industries, innovation, and pricing. Principal teaching in areas of business strategy and microeconomics.

July 2007 to June 2009
Harvey Golub Professor of Business Leadership
New York University
Appointed to Department of Management and Organizations, Stern School of Business. Research areas included healthcare competition. Taught business strategy courses.

September 2001 to January 2003
Deputy Assistant Attorney General for Economic Analysis
U.S. Department of Justice
Oversaw economic analysis in support of all Antitrust Division enforcement activities. Reported directly to the Assistant Attorney General for Antitrust. Managed unit of approximately 55 professional economists. Undertook multidimensional effort to integrate economists more fully into investigation, decision, and litigation processes.

January 1994 to January 1996
Chief Economist
Federal Communications Commission
Responsible for integrating economics into all aspects of Commission policy making. Reported directly to the Chairman of the Commission. Formulated and implemented regulatory policies for all industries under Commission jurisdiction. Managed teams of lawyers and economists to design regulatory policies and procedures.

July 1981 to June 1987
Assistant Professor of Economics
Princeton University
Conducted research on sophisticated pricing, standards development, cooperative R&D, and intellectual property licensing. Served as Assistant Director of Graduate Studies. Taught courses in microeconomics, industrial organization, and antitrust and regulation.

EDUCATION

D.Phil. 1982
Oxford University
Doctorate in Economics. Thesis on market segmentation and sophisticated pricing.

A.B. *summa cum laude* 1978
Harvard University
As an undergraduate, completed courses and general examinations for Economics doctorate.

SERVICE

Coeditor, *Journal of Economics & Management Strategy*, 1991-2001 and 2003-present.

Editorial Board member, *Information Economics and Policy*, 2004-present.

Editorial Board member, *Journal of Industrial Economics*, 2007-2013.

Editorial Board member, *California Management Review*, 1998-2000 and 2003-2007. Editor 2000-2001.

Board Member, Berkeley Executive Education, February 2013-present.

U.S. Advisory Board member, NTT DOCOMO, Inc., October 2011-April 2013.

Spectrum Policy Invited Expert, President's Council of Advisors on Science and Technology, September 2011-May 2012.

Member, Committee on Wireless Technology Prospects and Policy Options, The National Academies, 2003-2011.

Deputy Marriage Commissioner, City and Country of San Francisco, October 2, 2010.

Member, Computer Science and Telecommunications Board, The National Academies, 2000-2001 and 2004-2008.

Member, Spectrum Policy Working Group, Digital Age Communication Act Project, Progress & Freedom Foundation, January 2005-March 2006.

Member, Consumer Energy Council of America, Universal Service Forum, 2000-2001.

AWARDS AND HONORS

Chairman's Special Achievement Award, Federal Communications Commission, 1996.

The Earl F. Cheit Outstanding Teaching Award, University of California, Berkeley, 1992-1993 and 1988-1989. Honorable Mention, 1999-2000 and 1996-1997.

Alfred P. Sloan Research Fellow, 1985-1988.

National Science Foundation Graduate Fellow, 1978-1981.

John H. Williams Prize (awarded to the Harvard College student graduating in Economics with the best overall record), 1978.

GRANTS

Principal Investigator, Nokia Corporation grant on business-model innovation, 2009-2012.

Principal Investigator, Microsoft Corporation grant, "Research on Competition Policy for Intellectual Property," joint with Richard J. Gilbert, 2006

Recipient, Berkeley Committee on Research grant, 2004-2005, 1996-1997.

Recipient, Berkeley Program in Finance Research grant, 1990.

Researcher, Pew Foundation grant: "Integrating Economics and National Security," 1987-1990.

Principal Investigator, National Science Foundation grants:

"A More Complete View of Incomplete Contracts," joint with Benjamin E. Hermalin, 1991-1993.

"Game-Playing Agents and the Use of Contracts as Precommitments," 1988-1989.

"The Analysis of Intermediate Goods Markets: Self-Supply and Demand Interdependence," 1985-1986.

"Imperfectly Competitive Models of Screening and Product Compatibility," 1983-1984.

"Screening and Imperfect Competition Among Multiproduct Firms," 1982.

PUBLICATIONS

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"A General Analysis of the Averch-Johnson Effect," *Economic Letters* Vol. 11, No. 3 (1983).

"The Socialization of Commodities," co-authored with L.S. Wilson, *Journal of Public Economics* Vol. 20, No. 3 (April 1983).

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"Plea Bargaining and Social Welfare," co-authored with Gene M. Grossman, *American Economic Review* Vol. 73, No. 4 (September 1983).

"Firm-Specific Differentiation and Competition Among Multiproduct Firms," *Journal of Business* Vol. 57, No. 1, Part 2 (January 1984).

PUBLICATIONS continued

"Nonuniform Pricing with Unobservable Numbers of Purchases," *Review of Economic Studies* Vol. LI (July 1984).

"Price Discrimination and Monopolistic Competition," *Econometrica* Vol. 52, No. 6 (November 1984).

"Tax Analysis in an Oligopoly Model," co-authored with Harvey S. Rosen, *Public Finance Quarterly* Vol. 13, No. 1 (January 1985). Reprinted in *The Distribution of Tax Burdens,* D. Fullerton and G.E. Metcalf (eds.), Camberley: Edward Elgar Publishing Ltd. (2003), and *The Economics of Taxation,* J. Alm (ed.), Cheltenham: Edward Elgar Publishing Ltd. (2011) .

"Network Externalities, Competition, and Compatibility," co-authored with Carl Shapiro, *American Economic Review* Vol. 75, No. 3 (June 1985). Reprinted in *Antitrust and Competition Policy,* A.N. Kleit (ed.), Camberley: Edward Elgar Publishing Ltd. (2005).

"On the Licensing of Innovations," co-authored with Carl Shapiro, *Rand Journal of Economics* Vol. 16, No. 4 (Winter 1985).

"Consumer Shopping Behavior in the Retail Coffee Market," co-authored with Carl Shapiro, in *Empirical Approaches to Consumer Protection* (1986).

"Technology Adoption in the Presence of Network Externalities," co-authored with Carl Shapiro, *Journal of Political Economy* Vol. 94, No. 4 (August 1986).

"How to License Intangible Property," co-authored with Carl Shapiro, *Quarterly Journal of Economics* Vol. CI (August 1986).

"An Analysis of Cooperative Research and Development," *Rand Journal of Economics* Vol. 17, No. 4 (Winter 1986).

"Product Compatibility Choice in a Market with Technological Progress," co-authored with Carl Shapiro, *Oxford Economic Papers: Special Issue on Industrial Organization* (November 1986).

"The Welfare Effects of Third-Degree Price Discrimination in Intermediate Goods Markets," *American Economic Review* Vol. 77, No. 2 (March 1987).

"R&D Rivalry with Licensing or Imitation," co-authored with Carl Shapiro, *American Economic Review* Vol. 77, No. 3 (June 1987).

"Pricing Publicly Provided Goods and Services," in *The Theory of Taxation for Developing Countries,* D.M. Newbery and N.H. Stern (eds.), Washington, D.C.: World Bank (1987).

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"Vertical Contractual Relationships," in *The Handbook of Industrial Organization*, R. Schmalensee and R.D. Willig (eds.), Amsterdam: North Holland Publishing (1989).

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"Provider Competition and Healthcare Quality: More Bang for the Buck?" *International Journal of Industrial Organization,* Vol. 31, No. 5 (September 2013).

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"Weak versus Strong Net Neutrality: Correction and Clarification," co-authored with Joshua Gans, *Journal or Regulatory Economics,* Vol. 50, Issue 1 (August 2016).

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"What's So Special about Two-Sided Markets?" co-authored with Benjamin E. Hermalin, in *Economic Theory and Public Policies: Joseph Stiglitz and the Teaching of Economics,* New York: Columbia University Press, forthcoming.

APPENDIX B

Appendix B: Testimony in the Last Four Years

Before the United States District Court Eastern District of New York. United States of America, et al. v. American Express Co., et al. 10-CV-04496 (NGG) (RER). Deposition August 28-29, 2013. Oral testimony July 29-30, 2014, and August 18, 2014.

Before the World Trade Organization. Australia — Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging. Dispute DS434. Written Reports March 9, 2015, and October 26, 2015.

Before the Copyright Royalty Judges, Library of Congress. Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV). 14-CRB-0001-WR (2016-2020). Deposition April 1, 2015. Written testimony October 7, 2014, and February 23, 2015 (amended April 21, 2015). Oral testimony May 11, 2015, and May 26, 2015.

Before the California Public Utilities Commission. Joint Application of Charter Communications, Inc.; Charter Fiberlink CA-CCO, LLC (U6878C); Time Warner Cable Inc.; Time Warner Cable Information Services (California), LLC (U6874C); Advance/Newhouse Partnership; Bright House Networks, LLC; and Bright House Networks Information Services (California), LLC (U6955C) Pursuant to California Public Utilities Code Section 854 for Expedited Approval of the Transfer of Control of both Time Warner Cable Information Services (California), LLC (U6874C) and Bright House Networks Information Services (California), LLC (U6955C) to Charter Communications, Inc., and for Expedited Approval of a pro forma transfer of control of Charter Fiberlink CA-CCO, LLC (U6878C). Application 15-07-009. Written testimony January 25, 2016.

Before the California Public Utilities Commission. Order Instituting Investigation into the State of Competition Among Telecommunications Providers in California, and to Consider and Resolve Questions raised in the Limited Rehearing of Decision 08-09-042. Investigation 15-11-007 (Filed November 5, 2015). Written testimony March 15, 2016, and June 1, 2016. Oral testimony July 20, 2016.

Before the United States District Court District of Arizona. SolarCity Corporation v. Salt River Project Agricultural Improvement and Power District 2:15-CV-00374-DLR. Deposition August 31, 2016.

APPENDIX C

Appendix C: List of Materials Considered

	Date	Bates Number(s)
Produced Documents		
Music Publishing Rights Agreement Between Amazon and Universal Music Corp	06/2016	AMZN00001617-1629
Amazon 10-K for the Fiscal Year Ended December 31, 2015	01/2016	AMZN00002165-2257
Subscription Service/Live Radio US Term Sheet between Apple and Sony/ATV Music Publishing	06/2015	APL-PHONO_00005380-5386
Subscription Service/Live Radio US Term Sheet between Apple and Universal Music Publishing Group	06/2015	APL-PHONO 00005388-5398
Subscription Service/Live Radio US Term Sheet between Apple and Warner/Chappell Music	06/2015	APL-PHONO 00005399-5404
Grace Kramme, Music Discovery Deep Dive, *Apple*, iTunes Marketing, June 2012	06/2012	APL-PHONO 00005405-5495
MiDiA Research, "State of the Streaming Nation: How Streaming And Smartphones Disrupt Radio Audiences," MiDiA Consumer Surveys, January 2016	01/2016	APL-PHONO_00005652-5693
WW iTunes Finance, Allocated P&L US 2011-2016	--	APL-PHONO 00006828
Ipsos OTX MediaCT, "Keeping Pace with Digital Music Behavior," *Music Discovery Report*, 2012	--	APL-PHONO 00006909-6946
Apple Inc iTunes - Albums and Songs Downloads, 2011-2016	--	APL-PHONO 00008614-8619
Apple Inc Apple Music- Publisher Royalty Bearing Plays US Only by Calendar Quarter 2015-2016	--	APL-PHONO 00008620-8623
Subscription Service/Live Radio US Term Sheet between Apple and BMG Rights Management	06/2015	BMG00000093-95
Music Publishing Rights Agreement Between CUR Media and BMG Rights Management	01/2016	BMG00000120-132
License Agreement Between Pandora and BMG Rights Management	06/2016	BMG00000272-285
Music Publishing Rights Agreement Between Slacker and BMG Rights Management	08/2014	BMG00000323-333
BMG 2012 US Financials, Publishing NPS and Overhead	--	BMG00000563
BMG 2013 US Financials, Publishing NPS and Overhead	--	BMG00000564
BMG 2014 US Financials, Publishing NPS and Overhead	--	BMG00000565
BMG 2015 US Financials, Publishing NPS and Overhead	--	BMG00000566
License Agreement Between Pandora and Downtown Music Publishing	12/2015	DR00000001-13
Publishing License Agreement Between Google and Downtown Music Publishing	03/2014	DR00000059-77
Neal Mohan, "Why Ads Point to A Bright Future for the Music Industry," Draft	--	GOOG-PHONOIII-00000003-16
Fred Von Lohmann, "Report: How Google fights piracy," *Updates on Technology Policy Issues, Google*, September 10, 2013	09/2013	GOOG-PHONOIII-00000578-581
Continued Progress on Fighting Piracy, *Updates on Technology Policy Issues, Google*, October 17, 2014	10/2014	GOOG-PHONOIII-00000608-611
How Google Fights Piracy, *Google*, September 2013	09/2013	GOOG-PHONOIII-00000612-637
Amended Content License Agreement Between Google and Universal Music Publishing Group	01/2013	GOOG-PHONOIII-00000647-689
Publishing License Agreement Amendment Between Google and DCFC	10/2012	GOOG-PHONOIII-00000827-836
Amendment No 1 to Publishing License Agreement Between Google and Downtown Music Publishing Group	02/2016	GOOG-PHONOIII-00000839-841
Music Performance Agreement for Youtube Between BMI and Google	12/2013	GOOG-PHONOIII-00000904-926
Performance License Agreement for Youtube Between Google and SESAC	06/2016	GOOG-PHONOIII-00001043-1068
Publishing License Agreement Between Google and Doors Music Company	09/2014	GOOG-PHONOIII-00001137-1155
Google Play Music Research Overview	--	GOOG-PHONOIII-00002814-2852
Google Play Music User Counts	--	GOOG-PHONOIII-00003164
Google CRB Pull (Financials)	--	GOOG-PHONOIII-00003186
Youtube Red User Counts	--	GOOG-PHONOIII-00003187
Google Play Music Subscriber Forecasts	--	GOOG-PHONOIII-00003191
Subscription Service/Live Radio US Term Sheet between Apple and Kobalt Music Publishing	06/2015	KOBALT00000011-14
License Agreement Between Pandora and Kobalt Music Publishing America	12/2015	KOBALT00000037-54
Music Publishing Rights Agreement Between SoundCloud and Kobalt Music Publishing America	03/2016	KOBALT00000055-75
John Villasenor, "Digital Music Broadcast Royalties: The Case for a Level Playing Field," *Issues in Technology Innovation*, No 19, *Brookings Institute*, August 2012	08/2012	NMPA00000069-96
2011-2015 Music Publishing Income Chart	--	NMPA00000817-821
2015 NMPA Publisher Revenues by Subcategories with Forecasts	--	NMPA00000822
2015 Revenue Calculations	--	NMPA00000826-27
2011-2014 Mechanical Revenue Breakdown	--	NMPA00000835
2013-2014 Publishing Revenue Charts	--	NMPA00000843-845
2013 Revenue Calculations	--	NMPA00000849-50
Copyright and the Music Marketplace, A Report of the Register of Copyrights, *United States Copyright Office*, February 2015 ("Report on Music Licensing")	02/2015	NMPA00001047-1291
Patrick D Smith, "Economic Observation on Direct Licensing of Digital Music Performance Rights in Europe," *RBB Economics*, February 19, 2016	02/2016	NMPA00001380-1409
2014-2015 Top 25 Publisher Actual Revenue Comparison (Including Performance and Mechanical Royalties)	--	NMPA00001422-23
NMPA 2013-2015 Industry Revenue Comparisons and Major/Indie Revenue Comparisons	--	NMPA00001424
Performance License Agreement Between Pandora and GMR	09/2015	PAN CRB115 00090960-90966
Music Publishing Rights Agreement Between Slacker and EMI Entertainment	08/2014	SONY-ATV00000045-58
Music Publishing Rights Agreement Between Amazon and Sony/ATV Music Publishing	05/2014	SONY-ATV00000196-204
Music Publishing Rights Agreement Between CUR Media and Sony/ATV	01/2016	SONY-ATV00000309-325
License Agreement Between Pandora and Sony/ATV	11/2015	SONY-ATV00001764-1780
Binding Term Sheet Between Sony/ATV Music Publishing, EMI Entertainment World, and Youtube	04/2007	SONY-ATV00001820-1839
Amendment No 1 to Binding Term Sheet Between SoundCloud and EMI Entertainment, Sony/ATV	03/2016	SONY-ATV00001952-1956
Sony EMI US and Worldwide Financials, 2013-2016	--	SONY-ATV00003700
Sony/ATV US and Worldwide Financials, 2013-2016	--	SONY-ATV00003701
Sony/ATV Music Publishing US Business Meeting, June 2, 2016	06/2016	SONY-ATV00005143-5170
Performance License Agreement Between Spotify and BMI	12/2015	SPOTCRB0000003-17
Chris Price, "Listomania: Winners & Losers in the Battle for Spotify Playlist Supremacy," *New Slang Media*, December 2015	12/2015	SPOTCRB0000030-51

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	Date	Bates Number(s)
The Internet Radio Revolution Has Arrived: Platforms, Services, Audiences and Advertisers Reinvent Audio, *BIA/Kelsey*, April 2014	04/2014	SPOTCRB0000198-227
Glenn Peoples, "What Happens When Spotify Gets Behind an Artist? A Case Study of Hozier and Major Lazer," *Billboard*, August 7, 2015	08/2015	SPOTCRB0000360-364
CSI@Spotify, Streaming Services Competitive Landscape, Spotify, March 2016	03/2016	SPOTCRB0000473-511
Spotify vs Pandora Cross-Usage Percentages	--	SPOTCRB0000696
IFPI Global Music Report 2016	03/2016	SPOTCRB0000803-846
The Competitive Landscape: How Should We Shape Our Strategy in Response? *Spotify*	05/2016	SPOTCRB0001526-1564
IFPI, Recording Industry in Numbers 2014 Edition	--	SPOTCRB0003415-3540
MiDiA Research, "Fighting Free With Free:How YouTube Usurped BitTorrent," MiDiA Consumer Surveys, April 2015	04/2015	SPOTCRB0004013
Will Page, "Spotify's Impact on Music Piracy," *Spotify*	--	SPOTCRB0004038-4043
License Agreement Between Spotify and Sony/SATV	04/2016	SPOTCRB0005704-5715
Spotify Consolidated Financial Statements, December 31, 2014	03/2015	SPOTCRB0005716-5768
Spotify US Financials 2015 and User Metrics	--	SPOTCRB0005863
Spotify Unaudited Worldwide Financials and User Metrics	--	SPOTCRB0005864
Music Publishing Rights Agreement Between SoundCloud and Universal Music	01/2015	UMPG00000127-146
Music Publishing Rights Agreement Between Slacker and Universal Music Publishing Group	09/2014	UMPG00000169-181
Direct License for Performance Rights between Pandora and UMPG-BMI	09/2013	UMPG00000210-216
Direct License for Performance Rights between Pandora and UMPG-ASCAP	07/2013	UMPG00000403-407
Webcasting Service License Agreement Between Apple and Universal Music Publishing Group	06/2013	UMPG00000889-902
Agreement Between Google and Universal Music Publishing Group	08/2012	UMPG00001119-1160
Enders Analysis, Global Music Publishing Revenue Data, October 2013	10/2013	UMPG00001987
Music Publishing Global Market Share from Enders and Music & Copyright	--	UMPG00002110
UMPG Current Rates with Streaming Services as of July 2016	07/2016	UMPG00002126
Universal Music Publishing Group US P&L, 2012-2016	--	UMPG0002118
Music Publishing Rights Agreement Between Amazon and Warner/Chappell Music	06/2014	WC00000052-64
Warner-Chappell Comparative US P&L Analysis, 2011-2016	--	WC000000829
Webcasting Service License Agreement Between Apple and Warner/Chappell Music	06/2013	WC00000097-111
License Agreement Between Pandora and Warner/Chappell Music	01/2016	WC00000353-376
Music Publishing Rights Agreement Between SoundCloud and Warner/Chappell Music	11/2014	WC00000568-599

Filings

37 Copyright Federal Register 385, Docket No 2006-3 CRB DPRA Mechanical and Digital Phonorecord Delivery Rate Determination Proceeding ("Final Rule")	01/2009	--
37 Copyright Federal Register 385, Docket No 2006-3 CRB DPRA Mechanical and Digital Phonorecord Delivery Rate Determination Proceeding ("Amendments to Final Rule")	02/2009	--
37 Copyright Federal Register 385, Docket No 2011–3 CRB Phonorecords II Adjustment of Determination of Compulsory License Rates for Mechanical and Digital Phonorecords	11/2013	--
Comments of Pandora Media, Inc In Response to the Department of Justice's Review of the ASCAP and BMI Consent Decrees	--	--
Copyright Act 17 U S C §801	01/2012	--
CRB DSTRA, Rebuttal Testimony of Charles Ciongoli	07/2007	--
Docket No 2009-1 Review of Copyright Royalty Judges Determination	01/2009	
Federal Register, Vol 78, No 219	11/2013	--
Meredith Corp v Sesac LLC, 1 F Supp 3d 180 (S D N Y , 2014)	03/2014	--
Phonorecords II, Proposed Rule, May 17, 2012	05/2012	--
Phonorecords II, Final Rule, November 13, 2013	11/2013	--
Phonorecords III, Amazon Initial Disclosures & Initial Rate Proposal	07/2016	--
Phonorecords III, Apple Preliminary Disclosures	07/2016	--
Phonorecords III, Determination of Rates and Terms for Making and Distributing Phonorecords, 81 Federal Register 48371, July 25, 2016	07/2016	--
Phonorecords III, Determination of Rates and Terms for Making and Distributing Phonorecords, Notice announcing commencement of proceeding with request for Petitions to Participate, 81 FR 255	01/2016	--
Phonorecords III, Google Initial Disclosures	07/2016	--
Phonorecords III, Motion to Adopt Settlement Industry-Wide, October 28, 2016	10/2016	--
Phonorecords III, NMPA + NSAI Proposed Rates & Terms	07/2016	--
Phonorecords III, Notice of Participants and Scheduling Order for Phonorecords III	02/2016	--
Phonorecords III, Pandora Initial Disclosures	07/2016	--
Phonorecords III, SME Preliminary Disclosures	07/2016	--
Phonorecords III, Spotify Initial Disclosures	07/2016	--
Phonorecords III, Written Direct Testimony of Adam Parness	11/2016	--
Phonorecords III, Written Direct Testimony of Chris Phillips	11/2016	--
Phonorecords III, Written Direct Testimony of Michael Herring	11/2016	--
Radio Music License Comm , Inc v Sesac, Inc , 29 F Supp 3d 487 (E D Pa , 2014)	06/2014	--
Recording Industry Association of America, Inc. v. Librarian of Congress , No 09-1075, 2010 WL 1251076 ("Determination of Appeal of an Order of the Copyright Royalty Board")	06/2010	--
SDARS II, Amended Rebuttal Testimony of Janusz Ordover	07/2012	--
SDARS II, Revised Witness Testimony of Roger G Noll	08/2012	--
SDARS II, Written Testimony of Janusz Ordover	11/2011	--

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	Date	Bates Number(s)
SDARS III, Written Testimony of Jonathan Orszag	10/2016	--
SDARS III, Written Testimony of Paul Wazzan	10/2016	--
SDARS III, Written Testimony of Robert Willig	10/2016	--
SDARS III, Written Testimony of Carl Shapiro	10/2016	
U S Department of Justice, "Statement of the Department of Justice on the Closing of the Antitrust Division's Review of the ASCAP and BMI Consent Decrees," August 4, 2016	08/2016	--
U S v Broadcast Music, Inc , Opinion & Declaratory Judgment, 64 Civ 3787	09/2016	--
United States v. ASCAP, No 41–1395, 2001 WL 1589999, 2001–02 Trade Cas (CCH) ¶ 73,474 (S D N Y June 11, 2001) ("ASCAP Consent Decree")	06/2001	--
United States v. BMI, 1966 Trade Cas (CCH) ¶ 71,941 (S D N Y 1966), *amended*, No 64–CIV–3787, 1994 WL 901652, 1996–1 Trade Cas (CCH) ¶ 71,378 (S D N Y Nov 18, 1994) ("BMI Consent Decree")	11/2014	--
Web IV, Corrected Direct Testimony of Daniel L Rubinfeld	02/2015	--
Web IV, Determination of Royalty Rates and Terms for Ephemeral Recording and Webcasting Digital Performance of Sound Recordings, 81 Fed Reg 26,316, 26,347 ("Final Determination")	03/2016	--
Web IV, Pandora Media, Inc 's Proposed Findings of Fact and Conclusions of Law	06/2015	--
Web IV, Written Direct Testimony of Michael L Katz	10/2014	--
Web IV, Written Direct Testimony of Stephan McBride	10/2014	--
Web IV, Written Rebuttal Testimony of Carl Shapiro	02/2015	--
Web IV, Written Rebuttal Testimony of Larry Rosin	02/2015	--
Web IV, Written Rebuttal Testimony of Michael Herring	02/2015	--
Web IV, Written Rebuttal Testimony of Michael Katz	02/2015	--

Data

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Telephonic Interview with Chris Phillips, Chief Product Officer, Pandora Media Inc , May 12, 2016	05/2016	--
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