PUBLIC VERSION

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

In the Matter of: **Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies to Facilitate those Performances (*Web V*)**	**Docket No. 19-CRB-0005-WR (2021-2025)**

SERVICES' CORRECTED REPLY TO SOUNDEXCHANGE'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

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INDEX OF WRITTEN TESTIMONY BY CITATION FORMAT[1]

Witness Name	Description	Party	Trial Exhibit[2]	Citation Format
Adadevoh, Reni	Written Direct Testimony of Reni Adadevoh	SoundExchange	5611*	Adadevoh WDT
Adadevoh, Reni	Written Rebuttal Testimony of Reni Adadevoh	SoundExchange	5612*	Adadevoh WRT
Agrawal, Arpan	Written Direct Testimony of Arpan Agrawal	Google	1102	Agrawal WDT
Barry, Tom	Written Rebuttal Testimony of Tom Barry	Sirius XM/ Pandora	4110*	Barry WRT
Blatter, Steven	Written Direct Testimony of Steven Blatter	Sirius XM/ Pandora	4093*	Blatter WDT
Blatter, Steven	Designated Written Direct Testimony of Steven Blatter (*SDARS II*)	Sirius XM/ Pandora	4097	Blatter WDT (*SDARS II*)
Blatter, Steven	Designated Written Direct Testimony of Steven Blatter (*SDARS III*)	Sirius XM/ Pandora	4099	Blatter WDT (*SDARS III*)
Burkhiser, Jennifer	Written Direct Testimony of Jennifer Burkhiser	NRBNMLC	3062*	Burkhiser WDT
Cordes, Joseph	Corrected Written Direct Testimony of Joseph Cordes	NRBNMLC	3061*	Cordes CWDT
Cutler, Steven	Written Direct Testimony of Steven Cutler (*Web IV*)	NAB	2159	Cutler WDT (*Web IV*)
Diab, Waleed	Written Direct Testimony of Waleed Diab	Google	1101*	Diab WDT

[1] Throughout this Reply, all citations to pages of trial exhibits (including written testimony) refer to the pagination stamped on the exhibit for trial, *not* the internal pagination of the native document. For example, a citation to page four (4) of the Shapiro WRT (Trial Exhibit 4017) refers to the page stamped "4107.4."

[2] The exhibits identified in this index with an asterisk were admitted at the hearing subject to the Participants' pending line-by-line objections. Separately, exhibits cited herein (other than written testimony) with an asterisk were either admitted or offered into evidence at the hearing subject to qualification and/or the Judges' resolution of pending objections. All such exhibits are identified in Attachment A hereto.

Witness Name	Description	Party	Trial Exhibit[2]	Citation Format
Emert, Joseph	Written Direct Testimony of Joseph Emert (*Web IV*)	NRBNMLC	3063	Emert WDT (*Web IV*)
Ford, George	Written Rebuttal Testimony of George Ford	SoundExchange	5615*	Ford WRT
Ford, George	Designated Written Direct Testimony of George Ford (*Web III*)	SoundExchange	5616*	Ford WDT (*Web III*)
Ford, George	Designated Written Direct Testimony of George Ford (*SDARS III*)	SoundExchange	5617*	Ford WDT (*SDARS III*)
Fowler, Jennifer	Written Direct Testimony of Jennifer Fowler	SoundExchange	5619*	Fowler, Jennifer WDT
Fowler, T. Jay	Written Direct Testimony of T. Jay Fowler	Google	1100*	Fowler, T. Jay WDT
Gallien, Jason	Written Direct Testimony of Jason Gallien	SoundExchange	5618*	Gallien WDT
Gauthier, Mary	Written Direct Testimony of Mary Gauthier	SoundExchange	5623*	Gauthier WDT
Gille, Andrew	Written Direct Testimony of Andrew Gille	NAB	2156*	Gille WDT
Hair, Raymond	Written Direct Testimony of Raymond Hair	SoundExchange	5621*	Hair WDT
Hanssens, Dominique	Corrected Written Direct Testimony of Dominique Hanssens	Sirius XM/ Pandora	4095	Hanssens CWDT
Harrison, Aaron	Written Direct Testimony of Aaron Harrison	SoundExchange	5609*	Harrison WDT
Harrison, Aaron	Written Rebuttal Testimony of Aaron Harrison	SoundExchange	5610*	Harrison WRT
Hauser, John	Written Direct Testimony of John Hauser	NAB	2151	Hauser WDT
Hauser, John	Written Rebuttal Testimony of John Hauser	NAB	2161	Hauser WRT

Witness Name	Description	Party	Trial Exhibit[2]	Citation Format
Herring, Michael	Written Direct Testimony of Michael Herring (*Web IV*)	Sirius XM/ Pandora	4101	Herring WDT (*Web IV*)
Herring, Michael	Amended Written Rebuttal Testimony of Michael Herring (*Web IV*)	Sirius XM/ Pandora	4102	Herring AWRT (*Web IV*)
Leonard, Gregory	Corrected Written Direct Testimony of Gregory Leonard	NAB	2150*	Leonard CWDT
Leonard, Gregory	Corrected Written Rebuttal Testimony of Gregory Leonard	NAB	2160*	Leonard CWRT
McBride, Stephen	Written Direct Testimony of Stephen McBride (*Web IV*)	Sirius XM/ Pandora	4104	McBride WDT (*Web IV*)
Newberry, Steven	Written Direct Testimony of Steven W. Newberry	NAB	2155*	Newberry WDT
Newberry, Steven	Written Direct Testimony of Steven W. Newberry (*Web IV*)	NAB	2158	Newberry WDT (*Web IV*)
Orszag, Jon	Written Direct Testimony of Jon Orszag	SoundExchange	5602*	Orszag WDT
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Peterson, Steven	Amended Written Direct Testimony of Steven Peterson	Google	1103*	Peterson AWDT
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Pifer, Dan	Written Rebuttal Testimony of Dan Pfifer	Google	1104*	Pifer WRT
Phillips, Chris	Written Direct Testimony of Christopher Phillips	Sirius XM/ Pandora	4090*	Phillips WDT
Piibe, Mark	Written Direct Testimony of Mark Piibe	SoundExchange	5613*	Piibe WDT

Witness Name	Description	Party	Trial Exhibit[2]	Citation Format
Piibe, Mark	Written Rebuttal Testimony of Mark Piibe	SoundExchange	5614*	Piibe WRT
Pittman, Robert	Written Direct Testimony of Robert Pittman	NAB	2152*	Pittman WDT
Ploeger, Travis	Written Rebuttal Testimony of Travis Ploeger	SoundExchange	5625*	Ploeger WRT
Poleman, Rom	Written Direct Testimony of Tom Poleman	NAB	2153*	Poleman WDT
Reiley, David	Corrected Written Direct Testimony of David Reiley	Sirius XM/ Pandora	4091*	Reiley CWDT
Reiley, David	Written Rebuttal Testimony of David Reiley	Sirius XM/ Pandora	4108*	Reiley WRT
Ritz, Joseph	Written Rebuttal Testimony of Joseph Ritz	NAB	2162*	Ritz WRT
Ryan, Jason	Written Rebuttal Testimony of Jason Ryan	Sirius XM/ Pandora	4109*	Ryan WRT
Shapiro, Carl	Second Corrected Written Direct Testimony of Carl Shapiro	Sirius XM/ Pandora	4094*	Shapiro SCWDT
Shapiro, Carl	Written Rebuttal Testimony of Carl Shapiro	Sirius XM/ Pandora	4107	Shapiro WRT
Sherwood, Mike	Written Direct Testimony Mike Sherwood	SoundExchange	5620*	Sherwood WDT
Simonson, Itamar	Corrected Written Rebuttal Testimony of Itamar Simonson	SoundExchange	5608*	Simonson CWRT
Steinberg, Richard	Amended Written Direct Testimony of Richard Steinberg	NRBNMLC	3060*	Steinberg AWDT
Steinberg, Richard	Corrected Written Rebuttal Testimony of Richard Steinberg	NRBNMLC	3064*	Steinberg CWRT
Strohm, John	Written Direct Testimony John Strohm	SoundExchange	5622*	Strohm WDT

Witness Name	Description	Party	Trial Exhibit[2]	Citation Format
Tucker, Catherine	Written Direct Testimony of Catherine Tucker	SoundExchange	5604*	Tucker WDT
Tucker, Catherine	Written Rebuttal Testimony of Catherine Tucker	SoundExchange	5605*	Tucker CWRT
Westergren, Timothy	Written Direct Testimony of Timothy Westergren (*Web IV*)	Sirius XM/ Pandora	4106	Westergren WDT (*Web IV*)
Wheeler, Leonard	Written Direct Testimony of Leonard Wheeler	NAB	2157*	Wheeler WDT
Williams, Tres	Written Direct Testimony of Tres Williams	NAB	2154*	Williams WDT
Willig, Robert	Corrected Written Direct Testimony of Robert Willig	SoundExchange	5600*	Willig CWDT
Willig, Robert	Written Rebuttal Testimony of Robert Willig	SoundExchange	5601*	Willig WRT
Witz, Jennifer	Written Direct Testimony of Jennifer Witz	Sirius XM/ Pandora	4092*	Witz WDT
Zauberman, Gal	Written Direct Testimony of Gal Zauberman	SoundExchange	5606	Zauberman WDT
Zauberman, Gal	Written Rebuttal Testimony of Gal Zauberman	SoundExchange	5607*	Zauberman WRT

The Services[3] respectfully submit this Reply ("Reply") to SoundExchange's Second Corrected Proposed Findings of Fact and Conclusions of Law. The numbered paragraphs below reply to the correspondingly numbered paragraphs in SoundExchange's filing.

COMMERCIAL SERVICES

1. Not disputed.

I. PROCEDURAL BACKGROUND

2-11. Not disputed.

12. Disputed in part. Sirius XM and Pandora do not dispute the first three sentences or the last sentence of Paragraph 12. Pandora did not rely on direct licenses when it launched its ad-supported non-interactive radio service or its subscription non-interactive radio service, and did not need direct licenses to offer the services described in the second and third sentences of Paragraph 12. More recently, Pandora has entered into direct licenses that cover most of the performances of sound recordings on its ad-supported non-interactive service and its subscription radio service and all of the performances on its subscription on-demand streaming service. *See* Pandora and Sirius SXM's Corrected Proposed Findings of Fact and Conclusions of Law ("SXM-PAN PFFCL") ¶ 21. These direct licenses include certain rights to offer non-statutory functionality. *See id. ¶¶7-32; see also generally* Westergren WDT (*Web IV*); Herring AWRT (*Web IV)*; Phillips WDT; *see also* Ryan WRT ¶¶ 45-58.

13-35. Not disputed.

[3] Capitalized terms not defined herein shall have the meanings ascribed to them in the Services' Joint Proposed Findings of Fact and Conclusions of Law (Doc. 22794) ("Joint PFFCL"). Throughout this Reply, the Services refer to the participants' other proposed findings and conclusions as follows: SoundExchange's Second Corrected Proposed Findings of Fact and Conclusions of Law (Doc. 22841) ("SX PFFCL"); Pandora and Sirius XM's Corrected Proposed Findings of Fact and Conclusions of Law (Doc. 22839) ("SXM-PAN PFFCL"); Google LLC's Amended Proposed Findings of Fact and Conclusions of Law (Doc. 22840) ("Google PFFCL"); Proposed Findings of Fact and Conclusions of Law of the National Association of Broadcasters (Doc. 22786) ("NAB PFFCL"); and The National Religious Broadcasters Noncommercial Music License Committee's Corrected Proposed Findings of Fact and Conclusions of Law (Doc. 22819) ("NRBNMLC PFFCL").

II. SOUNDEXCHANGE'S WITNESSES

36-49. Not disputed.

50. Disputed in part. Mr. Bender did not "submit" written direct testimony as did the other witnesses in this proceeding; rather, because he left SoundExchange and did not appear at trial, his written testimony was merely an exhibit to the testimony of Mr. Ploeger. Mr. Ploeger does not have personal knowledge of all the topics in that testimony and has never established otherwise.

51-54. Not disputed.

III. THE WILLING BUYER/WILLING SELLER RATE STANDARD

55-56. Not disputed.

57. Disputed in part. Promotional and substitutional effects on royalty rates may or may not be "baked in" to a "*negotiated* license rate," *i.e.*, a benchmark, depending on the contracting parties' "expectations regarding the promotional and substitutional effects of [their] agreement." *Web IV*, 81 Fed. Reg. at 26326 (emphasis added). However, as clearly explained in *Web IV*, when relying on benchmarks involving non-statutory services, the "baked-in" aspect does *not* address any differences in promotional/substitutional effects as between the benchmark (interactive) and target (noninteractive) markets, and accordingly "the Judges must identify and consider any difference in the promotional/substitutional effects between these markets to determine whether to adjust the interactive benchmark rate." *Id.* at 26327.

58. Disputed in part. While SoundExchange accurately quotes the relevant CRB decisions, its summary is incomplete and misleading. The quoted language from *Web II* arose not in the context of the willing buyer/willing seller standard as SoundExchange suggests, but instead in a discussion of the most appropriate fee structure for statutory webcasters. *Web II,* 72 Fed. Reg. at 24088. In rejecting a pure percentage-of-revenue fee structure, the Judges explained

that a guarantee of commercial viability (the reason for that proposal) was not a valid justification for choosing to license content costs on a percentage of revenue basis rather than on a per-performance basis, which is more intuitive, more closely tied to the value of the property right at issue, and readily calculable. *Id.* at 24089.

Similarly, in *Web IV*, the Judges found that they did not need to account for the profitability of a particular business model in their determination (language which SoundExchange here quotes to suggest that the Services' finances are irrelevant) *not* because financial considerations are wholly irrelevant, but because "the benchmarking process 'bakes-in' (internalizes) these necessary elements, given the assumed rational, maximizing nature of sophisticated business entities." *Web IV*, 81 Fed. Reg. at 26329. Put another way, *Web IV* merely indicated that implicit in the willing buyer/willing seller analysis is the rational notion that a given service will not be willing to pay for a license when the cost of the license exceeds the value it contributes to the service's commercial success, the cost of which will necessarily be restrictive in some cases. *Accord Web III Remand*, 79 Fed. Reg. at 23119 ("A single price established in any market by its very nature inevitably will restrict some purchasers who are *unable or unwilling* to pay the market price" though it "*may be too high for other reasons*.") (emphasis added).

IV. SOUNDEXCHANGE'S PROPOSED RATES AND TERMS

59-64. Disputed in part. The Services do not dispute that these paragraphs reflect SoundExchange's proposed rates and terms, but dispute that the proposals are appropriate for the multitude of reasons discussed throughout their submissions.

V. MR. ORSZAG'S BENCHMARKING ANALYSIS IS FLAWED AND RIDDLED WITH ERRORS, WHILE THE SERVICES' BENCHMARKING ANALYSES ARE SUPERIOR

A. Mr. Orszag Chose a Nonsensical Benchmark Starting Point and Failed to Properly Identify and Apply the Necessary Adjustments

65. Disputed in part. As discussed below, the Services maintain that the utility of Mr. Orszag's benchmarking analysis is significantly undermined (and dramatically overinflated) by a multitude of errors and faulty assumptions, as well as by his erroneous interpretation of key record evidence. *See infra* §§ V.A-I; *see also* Joint PFFCL §§ II.A-B.

66. Disputed in part. While benchmarking is a process that uses voluntarily negotiated rates, there is no requirement that the benchmark be negotiated in unregulated markets. *See, e.g.*, *Web IV*, 81 Fed. Reg. at 26370-71 (relying on benchmarks between sound recording companies and statutory webcasters). Indeed, as discussed in paragraphs 70, 77, 167, and 219 below, the definitional lack of comparability between the unregulated *interactive* services market and *noninteractive* webcasters requires significant adjustments to any proposed interactive benchmark. Further, the lack of comparability between unregulated interactive services and specific types of statutory webcasters, like simulcasters, may run so deep as to render the interactive services benchmark even less helpful in setting the rates for those types of services. *See* NAB PFFCL ¶¶ 176-83.

67. Not disputed.

68. Disputed in part. The usefulness of a benchmarking analysis depends in large part on the comparability of the benchmark and target markets. Some benchmarks may be preferable to others because there is a higher degree of comparability, notwithstanding the ability to account for material differences by applying appropriate adjustments. *See Web IV*, 81 Fed. Reg. at 26345 (rejecting the use of subscription interactive services as a benchmark for ad-

supported noninteractive services given the incompatibility of the two markets); *see also* Shapiro WRT at 38-41; Peterson AWRT ¶¶ 28-40; 8/25/20 Tr. 3693:19 *et seq.* (Peterson); NAB PFFCL ¶¶ 176-83.

69. Disputed in part. For reasons described below, Mr. Orszag's reliance on percentage-of-revenue rates is misguided and his analysis is replete with errors. *See infra* ¶¶ 99, 100, 102, 108-109, 112-113, 116, 120-121; Joint PFFCL §§ II.A.i, II.B.

70. Disputed. As discussed at length in the Services' Joint PFFCL, Mr. Orszag's purported interactivity adjustment does not properly account for the differences in interactive functionality between the subscription and ad-supported markets and is based on a fundamental misapplication of the Judges' *Web IV* "ratio equivalency" model. *See* Joint PFFCL §§ II.A.i.1-2, II.B.i; *see also infra* ¶¶ 78, 100, 108, 116, 158-159, 162, 165.

71. Disputed in part. The Services do not dispute that to the extent Mr. Orszag's target mid-tier and statutory services pay for skipped recordings, *and* all such "skips" were accounted for in the denominator of his per-play rate calculations, such a formulation would obviate the need for him to apply a further skips adjustment. Yet as Mr. Orszag conceded at the hearing, the play count figures he relies on in the denominator of his per-play calculations—for both his subscription and ad-supported noninteractive benchmarks—only account for skipped tracks on Pandora, *not* on iHeart and Rhapsody (the two other services included in his analysis). 8/11/20 Tr. 1230:4-9 (Orszag); *see also* Orszag WRT ¶ 124 (acknowledging that his ad-supported benchmark does not account for skips on iHeart). As such, Mr. Orszag's attempt to effectively adjust for skips is understated and the rate he derives overstated.

72. Disputed in part. The Services contend that the analysis done by Mr. Orszag to determine that no promotion/substitution adjustment was necessary is flawed and underestimates

the degree to which statutory services are promotional (rather than substitutional) of subscription interactive services, as discussed below. *See infra* ¶¶ 505-513; 515-517; *see also* SXM-PAN PFFCL ¶¶ 42-43; NAB PFFCL ¶¶ 154-64.

73. Disputed in part. Mr. Orszag failure to adjust his benchmark rates for effective competition is based on a severely flawed analysis that rests on a fundamental misinterpretation of the negotiation record and the economic implications thereof. At bottom, Mr. Orszag has failed to recognize that the market for licensing recorded music to interactive services continues to lack effective competition given the sustained complementary oligopoly power and must-have status of the Majors. *See infra* Section V(H); Joint PFFCL § II.A.ii.

B. Mr. Orszag's Benchmark Analysis for Noninteractive Subscription Services is Fatally Flawed as Compared to Professor Shapiro's

1. Mr. Orszag Dramatically Overstates the Degree to Which Interactive and Noninteractive Services Have Converged Since *Web IV*

74. Disputed in part. Mr. Orszag's use of the subscription interactive benchmark is inconsistent with the Judges' prior determinations (which themselves varied in approach). *See* Joint PFFCL ¶¶ 19-56.

75. Disputed in part. SoundExchange's oversimplified description of the Judges' prior findings concerning the similarities and differences between the interactive services benchmark market and the noninteractive target market fails to adequately captures the detail or complexity of those decisions. Mr. Orszag's benchmarking analysis here is not consistent with the Judges' determinations in those prior proceedings. Indeed, while the Judges in *Web IV* "accepted the interactive benchmark as one of the foundations to set the rates for subscription services," SX PFFCL ¶ 75, the rate-setting methodology was, for reasons we explain, very different than what Mr. Orszag has offered here.

76. Not disputed.

77. Disputed. The mere fact that certain of the benchmark and target services are owned by the same company does not suggest meaningful overlap among the digital music services themselves. *See, e.g.*, Peterson AWRT ¶¶ 30-31. The buyers in the target and benchmark markets—*i.e.*, noninteractive and interactive services, respectfully—differ fundamentally in terms of the characteristics of the services they offer and in terms of their need for a license from any particular record company. *See, e.g.*, *id.* ¶¶ 32-35. The Services also disagree that the "product being sold" in the interactive negotiations and hypothetical noninteractive negotiations are "generally the same." In the former, the licensed rights include valuable on-demand functionally required to operate a fully interactive service. *See id.*; Leonard CWRT ¶¶ 37, 39-49. In the latter, the (noninteractive) rights being negotiated are constrained by the statutory license. *See* 8/12/20 Tr. 1505:3-1510:2 (Orszag) (recognizing the myriad of functionality differences between interactive and statutory services and acknowledging that consumers pay more for interactivity). The difference between interactive and noninteractive services is so fundamental that, when establishing the public performance right in sound recordings, Congress also established the statutory license at issue here and made that license available only to services that by definition did not provide the same product or experience as interactive services. *See* NAB PFFCL ¶ 148. A sweeping description of those substantially varied rights as "a license of rights to a record company's sound recording catalog" obfuscates the relevant differences between them and the functionality they afford.

78. Disputed. SoundExchange witnesses significantly exaggerated the degree to which interactive and noninteractive services have converged, relying solely on the increase in playlist listening on interactive services. But on-demand listening is still the dominant form of listening on interactive services and interactive features unavailable under the statutory license

remain a core (and decidedly non-"lean-back") component of playlist listening on interactive services (*e.g.*, the ability to create a playlist, see what tracks are on a playlist, and choose (and replay) a track from anywhere within a playlist). *See* Joint PFFCL ¶¶ 33, 105-108; NAB PFFCL ¶¶ 178-80. SoundExchange's convergence argument also overlooks the fact that on-demand services still must negotiate for and obtain the rights to offer full on-demand functionality, which underscores the need for an adjustment to the benchmark interactive rates even if a subset of listening behavior on those services does not fully exploit the available on-demand functionality.

Further, to the extent SoundExchange intends for its convergence theory to somehow rectify Mr. Orszag's misapplication of ratio equivalency to ad-supported noninteractive services, it has fallen woefully short of demonstrating the preconditions established by the Judges in *Web IV*, including comparable demand elasticities and a 1:1 opportunity cost. *See* Joint PFFCL § II.A.i.2. In *Web IV*, the Judges viewed convergence as meaningful to the ratio equivalency analysis (and were willing to assume comparably elasticities) where interactive and noninteractive *subscription* services were (among other things) competing with each other for subscribers with a positive WTP. Joint PFFCL ¶ 30. Here, Mr. Orszag has failed to demonstrate comparable WTP as between subscription interactive and ad-supported noninteractive services, and his playlist-based convergence theory, even if grounded in some modest increases in such listening, is not indicative of similar elasticities of demand or WTP. *See id.* ¶¶ 31-33; NAB PFFCL ¶¶ 106-07.

79. Not disputed. *But see supra* ¶ 78.

80. Disputed in part. While the Services do not contest the accuracy of the individual statistics cited in Paragraph 80, SoundExchange's claim that as of 2017 "at least 68% of listening on Spotify was lean-back" is a misleading characterization of the data. *See* Joint

PFFCL ¶ 107. Because, as SoundExchange acknowledges, 36% (or more than half) of that figure is attributable to user-generated playlists, and interactive functionality is an inherent component of such playlists (*see supra* ¶ 78; 8/25/20 Tr. 3701:15-25 (Peterson)), characterizing "68%" as "lean-back" distorts the true nature of Spotify streams, stretches the meaning of "lean-back" beyond its typical meaning, and wrongly presupposes that the term is somehow synonymous with "playlist" listening. Further, SoundExchange's observation that many Spotify and Apple Music subscribers have done *some* playlist listening is unavailing given that on-demand listening continues to comprise the bulk of listening on those services (and that certain playlist listening remains interactive) and drives the higher rate levels. *See supra* ¶ 78 (*citing* Joint PFFCL ¶¶ 33, 105-108); 8/25/20 Tr. 3700:12-3701:11 (Peterson). Last, SoundExchange has failed to cite any evidence or testimony from a fact witness with personal knowledge to support Mr. Orszag's claims.

81. Disputed in part. The Services dispute the implication that the claimed "trend towards service-controlled playlists" evinces an economically significant convergence between interactive and noninteractive services or a meaningful ability of interactive services to steer plays. S*ee supra* ¶ 78; Joint PFFCL ¶¶ 73-76; Shapiro WRT at 15-19; Peterson AWRT ¶¶ 32-35, 67-75; *see also* 8/25/20 Tr. 3715:19-3717:1, 3720:7-3721:16 (Peterson). Notably, SoundExchange does not cite any evidence to suggest that music curation on Spotify-controlled playlists like Discover Weekly is dictated by an intent to steer towards lower-priced content. Nor does SoundExchange cite any empirical analysis or evidence or testimony from a fact witness with personal knowledge to support Mr. Orszag's claims.

82. Disputed in part. The Services dispute the implication that the growth of service-generated playlists evidences an economically significant convergence between

interactive and noninteractive services or a meaningful ability of interactive services to steer plays. S*ee supra* ¶ 78; Joint PFFCL ¶¶ 73-76; Shapiro WRT at 15-19; Peterson AWRT ¶¶ 32-35, 67-75; *see also* 8/25/20 Tr. 3715:19-3717:1, 3720:7-3721:16 (Peterson). Notably, SoundExchange does not cite any evidence to suggest that music curation on Apple Music-generated playlists like Deep Cuts is dictated by an intent to steer towards lower-priced content, nor any empirical analysis or evidence or testimony from a fact witness with personal knowledge to support its claims in paragraph 82.

83. Disputed. SoundExchange's unceasing attempt to conflate listening to playlists with noninteractive, radio-style listening—the former is *not* defined by the latter on interactive services—does not amount to evidence of convergence, or change the fact that interactive and noninteractive services remain fundamentally different with a fundamentally different set of rights required to operate them. *See* Joint PFFCL ¶ 108 (explaining SoundExchange's failure to demonstrate a change or increase in convergence since *Web IV*); *see supra* ¶ 78. As described above, the modest uptick in the usage of playlists on interactive services simply does not have the import SoundExchange ascribes to it, particularly where such playlist listening is in many respects highly interactive and where on-demand listening continues to dominate. *See supra* ¶ 78. Instead of any empirical data or evidence measuring the purported increase in convergence since *Web IV* (found nowhere in SoundExchange's case), SoundExchange offers speculative and anecdotal testimony, including the entirely unsupported claim—lifted from Mr. Orszag's written direct testimony—that "playlists on interactive services and the stations on noninteractive services. . . attempt to achieve the same *goal*. . ." Orszag WDT ¶ 65 (emphasis added). Mr. Orszag's rank conjecture is no replacement for expert analysis supported by admissible factual

evidence.[4] The citation to Aguilar and Waldfogel (2018) does not help SoundExchange: their observation that "[p]laylists are in some ways like radio stations," only reinforces that in other ways, playlists are not like radio stations.

84. Disputed. SoundExchange again offers anecdotal evidence lifted from Mr. Orszag's testimony, despite Mr. Orszag plainly lacking the qualifications and expertise to opine on Pandora and Spotify product features, particularly given the absence of any factual data comparing the usage levels of Spotify's "Stations" app and to the "Pandora-like" stations that SoundExchange claims are similar. Mr. Orszag has also not provided any evidence demonstrating what percentage of Spotify listeners actually download and use the Stations app. As explained above, SoundExchange's failure to proffer empirical support undermines its convergence theory. *See supra* ¶¶ 78, 81-83.

85. Disputed. For the reasons described above, *see supra* ¶¶ 78, 81-84, the anecdotal quote attributed to an anonymous "industry analyst"—which constitutes impermissible hearsay and was pulled from a third-party blog post not included in SoundExchange's exhibit list or offered into evidence[5]—fails to provide meaningful, empirical support for SoundExchange's convergence theory.

86. Disputed. The fact that interactive services engage in downstream price discrimination through bundling and discounted offerings does not demonstrate "convergence"

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[4] The Services note that TX 5450* has not yet been admitted into evidence and remains subject to pending motion practice and objections, including because it constitutes impermissible hearsay. *See* 9/9/20 Tr. 5780:6-23 (housekeeping).

[5] The Participants' ability to use third-party material that is quoted or recited in expert testimony as substantive evidence—*i.e.*, for the truth of the matter asserted—is subject to dispute and was briefed in the Participants' pending pre-hearing evidentiary submissions. Yet even SoundExchange acknowledged that "third-party material that is quoted or recited in expert testimony cannot be admitted just because of its inclusion in written testimony." SoundExchange's Line-by-Line Objections to the Services' Written Testimony (July 2, 2020) at 4. Because the quoted blog post was not included in SoundExchange's exhibit list or offered into evidence, paragraph 85 of SoundExchange's PFFCL plainly constitutes inadmissible hearsay.

in the manner it was deemed meaningful in *Web IV* (*see supra* ¶ 78), nor does it reflect a response to competition from noninteractive services on account of overlapping features (and SoundExchange has made no showing to the contrary). *See* 8/11/20 Tr. 1201:22-1202:11 (Orszag) (conceding that discounted and bundled plans represent a form or price discrimination). It merely reflects an attempt by the interactive services to segment and grow the interactive market. *See* 8/20/20 Tr. 3266:3-15 (Cordes) (identifying price discrimination where a seller uses discounted offerings to segment a market and garner extra profits).

87. Disputed. As described above, the interactive and noninteractive markets remain fundamentally different, and SoundExchange has vastly overstated the degree to which their functionality has converged since *Web IV*.

2. Mr. Orszag Errs in Excluding Discounted Plans From His Benchmark Rate Calculation

i. Mr. Orszag's Benchmark Spotify Rate Does *Not* Reflect Effective Competition

88. Disputed in part. Mr. Orszag's methodology was neither appropriate nor conservative for the reasons discussed in Services' Joint PFFCL (*see* Joint PFFCL §§ II.A-B) and below. *See infra* ¶¶ 93-94, 97.

89. Disputed. For the multitude of reasons discussed in Section II.A.ii of the Services' Joint PFFCL and below, *see infra* Section V(H), Mr. Orszag's assertion that Spotify's rates reflect the forces of effective competition is wrong. The Majors remain must-have complementary oligopolists, and therefore the notion that Spotify possesses market power rivaling, let alone *exceeding* the Majors', is plainly inconsistent with the evidentiary record. *Id.*

90. Disputed. First, though Mr. Orszag attempts to portray the [redacted]% rate paid by [redacted] as uncharacteristically *low* and therefore uniquely reflective of the forces of effective competition, it is actually his computed [redacted]% figure that is artificially and atypically *high,* and

therefore not fairly representative of the interactive market generally. The [redacted]% figure is the product of Mr. Orszag's conscious choice to exclude [redacted]—which together constituted [redacted]% of gross revenues in the benchmark market in 2018—from his calculations. *See* Orszag WDT tbls.4 at 16 & 7 at 40. Mr. Orszag does not explain why the rates paid by a cherry-picked [redacted] of the interactive market [redacted] is an appropriate comparator for his benchmark rate, or, for that matter, why his benchmark rate being lower is, on its own, indicative of effective competition. For the reasons discussed in the Services' Joint PFFCL, [redacted] *See* Joint PFFCL ¶¶ 138-150. Additionally, Mr. Orszag himself also acknowledges that the [redacted]% rate is understated given his exclusion of discounted plans. 8/11/20 Tr. 1216:12-18; *see also* Shapiro WRT at Fig. 1.

In any event, that the Majors have [redacted]. Moreover, as explained in great detail in the Services' Joint PFFCL § II.A.iii.3-4, the [redacted] Mr. Orszag fixates on as the be-all-end-all barometer of effective competition is better explained by numerous other factors wholly unrelated to price competition and entirely consistent with the behavior of complementary oligopolists. *See* Joint PFFCL § II.A.ii.3-4.

91. Disputed in part. As Professor Shapiro testified, there is no seasonality effect associated with effective rates that would impact any of Mr. Orszag's (or Professor Shapiro's) conclusions. *See* 8/20/20 Tr. 3227:9-22 (Shapiro).

ii. Mr. Orszag's Exclusion of Discounted Plans Exacerbates the Flaws in His Approach

92. Not disputed.

93. **Disputed**. As discussed in paragraph 186 of Sirius XM and Pandora's PFFCL, Mr. Orszag has offered no evidence to support SoundExchange's assertion that the target market services "for the most part do not" offer discount plans. SXM-PAN PFFCL ¶ 186. In fact, he conducted no analysis whatsoever of the level of discounting offered by *any* statutory subscription service, and as a result overlooked the fact that certain services, namely Sirius XM (the largest), do in fact offer a wide array of discounted subscription plans. *See* 8/19/20 Tr. 2853:12-13 (Shapiro) (noting the presence of "a lot of discounting" on Sirius XM); *id.* 2956:21-2958:7. In addition, Mr. Orszag's head-scratching observation that Spotify offers more discount plans than *Pandora Plus* is irrelevant, since Pandora Plus is a mid-tier service, *not* a statutory one, and therefore not part of the target market. *Id.* 2852:22-2853:15.

94. **Disputed.** Mr. Orszag has not articulated *why*, as a matter of economic principle, it matters if the levels of discounting (or price discrimination) in the benchmark and target markets are equivalent, why any purported discrepancies require an adjustment, or why the appropriate solution is to model only his cherry-picked, full-priced benchmark plans. Mr. Orszag's conclusory remarks that "it doesn't make much sense" to include discount plans or that "one should be matching the plans" are unsupported by economic theory and of little assistance. As Professor Shapiro explained, because the statutory rate is a single per-play rate that will be paid by *all* services and for *all* plays, an economically sound benchmark would consider the single effective per-play rate paid across the entire benchmark market, discounted plans included (rather than artificially excluded). *See* SXM-PAN PFFCL ¶¶ 184-86; Joint PFFCL §II.B.ii.4; *see also* Shapiro WRT at 29; 8/29/20 Tr. 2852:18-2853:4 (Shapiro); 8/20/20 Tr. 2958:22-2959:6.

95. **Not disputed.**

96. **Not disputed.**

97. Disputed in part. The Services do not dispute that the effective percentage-of-revenue royalty rate for all Spotify subscription plans is higher than for undiscounted plans. However, SoundExchange misrepresents Professor Shapiro's written testimony by suggesting that Mr. Orszag's inflated [redacted] per play rate is somehow *conservative* because it is below the $[redacted] per-play rate shown in Professor Shapiro's figure 4 (row 5) if all plans are included. First, as Professor Shapiro makes abundantly clear in his testimony, the $[redacted] rate (like the other per-play rates in Figure 4) is calculated using Mr. Orszag's flawed percentage-of-revenue benchmarking methodology. Shapiro WRT at 35. The resulting rate will thus not be "conservative" regardless of whether one uses only full-price Spotify plans or all plans from all the interactive services—it will just be wrong. Professor Shapiro is simply illustrating how this mistaken rate changes depending on which services and plans are used.

Second, unlike Mr. Orszag's $0.0033 rate, the $[redacted] rate, in addition to accounting for all subscription plans in the benchmark interactive market, also reflects the impact of including revenue and play figures for all plans (rather than just full-price ones) in Mr. Orszag's *proxy limited interactive market*. In other words, the calculation in that column relies on different revenue and play figures for the proxy mid-tier market than does Mr. Orszag's $0.0033 rate, not just differences between which services and plans are chosen from the *benchmark* market. Moreover, as Professor Shapiro's analysis shows, the effective *per-play* rate paid by Spotify in the benchmark market solely for full-price plans ($[redacted]) is significantly higher than the effective per-play rate paid across all Spotify plans ($[redacted]), meaning cherry-picking the full-priced plans as a benchmark is anything but conservative. Shapiro WRT fig.5 at 37.

3. Mr. Orszag Misunderstands and Fails to Follow the Judges' *Web IV* Ratio Equivalency Methodology

98. Disputed in part. The interactive streaming market is not "comparable to the

noninteractive market in many ways," as SoundExchange asserts. As discussed in paragraph 77 *supra*, those two broad markets were deemed by Congress to be so different as to merit completely different treatment with respect to the licensing of sound recording rights. And as discussed in paragraphs 101, 1131, and 1133 *infra*, the relevant differences are most pronounced when it comes to simulcasters, which are indisputably the least interactive category of webcaster.

99. Disputed in part. Mr. Orszag multiplied his percentage-of-revenue benchmark rate by the gross revenues earned by Pandora Plus, Rhapsody, and Slacker: *i.e.*, three *mid-tier* services that offer interactive functionality unavailable under the statutory license (and for which Mr. Orszag fails to adjust). *See* Joint PFFCL § II.B.ii. It is also misleading to claim that Mr. Orszag multiplied his percentage-of-revenue benchmark rate by the gross revenues earned by "ad-supported streaming services," given that his gross revenues figure is based almost entirely on Pandora's ad-supported revenues, and therefore unrepresentative of ad-supported statutory webcasters generally. *Id.* ¶ 29; *see also, e.g.*, 8/25/20 Tr. 3691:19-3693:11 (Peterson); Peterson AWRT ¶ 44 & fig. 4.

100. Disputed. As described at length in the Services' Joint PFFCL, Mr. Orszag failed to faithfully employ the Judges' *Web IV* ratio equivalency model, notwithstanding his repeated efforts to suggest otherwise. *See* Joint PFFCL § II.A.i.1-2, B.i. First, the quoted *Web IV* language only applies "*if* the elasticities in the downstream market are the same," *Web IV*, 81 Fed. Reg. at 26349 (emphasis added), and Mr. Orzsag has failed to even calculate the elasticity of demand in the subscription interactive and ad-supported statutory markets, much less demonstrate that they are the same.[6] *See* Joint PFFCL ¶ 31; *see also, e.g.*, 8/25/20 3695:22-

[6] Nor has Mr. Orszag established comparable elasticities of demand between different types of noninteractive services. As discussed in NAB PFFCL ¶¶ 106-07, 181-83, the evidence that ratio equivalency does not apply to ad-supported custom radio and simulcast products when it comes to licensing complementary rights in public performances of musical compositions and the survey evidence demonstrating low substitution between simulcasts

3696:13 (Peterson); Peterson AWRT ¶ 38. One cannot simply assume, as Mr. Orszag casually does, "similar own elasticities of demand in the benchmark and target market." Orszag WDT ¶ 74; *see, e.g.*, Peterson AWRT ¶¶ 36-40. Second, the Judges in *Web IV* determined the "ratio of royalty cost to revenue" using the *per-play royalty rate* and the *per-subscriber retail price* in the subscription interactive and noninteractive markets, *not* the *total* royalties paid and *not* the *total* subscription revenues earned that Mr. Orszag relies on. Joint PFFCL ¶¶ 21-24.

In short, in *Web IV*, the Judges did not consider, apply, or in any manner attempt to equate the percentage-of-revenue royalty rate from the benchmark to the target market (they instead equated the per-play rates). *Id.* ¶ 24. Mr. Orszag's attempt to reformulate the Judges' *Web IV* approach more generally and imprecisely as merely equating "the ratio of royalty cost to revenue" in the benchmark and targets markets masks crucial differences between the particular *measures* of royalty cost and revenue that he and the *Web IV* Judges relied on, and is an obvious effort to smuggle in a substantially different methodology under the guise of ratio equivalency. Orszag WDT ¶ 74.

101. Disputed. The Judges in *Web IV* assumed comparable elasticities of demand only for *subscription* interactive and noninteractive services, and only where there was a demonstrated WTP *and* functional convergence in both markets. *See supra* ¶ 78; Joint PFFCL § II.A.i.2. The Judges pointedly refused to make the same assumption as to subscription interactive and ad-supported noninteractive services, a fact that SoundExchange carefully tiptoes around. *See Web IV*, 81 Fed. Reg. at 26345; Joint PFFCL § II.A.i. As described above, Mr. Orszag has not demonstrated (empirically or otherwise) any meaningful increase in convergence

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and custom radio services are strong indicators that the elasticities of demand even within the broader ad-supported non-interactive services market are not comparable. This calls into doubt Mr. Orszag's predicate assumption that ratio equivalency applies between his subscription interactive benchmark and the Services.

since *Web IV*, *see supra* ¶¶ 78, 80-87, and in any case the Judges' *Web IV* assumption cannot apply as between subscription interactive and ad-supported noninteractive services given the absence of a demonstrated comparable WTP among free-tier consumers. *See* Joint PFFCL ¶¶ 32-33.

102. Disputed. Mr. Orszag did not merely shift from headline or contractual rates to an effective rate; he also modified the Judges' *Web IV* ratio equivalency model by relying on a percentage-of-revenue rather than a per-performance rate. *See* Joint PFFCL ¶¶ 22, 24. Professor Shapiro only agreed that it is "reasonable in this proceeding to [] use [an] *effective per performance*" benchmark rate, not an effective percentage-of-revenue one. Shapiro WRT at 25 n.68. Professor Shapiro's reliance on a benchmark effective per-performance rate is far more consistent with the Judges' use of contractual per-performance rates in *Web IV*, and far more logical given that the statutory rate is, by the agreement of all Participants, a per-performance rate. *See* Joint PFFCL ¶¶ 22-24, 44-47, 164.

103. Disputed in part. Here again, SoundExchange glosses over the details to obscure Mr. Orszag's departure from the Judges' *Web IV* ratio equivalency model, where [B] and [D] were the *per-performance* subscription interactive and noninteractive royalty rates (not the *total* paid royalties that Mr. Orszag calculated).

104. Not disputed.

105. Disputed in part. SoundExchange cannot credibly claim that Mr. Orszag solved the Judges' *Web IV* ratio equivalency equation, since that calculation started from the benchmark per-play rate and resulted in a statutory per-performance rate (subject to adjustment for effective competition), while Mr. Orszag's remixed version produces the *total royalties to be paid* by his three proxy mid-tier services during a one-year period (essentially, [redacted]% of their revenues),

which must then be divided by the total plays on those services during the same period to produce a per-play rate (an additional step necessitated by his using total royalties for [B] instead of the *Web IV* per-play metric). *See* Joint PFFCL ¶¶ 163-64. Mr. Orszag's model is therefore highly dependent upon the play count in his proxy (mid-tier) market—a variable which did not enter into the Judges' *Web IV* calculations at all.

106. Not disputed.

107. Disputed in part. For [C] Mr. Orszag used only the total subscription revenue earned by his proxy mid-tier (*i.e.*, non-statutory) services during a one-year period, *not* their play data, which only factored into his subsequent calculation, as described above. *See supra* ¶ 105.

108. Disputed in part. Mr. Orszag's approach is neither intuitive nor economically sound. Mr. Orszag's model is effectively designed to ensure that his target market noninteractive services pay the same percentage-of-revenue rate as his benchmark interactive services (*see* Joint PFFCL ¶ 164), and achieves that result without first (i) establishing the prerequisite conditions of ratio equivalency, as explained in the Services' Joint PFFCL (*see* §§ II.A.i.1-2, II.B.i-ii); or (ii) providing any marketplace evidence suggesting that a [redacted]% percentage-of-revenue rate is applicable to statutory services. It is not.

To start, demand elasticity will vary depending on the tier of service and degree of interactivity, meaning that, per the Lerner Index, there is good reason to believe that the share of revenue paid as royalties should also vary based on tier and interactivity. *See* Joint PFFCL ¶ 43. Further, it is not necessarily correct, as SoundExchange contends, that Mr. Orszag's approach yields lower per-play royalties for the record companies. On the subscription side, the total per-play royalties will depend on the amount of plays on the noninteractive services, while on the ad-supported side the total per-play royalties depends on the advertising revenue the services earn

per user—a flaw discussed below, *see infra* ¶¶ 159, 216, 218—as well as the play counts.

109. Disputed. Mr. Orszag's ratio equivalency results do not and will not result in the benchmark and target *statutory* services paying the same effective royalty as a share of revenue. Instead, Mr. Orszag's results merely reveal the per-play rate that would cause his *proxy mid-tier services* to pay the benchmark [redacted]% percentage-of-revenue rate assuming their precise revenues and play counts for the period from May 2018 to April 2019. *See* Joint PFFCL § II.B.ii.2. As such, the actual target subscription *statutory* services will only pay that same percentage-of-revenue rate if they happen to have the *exact* same average per-user revenue and plays as the proxy mid-tier services. *Id.* ¶¶ 174-76. Mr. Orszag has not shown that will ever be the case, and in fact conceded at the hearing that he never attempted to analyze whether an existing statutory subscription service will ever pay his [redacted]% benchmark rate. *Id.* ¶ 174.

This same issue infects Mr. Orszag's ad-supported benchmark too: because his [redacted]% rate is applied to Pandora—an outlier among ad-supported statutory services with respect to the significant advertising revenue it earns—other statutory webcasters will pay a percentage of revenue vastly higher than [redacted]% unless they produce vastly fewer average per-user plays than Pandora (which Mr. Orszag has not suggested or shown to be the case). *Id.* ¶ 29.; *cf.* Joint PFFCL ¶ 29 (identifying the significantly lower per-play rates that would result if those other webcasters' revenues were used in the Orszag model). Mr. Orszag overlooked and failed to account for the anomalous results reflected by these simple calculations. *Id.* ¶¶ 174-76.

Moreover, the revenue share consistency in license agreements that SoundExchange points to only reflects consistency between interactive and quasi-interactive tiers, and those negotiated rates are subject to the conceded complementary oligopoly of the Majors, not driven by any economic principle requiring that they be similar or the same. *See* Joint PFFCL ¶ 43;

9/3/20 Tr. 5692:6-18 (Harrison) (conceding that interactive-service percentage royalty rates are set to approximate the royalty margins earned on *sales* because such services are a replacement for physical and digital sales). Indeed, as explained by Dr. Peterson, the elasticity of demand theory Mr. Orszag pays lip service to would counsel in favor of charging different rates across different service offerings (*e.g.*, student and family plans) given their different elasticities of demand. *Id.* The fact that rates are consistent across such offerings reflects the complementary oligopoly power of the record companies, which can impose the same rate "without regard for changes in the elasticity of demand that even a monopolist would take into account when setting rates." *Id.* (citing Peterson AWRT ¶ 56).

110. Disputed in part. Professor Shapiro is accurately quoted, but he is not mistaken in his assessment of ratio equivalency or in his critique of Mr. Orszag's steadfast refusal to apply it faithfully, as described above (*see supra* ¶¶ 100-13, 105, 107-109) and below (*see infra* ¶¶ 116, 158-159, 162, 165).

111. Disputed in part. Professor Shapiro agreed as a general matter that starting a benchmark analysis with a per-play rate is not the only sensible or reliable benchmarking approach, but he did not, as SoundExchange's broader discussion in this section implies, agree that other methods would be consistent with the Judges' approaches in *Web IV* and *SDARS III*, or that any *particular* alternative method would be sensible or reliable. *See* 8/19/20 Tr. 2892:23-2893:7 (Shapiro) (testifying that Mr. Orszag's benchmarking approach "departs from what the Judges did in *Web IV*…right out of the box"). Mr. Orszag's method is neither sensible nor reliable. *Id.* 2893:23-2895:25.

112. Disputed. SoundExchange's claimed (albeit unproven) post-*Web IV* shift away from a per-play metric in the benchmark agreements does not justify Mr. Orszag's radical

change in approach from the *Web IV* model, or invalidate Professor Shapiro's adherence to it. *See* SXM-PAN PFFCL § IV.B.i; *supra* ¶¶ 110-114.

Mr. Orszag's justification for that different approach is factually and economically unfounded: he has presented *zero* evidence that the per-play metric was the operative payment metric for interactive services at the time of *Web IV* or, even more important, that the Judges relied on it *because* it was the operative prong under which the interactive services paid at the time. *See* Joint PFFCL § II.A.i.3. *Web IV* makes no such claim, and what evidence we have on the matter suggests that even at the time of *Web IV*, as today, [redacted] *Id.*; *see also* 9/2/20 Tr. 5152:2-5154:6 (Piibe) (explaining that [redacted]).

Moreover, Mr. Orszag's method and proposed rate do not actually reflect the market shift he claims has occurred since *Web IV*. For one thing, Mr. Orszag proposes maintaining a *per-play* rate for statutory webcasters, not a percentage-of-revenue rate. *See* Orszag WDT ¶ 82. If the alleged (albeit unproven) shift from interactive services paying under a per-play metric to a percentage-of-revenue metric really had the market-wide relevance Mr. Orszag claims, one would have expected him to propose a percentage-of-revenue rate for statutory services. He does not.

Instead, Mr. Orszag sticks with a per-play metric for statutory services, but bizarrely reverse-engineers it in an attempt to ensure that the statutory services ultimately pay a total royalty constituting [redacted]% of their revenue. *See* Joint PFFCL § II.B.i. Not only is that "roundabout and unjustified," as noted by Professor Shapiro, but it is hapless as well: for all the reasons the Services have shown, no statutory service will actually pay the benchmark rate unless it by chance has the same revenue and play counts as Mr. Orszag's proxy mid-tier

services (or a variation in revenue and plays in the exact same proportion)—an exceedingly unlikely outcome that Mr. Orszag has failed to investigate, much less demonstrate. *See supra* ¶ 109; Joint PFFCL ¶¶ 174-176.

Nor does Mr. Orszag's approach actually turn on which prong of the greater-of payment formulation triggered the interactive service payments used in his model. Mr. Orszag does not replace the interactive per-play rate in [B] (from *Web IV*) with the interactive percentage-or-revenue royalty and adjust that downward by the relative retail prices of the interactive and noninteractive services. Rather, he inserts *total royalties paid* over a one-year period for [B]—a figure, by his own admission, that is sometimes triggered by the per-subscriber minimum rather than the percentage-of-revenue metric. 8/11/20 Tr. 1379:23-1380:10 (Orszag); *see also* Joint PFFCL § II.B.i.

113. Disputed. As explained in the preceding paragraph, Mr. Orszag has provided no actual evidence or empirical analysis establishing that the percentage-of-revenue metric is operative in the "vast majority" of situations, or that there has actually been a shift since *Web IV*. Indeed, if discounting is as significant in the interactive market as he repeatedly suggests, it is very likely that the *per-subscriber* metric (which he ignores) is frequently the operative metric. (This would appear to be confirmed by the fact that [redacted], *see* Shapiro WRT fig.1 at 23.) In addition, saying "it simply makes no sense" to rely on per-play rates is not an economic argument, it is mere *ipse dixit*. In any event, because (by consensus) the economists are attempting to discern the appropriate *per-play* rate for statutory services, it makes far more sense to determine the *per-play* rate that is paid for interactive services and adjust it downward—as was done in *Web IV*. *See supra* ¶ 112.

Moreover, Mr. Orszag suggests that because the interactive services have shifted to paying under the percentage-of-revenue royalty prong, statutory services should pay that same percentage of revenue. *See supra* ¶ 112. That is wrong on its own terms, but that is not even the result his flawed methodology would yield. Mr. Orszag does not actually propose that the statutory rate be set at [redacted]% of revenue and, as shown at trial, his methodology will result in statutory services paying neither the same percentage-of-revenue as the benchmark services *nor* the same per-play rate (adjusted for interactivity). *Id.* Under Professor Shapiro's method, by contrast, the statutory per-play rate will match the benchmark interactive per-play rate after adjustment for interactivity (and other factors), as was the case in *Web IV*. *See* SXM-PAN PFFCL § IV.B.

114. Disputed. SoundExchange's petty and gratuitous "non-reading" dig at Professor Shapiro does not change the fact that Mr. Orszag has deviated substantially from the Judges' *Web IV* methodology, has failed to demonstrate the preconditions for ratio equivalency required by relevant economic theory, and has fashioned a model that (unlike in *Web IV*) effectively ensures statutory services will *not* pay the same per-play rate (subject to adjustment) as the benchmark interactive services. *See supra* ¶¶ 100-103, 105, 107-114.

115. Not Disputed. To clarify, however, Professor Shapiro continues to use a per-play rate as in *Web IV* (merely substituting an effective per-play for a contractual minimum per-play), while Mr. Orszag engages in a wholesale methodological shift. Moreover, Professor Shapiro's pre-adjustment effective per-play rate ($[redacted]) is also conservative (*i.e.*, significantly higher) as compared to the average minimum contractual per-performance interactive rate Professor Rubinfeld began his benchmarking analysis with in *Web IV*, mitigating the effect of the substitution.

116. Disputed. As detailed in the Services Joint PFFCL (*see* ¶¶ 45-46), there is *zero* indication that the Judges' *SDARS III* decision purported to rewrite, alter or expand the *Web IV* ratio equivalency model. The Judges would have said so if they had meant to, and they did not. More to the point, the referenced *SDARS III* equation (which is not inconsistent with *Web IV*, just more generally stated) was discussed by the Judges in the course of flatly *rejecting* Mr. Orszag's reliance in that proceeding on a manipulated version of ratio equivalency that is essentially identical to what he once *again* espouses here. *SDARS III*, 83 Fed. Reg. 65210, 65244; *see also* Joint PFFCL ¶ 46. In *SDARS III*, as here, Mr. Orszag advocated applying the percentage of revenue paid by the benchmark interactive services to the target market service (Sirius XM). *SDARS III,* 83 Fed. Reg. 65210, 65244. The Judges said "no," and in so doing (i) explained that "Mr. Orszag did not provide either qualitative or quantitative evidence of a sufficiently high cross-elasticity" between the benchmark services and Sirius XM; (ii) observed that survey evidence indicated "no such high substitutability between subscribership to interactive services and to Sirius XM" and thus "negate[d] any complete or overwhelming ratio equivalency Mr. Orszag has posited"; and (iii) concluded that "the record does not provide sufficient evidence to support Mr. Orszag's ratio equivalency approaches to rate-setting in this proceeding." *SDARS III*, 83 Fed. Reg. 65247-48. These same conclusions apply with equal force in this proceeding with respect to Mr. Orszag's benchmark interactive services and the target noninteractive webcasters, as explained below. *See infra* ¶¶ 159, 165-166.

117. Disputed. None of the three calculation formulations listed by SoundExchange match the Judges' *Web IV* ratio equivalency model, where (i) the benchmark royalty payment [B] equaled the interactive services' per-performance royalty rate; (ii) the downstream benchmark revenue [A] equaled the average retail subscription price for interactive services; and

(iii) there was no attempt whatsoever by the Judges to apply the benchmark services' percentage-of-revenue to the target market (or even consider that metric at all). *See* Joint PFFCL ¶¶ 21-24, 162-165. SoundExchange's formulations (and Mr. Orszag's actual methodology) also explicitly rely on the target services' play counts, another metric that did not factor into the Judges' *Web IV* calculations. *Id.* ¶¶ 23, 163.

As such, the *SDARS III* "formulation" cited in SX PFFCL ¶ 116 and the other variants listed by SoundExchange in paragraph 117 only produce an "effective percentage of revenue" if one interprets the numerator and denominator of the ratio equivalency equation in a manner entirely inconsistent with *Web IV*.

118. Disputed. Ad hominem attacks aside, Professor Shapiro's application of ratio equivalency certainly does not turn on the order of his algebraic calculations. The cited page in Professor Shapiro's written rebuttal testimony does not support that fiction, but instead explains the fundamental ways in which Mr. Orszag departs from the Judges' *Web IV* methodology, including by changing inputs and (among other things) introducing target-market play counts into the equation. Shapiro WRT at 25.

119. Disputed. *See supra* ¶ 116, Joint PFFCL ¶¶ 45-46. Moreover, Professor Shapiro made clear during redirect examination that Mr. Orszag did not follow the Judges' *Web IV* ratio equivalency approach, and that the "royalties" term in the *SDARS III* footnote equation in which SoundExchange seeks refuge should be read to mean "per-play rates," as it was understood in *Web IV*. 8/20/20 Tr. 3216:20-3217:15.

120. Disputed in part. Mr. Orszag's failure to consider play intensity in the benchmark market is reflective of more egregious flaws in his methodology: his misguided choice to graft his benchmark percentage-of-revenue rate onto the revenue of his proxy mid-tier

services, and his reliance on the *proxy* services' play counts (rather than the target statutory services' plays) to derive a per-play rate. *See* Joint PFFCL ¶¶ 167-68 (explaining Mr. Orszag's failure to identify play counts on any target subscription statutory services).

121. Disputed in part. Professor Rubinfeld's *Web IV* analysis was not sensitive to the number of plays in the benchmark market (other than insofar as he used plays to calculate a weighted average rate across his benchmark services) because he proposed (and the Judges accepted) starting the analysis from the benchmark services' contractual per-play rates. Shapiro SCWDT at 33 & n.48; 8/20/20 Tr. 3217:22-3218:19 (Shapiro). But Mr. Orszag relies on a benchmark percentage-of-revenue rate, meaning his analysis is in no meaningful way akin to Professor Rubinfeld's analysis or the methodology relied on by the Judges in *Web IV*. Further, Professor Shapiro's use of plays in the benchmark market allows him to calculate a benchmark effective per-play rate, such that, as in *Web IV*, he is able to equate his benchmark per-play rate to a proposed statutory per-play rate (after adjustment). *See* SXM-PAN PFFCL § IV.B. And as Professor Shapiro testified, substituting his benchmark effective per-play rate for the contractual per-play metric used in *Web IV* is reasonable and not economically significant, since both measures reflect the per-play rates record labels are willing to accept for subscription interactive plays. *See* Shapiro SCWDT at 33; Shapiro WRT at 35, n.68. That substitution also was appropriate given that since *Web IV* the majority of interactive services have [redacted] found in their agreements with the Majors. Shapiro SCWDT at 41.

4. Mr. Orszag's Misapplication of Ratio Equivalency Necessitates a Conversion *Back* to a Per-Play Rate

122. Disputed. Mr. Orszag does not divide by the total plays in the target market (which he never attempted to calculate), but instead uses the total plays on his proxy mid-tier

services (which license extra-statutory interactive functionality). *See supra* ¶ 120; Joint PFFCL ¶¶ 167-68.

123-25. Not disputed.

126. Disputed. Mr. Orszag relied on subscription gross revenue from three mid-tier services with interactive functionality, albeit functionality that does not include full on-demand listening. *See supra* ¶ 99.

127. Disputed in part. *See supra* ¶ 126.

128. Not disputed.

C. Professor Shapiro's Benchmark Analysis for Noninteractive Subscription Is Economically Sound and Consistent with the Judges' *Web IV* Approach

1. Professor Shapiro's Benchmark Effective Per-Play Rate Appropriately Encompassed Discounted Plans and Was Appropriately Adjusted for Interactivity

129-32. Not disputed.

133. Disputed in part. The Services do not dispute that the effective per-play rate paid by the benchmark interactive services is lower when all subscription plans are included in the calculation. As Professor Shapiro has made clear, however, it is entirely appropriate to include all plans (including discount ones) in that calculation. *See infra* ¶ 135; SXM-PAN PFFCL § IV.B.i. Further, given the presence of a per-subscriber minimum metric in the "greater-of" formulation found in the benchmark agreements, there is no evidence that the lower per-user revenue earned by services on discount plans actually causes a lower effective per-play rate on those plans (*i.e.*, the per-sub metric may prevail in light of the lower revenue). *See* SX PFFCL ¶ 102 (explaining that "most if not all" of the benchmark agreements contain the "greater-of" rate calculation formula).

134. Not disputed.

135. Disputed in part. As Professor Shapiro explained at length, it was entirely appropriate to include discount plans in his benchmark rate calculation. Because the fundamental objective in this proceeding is to set an across-the-market statutory rate that will apply to *all* subscribers regardless of their chosen plan, the appropriate benchmark is an effective per-performance rate that reflects what is charged by the Majors across *all* subscribers in the benchmark market, not Mr. Orszag's cherry-picked subset of that market (which pays the highest non-discounted rates). As such, it is simply of no consequence to the benchmarking analysis that interactive services use discount offerings as a form of downstream price discrimination. 8/19/20 Tr. 2852:5-17, 2853:2-4, 2898:18-2899:10 (Shapiro) ("You shouldn't pick any subset. You should pick them all, so you can figure out the value of the music in the benchmark market."); SXM-PAN PFFCL § IV.B.i.

As Professor Shapiro further explained, that "include all plans" logic does *not* apply to the "A" and "C" inputs in his model. The subscription monthly list prices he uses for "A" and "C" are proxies for the relative value of interactivity offered by those services, and—because they are undiscounted—allow for a clean comparison of that value free from any confounding variables introduced by bundling, price discrimination, and the like. SXM-PAN PFFCL ¶¶ 190-193. Because discounts associated with multiple users (family plans) or other unique user characteristics (*e.g.*, student or military status) may cause price variation for plans offering the same level of interactivity, including such plans would *distort* the analysis. *Id.* ¶ 190.

What matters, then, is that "A" and "C" are similarly calculated (they are), *not* that "A" and "C" encompass the same range of plans as "B" and "D." *Id.* ¶ 192*;* 8/26/20 Tr. 3932:14-23 (Shapiro) ("We're trying to . . . adduce two separate things. One is the value of interactivity, that's $9.99 versus $4.99, nicely isolated for particular individual undiscounted plans. The

separate issue is what is the effective rate that the record companies get for their music in the benchmark market. And that is for all plans. So there's no inconsistency. I stand by both approaches and they're consistent."). Mr. Orszag's glib criticism of Professor Shapiro's exclusion of discount plans from his price comparison—raised for the first time at trial, entirely absent from his written testimony, and unsupported by actual empirical analysis—falls apart upon inspection. *See* SXM-PAN PFFCL ¶ 191.

136. Disputed. *See supra* ¶ 135. The subscription list prices Professor Shapiro relies on do reflect prices that consumers "actually pay." ARPU, on the other hand, is an average-based metric that encompasses an amalgam of plan types and differently defined users, *i.e.*, factors that have absolutely nothing to do with interactivity. *See* SXM-PAN PFFCL ¶ 193.

137. Disputed. *See supra* ¶¶ 135-136.

138. Disputed. As explained above, Mr. Orszag's fixation on the relative levels of discounting in the benchmark and target markets is misplaced, given the essential need for the benchmark rate—like the actual statutory rate—to be one that reflects the rates charged across the entire market, not an artificially chosen subset. *See supra* ¶ 135. Mr. Orszag also derives no support from the fact that the benchmark interactive services offer more discounting than Pandora Plus, which is not even a statutory service. *See supra* ¶ 93; SXM-PAN PFFCL ¶ 186. And, while SoundExchange offers broad representations regarding the relative level of discounting on interactive and statutory services (curiously presented in terms of plays rather than subscribers subject to discount), Mr. Orszag has conceded that he attempted no analysis of the level of discounting offered by *any* statutory subscription service. *See supra* ¶ 93.

Further, as Professor Shapiro testified, even if one adopts SoundExchange's favored ARPU-comparison approach—and thus accounts for downstream price discrimination in the

benchmark market—the evidence shows that Professor Shapiro's 2:1 adjustment factor is, if anything, understated. SXM-PAN PFFCL ¶ 194. A Fiscal Year 2018 comparison of the monthly ARPU for Pandora Premium ($[redacted]) and Pandora Plus ($[redacted]) reflects an adjustment ratio of [redacted]. 8/19/20 Tr. 2853:16-2854:20, 2855:18-2856:14 (Shapiro). This is the best ARPU-based adjustment available in the record (especially since SoundExchange offers no such evidence whatsoever). SXM-PAN PFFCL ¶ 191. As Professor Shapiro testified, comparing ARPU levels for a single service offering both fully interactive and noninteractive subscription plans allows one to avoid the type of inconsistencies referenced above concerning how different services address discounting and count family-plan users. 8/19/20 Tr. 2853:16-2854:4; *supra* ¶ 135. Mr. Orszag's proposed alternative—comparing ARPU across numerous benchmark and target services—would invite those very same inconsistencies, and detract from the interactivity comparison. *See supra* ¶ 135.

Finally, by citing to the share of discount and promotional plays on the benchmark non-statutory mid-tier services (for which he offers no comparison to statutory services), Mr. Orszag only draws attention to the inconsistencies in discount-plan usage that ultimately counsel *in favor* of using just full-price plans to calculate a clean interactivity adjustment.

139. Disputed in part. Even if true, a decline in ARPU in the interactive market over time—absent an apples-to-apples statutory comparison point over the same period—does not provide any reason to depart from Professor Shapiro's methodology, especially if that decline is, as suggested, driven by family plan variations. As described above, Professor Shapiro has provided an actual and simple comparison—of the subscription list prices for undiscounted interactive and noninteractive plans—that serves as an appropriate basis for an interactivity adjustment. *See supra* ¶ 135. Professor Shapiro's analysis of an interactivity adjustment isolates

the value of interactivity; SoundExchange's criticisms of Professor Shapiro's approach are no more than attempts to diminish the value of interactivity by introducing the effects of factors other than interactivity into the analysis. *See supra* ¶ 135; SXM-PAN PFFCL ¶¶ 190-193.

140. Disputed in part (including n.5). As described above, in 2018, when the ARPU for Pandora Plus was $[redacted], the ARPU for Pandora's Premium tier was $[redacted]. *See supra* ¶ 138. SoundExchange's comparison of the ARPU for Pandora Plus and Spotify is far less direct and reliable given that factors unrelated to interactivity, including [redacted], are primary contributors to Spotify's [redacted] ARPU (as the cited testimony from [redacted] makes clear). Further, SoundExchange's footnote 5—which vaguely references how "record companies calculate ARPU"—glosses over the fact that relying on ARPU requires assessing how numerous interactive services factor family plan users into ARPU calculations under their various direct license agreements. As Professor Shapiro testified, there is no uniform method employed by the various services for making that calculation, and SoundExchange has provided no evidence to the contrary. 8/19/20 Tr. 2943:7-2944:1 (Shapiro); *see also* 8/11/20 Tr. 1199:14-1200:20 (Orszag) (conceding that "there are some differences between how [the Majors]" account for family plans in their ARPU calculations).

The Services must also address SoundExchange's brazen procedural impropriety. SoundExchange's PFFCL offers, for the first time in this proceeding, ARPU calculations that were *not* presented in SoundExchange's written testimony, in the course of discovery, or at the hearing (during either the direct *or* rebuttal phases of expert testimony). Neither Mr. Orszag nor any other SoundExchange witness presented any empirical analysis of this sort (and Mr. Orszag was shut down from belatedly offering new ARPU analysis at the hearing). *See* 8/25/20 Tr. 3821:21-3828:16 (Orszag) (sustaining the Services' objections to Mr. Orszag's presentation of

ARPU calculations that constituted "new analysis"). That task cannot now fall to SoundExchange's *counsel* simply because SoundExchange missed the boat at every prior turn, and given the absence of opportunity for the Services' experts to respond.

To that point, the $[redacted] Spotify ARPU figure that SoundExchange takes from Dr. Leonard's "sources" is nowhere in Dr. Leonard's testimony itself, and is actually improper hearsay pulled from a Rolling Stone article (cited in a footnote) that is not in evidence and was never included on the Participants' Joint Exhibit List.[7] Similarly, the WMG and Sony "service-level" ARPU calculations described in paragraph 140 have *never* been presented before. The impropriety of these calculations is underscored by their very obvious lack of reliability. For example, it is entirely unclear from Ms. Adadevoh's testimony how WMG's 2018 ARPU figure was calculated, whether it matches the revenue definitions in Warner's Spotify agreement, etc., and SoundExchange offers no explanation. Additionally, the [redacted]% rate SoundExchange applies in backing out its ARPU figures from WMG data appears to be a rate paid by Spotify across *all* record companies, not just WMG. SoundExchange's new, improper, and unreliable ARPU evidence is inadmissible and should be ignored.

141. Disputed. *See supra* ¶¶ 135-40.

2. Professor Shapiro Appropriately Adjusted for the Interactive Functionality Offered by the Subscription Mid-Tier Services

142. Not disputed.

143. Not disputed. However, Professor Shapiro's calculated effective royalty rate for mid-tier subscription services ($[redacted]) is based on royalty payment data from Pandora Plus *and*

[7] As the Services explained in their pre-hearing evidentiary submissions (which anticipated this issue), it is improper for SoundExchange to rely on hearsay from third-party articles cited in written testimony when such articles were never even offered into evidence. *See supra* ¶ 85 n.5.

Slacker LiveXLive Radio Plus. Shapiro SCWDT App. D at 65.

144. Disputed. The ultimate question to be answered is not "whether the additional functionality obtained by Pandora under its direct licenses has value in the downstream market," *i.e.*, whether there is consumer willingness to pay, as SoundExchange suggests. That is at best an indirect way of getting at the question of true economic significance: whether willing sellers (record companies) charge willing buyers (digital music services) higher royalty rates in exchange for the right to license valuable mid-tier functionality unavailable under the statutory license. *See* SXM-PAN PFFCL ¶ 197. And Professor Shapiro presented direct evidence of that: mid-tier services do in fact pay a [redacted] for the right to offer extra-statutory interactivity reflecting the enhanced value of those rights (and the opportunity cost of licensing more interactive streams), which must be accounted for via adjustment. *See* SXM-PAN PFFCL ¶¶ 195, 197; Shapiro SCWDT at 39. As Professor Shapiro explained, that adjustment can be readily calculated by comparing the effective per-performance royalty rate paid by mid-tier subscription services offering limited interactivity ($.[redacted]) and the statutory rate paid by noninteractive services ($.0023), which results in an adjustment factor of [redacted] ($ [redacted]/.0023). *See* SXM-PFFCL ¶ 197.

Because the benchmarking analysis seeks to identify the value of rights licensed in the *upstream* market, the *upstream* per-performance royalty rates Professor Shapiro relies on serve as the most direct measure upon which to base his second interactivity adjustment, and obviate the need to rely on downstream subscription retail rates as an indirect proxy. *See* SXM-PAN PFFCL ¶ 197; 8/19/20 Tr. 2830:22-2831:6, 2832:1-18 (Shapiro) ("I view this second step [interactivity] adjustment as having better pedigree because it's a direct measure at the [upstream] level that we're trying to set the rates"). Moreover, an examination of prices and

sales in the downstream market—*i.e.*, SoundExchange's preferred (though far less direct) measure—demonstrates that mid-tier functionality has increased value in the eyes of consumers as well, as discussed *infra* ¶¶ 146, 148, 154.

145. Disputed in part. Professor Shapiro's testimony that the services' willingness to pay for interactive functionality in the upstream market is derived from the consumers' willingness to pay in the downstream market does not constitute a "concession." That basic fact does not mean that one must resort to a comparison of downstream metrics (such as consumer WTP) when a more direct measure of the relative value (and opportunity cost) of mid-tier interactivity in the actual *upstream licensing market being examined* is readily available. *See supra* ¶ 144. While subscribers' willingness to pay for a service is theoretically an acceptable proxy to ascertain the value of the underlying rights being licensed (through the concept of derived demand), it is neither the necessary nor the superior measure when more direct, upstream evidence exists. For that reason, SoundExchange's futile attempt to determine how much relative value Pandora Plus interactive features have in the *downstream* market—discussed in paragraphs 146-155 below—is a shot at the wrong target.

146. Disputed in part. The mere fact that Pandora One, a now defunct statutory service, had the same $4.99 list price as Pandora Plus, the current mid-tier offering, does not mean that the extra-statutory rights licensed for the Plus service do not have greater market value. *See* SXM-PAN PFFCL ¶¶ 199-203. First, the stable $4.99 price may simply reflect the notorious "stickiness" in subscription list prices, a distinct possibility acknowledged by Mr. Orszag himself. *See* Shapiro WRT at 33-34; Orszag WDT ¶ 179 & n.246. Pandora's Mr. Ryan testified that [redacted]

[redacted]. *See* 8/31/20 Tr. 4730:16-4731:1 (Ryan); SXM-PAN PFFCL ¶ 199.

More fundamentally, as a matter of basic economics, a demand curve reflects not only price, but combinations of price *and* quantity. *See* 8/19/20 Tr. 2835:2-18; 2839:8-2842:6; 2844: 2-13; 2960:13-21 (Shapiro). An increase in the value of a service will therefore shift out the demand curve, causing consumers to demand a greater amount of the services' offerings *at the same price*. *Id.* Thus, a company may strategically choose to keep its price the same, even with an enhanced product, in order to increase the volume of sales or defend against a loss of sales—either of which would indicate that the service enhancements were valuable even absent a price change. *Id.*

The evidentiary record affirmatively supports the notion that Pandora's strategic choice to license extra-statutory functionality at a [redacted] was clearly understood as a way to drive revenue and subscriber growth. *See* SXM-PAN PFFCL ¶ 200. As Mr. Phillips testified, because Pandora was [redacted], it sought to boost subscribership ([redacted]) by introducing valuable new interactive features ([redacted] for them), rather than by lowering the statutory product list price. Phillips WDT ¶¶ 18-23. Indeed, the data show that subscriptions and revenues did in fact increase after the introduction of Pandora Plus.[8]

Moreover, as Professor Shapiro cautioned, one cannot simply assume that the price for Pandora's subscription service would have remained at $4.99 had Pandora not licensed the Plus

[8] In 2016, the year Pandora Plus was introduced, the number of subscribers to Pandora's subscription service (previously Pandora One) grew by [redacted]%. TX 4012 [redacted]) at 3. [redacted]). *Id.* As demonstrated by TX 4012, Non-GAAP Subscription Revenue from Pandora Plus also grew during this time: by [redacted].

functionality. *See* 8/19/20 Tr. 2960:22-2961:13 (Shapiro) ("[redacted]"); SXM-PAN PFFCL ¶ 201. While that factual scenario is necessarily hypothetical—Pandora did take the license for Plus features—the economic point nonetheless remains true: it is incorrect to compare the $4.99 price for Pandora Plus to the price paid for Pandora One *before* the enhancements. The proper comparison would be to what the price (and sales) would have been during the same period *without* the added interactive functionality, an analysis Mr. Orszag did not perform. *See* 8/19/20 Tr. 2961:24-2961:4 (Shapiro). In fact, Mr. Orszag actually states that he "*assume[s]* that the modest additional functionality received by Pandora, iHeart, and Rhapsody from their direct licenses *has some value to the services and their users*." (emphasis added). Orszag WDT ¶ 179. Therefore, his undue fixation on the price consistency of Pandora One and Pandora Plus (and the corresponding suggestion that mid-tier functionality has no value) is by his own admission a red herring.

Pandora's "recent analysis" of reverting to a statutory service (also mentioned in this paragraph) is addressed more fully *infra* ¶¶ 152-155. However, the same general principle articulated above applies to the DMCA Analysis [redacted]: examining price without due consideration for consumer demand and relative value leads to an unreliable analysis. Indeed, the [redacted]. *See* TX 5321 at 7.

147. Disputed in part. *See supra* ¶ 146.

148. Disputed. First, SoundExchange's interpretation of Professor Shapiro's testimony is conceptually backwards. Professor Shapiro did not testify that increased functionality resulted from increased demand; his testimony was instead that increased functionality could have *caused* increased demand. 8/19/20 Tr. 2962:2-4 (Shapiro). Regardless, that Professor Shapiro did not specifically measure that increase is beside the point. It does not matter whether Pandora's strategy ultimately turned out to be correct (in that the increased functionality worked to attract more subscribers).[9] The relevant fact is that Pandora, a willing buyer, determined that it was in its business interest to pay the [redacted] demanded by record companies, *i.e.*, the willing sellers, in exchange for the rights to offer increased functionality on its mid-tier product. The perceived value of that functionality was directly expressed in the difference in royalties paid for its mid-tier and statutory services. *See supra* ¶ 144. What is more, as Professor Shapiro testified, when examining license agreements, what is sensible is to examine what motivated the parties at the time they entered into the agreement, not to engage in *ex post* second-guessing of whether the agreement turned out to have been the right decision, which necessarily would be shaped by factors the parties were not aware of and could not have anticipated at the time the deal was entered into. *See* 8/19/20 Tr. 2843:1-6 (Shapiro); SXM-PAN PFFCL ¶ 202 & n.24.

149. Disputed. The play count on Pandora Plus (and revenue per play) matters *not* as a general economic principle, but only because it is (as we see here) an input in Mr. Orszag's flawed rate-setting model. *See* SXM-PAN PFFCL ¶ 202-203. Mr. Orszag's method requires that he convert his total royalty figure ([redacted]% of the revenue of his proxy mid-tier services) into a per-play metric by dividing by the number of plays on the mid-tier services, including Pandora

[9] As earlier noted, however, the introduction of Pandora Plus *did* result in increased subscriber counts and revenue. *See supra* ¶ 146 n.8.

Plus; but that just demonstrates why no *statutory* service would, at those rates, actually end up paying the benchmark percentage of revenue rate driving his model ([redacted]%) unless its ratio of revenues to per-subscriber plays happens fortuitously to match the mid-tier service average. *See* Services' Joint PFFCL ¶¶ 173-175.

That said, the sensitivity of Mr. Orszag's model to changing per-play revenues does not in any way demonstrate that the Plus functionality was only valuable to Pandora (and that Professor Shapiro's interactivity adjustment is only warranted) if it increased revenue *per play*. Pandora Plus is sold on a *subscription* basis, meaning that users can listen as much or as little as they want for their $4.99 and generate equivalent revenue. And the perverse implication of Mr. Orszag's position is that increased listening by Plus subscribers would reflect *lower* value for that product (because revenue-per-play would accordingly drop) and they would have to listen *less* (driving up revenue per-play) to demonstrate an *increase* in value. That is nonsensical. In any event, because the additional value that Pandora Plus provides to Pandora results from the volume of *subscriptions*, *not* plays, Mr. Orszag's model is inconsonant with reality. *See* SXM-PAN PFFCL ¶ 203.

Further, even if Plus subscribers paid the same price and listened the same average amount as they would to a statutory service, it could still be valuable to Pandora to pay for the extra functionality if doing so allowed Pandora to sell more subscriptions than it could sell without the added functionality (assuming that the marginal sales revenue would outweigh the higher royalty cost). 8/19/20 Tr. 2841:20-2842:6 (Shapiro). As Mr. Phillips' testimony makes clear, that result is precisely what Pandora intended when it agreed to pay [redacted] for mid-tier functionality.[10] *See* Phillips WDT ¶¶ 18-23; 8/19/20 Tr. 2842:1-5 (Shapiro). Mr. Ryan

[10] As noted *supra* ¶ 148, whether Pandora decision-makers' hopes for the Plus service were ultimately realized are irrelevant. The proper analysis assumes that decision-makers are rational, self-interested profit-maximizers with

concurred. *See* 8/31/20 4712:7-15 (Ryan) (noting that extra-statutory features on Plus have benefits to Pandora, including driving more subscribers and creating a margin impact).

150. Not disputed.

151. Disputed. Assuming this refers to the so-called "DMCA Analysis," the actual scope and context of that analysis is detailed *infra* ¶¶ 152-155. Notably, Pandora *did not* conduct an analysis of revenue per-play on service tiers with varying functionality, much less analyze whether or how per-play revenue would impact the "proposed target rates here." It is Mr. Orszag—not Pandora—who erroneously injects per-play revenues into the equation.

152. Disputed in part. SoundExchange's interpretation of Pandora's DMCA Analysis is refuted more fully *infra* ¶ 154. However, a few preliminary observations are appropriate here. First, when asked whether Pandora tried in its DMCA Analysis to determine the value of the incremental rights licensed for Pandora Plus, Mr. Ryan testified [redacted]." 8/31/20 Tr. 4713:21-4714:6 (Ryan). Moreover, Mr. Ryan said that the value of mid-tier functionality is "difficult to determine," not "difficult to quantify" as SoundExchange incorrectly claims. *Id.* 4715:15-20.

Last, SoundExchange inexplicably shifts its focus here from per-play metrics (which it has heretofore claimed as the only meaningful measure of value) to *per-subscriber* metrics. For the reasons noted *supra* ¶ 149, the fact that Pandora may earn a lower *margin* on a per-subscriber basis does not at all establish that the Plus functionality is not valuable, particularly if it increases

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legitimate motivations. Engaging in a post-hoc analysis of the success of particular business decisions is necessarily marred by the benefit of hindsight and not an exercise the Judges have indulged in in prior CRB proceedings (or that SoundExchange invites here as to its preferred benchmarks).

subscription levels enough to result in higher total profitability (which it did). *See* Phillips WDT ¶¶ 18-23; 8/19/20 Tr. 2842:1-5 (Shapiro); 8/31/20 4712:7-15, 4715:15-20 (Ryan).

153. Disputed in part. The cited footnote from Professor Shapiro's written rebuttal testimony is merely Professor Shapiro's abbreviated response to Mr. Orszag's general point that the stable $4.99 list price is evidence that mid-tier functionality lacks value. It should not be construed as his own empirical analysis of Pandora's actual revenue-per-play. More specifically, the cited footnote reflects Professor Shapiro's theory, articulated and explained at length *supra* ¶¶ 146-49, that selling higher quantities of a given service or product at the same price *can* reflect an increase in value (because price and quantity are inextricably linked).

Furthermore, there is no indication that Professor Shapiro reviewed Pandora's DMCA Analysis before the submission of his rebuttal testimony. Even if he had, [redacted]. *See* TX 5321. Calculating revenue per-play using the DMCA Analysis [redacted], as discussed *infra* ¶ 154.

154. Disputed. First, SoundExchange's paragraph is replete with novel and inappropriate post-filing economic analysis that is nowhere to be found in SoundExchange's written testimony. Such analysis is particularly egregious given that the DMCA Analysis was available to Mr. Orszag well before the submission of his written testimony; he could have considered and addressed it there, but he did not. Indeed, it was cited in Professor Tucker's written testimony and so plainly available to Mr. Orszag as well. *See* Tucker WRT ¶ 98 n. 190. SoundExchange seeks here to smuggle post-trial calculations performed by *SoundExchange's counsel* into the record last-minute, completely depriving Professor Shapiro of the opportunity to either review or respond. Such calculations should be disregarded completely.

SoundExchange's procedural impropriety aside, its new analysis is also substantively undependable. As Mr. Ryan testified, the DMCA Analysis is [redacted]. *See* 8/31/20 Tr. 4731:25- 4732:7 (Ryan) ([redacted]"). Instead, it was merely [redacted]. *See* 8/31/20 Tr. 4713:25-4714:6; 4729:23-25 (Ryan). As Mr. Ryan testified to at length, [redacted]. *See id.* 4729:10-4732:7.

Mr. Ryan noted that [redacted]" *Id.* 4729:17-22. He further explained that [redacted]), *id.* 4730:1-15. Mr. Ryan also clarified that [redacted]," not to any principled statement of value, *id.* 4730:16-19, with "[redacted]

[redacted]," *id.* 4731:2-5, [redacted], *id.* 4731:20-24.

In any event, the DMCA Analysis projects a [redacted]. TX 5321 at 3. Therefore, [redacted]—nothing more than that. Moreover, as explained above, the DMCA analysis reflects the effects [redacted], and is therefore not even an apples-to-apples comparison of the financial benefits of Pandora Plus versus a statutory service.

Finally, even if the DMCA Analysis were to be taken at face value, *i.e.*, as an endorsement of the assumptions it makes, [redacted]. TX 5321 at 7. In other words, it actually shows [redacted].

155. Disputed in part. SoundExchange offers only speculation as to what Pandora "*may* have expected" the impact of licensing Pandora Plus to be on other tiers of service, how any such assumptions informed the negotiated Plus rates, or what Pandora "may" do going forward. Further, as Professor Shapiro testified, *all* the benchmark agreements in this proceeding—including those relied on by SoundExchange—cover various offerings, but the rates for particular tiers (such as Spotify's subscription tier) have nonetheless been relied on. *See* 8/29/20 Tr. 2836:4-2837:9 (explaining that the bundling issue is "an endemic problem to the

whole benchmarking exercise…both Mr. Orszag and I are taking the view that we're generally going to live with that and look at the rates that we're using [as] benchmarks.").

Sirius XM and Pandora's response to SoundExchange's assertion that there is a lack of credible evidence demonstrating the value of extra-statutory functionality is found *supra* ¶¶ 144-149, and ¶¶ 151-154. The legitimate reasons for Professor Shapiro's use of Pandora Plus as his proxy for calculating the margins on a subscription service are addressed *infra* ¶ 651 (*see also* SXM-PAN PFFCL ¶ 152), and is actually quite conservative (in SoundExchange's favor) as it tends to overstate webcaster willingness to pay.

156. Disputed. SoundExchange's statutory-rate argument is meritless. Shapiro SCWDT at 39. As explained in SXM-PAN PFFCL ¶ 205, the adjustment reflects a measure of the precise amount *above* the statutory rate that market participants freely negotiated and paid in exchange for the right to license valuable extra-statutory functionality. The criticism that $.0023 is "potentially too low" and therefore results in an inflated adjustment factor is particularly inapt given that it is the rate the Judges themselves found to be reflective of effective competition under the willing buyer/willing seller standard. *See* Joint PFFCL § I. What is more, if the statutory rate were higher, the $.[redacted] rate would also be higher, since it is the *relative* value of *extra*-statutory functionality—*i.e.*, the difference between the two—that Professor Shapiro measures. 8/19/20 Tr. 2856:17-2857:22 (Shapiro) (testifying that his "[adjustment] ratio would still be a good measure of the relative value" of interactivity even if the statutory rate was not appropriately set).

D. Mr. Orszag's Benchmark Analysis for Noninteractive Ad-Supported Services is Inconsistent with *Web IV*, Methodologically Flawed, and Riddled With Errors

1. Mr. Orszag's Reliance on Subscription Interactive Services as a Benchmark Dooms His Analysis From the Start

157. Not disputed.

158. Disputed. Mr. Orszag's substitution of the advertising revenue earned by noninteractive services into the *Web IV* ratio equivalency equation does not "address the Judges' concerns" from *Web IV*, or come anywhere close to doing so. The Services addressed this contention head on and in depth in their Joint PFFCL, pointing out in Section II.A.i that Mr. Orszag (i) failed to actually follow the *Web IV* ratio equivalency model (Joint PFFCL ¶¶ 21-24); (ii) failed to demonstrate why the percentage-of-revenue royalty rate applicable to *subscription* interactive services is an appropriate benchmark for *ad-supported* noninteractive services given the different ways they generate revenue (advertising vs. consumer subscription payments) (*Id.* ¶¶ 26-29, 43); (iii) failed to demonstrate comparable demand elasticities between the two categories of services as required by *Web IV* (or compute demand elasticities at all) (*Id.* ¶¶ 30-31, 42); (iv) failed to demonstrate comparable willingness to pay as the between the two categories of services (or show a change in comparability since *Web IV*) (*Id.* ¶¶ 32-33); (v) failed to demonstrate a 1:1 opportunity cost between the two categories of service (*Id.* ¶¶ 34-39); and (vi) failed to salvage these shortcomings by inserting Spotify's free tier rates into the analysis (*Id.* ¶¶ 40-42). To avoid duplication, the Services refer the Judges to that discussion, which fully responds to paragraphs 158-169 of SoundExchange's brief and need not be restated in full here. The Services do, however, reiterate certain key points in the next several paragraphs.

Further, the Services dispute that the evidence in this proceeding reveals greater substitution now between ad-supported noninteractive and subscription interactive services than

existed at the time of *Web IV*—Mr. Orszag has made no such showing. This too was addressed at length in the section of the Services' Joint PFFCL referenced above (*see* ¶¶ 32-39) and is further discussed below in response to paragraphs 162-165 of SoundExchange's PFFCL.

159. Disputed in part. The following comprehensive summary, as well as Section II.A.i of the Services' Joint PFFCL, responds to SoundExchange paragraphs 159-166. To summarize, there are at least two reasons one cannot substitute noninteractive ad revenue for subscription revenue to address the Judges' *Web IV* concerns: (1) there are simply too many differences between payments by *advertisers* for the attention of listeners on a noninteractive service and payments by *users* to hear music on-demand and without ads to compare the services' willingness to pay, much less to conclude it is somehow comparable; and (2) even if tolerance for ads constitutes some form of "payment" for noninteractive listening, that alone falls woefully short of what is required to demonstrate ratio equivalence as between the two broad categories of services. *See* Shapiro WRT at 38-40 (*citing Web IV*, 81 Fed. Reg. at 26349); Peterson AWRT ¶¶ 36-40 (citing *Web IV*, 81 Fed. Reg. at 26353).

Starting with (1), Mr. Orszag has failed to demonstrate how users' willingness to listen to ads translates into dollars—*e.g.*, how much (if anything) users who listen to ads would pay to hear noninteractive music streaming if they actually had to pay rather than listen to ads. What we do know is that the amount such users would pay (if any) must be *less* than the subscription price of an on-demand service: as Dr. Leonard explained, "While it is true that users of ad-supported services 'pay' with the time spent with ads, they had the choice to pay for a subscription service and avoid ads. Thus, by revealed preference, their WTP to avoid ads (and by implication their WTP for more music in place of ads) is less than that of subscribers to paid services." Leonard CWRT ¶ 54; *see also* Peterson AWRT ¶¶38, 40.

Nor has Mr. Orszag provided reason to assume (as he does in his model) that the amount *advertisers* pay to show ads to noninteractive listeners is a proxy for what those listeners would pay for noninteractive music streaming if they had to pay rather than listen to ads. As Dr. Peterson testified, advertiser WTP for *listener attention* may be completely unrelated to listeners' WTP for *music*, and thus is not a basis to assert that ad-supported services, whose listeners are clearly price sensitive, have an elasticity of demand that is comparable to subscription services. *See* Peterson AWRT ¶ 38; *see also* 8/25/20 Tr. 3702:25-3703:16 (Peterson) (noting that the revenue earned by advertising-supported services depends on advertisers' willingness to pay and the ability of the services to attract them, which may be completely unrelated to listeners' willingness to pay for music). Indeed, as the Services explained in paragraph 27 of their Joint PFFCL, advertising revenue earned by a free service is determined primarily by the service's *own investment and skill* in building an advertising platform that will attract advertiser dollars. *See* 8/20/20 Tr. 3248:13-24 (Shapiro). Pandora in particular has invested heavily in building its advertising platform, and it now enjoys significantly higher rates and greater advertising revenue than other free noninteractive streaming services as a result. SXM-PAN PFFCL ¶¶ 236-237; *see also* Peterson AWRT ¶ 45.

By contrast, there is no evidence that advertiser payments will reflect or vary with the particular level of *interactivity* offered by a service, as is assumed when ratio equivalence is applied between subscriber payments for interactive and noninteractive services in the subscription benchmark context. *See* Joint PFFCL ¶¶ 26-27. Dr. Leonard testified that "the relationship between revenue generation and interactivity is substantially different for ad-supported than for subscription services." Leonard CWRT ¶ 54. He also pointed out that advertisers "have no reason to prefer advertising on a service with greater interactivity," and that

the record of this proceeding reveals no greater willingness to pay on the part of advertisers for impressions on interactive versus noninteractive services. *Id*.

Turning to point (2), even if tolerance of ads constitutes some form of "payment" for noninteractive listening, that willingness to pay falls well short of demonstrating the necessary conditions for applying ratio equivalency as between ad-supported noninteractive and subscription interactive services. SoundExchange's failing in *Web IV* was not simply that ad-supported users had *no* willingness to pay (such that it can be remedied simply by showing users will "pay" by listening to ads); it was that the willingness to pay was *not the same* (net of interactivity). *Web IV*, 81 Fed. Reg. at 26345 ("The ratio equivalency approach assumes that listeners who willingly pay for a subscription to a service have a WTP **equal to** the WTP of those who use ad-supported (free-to-the-listener) services." (emphasis added)). *See* Joint PFFCL ¶¶ 32-33. No comparable willingness to pay was shown in *Web IV*, and Mr. Orszag concedes here that consumers of advertising-supported and subscription services have a *different* willingness to pay. *See* 8/12/20 Tr. 1548:7-13 (Orszag).

Moreover, as explained in paragraphs 30-32 and 37 of the Services' Joint PFFCL, the Judges in *Web IV* required a demonstration of **comparable demand elasticities**. *Web IV*, 81 Fed. Reg. at 26349. As the Services have demonstrated, Mr. Orszag does not even *attempt to calculate* elasticity of demand for advertising-supported noninteractive services, for *advertisers* on advertising-supported noninteractive services, or for the subscription interactive market—much less to demonstrate any degree of comparability among the three. *See* Joint PFFCL ¶¶ 30-31. Likewise, Mr. Orszag neglected to analyze consumers' demand elasticity with regard to ad loads, despite hinging his new approach on the fact that consumer willingness to watch advertisements is how they "pay" for listening to a non-subscription service. *Id.*

In addition, Mr. Orszag conceded at trial that he has *not* demonstrated the 1:1 opportunity cost also required by *Web IV*: *i.e.*, that a dollar spent by an advertiser on an ad-supported noninteractive service would otherwise be spent on a subscription to an interactive service, or that if users of an ad-supported noninteractive service were not generating a dollar of advertising revenue through their listening they would otherwise be paying a dollar in subscription revenue to an interactive service. *See* 8/13/20 Tr. 1948:2-16 (Orszag); *Web IV*, 81 Fed. Reg. at 26344-45; PFFCL ¶ 34.

160. Disputed. *See supra* ¶¶ 158-59. The Services also note that the Judges' *Web IV* ratio equivalency model was premised on a similar willingness to pay between *listeners* of the benchmark and target services, not, as suggested by SoundExchange's phraseology here, by a similarity in the *services'* willingness to pay. *See Web IV*, 81 Fed. Reg. at 26345 ("The ratio equivalency approach assumes that *listeners* who willingly pay for a subscription to a service have a WTP equal to the WTP of *those who use* ad-supported (free-to-the-listener) services.") (emphasis added).

161. Disputed. *See supra* ¶¶ 158-60.

162. Disputed. SoundExchange witnesses have failed to demonstrate any significant level of substitution or comparable elasticity of demand between ad-supported noninteractive services and interactive subscription services—much less a level sufficient to support ratio equivalency between the two categories. Peterson AWRT ¶ 39. Nor has SoundExchange demonstrated a meaningful *change* in such substitution levels since the Judges rejected the interactive subscription benchmark in *Web IV*. Instead, SoundExchange's substitution argument rests on a few Pandora research presentations that the Services addressed thoroughly in Joint PFFCL ¶ 35; *see also id.* ¶ 33 (debunking Mr. Orszag's unsubstantiated claim that playlist

listening on noninteractive services is reflective of convergence).

163. Disputed. TX 5056 (page 26 of which is cited by Mr. Orszag) and TX 5061 (page 2 of which is cited by Mr. Orszag), *see* Orszag WDT ¶ 93 & nn.128-9, both fail to support SoundExchange's substitution argument for the same reason: while the former identifies [redacted], neither shows [redacted] 8/13/20 Tr. 1940:25-1941:25, 1943:7-9 (Orszag); *see also* Joint PFFCL ¶¶ 35-36.

164. Disputed. Because Spotify's ad-supported service is interactive, any willingness to pay among its users is not informative of the willingness to pay of ad-supported *non*interactive users. Moreover, Spotify's business model shows nothing like that which is contended with respect to similar willingness to pay across tiers. In 2018, Spotify's free tier had 207 million active monthly users who had *not* demonstrated a willingness to pay for a subscription—as compared to a dramatically smaller number (96 million) who did pay to subscribe. Orszag WDT ¶ 35. In addition, the fact that 60% of Spotify's premium users tried the free service first does not mean that Spotify Free users generally are willing to pay, that Spotify Free is substituting for Premium, or (to state the obvious) that 60% of Free users would pay for Premium. To the contrary, Mr. Orszag's own testimony cites data showing only [redacted]% of Spotify free users convert within their first 24 months on the service. Orszag WRT ¶ 75, n.167. Mr. Fowler's testimony cited here only confirms the obvious truth that at any given point in time, many consumers are not willing to pay for a subscription offering

165. Disputed. The surveys conducted to determine diversion from ad-supported services to other forms of listening show persistently *low* diversion to paid interactive services.

See Joint PFFCL ¶ 38; NAB PFFCL ¶¶ 117-20. Moreover, the 9.1% figure cited by SoundExchange does not reveal a level of substitution or cross-elasticity sufficient to justify ratio equivalence as between subscription interactive and ad-supported noninteractive services; rather it reveals that over 90% of ad-supported noninteractive users are *not* willing to pay for a subscription interactive service. *See Web IV*, 81 Fed. Reg. at 26344-45 ("Dr. Rubinfeld's 'ratio equivalency' assumes a 1:1 opportunity cost for record companies, whereby, on the margin, a dollar of revenue spent on a subscription to a noninteractive service is a lost opportunity for royalties from a dollar to be spent on a subscription to an interactive service."); *see also SDARS III*, 83 Fed. Reg. 65210 at 65247-48 (noting that "Mr. Orszag did not provide either qualitative or quantitative evidence of a *sufficiently high* cross-elasticity" between the benchmark services and Sirius XM, observing that the surveys in the case indicated "no such *high substitutability* between subscribership to interactive services and to Sirius XM" and thus "negate[d] any complete or overwhelming ratio equivalency Mr. Orszag has posited," and observing further that the survey evidence "revealed a substitutability of interactive services for Sirius XM at *significantly less than 1:1*" (emphases added)).

166. Disputed. Spotify's ad-supported service is interactive, so its effective percentage of revenue is not informative of the royalty percentage paid by ad-supported *non*interactive services. Indeed, the similarity of Spotify's percentage-of-revenue royalty across its various offerings is flatly *inconsistent* with the hypothesis of ratio equivalency derived from the Lerner Equation and is neither a function of comparable demand elasticities across those offerings nor a basis for applying that rate to *other* services, especially of the ad-supported, noninteractive variety. Joint PFFCL ¶ 43 (citing 8/25/20 Tr. 3706:23-3707:11 (Peterson); Peterson AWRT ¶¶ 50, 55 ("The fundamental principle underlying Mr. Orszag's rate

methodology is false in the benchmark market.")); *see also* 8/25/20 Tr. 3695:9-14 (Peterson) ("If in the benchmark market royalty rates do not fluctuate with the elasticity of demand, then there is no basis to take that royalty ratio, by which I mean the ratio of royalty to revenue, from the benchmark market to the target market for the calculation of rates."). Instead, the rate similarity across tiers reflects the complementary oligopoly power of the record companies, who can impose the same rate "without regard for changes in the elasticity of demand that even a monopolist would take into account when setting rates." Joint PFFCL ¶ 43 (quoting Peterson AWRT ¶ 56); *see also* Joint PFFCL ¶¶ 40-42.

2. Mr. Orszag's Interactivity Adjustment is Undermined by His Failure to Adhere to the *Web IV* Ratio Equivalency Standards

167. Disputed in part. For the reasons discussed above and in the Services' Joint PFFCL, ratio equivalence as between ad-supported noninteractive and subscription interactive services is improper and (among other problems) does *not* properly adjust for interactivity. *See supra* ¶¶ 158-166; Joint PFFCL § II(A)(i)(1)-(2).

168. Disputed in part. For reasons discussed above and in the Services' Joint PFFCL, the Services dispute that his approach follows "the ratio equivalency equation from *Web IV*" or that ratio equivalence as between ad-supported noninteractive and subscription interactive services is justified or proper. *See supra* ¶¶ 158-166; Joint PFFCL § II.A.i.1-2; NAB PFFCL ¶¶ 106-07, 181-83.

169-71. Disputed in part. *See supra* ¶ 168.

E. Professor Shapiro and Dr. Peterson Properly Determined Rates for Ad-Supported Services

1. Professor Shapiro Correctly Calculated the Effective Per-Play Rate for Spotify's Ad-Supported Service

172. Disputed in part. As explained in SXM-PAN PFFCL ¶ 225, Professor Shapiro

has acknowledged and subsequently corrected for his double-counting of certain [redacted] plays in his effective-rate calculation. The result was a slight upward adjustment from the originally calculated $[redacted] per-performance rate to $[redacted]. 8/19/20 Tr. 2902:14-22 (Shapiro). However, Professor Shapiro was unable to calculate [redacted] because the available [redacted]. *See* Shapiro SCWDT at 63 & n.3; 8/19/20 Tr. 2911:7-2912:8 (Shapiro).

173. Disputed in part. *See supra* ¶172.

174. Disputed in part. The Services do not dispute Mr. Orszag's calculated per-play rates for [redacted] and [redacted], but see *supra* ¶ 172.

175-76. Disputed in part. *See supra* ¶¶ 172-74.

2. The Services' Use of Spotify's Ad-Supported Tier as a Benchmark is Entirely Logical and Economically Appropriate

i. Spotify's [redacted] Does Not Invalidate Use of The Spotify Ad-Supported Rates as a Benchmark

177. Not disputed.

178. Disputed. While the Services do not dispute [redacted], they do dispute SoundExchange's contention that those [redacted]. Moreover, for the reasons elaborated below, nothing about [redacted] ability to [redacted] renders Spotify's ad-supported rate an unsuitable benchmark. *See infra* ¶¶ 180-83, 192-96). First, the available evidence contradicts the argument that the Majors [redacted]. Testimony by Ms. Adadevoh of Warner shows that, [redacted]

[redacted]. 8/26/20 Tr. 3951:20-2952:24 (Peterson) (discussing Adadevoh WDT ¶ 22). Similarly, Aaron Harrison of UMG explained that [redacted], which completely undercuts any suggestion of a "[redacted]." 9/03/20 5717:7-14 (Harrison) ("[redacted]"); *see also* Shapiro WRT at 22 & n.6; 8/19/20 Tr. 2890:13-17 (Shapiro); 9/3/20 Tr. 5709:5-23 (Harrison). Dr. Peterson's analysis of current [redacted] rates using the Lerner Equation corroborates that no [redacted] is present by showing that the [redacted]. 8/26/20 Tr. 3948:1-17; 8/25/20 Tr. 3705:1-3706:21, 3725:6-13 (Peterson) (analyzing Spotify royalties using Lerner Equation).

Second, SoundExchange's argument fails because it is singularly focused on [redacted] rather than evaluating a *relative* conversion rate that takes into account the ability of ad-supported webcasters to upsell to subscription tiers, which is a far more pertinent metric. SXM-PAN PFFCL ¶¶ 247-248; 8/26/20 Tr. 3963:13-3964:24 (Peterson). The vast majority of noninteractive ad-supported plays are on services (Pandora, iHeart, Google) that offer premium tiers comparable to Spotify's, meaning that they too have incentives to upsell users to their own more profitable tiers. *See* Joint PFFCL ¶ 323; SXM-PFFCL ¶ 248; *infra* ¶¶ 192, 195. Also, because the statutory license at issue is category-wide, the propensity of an ad-supported noninteractive service to convert users to *any* on-demand service (even those outside of its own ecosystem) should likewise be considered. *See* SXM-PAN PFFCL ¶ 247. Put simply, the statutory services also convert users to paid subscriptions. Even SoundExchange's own experts recognized that fact. *See, e.g.*, Tucker WDT ¶¶ 12, 53, 73-74; *id.* ¶ 11 ("Pandora and

iHeartMedia are increasingly using ad-supported services to 'funnel' consumers into more profitable subscription offerings"); *see also* T. Jay Fowler WDT ¶¶ 14-15, 22, 25-26 (explaining that Google operates statutory services primarily to upsell listeners to subscriptions).

Lastly, even assuming *arguendo* that Spotify's free-tier rates [redacted], the appropriate response is not to abandon an otherwise sound and superior benchmark in favor of one (subscription-tier rates) that is plainly inappropriate and has previously been rejected by the Judges. *See* SXM-PAN PFFCL ¶ 241. It is to simply adjust accordingly, as is the very point of the entire benchmarking exercise. *See* 8/19/20 Tr. 2912:16-25 (Shapiro) ("[redacted]"); 8/10/20 Tr. 1161:4-12 (Orszag); SXM-PAN PFFCL ¶ 244. Moreover, Spotify's own license agreements show exactly what per-play rate it would pay were it [redacted], providing a potential basis for an upward adjustment (should the Judges find that one is warranted). *See* Joint PFFCL ¶ 146; SXM-PAN PFFCL ¶¶ 242-243.

179. Disputed in part. The Services do not dispute that net promotional effects could impact the royalty rates a service would pay in a functioning, competitive market. However, as discussed in paragraph 178 above, there is a great deal of evidence suggesting that Spotify's ad-supported rates were set at a level intended to extract maximum potential value from the service without shutting it down, rather than reflecting any consideration of net promotional value. Moreover, any consideration of promotional value would have to look at *net* promotional value. While SoundExchange has put forth evidence suggesting the Spotify ad-supported tier is [redacted]

there is also record evidence suggesting . *See* 9/2/20 Tr. 5188:20-5189:22 (Piibe) ( ).

180. Disputed. As Dr. Peterson explained, there is no evidence that Spotify's free-tier rates . *See* Peterson AWDT ¶ 43. In fact, as is emphasized elsewhere by SoundExchange, *See* SX PFFCL ¶ 166. The suggestion that Spotify's free-tier rates , as the Majors (which possess complementary oligopoly power) have an interest in . Peterson AWDT ¶¶ 42-43. Consistent with this logical incentive, the negotiation record for the reveals that . *See* Joint PFFCL ¶ 158; 9/3/20 5717:7-14 (Harrison). In fact, testimony by Ms. Adadevoh shows that, . 8/26/20 Tr. 3951:20-2952:24 (Peterson) (discussing Adadevoh WDT ¶ 22).

In addition, the notion that . *See* Peterson AWDT ¶¶51, 77; *see also* Shapiro CWDT at 36 tbl.8 (

[redacted]). [redacted].

Further, rather than simply [redacted]. Specifically, [redacted]. *See* Joint PFFCL ¶ 146; Adadevoh WDT ¶ 21, Harrison WDT ¶¶ 22, 24, 66, Piibe WDT ¶ 31.

181. Disputed. *See supra* ¶¶ 178-180. Furthermore, the Services note that despite SoundExchange's blanket assertion that the proceeding is "replete" with evidence supporting its theory that [redacted], SoundExchange utterly fails to cite any supportive fact witness testimony or documentary evidence comparing [redacted]. "Unique" is a relative term, and SoundExchange offers no relative analysis.

What is more, SoundExchange's position as to the genesis of Spotify's "[redacted]" is rife with internal inconsistency. On the one hand, SoundExchange argues (as in this paragraph) that the [redacted]% rate Spotify pays for its free tier represents [redacted]. On the other, SoundExchange has argued vociferously that the [redacted] reflected the forces of effective competition. SoundExchange cannot have it both ways. If the [redacted], then it is not [redacted]: one would have expected [redacted].

182. Disputed in part. The cited label witness testimony regarding their licensing intentions does not support SoundExchange's case. The [redacted]. The lack of direct licenses with standalone ad-supported services offering statutory functionality more likely reflects the existence of the statutory license and the Majors' refusal to offer licenses at rates that will set a negative precedent for CRB proceedings. *See* 8/31/20 Tr. 4555:16-4556:7 (Williams) (noting that [redacted]"); TX 2182 at 7-8; TX 2113 at 2; 8/24/20 Tr. 3374:18-22, 3477:24-3478:14, 3480:8-19 (Leonard); *see also* NAB PFFCL ¶ 55.

183. Disputed. The evidence suggests that Spotify is not [redacted] due to its [redacted]. *See supra* ¶¶ 178-181. Notably, though [redacted]. That is a significant and glaring omission. Ultimately, even if the label witnesses were correct that the [redacted] (which the Services refute for the reasons addressed above), it still does not negate use of the Spotify ad-supported benchmark. [redacted]—could also be used as a benchmark for ad-supported statutory services. *See* SXM-PAN PFFCL ¶ 243;

8/19/20 Tr. 2912:21-2913:24 (Shapiro), 2914:3-21 (agreeing with Judge Strickler's suggestion that [redacted] is a "particularly apt benchmark in that it no longer has that [redacted] at all and otherwise is an ad-supported service that's interactive"). Indeed, even Mr. Orszag agreed at trial that he was "comfortable" using Spotify's free-tier rates as a benchmark after the application of a [redacted] "funneling" adjustment, discussed at length in Sirius XM and Pandora's PFFCL. *See* 8/25/20 Tr. 3816: 10-14 (Orszag); SXM-PAN PFFCL ¶¶ 244-245.

184-86. Not disputed.

187. Not disputed. Indeed, the high degree of "cannibalization" between free interactive services and paid interactive subscriptions highlights yet another reason interactive rates should be significantly higher than noninteractive rates.

188. Not disputed.

ii. Statutory Services Have the Same Incentives as Spotify to Upsell, and SoundExchange Has Offered No Evidence that [redacted]

189. Disputed. SoundExchange fails to quantify the "stark contrast" or cite any record evidence in support of its conclusion, which as a result should be afforded no consideration. *See* Order Establishing Requirements for Post-Hearing Submissions (Sept. 23, 2020).

190. Disputed. First, the "empirical" analysis of Pandora's conversion rates in Professor Willig's written testimony amounts to a portion of a single footnote (¶51 n.33) that is backed by plainly deficient evidence. Notably, that footnote discussion does not actually put forth the [redacted]% per year conversion rate SoundExchange cites—the figure is *not* in Professor Willig's written testimony and was (by his own admission) presented for the first time at the hearing (thereby denying the Services and their experts a meaningful opportunity to respond).

8/6/20 Tr. 631:17-632:14 (Willig). Further, though Professor Willig testified as to a model produced in discovery reflecting his conversion calculations, that document is *not* in evidence—counsel for SoundExchange claimed it would not "materially enhance the record"—or even cited in Professor Willig's written testimony. *See id.* 630:23-631:3 (Willig).

Regardless, Professor Willig's late-stage conversion metric lacks merit. As he acknowledged at the hearing, his conversion analysis is only "within the ambit of Pandora's spectrum of services," 8/6/20 Tr. 633:9-18 (Willig), meaning it does not account for the degree to which Pandora users convert to mid-tier or on-demand services outside of the Pandora ecosystem. As discussed *supra* ¶ 178, given the category-wide applicability of the statutory license, what is relevant for purposes of measuring the promotional value of ad-supported noninteractive services is whether users convert to a subscription of *any* on-demand service. 8/19/2020 Tr. 2923:7-15 (Shapiro) ("we're not just measuring promotional effects within a given company's line of products. We're looking more generally. And so…you would need to consider the promotional effects of Pandora's advertising supported service as a gateway to on-demand services, not just to Pandora's premium service."); *id.* 2921:18-2923:15; *see also* SXM-PAN PFFCL ¶ 247.

Exacerbating those flaws, Professor Willig explained that his computation of a [redacted]%[11] conversion rate from Pandora's ad-supported service to its Premium tier "made use of…the

[11] In addition to the [redacted]% user conversion rate from Pandora Free to Pandora Premium SoundExchange specifically cites, SoundExchange also cites to Professor Willig's hearing testimony discussing another conversion metric he calculated (but did not include in his written testimony): *i.e.*, an [redacted] 8/6/20 Tr. 632:15-19 (Willig). That metric also fails to support SoundExchange's argument. A per-play based conversion metric is exceedingly counter-intuitive and indirect, given that Pandora Plus is sold on a subscription basis, and every other discussion of conversion in this proceeding has (appropriately) concerned *user* conversion. In response to Judge Strickler's question regarding that deficiency, Professor Willig responded that he used per-play metrics because "*the whole purpose of this exercise…was to use this for Shapley Value purposes,*" meaning it does not even accord with the benchmarking arguments SoundExchange makes here. *Id.* 632:20-25 (emphasis added).

financial projections from the [Pandora] merger proxy statement on which [he] generally" relied (8/6/20 Tr. 628:4-23)—*i.e.*, Scenario 2 of Pandora's Schedule 14A Merger Proxy Statement (TX 5045). As Mr. Ryan detailed in his written testimony, and as we describe elsewhere, the Scenario 2 projections are long outdated and no longer reliable for a host of reasons. *See* Ryan WRT ¶¶ 31-42 & ¶ 35 n.36; SXM-PAN PFFCL ¶¶ 31-32; 8/31/20 Tr. 4721:13-4722:9, 4744:23-4475:15 (Ryan).

191. Not disputed. Simulcasters differ from interactive services in many ways, including in their lack of interference with or substitution for record companies' other revenue streams and their ability to promote sound recording companies' other revenue streams, including by promoting listening on on-demand services. *See* NAB PFFCL ¶¶ 147-64; *infra* ¶¶ 506-507. The differences between simulcasters and interactive services are so fundamental, that the notion of converting simulcast listeners to subscribers of fundamentally different products is a red herring. *Id.*

192. Disputed. SoundExchange's distorted account of the import of [redacted] is addressed *supra* ¶¶ 178-183. What is more, SoundExchange's baseless claim that "statutory services do not have Spotify's economic…incentives to upsell their users" is undermined by the fact that Pandora, Google, and iHeart all have higher-margin premium tiers, and thus the exact same structural incentive to upsell. Professor Tucker herself acknowledged as much, explaining that Pandora's per-subscriber profit on its subscription tiers is nearly three times its per-user profit on its free tier, Tucker WDT ¶ 105, that Pandora *has* proven successful at converting free users to paid subscribers, and that its ability to do so has helped to grow subscriptions on Pandora Plus and Premium (and revenues earned therefrom). *See* SXM-PAN PFFCL ¶ 248; Tucker WDT ¶¶ 104, 106; 8/17/20 Tr. 2350:20-24 (Tucker) (acknowledging that

Pandora Free serves as a funnel to Pandora Premium); 8/17/20 Tr. 2349:13-2350:1, 2352:20-2353:11 (Tucker) (conceding that Pandora has incentives to upsell given the greater profitability of its premium tier), 2355:19 (acknowledging that, at the current royalty rate, the growth of Pandora's upper tiers has been "high").

Moreover, as described in SXM-PAN PFFCL ¶ 247, the appropriate conversion adjustment should reflect only the *difference* in promotional value (as reflected by conversion rates) between Spotify and the statutory webcasters because the statutory license applies category-wide. 8/19/2020 Tr. 2921:18-2923:15 (Shapiro).

193. Not disputed.

194. Disputed. As addressed in paragraphs 178-183 above, the evidence suggests that the Majors, acting as complementary oligopolists, are [redacted]. Still, even if SoundExchange were correct that Spotify is uniquely positioned [redacted], Professor Shapiro has explained how to account for that. Professor Shapiro demonstrated that if the Judges determined some manner of funneling adjustment were necessary, then they could [redacted], meaning statutory services would not "[redacted]" as SoundExchange claims. *See supra* ¶ 183; SXM-PAN PFFCL ¶ 243. Said another way, his funneling adjustment ensures that his benchmark rate reflects [redacted]. To be clear, such an adjustment would by extremely conservative since, as discussed above, the services also funnel users towards premium tiers. *See supra* ¶ 178.

195. Disputed. The cited testimony from Mr. Phillips does not in any way suggest that Pandora lacks the economic incentive to convert users to its subscription tiers. First,

SoundExchange's critique implies that Pandora's careful balancing of ad loads to maximize revenue deprives it of upselling opportunities that would arise with more intrusive ad loads. But the assumption that blunt ad-load increases would necessarily facilitate *conversion*—as opposed to merely decreasing listening or causing users to defect altogether, resulting in a loss of revenue—is unproven and unfounded. As described in SXM-PAN PFFCL § II.A.iii, Pandora's advertising strategy is the most carefully researched and honed in the industry.

Far from offering any evidence in support of its point, SoundExchange has actually offered evidence *refuting it.* As Professor Tucker conceded, Pandora absolutely has an incentive to convert users given the higher profit margins on Premium, *see* Tucker WDT ¶ 105, and therefore would not be expected to prioritize free-tier revenue if it could instead drive higher-margin subscriptions. *See* Joint PFFCL ¶ 323; *supra* ¶ 192.

Moreover, neither the label witnesses nor Mr. Orszag have actually suggested that [redacted], even if they were necessarily "part of the bargain," were imposed [redacted] (*i.e.*, that Spotify's free-tier rates would have been [redacted] all other things being equal, *absent* the [redacted]).

Nor does this single provision somehow make this an unsalvageable benchmark for statutory services. The benchmark agreements relied on by both sides contain hundreds of detailed provisions, the vast majority of which are not present in the statutory license or adjusted for by the Participants' expert economists. As Professor Shapiro explained, "both Mr. Orszag and I are taking the view that we're generally going to…look at the rates that we're using a[s] benchmarks, even though we know they're negotiated in many cases as part of a *much broader deal and there are often other terms and conditions that are—that are changing*…it's kind of a practical aspect of doing benchmarking." 8/19/20 Tr. 2836:24-2837:9 (Shapiro) (emphasis

added). It has never been suggested that an agreement cannot be used as a benchmark because not every one of its provisions appears in the statutory license or can be translated into a specific rate adjustment. Were that the case, the entire benchmarking process would fall apart. *Id.* Hence, there is no reason to reject the use of Spotify's free-tier rates as a benchmark absent tangible and specific evidence (of which there is none) demonstrating how the benchmark rates necessarily would differ in the absence of an ad-load provision. *Id.*; *see also supra* ¶ 192.

196. Disputed in part. *See supra* ¶ 195. The exhibits cited by SoundExchange [redacted]. *See* Phillips WDT ¶ 36.

197. Disputed in part. For the reasons discussed in NAB PFFCL paragraphs 176-83, NAB agrees that the royalty rates paid by interactive services (subscription or ad-supported) are inferior benchmarks for simulcasters to the directly comparable iHeart-Indie renewal agreements analyzed by Dr. Leonard. It is also incorrect that no simulcaster has a subscription service, as iHeart offers a subscription on-demand service. *See* Pittman CWDT ¶¶ 31-32. That said, the simulcast product is so economically different from Spotify that the entire exercise of applying Spotify rates (particularly for its subscription product) as a benchmark for simulcasters is questionable under the governing legal standard.

iii. In the Event the Judges Conclude a Conversion Adjustment is Necessary, Professor Shapiro Has Proposed a Conservative Method for Adjusting His Benchmark Rate To Account for Spotify's [redacted]

198. Disputed. As discussed above in paragraphs 178 to 183 above, the evidence does not reflect that [redacted] that necessitates adjusting Dr. Peterson or Professor Shapiro's benchmark analysis. *See also* Google PFFCL ¶¶ 6-65 (detailing Dr.

Peterson's reasons why a conversion adjustment should *not* be applied). But, even if the Judges disagree with that position, Professor Shapiro has (contrary to SoundExchange's claims) put forth a potential solution for adjusting the benchmarks both in his rebuttal testimony and at trial. *See* SXM-PFFCL ¶¶ 241-245.

199. Not disputed.

200. Disputed in part. SoundExchange misstates the rationale for the [redacted] adjustment factor proposed by Professor Shapiro, the computation of which is explained in SXM-PAN PFFCL ¶ 244. The reason for the [redacted]% rather than [redacted]% adjustment is that the effective benchmark rate already reflects the approximately [redacted]. *Id.*

201. Not disputed.

202. Disputed in part. While the Services do not dispute that Mr. Orszag approximated the adjusted effective rate to be $[redacted] on the stand, the actual result of the funneling uplift, assuming no comparable promotional value for non-interactive services, is $[redacted]. *See* SXM-PAN PFFCL ¶ 245. Furthermore, contrary to SoundExchange's erroneous assertion, Professor Shapiro testified that his measurement of the fees paid by Spotify *does* include the [redacted]. *See id.* ¶ 224; Shapiro SCWDT at 33, n.47, 63-64 & n.4 (Appendix D), TX 4044 at 14, 43; TX 5037 at 58-63. In addition, Google's PFFCL explains why no advertising adjustment is required in Dr. Peterson's analysis. Google PFFCL § II.D.2; *see also infra* ¶¶ 252-256.

203. Disputed. Professor Shapiro's adjustment is more than sufficient. The Services' response to SoundExchange's claimed need to account for [redacted] or adjust

upward for other factors is found in paragraph 195 above. SoundExchange also glosses over the key part of the cited portion of Professor Shapiro's testimony, which is that a somewhat higher adjustment might be appropriate to account for the value of certain other contractual provisions *if the value of these provisions could be quantified.* That is, if it can be shown *empirically* that the benchmarks rate would be different in the absence of some other contractual provision—and *by how much*—it may be appropriate to adjust the rates accordingly. In the absence of that evidence, however, it is neither reasonable nor practical to adjust for every contractual provision, not all of which will accrue to the same party's benefit. *See supra* ¶ 195; *See Web IV*, 81 Fed. Reg. at 26384-85, 26387.

204. Disputed. While [redacted], they are irrelevant to Professor Shapiro's conversion adjustment. The relevant point is that [redacted] (and are thus part of the [redacted]% described *supra* ¶¶ 200-201), after which point [redacted].

3. SoundCloud's Rates Provide Important Corroboration

205. Not disputed.

206. Disputed. Because SoundCloud is the only other significant ad-supported on-demand streaming service, the fact that it [redacted] Professor Shapiro's use of its rates in his benchmark. Further, as Professor Shapiro testified, there is no need to adjust for the presence of user-generated content on SoundCloud or the absence of complete record-company catalogues, as there is no evidence that either factor resulted in SoundCloud receiving a rate discount (and the proximity of its rate to Spotify's suggests it did not). 8/19/20 Tr. 2972:22-2973:17 (Shapiro). The fact that there is no evidence of any other ad-supported interactive service paying [redacted] than

Spotify and SoundCloud further suggests that those rates are not somehow aberrationally low or otherwise improper to rely on. *Id.* 2900:15-18. Regardless, SoundExchange's attack on the SoundCloud rate is much ado about nothing—Professor Shapiro has explained that his benchmark effective per-play rate is [redacted]." *Id.* 2900:5-14; Shapiro SCWDT at 36 & Table 8.

207-09. **Not disputed.** *But see supra* ¶ 206.

4. Professor Shapiro and Dr. Peterson Appropriately Adjust Their Ad-Supported Benchmark for Interactivity

i. Introduction

210. **Disputed.** Both Professor Shapiro and Dr. Peterson provided appropriate adjustments to their Spotify free-tier per-play benchmarks, for the reasons explained in the SXM-PAN PFFCL (¶¶ 229-237) and Google PFFCL (¶¶ 29-34), and in the following paragraphs.

211. **Disputed.** Dr. Peterson's adjustment, premised on the rates paid by Pandora for its ad-supported tier, is more conservative but not inconsistent with Professor Shapiro's adjustment, which also relies in part on Pandora's ad-supported rates. *See* SXM-PAN PFFCL ¶ 230; Google PFFCL ¶¶ 32-34. As a general matter, the record demonstrates that interactivity is significantly more valuable than statutory functionality, that this holds true for both the subscription *and* ad-supported interactive markets, and that willing buyers and willing sellers (digital music services and the Majors, respectively) agree to royalty rates for interactive functionality significantly above those charged for statutory functionality. *See* SXM-PAN PFFCL ¶¶ 194, 197, 230, 232, 237. Moreover, the fact that [redacted] does not signify that Spotify's interactive rights are not more valuable, but rather that Pandora has made an unparalleled and far more

successful effort and investment in building an advertising platform around noninteractive music streaming (mixed with some modest interactive features) that allows it to [redacted]. *See* SXM-PAN PFFCL ¶¶ 234-237.

ii. Professor Shapiro Appropriately Adjusts for the Valuable Interactive Functionality Offered by His Benchmark Ad-Supported Services

212. Not disputed.

213. Disputed. Professor Shapiro explained that the first part of his interactivity adjustment used subscription retail prices as a proxy for the ad-supported market, and that the same adjustment was proposed by SoundExchange's expert (including for ad-supported services) in *Web IV*.[12] *See* Shapiro SCWDT at 37 & n.62; SXM-PAN PFFCL ¶ 229. He also testified that comparing the difference between the retail price paid for fully and partially interactive subscription services is the appropriate way to isolate the consumer value associated with interactive features, as the degree of interactivity offered represents the sole difference between those products. *See* Shapiro SCWDT at 37-39; 8/19/20 Tr. 2828:19-24 (Shapiro); *see also* SXM-PAN PFFCL ¶ 190. As for his second interactivity adjustment—which reflects the [redacted] paid by mid-tier services for extra-statutory functionality—Professor Shapiro explained that Spotify's free mobile service is quite similar to those mid-tier services, making them an appropriate proxy for calculating an adjustment ratio. 8/19/2020 Tr. 2905:5-11; *see also* SXM-

[12] This very same proxy was also proposed by Mr. Orszag himself in *SDARS III*. *See SDARS III,* 83 Fed. Reg. at 65245 ("In Approach Two, Mr. Orszag…use[d] the interactive market as his polestar. In this approach, however, he compared the interactive retail subscription price *not to the target SDARS market*, but to the market for *noninteractive services*, on the assumption that an *SDARS* functionally is a noninteractive service."). While Sirius XM's satellite radio product is admittedly a subscription one, Mr. Orszag has not explained why he deemed it appropriate in *SDARS III* to graft the interactive subscription retail price ratio onto an entirely different medium (satellite radio), but now views it as inappropriate to graft that ratio onto a service in the same medium (ad-supported webcasting), albeit with a different payment metric.

PAN PFFCL ¶¶ 230-31.

214. Disputed. *Web IV* did not rule out using the subscription retail price ratio as a proxy for the value of interactivity in the ad-supported market if doing so appropriately captures the difference in consumer value associated with interactivity. While the Judges in *Web IV* relied on different benchmarks for ad-supported services, and thus did not actually look to subscription retail prices as a basis for adjustment, it is simply wrong to say that doing so "is at odds with the Judges' decision in *Web IV*." The Services address below the inappropriateness of SoundExchange's proposed alternative—comparing the relative advertising revenue earned by interactive and noninteractive ad-supported services. *See infra* ¶¶ 216-221, 229.

215. Not Disputed. The quoted testimony is not disputed, but the quoted testimony actually speaks to why one cannot apply the subscription interactive *rates* to ad-supported noninteractive services through the principle of ratio equivalency, as explained above. *See supra* ¶¶ 158-159; *see also* Joint PFFCL ¶¶ 26-29, 43. It does not concern or refute the validity of relying on relative subscription *retail prices* for the far narrower purpose of making an interactivity adjustment.

216. Disputed. *Advertiser* willingness to pay is not the appropriate measure of the relative value of interactive rights as between services offering different functionality. To the contrary, the record clearly establishes that advertising revenue is driven by factors other than music functionality, including in particular a platform's ability to generate and deliver ad impressions to a sufficient number of users in targeted locations and demographics, to track and measure those impressions reliably, and to sell the advertisements successfully. *See, e.g.*, Phillips WDT ¶ 30 ("One of the most attractive features about Pandora to advertisers is the ability to deliver narrowly targeted advertising to particular audiences."); Herring *Web IV* WDT

¶ 19 ("Advertisers want to reach a particular audience at a particular time and in a particular context."). *See also* SXM-PAN PFFCL ¶¶ 234-36 (explaining why advertiser willingness to pay is not an inappropriate metric).

Pandora in particular has invested tens of millions of dollars doing just that, including spending hundreds of millions of dollars on its ad sales force. *See* Phillips WDT ¶ 29 ("Pandora created, essentially from scratch, a new market for internet audio advertising and the massive investments and efforts Pandora had undertaken to maximize its advertising revenues"); Herring *Web IV* AWRT ¶¶ 13-35, 44 (describing the challenges—and massive investment required—to assemble the necessary "scale," "systems," and "staff" to create and maintain an economically successful ad-supported business); Herring *Web IV* WDT ¶¶ 11-21 (same). As Christopher Phillips testified, Pandora's efforts in these areas since *Web IV*—including Pandora's investment in programmatic advertising and related efficiencies—has increased Pandora's RPM ("the ad revenue it earns for given levels of usage") and ARPU by nearly [redacted]% since 2014, notwithstanding that it offers an essentially similar service in terms of interactivity. Phillips WDT ¶ 32. The upshot of these undisputed facts is that [redacted] cannot be taken to mean that noninteractive rights are equal in value to interactive rights; rather, it signifies that Pandora has improved dramatically over time in selling a given amount of noninteractive usage (*e.g.*, 1000 impressions) such that after years of work and investment it now rivals what Spotify earns from a service with interactive functionality.

To see the shortcoming of SoundExchange's theory, one need look no further than the other ad-supported webcasters, which [redacted], a fact Mr. Orszag himself conceded. 8/12/20 Tr. 1572:3-6 (Orszag). If Mr. Orszag were right that ad-

revenue per play measures the value of interactivity (or lack thereof), they too would have the [redacted]. As explained in Sirius XM and Pandora's PFFCL (¶ 235), however, those other webcasters come nowhere close.

217. Not disputed. The quoted language by SoundExchange makes Professor Shapiro's point. SoundExchange takes Dr. Leonard's testimony to mean that because advertisers are indifferent as to levels of interactivity, the interactive rights licensed for Spotify's Free Tier are not more valuable than noninteractive rights (so no adjustment is necessary). But what the advertisers' indifference really means, for the reasons elucidated in the Services' responses paragraphs 216 and 218, is that the services' relative per-play advertising revenue does not provide a measure of the relative value of the underlying music rights licensed, but rather the services' respective ability to monetize their platforms. *See supra* ¶ 216; *infra* ¶ 218.

218. Disputed in part. Professor Shapiro's agreement that advertiser payments are something one "could look at" does not come close to capturing his full comments on the topic. 8/19/20 Tr. 2978:8-17 (Shapiro). Indeed, when first asked whether it would be reasonable to look at what advertisers are willing to pay for interactivity on a per-play basis, he said "that's where you go astray in my view." *Id.* 2976:25-2977:6. Professor Shapiro testified plainly that "advertisers don't pay directly for interactivity. That doesn't make any sense." *Id.* 2980:6-7; *see also id.* 2979:6-8 ("The advertisers…don't get the interactivity. That's what the consumers get."). SoundExchange itself underscores this point (while trying to show the opposite) when it quotes Dr. Leonard. *See supra* ¶¶ 215, 217.

As discussed in paragraph 216 above, advertisers instead pay for *listener attention*. Professor Shapiro explained that a given service may be able to gain more listener attention—and therefore more ad revenue—by adding interactive functionality to its noninteractive offering

if, for example, users are willing to watch more ads in exchange for access to interactive (rather than noninteractive) plays. *See* 8/19/20 Tr. 2978:12-17, 2979:2-2980:7 (Shapiro) (noting consumers may pay for greater functionality through a willingness to watch more ads, which services can monetize); *see also* Orszag WRT ¶ 104; 8/25/20 Tr. 3702:25-3703:16 (Peterson); Peterson AWRT ¶ 38.

That is precisely what the fact record shows occurred with Pandora. As Mr. Phillips testified, the Majors directly licensed Pandora the right to offer "unique interactive features" on its otherwise statutorily complaint ad-supported service. Phillips WDT ¶ 24. Those features include "Premium Access" sessions permitting users to access on-demand streams for [redacted], though they must first agree to watch a video ad. *Id.* ¶ 25. In exchange for the right to offer those on-demand streams (and to sell advertisers the video ad spot), Pandora pays the labels a per play rate of $[redacted] or $[redacted]—*i.e.*, [redacted] the statutory rate. *See* SXM-PAN PFFCL ¶ 232; TX 5126 at 4; TX 4031 at 9; TX 5012 at 10; TX 5024 at 3; 8/31/20 Tr. 4632:4-9 (Phillips); *see also* Phillips WDT ¶25 n.10. As Mr. Phillips explained, providing access to on-demand features helps Pandora retain listening that might otherwise move to different services and "improve its monetization by offering advertisers an effective and highly targeted new way to reach consumers." Phillips WDT ¶ 26.

This does not mean, however, that differences in advertising revenue as between *different* ad-supported services with *different* advertising platforms and *different* capabilities reflects the interactivity difference between them—or, specifically, that the interactivity on Spotify Free is not more valuable than the noninteractivity on Pandora.[13] It instead provides direct evidence to

[13] [redacted] TX 5429*, [redacted]

the contrary: when one controls for differences in advertising platforms and capabilities by focusing on a single service, it is readily apparent that labels themselves have set a rate [redacted] for interactive plays, as shown above. And they do so for a reason separate and apart from the consumer value driven by the interactive features: namely, the fact that free interactive streaming "cannibalizes" paid interactive streaming, *see supra* ¶ 187, and interactive streaming generally substitutes for sales of physical and digital copies, *see supra* ¶ 109. Those substitutional effects drive up the relative *opportunity cost* for licensing interactive streams and is something the statute explicitly requires the Judges to consider under the WBWS standard.

219. Disputed in part. Again, SoundExchange's underlying premise is faulty: advertisers are not "paying for interactivity." *See supra* ¶ 218. As described above, the confluence of revenue per play between services cannot be taken as a measure of the value of their respective music rights given the variation in their ability to generate ad revenue. *See supra* ¶ 218. SoundExchange tries to dodge this conclusion through a cursory footnote (n.7) claiming that Professor Shapiro did not analyze Spotify's advertising capabilities: but to be clear, Professor Shapiro is not the one pointing to the Spotify and Pandora ad revenue as a basis for an interactivity adjustment (or lack thereof), Mr. Orszag is. If SoundExchange wants to use that comparison to justify dispensing with an interactivity adjustment embraced in prior CRB proceedings, the burden is on *SoundExchange* to demonstrate that the difference (or lack therefor) in ad revenue reflects interactivity differences rather than advertising capabilities. While Pandora has offered detailed testimony from Mr. Herring and Mr. Phillips describing

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[redacted]" *Id.* at 3. Further [redacted]" *Id.* at 4. This directly supports Professor Shapiro's argument that advertisers pay for listener *attention*, not for interactivity. *See supra* ¶¶ 216, 218.

Pandora's unique efforts to build the webcasting advertising market (*see supra* ¶ 216), SoundExchange has done no such thing in support of its invocation of Spotify's ad revenues.

220. Disputed in part. The Services do not dispute the idea that the value of interactivity could be reflected by a willingness of users to listen to more ads, but note that the concept proves Professor Shapiro's point: a given ad-supported service may very well find it appropriate to pay for interactivity because it will drive additional listening or allow for better monetization of that listening, precisely as was the case with Pandora. *See supra* ¶ 216. What does *not* follow—as SoundExchange attempts to suggest in paragraphs 221 and 222—is that the *lack* of higher ARPU on *another* service with such functionality (*e.g.*, [redacted]) invalidates this point. For reasons already noted, any [redacted] reflects factors other than interactivity, as demonstrated in part by the lack of meaningful ad revenue on other noninteractive services. *See supra* ¶¶ 216, 218. As also noted above, the Premium Access sessions on Pandora's ad-supported service provide direct evidence of what happens when you control for factors other than interactivity: the rates charged by record labels for interactivity on an ad-supported service are approximately [redacted]. *See supra* ¶ 218.

221. Disputed. Professor Shapiro clarified that it would only be reasonable to compare ARPU as between services if "everything else [is] equal," 8/19/20 Tr. 2981:19-20, the precise caveat SoundExchange includes in the first sentence of this paragraph. But of course everything else is *not* equal. As Professor Shapiro proceeded to testify—consistent with the responses to paragraphs 216 and 218 above—there are crucial factors wholly unrelated to the relative value of the underlying music rights that explain why [redacted]: "[O]ne of the big successes of Pandora is their ability to monetize . . . . And that would then, of course, increase the revenue per-play

that they can receive and that would have nothing to do with the rights they have licensed, but, rather, with their own capabilities." 8/20/20 Tr. 3219:10-23.

Further, when asked whether the fact that [redacted] necessarily reflects the same valuation for interactive versus noninteractive music rights, Professor Shapiro responded, "[redacted]." *Id.* 3219:24-3220:7. He also noted that "[redacted]," which "points to a [redacted] for interactivity." *Id.* 3225:22-3226:6.

222. Disputed in part. The ARPU measures cited by SoundExchange, even if accurately transcribed, are not indicative of the relative value of interactivity between the services, as explained *supra* ¶¶ 216, 218, 221. *See also* SXM-PAN PFFCL ¶¶ 234-237 (discussing same).

223. Disputed. It is SoundExchange's summary paragraph (not Professor Shapiro's interactivity adjustment) that is "wholly without support," as not a single source is cited to support SoundExchange's sweeping contentions. *See supra* ¶¶ 213, 214, 216, 218-221.

iii. Professor Shapiro Addresses Spotify Free's Interactivity Head On

224. Disputed in part. Professor Shapiro did not ignore the interactive functionality available on Spotify's ad-supported tier, but instead explained that Spotify's desktop version *is* fully interactive (akin to the subscription tier), while the mobile version is not. Given the heavier usage of Spotify's mobile product, Professor Shapiro acknowledged that it would be appropriate to make solely the second of the two interactivity adjustments proposed in his ad-supported

benchmark analysis, *i.e.*, the [redacted] adjustment reflecting the ratio of the effective per-performance royalty rates paid by mid-tier subscription services offering limited interactivity ($[redacted]) and the statutory rate paid by noninteractive services ($0.0023). *See* SXM-PAN PFFCL ¶¶ 230-233. That adjustment would capture the fact that Spotify's ad-supported mobile service bears some similarity to a mid-tier service as a result of the diminished functionality and accordingly adjust to reflect the difference between mid-tier and statutory functionality. 8/19/2020 Tr. 2905:5-11 (Shapiro). Professor Shapiro showed at the hearing how only applying his second interactivity adjustment would impact his proposed rates. *See* SXM-PAN PFFCL ¶¶ 233, 240.

225-26. **Disputed in part**. *See supra* ¶ 224.

iv. Dr. Peterson's Interactivity Adjustment Is Valid

227. **Not disputed.**

228. **Disputed**. The Services dispute this paragraph for the reasons discussed below with respect to paragraphs 229-239.

229. **Disputed**. SoundExchange's blanket assertion that "the interactivity adjustment should be based on downstream market value evidenced by *consumers' willingness to pay* for the functionality" (emphasis added) is unsupported by its citations and at odds with the willing buyer/willing seller standard. The question of what a willing buyer and a willing seller would agree upon ultimately turns on the buyer's (here, the service's) willingness to pay and the seller's (here the label's) willingness to accept. *See, e.g.*, 8/25/20 Tr. 3646:23-3649:9 (Peterson). That may be affected by or even turn on the willingness to pay of the services' downstream users, but the users' willingness to pay is not the ultimate question. *See id.* Here, Dr. Peterson appropriately and directly addressed the dynamic between Pandora and the labels—the willing

buyer and willing sellers—that is at the heart of the issue. *See id.*; *see also* Peterson CWDT ¶¶ 52-55.

Contrary to SoundExchange's assertion, neither *Web II* nor *Web IV* rejected using data from the upstream market where available, nor did they mandate reliance on consumer payments instead. In *Web IV*, Dr. Rubinfeld used a ratio equivalency-based benchmarking approach that relied on a comparison of retail prices from the benchmark and target markets. Thus, his interactivity adjustment necessarily turned in part on downstream revenue—but only due to his choice of methodology. *See Web IV*, 81 Fed. Reg. at 26,344. In addition, the judges explicitly held that this approach was *not* applicable to ad-supported services. *Id.* at 26,353 n.116. To that end, Dr. Peterson used a different and more direct approach to determine the value of interactivity here. As for *Web II*, the decision does not provide any details as to how the interactivity adjustment was calculated, much less hold that such adjustments must be based on consumers' willingness-to-pay.

230. Disputed in part. SoundExchange misconstrues Dr. Peterson's quote, which simply states the obvious truths that listeners value on-demand functionality, and that this affects services' willingness to pay to license it. The ultimate question is still what a willing buyer and a willing seller would agree upon, which Dr. Peterson measured directly by looking at the deals struck by Pandora and the labels. *See supra* ¶ 229.

231. Disputed in part. SoundExchange mischaracterizes the relevance of the additional functionality that Pandora obtained. The ultimate question is not just whether consumers value it, but what Pandora (the willing buyer) was willing to pay for it and what the labels (the willing sellers) were willing to accept for it. 8/25/20 Tr. 3646:23-3649:9 (Peterson). Dr. Peterson's analysis directly measures that straightforward evidence of a marketplace deal for

interactivity. *See supra* ¶ 229. The fact that Pandora's service offers less on-demand functionality than Dr. Peterson's Spotify ad-supported benchmark only serves to make Dr. Peterson's interactivity adjustment conservative. *See* Peterson CWDT ¶ 56; 8/25/20 Tr. 3649:10-25, 3652:9-18 (Peterson).

232. Disputed. Again, SoundExchange attempts to distract from the underlying issue with irrelevant red herrings. It is not necessary to ascertain how much revenue per play Pandora actually generated from the additional functionality in its deals to use those deals as a benchmark. *See, e.g.*, 8/25/20 Tr. 3640:1-3641:1, 3648:5-2649:1 (Peterson) (explaining why revenue per play is not the right way to measure the value of interactivity, and why he uses a measure that comes directly from the market for licenses). A benchmarking analysis looks at deals themselves, not whether those deals turned out in hindsight to be good or bad—which could be based on myriad unknown and unforeseeable factors. *See supra* ¶ 148. Mr. Orszag, for example, has not even attempted to justify his use of Spotify's subscription service as a benchmark by examining whether Spotify's deals turned out to be good or bad. The fact remains that Dr. Peterson's interactivity adjustment is based on the knowable prices struck in deals between a willing buyer (Pandora) and willing sellers (the labels), as discussed *supra* ¶¶ 229-231.

233. Disputed. Again, SoundExchange attempts to smuggle in new expert analysis—which was never included in any written or oral testimony—in the guise of attorney argument. Dr. Peterson has had no chance to analyze or respond to that analysis or to the various underlying assumptions baked into it. The Judges should reject this belated attempt to introduce new analysis SoundExchange previously failed to elicit. Nevertheless, the DMCA Analysis is

irrelevant to Dr. Peterson's interactivity adjustment for the reasons discussed in paragraphs ¶¶ 229-232 (*e.g.*, the actual revenue generated by the additional functionality is irrelevant).

In addition, the DMCA Analysis is purely a [redacted] and SoundExchange's reliance upon it for anything more is inappropriate for the reasons discussed *supra* ¶¶ 152-154. The estimate could, for example, [redacted] for any number of reasons. Because SoundExchange did not timely introduce this analysis, the record is now closed, with no opportunity to elicit such information—further illustrating why the Judges should reject this late breaking attempt to inject new analysis.

234. Disputed in part. Once again, the actual increase in revenue per listener hour is not relevant to Dr. Peterson's analysis for the reasons discussed *supra* ¶¶ 229-232.

235. Disputed. SoundExchange's alleged "most likely reason" is pure supposition. Moreover, it is irrelevant because the ultimate question, as discussed *supra* ¶¶ 229-232, is what a willing buyer (Pandora) and willing sellers (the labels) agreed to pay for the additional functionality—which Dr. Peterson's interactivity adjustment directly measures.

236. Disputed. After repeatedly and vociferously arguing that the promotional aspect of Spotify's free interactive service [redacted] (*see* SX PFFCL ¶¶ 178-204), SoundExchange here incredulously argues that the allegedly promotional aspect of Pandora's free interactivity might [redacted]. Unsurprisingly, SoundExchange's argument is based entirely on speculation, and it cites no evidence from Pandora or the labels that promotional ability was a factor in these negotiations. SoundExchange simply attempts to muddy the water by throwing out unsupported "what if's" after the record is closed and after it failed to ask any relevant questions to the fact witnesses.

237. Disputed in part. While the Services agree that [redacted], they disagree that Dr. Peterson's interactivity adjustment is influenced by the statutory rate. As Dr. Peterson explained, [redacted] is a *virtue* for measuring the parties' willingness to pay and willingness to accept for the addition of on-demand features. Peterson CWDT ¶ 54; 8/25/20 Tr. 3646:6-16 (Peterson). In particular, Dr. Peterson's interactivity adjustment measures the *difference* in license fees between [redacted]. Peterson CWDT ¶ 54; 8/25/20 Tr. 3642:5-18, 3646:6-16 (Peterson). Although this is expressed as a percentage change, Dr. Peterson explained that "if the statutory rate is too low, . . . [redacted] percent is not a very big extraction"; therefore, "an increase in the statutory rate and leaving the delta the same would not . . . change this number very much." 8/25/20 Tr. 3646:17-22 (Peterson).

238. Disputed. *See supra* ¶ 237.

239. Disputed. SoundExchange once again engages in hand-wringing speculation that the parties might reach some other agreement under some other set of circumstances—a criticism that could be levied against any benchmarking analysis. The relevant question is whether the analysis is sensitive to changes in assumptions, and here it is not. As explained *supra* ¶ 237, an increase in the statutory rate and leaving the delta the same would not change Dr. Peterson's interactivity adjustment very much (and any increase in the delta would result in an even smaller change). Moreover, Dr. Peterson explained how the structure of the deal indicates that [redacted]. *See* 8/25/20 Tr. 3644:23-3646:3 (Peterson). SoundExchange offers no reason to believe that the value of interactivity would change with the statutory rate.

F. Additional Adjustments

1. Mr. Orszag's Analysis Fails to Adequately Account for Skips

240. **Disputed in part**. The Services agree that [redacted], and further agree that how to address this issue, and what data to use, is in dispute. Mr. Orszag's analysis is inappropriate for the reasons discussed elsewhere herein and in the Services' opening briefs (*e.g.*, his "ratio equivalency" method is inconsistent with *Web IV*). *See, e.g.*, Joint PFFCL ¶¶ 19-179. Nevertheless, the services agree (1) that the output of Mr. Orszag's flawed ratio equivalency approach is dominated by Pandora's revenue-per-play; (2) that [redacted]; and (3) that the net effect of (1) and (2) is to minimize the impact of Mr. Orszag's failure to include a skips adjustment for [redacted], on the output of his analysis. That said, this error has an unquantified effect on Mr. Orszag's output, further rendering it unreliable. SoundExchange attempts to downplay this issue, stating in a footnote that applying Dr. Peterson's [redacted] skips rate to iHeart would change Mr. Orszag's ad-supported rate "by a small amount." But first, Dr. Peterson's skips rate was a range of [redacted], and SoundExchange does not provide a calculation using anything but the bottom end of the range or justify why using the bottom end of the range is appropriate. Peterson AWDT ¶ 15(c);8/25/20 Tr. 3632:13-18 (Peterson). And second, SoundExchange does not provide a calculation for subscription statutory services at all. Thus, the net effect of Mr. Orszag's failure to include any accounting for skips remains unknown.

241. **Disputed in part**. The Services agree that the skips adjustment identified in Professor Shapiro's written rebuttal testimony need not be applied to Mr. Orszag's result, given his percentage-of-revenue approach. However, Mr. Orszag's approach still requires some accounting for skips, due to his use, variously, of iHeart and Rhapsody, as discussed in the Services' response to the preceding paragraph.

242. **Disputed in part**. Dr. Peterson does not propose an [redacted] skips adjustment, but rather, a range of [redacted] for his skips adjustment. Peterson AWDT ¶ 15(c). Dr. Peterson further explained that "the general approach in benchmarking is to take the target market as given and adjust the benchmark to the target," resulting in the [redacted] number, and that the [redacted] number is "not really taking the target market as given." 8/25/20 Tr. 3680:16-3681:17 (Peterson). Thus, the [redacted] number is more appropriate. The Services do not dispute the remainder of this paragraph.

243. **Disputed in part**. The Services agree that the data used for the [redacted] number came from "radio" plays on all three tiers of Pandora's service, and that subscribers of Pandora's Plus and Premium tiers have unlimited skips. However, the "overwhelming share" of Pandora's plays is on the free tier, and Pandora's skip rate in general is far less than what is allowed on the free tier. 8/20/20 Tr. 3031:14-3032:5 (Shapiro). Thus, any effect on the overall number is de minimis. *Id.* at 3032:6-8. Moreover, the Pandora adjustment, [redacted], is already far less than the Spotify adjustment, [redacted], the latter of which is more appropriate to use as an adjustment for the reasons discussed in the preceding paragraph. *See* Peterson AWDT ¶15(c); 8/25/20 Tr. 3680:16-3681:17 (Peterson). Finally, to the extent the Pandora Plus and Premium tiers increase the skips rate, this is nevertheless appropriate because statutory services are not required to impose a skip limit. *See* 17 U.S.C. §§ 112 & 114.

244. **Disputed**. In *Web IV*, the Judges held that Dr. Rubinfeld's skips adjustment, which was not weighted for simulcast services, "accurately adjusted for the number of plays across the interactive and noninteractive spaces." *Web IV*, 81 Fed. Reg. at 26,338 & n.89, 26,350. Professor Shapiro and Dr. Peterson simply followed this precedent, which SoundExchange does not attempt to distinguish. Mr. Orszag also misconstrues Dr. Leonard's testimony as using a "50-

50 weighting"—in fact, the paragraph of Dr. Leonard's testimony to which Mr. Orszag cites simply states the effective per-play rates that iHeart paid to renewal indies for each of simulcast, custom radio, and all webcast performances combined. *See* Leonard CWDT ¶ 67, *cited in* Orszag WRT ¶ 123. It does not calculate a skips adjustment whatsoever, much less one comparable with Professor Shapiro's and Dr. Peterson's, and SoundExchange does not cite any testimony reflecting what an allegedly appropriately-weighted adjustment would be.

245. Disputed in part. The Services agree that Dr. Peterson proposed a second skips adjustment based on the [redacted] skip rate on Spotify's ad-supported service. However, SoundExchange incorrectly asserts that Dr. Peterson does not explain which of his rates should be used. As discussed in the Services' response to paragraph 242, Dr. Peterson explained why the 26.9% number is more appropriate. *See* 8/25/20 Tr. 3680:16-3681:17 (Peterson).

246. Disputed in part. The Services agree that "what matters is calculating a per-play rate for the target market that produces the correct royalty on a per-play basis, taking into account the fact that the target service pays for skips." However, Dr. Peterson's skips rate from the benchmark market [redacted] does exactly this, because it calculates the benchmark rate [redacted]. *See* Peterson AWDT ¶15(c). SoundExchange misleadingly states that [redacted]. *See, e.g.*, 8/25/20 Tr. 3679:25-3680:15 (Peterson). In addition, Dr. Peterson's use of the Spotify skips rate makes economic sense because "the general approach in benchmarking is to take the target market as given and adjust the benchmark to the target," *i.e.*, [redacted]. 8/25/20 Tr. 3680:16-3681:5 (Peterson); *see also id.* at

3679:25-3680:15.

247. Disputed. SoundExchange's argument in this paragraph incorrectly takes as a given that royalties should be constant on a per-hour basis between the benchmark and target markets. SoundExchange cites no evidence to support this proposition. It also nakedly asserts that "[t]he benchmark market's skip rate may only be used if there is a basis to assume that the benchmark market and the target market have the same skip rate," but likewise fails to provide any rationale. In fact, this is wrong—as Dr. Peterson explained, "*the general approach* in benchmarking is to take the target market as given and adjust the benchmark to the target." 8/25/20 Tr. 3680:16-3681:17 (Peterson) (emphasis added).

248. Disputed. Professor Shapiro's and Dr. Peterson's skips adjustments are appropriate and necessary—and Mr. Orszag's approach is flawed—for all the reasons discussed in this brief and the Services' opening briefs. *See, e.g.*, Google PFFCL ¶¶ 54-57; SXM-PAN PFFCL ¶¶ 207-209, 238; Joint PFFCL ¶¶ 19-179.

2. Mr. Orszag's Failure To Adjust His Subscription Interactive Benchmark for Promotion and Substitution Differences From Ad-Supported Webcasters Dooms His Benchmarking Analysis

249. Disputed in part. The Services do not dispute that Mr. Orszag included no adjustment to his benchmark for promotion or substitution and disagree with Part VI of SoundExchange's PFFCL as discussed below. But there is a more fundamental problem with Mr. Orszag's failure to adjust his benchmark for promotional and substitutional effects. Mr. Orszag deliberately chose full-price subscription interactive services as his benchmark—*i.e.*, one of the principal "other streams of revenue" on which the statute requires the Judges to consider noninteractive services' effects. *See* 17 U.S.C. § 114(f)(1)(B)(i)(I). There is no credible dispute that ad-supported noninteractive webcasters' promotional and substitutional effects on sound recording companies' revenue streams are different from those of subscription interactive

services due to differences including interactivity and user willingness to pay. *See* NAB PFFCL ¶¶ 147-53. That is the underpinning of the interactive non-interactive dichotomy in the statute. *See supra* ¶ 77; NAB PFFCL ¶ 148. Use of subscription interactive services by subscribers does not promote subscriptions (and does not have the alleged funneling potential of Spotify's ad-supported service) because you cannot convert the converted; it by definition has a diversion ratio approaching 1:1. Further, as noted above, the record is clear that the major labels view interactive services as direct substitutes for purchasing activity. 9/30/20 Tr. 5692:6-13 (Harrison) (agreeing that "[redacted]"); Harrison WDT ¶¶ 6-7. That concession underscores the lack of comparability between Mr. Orszag's selected benchmark and the ad-supported non-interactive services for which the Judges must set a rate. *Cf. id.* at 5692:14-18 (claiming [redacted]"); TX 2056 at 14 (demonstrating [redacted]). Mr. Orszag's failure to adjust such a non-comparable benchmark for its relative effects on labels' non-statutory revenue streams dooms his analysis.

3. Mr. Orszag's Analysis Fails to Adequately Account for Indies

250. Disputed in part. The Spotify numbers in footnote 10 appear to reflect Mr. Orszag's calculations for Spotify's subscription service and exclude student, family, military, employee, trial, and promotional offerings. *See* Orszag WDT ¶ 167. To the extent the footnote suggests that they reflect anything else (*e.g.*, ad-supported numbers), the Services dispute it. For example, as discussed in Dr. Peterson's testimony, the effective per-play rate of Spotify's ad-supported service is [redacted], unlike to the numbers in the footnote. *See* Peterson AWDT ¶ 51.

The Services do not dispute the remainder of this paragraph.

251. Disputed. The cited paragraph of Mr. Orszag's testimony only discusses *headline* rates, only those rates for interactive *subscription* services, and only for INGrooves and the Orchard. Orszag WDT ¶ 168. Mr. Orszag concludes only that "those entities, respectively, negotiated on behalf of their Indie clients [redacted]." *Id.* This paragraph in SoundExchange's brief makes a broader claim that is unsupported (*e.g.*, referring to "effective rates," interactive services generally, and distributors "such as" INGrooves and The Orchard). In addition, contrary to SoundExchange's assertion, in the cited portion of his testimony, Mr. Orszag does not in any way opine that the "effective rates" he relied on for benchmarking are representative of the broader interactive subscription services market. *See id.*

G. No Upward Adjustments Are Required for Non-Royalty Benefits

252. Disputed in part. Agreements between record companies and interactive services do sometimes include non-rate compensation that the statutory license does not include. However, there is no evidence that agreements "frequently" include non-rate compensation or that it is "valuable" to the record companies. *See, e.g.*, 9/3/20 Tr. 5722:12-15 (Harrison) ([redacted]); 8/26/20 Tr. 3967:6-16 (Peterson) (explaining that Dr. Willig and Mr. Orszag "have provided no basis to put a [redacted] value on this in their testimony"). Thus, it is not appropriate to adjust benchmark rates upward to account for the value of non-rate compensation. For example, Dr. Peterson explained that "[t]he stated value of [redacted] contained in the benchmark licenses likely does [redacted] or to the record labels due to the various limitations placed on its use." Peterson AWDT ¶¶69-70. He further explained that "[redacted]

[redacted]." Peterson AWDT ¶71; *see also id.* ¶77 (SoundCloud's licenses "[redacted]."). Thus, while Dr. Peterson calculated an advertising adjustment, he concluded that [redacted]. 8/26/20 Tr. 3966:13-18 (Peterson); *see also* Google PFFCL ¶¶ 291-94 (explaining why no advertising adjustment is justified); *Web IV*, 81 Fed Reg. at 26369 ("[A]n important general consideration . . . is the absence of evidence of value from a party with regard to such additional terms, when that party has the incentive (as well as the means) to provide the Judges with such evidence."); 9/3/20 Tr. 5722:12-5723:12 (Harrison) ([redacted]").

1. No Adjustment Is Required for Advertising and Marketing Benefits

253. **Disputed in part**. Mr. Orszag provides no support for his claim that the agreements include "[redacted]." *See* Orszag WDT ¶172. The Services do not dispute the remainder of this paragraph.

254. **Disputed**. The Services dispute the allegations in this paragraph for the same reasons as paragraph 252. For example, as discussed, [redacted]. *See* Peterson AWDT ¶¶69-71. In addition, at trial Mr. Harrison conceded that [redacted]. 9/3/20 Tr. 5722:16-5723:12 (Harrison). Thus, the evidence does not support that record companies derive

significant value from [redacted].

255. **Disputed**. The Services dispute the allegations in this paragraph for the same reasons as paragraphs 252 and 254. For example, as discussed, [redacted]. *See* Peterson AWDT ¶¶69-71. In addition, Ms. Adadevoh conceded at trial that [redacted]." 9/3/20 Tr. 5596:19-5597:8 (Adadevoh). Again, the evidence does not support that record companies derive significant value from [redacted].

256. **Disputed**. The Services have no way to vet Mr. Orszag's calculation that his per-play royalty would have been higher by $[redacted] if he adopted the advertising adjustments calculated by the Services' experts, because it did not appear in his written direct or written rebuttal testimony, and he did not explain it at trial. *See* 8/11/20 Tr. 1372:17-1373:5 (Orszag). Mr. Orszag's original analysis did not include any such adjustment (*see id.* at 1372:17-18; Orszag WDT ¶126), which is the most accurate approach because [redacted]. 8/26/20 Tr. 3966:13-18 (Peterson); *see also* Google PFFCL ¶¶ 66-69 (explaining why no advertising adjustment is justified). In addition, Mr. Orszag's flawed approach applies a benchmark percentage of revenue to non-interactive ad revenue, which is completely different from Professor Shapiro's and Dr. Peterson's approaches. Mr. Orszag's proposal here impermissibly mixes and matches the other experts' approaches with his own by adding [redacted]—if these alleged advertising benefits were valuable as he alleges, he should have

increased his benchmark percent of revenue, something he did not even consider.

2. No Adjustment Is Required for the Value of Data

257. Disputed in part. The Services dispute this paragraph to the extent SoundExchange suggests that the referenced data has any economic value or any greater value than the data the labels receive from statutorily-licensed services, neither of which the evidence establishes. For example, no witnesses testified to either the monetary value of this data or the relative value of data from different services. *See, e.g.*, Orszag WDT ¶ 134 (conceding that "the record companies have not put a monetary value on the data"); Shapiro CWRT at 14 (observing that "Mr. Orszag does not even identify any unique type of data supplied by Spotify or by any single interactive service").

258. Disputed in part. *See supra* ¶ 257.

H. A Competition Adjustment Is Required Because the Benchmark Agreements on Which Mr. Orszag Relies Do Not Reflect Effectively Competitive Rates

259. Disputed in part. The Services agree that *Web IV* held that the hypothetical marketplace in which the Judges set rates should be "effectively competitive." *Web IV*, 81 Fed. Reg. at 26333. SoundExchange ignores that, to be effectively competitive rates, the statutory rates must not reflect complementary oligopoly. *See Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 574 F.3d 748, 757 (D.C. Cir. 2009); *see also* Joint PFFCL ¶¶ 7-18.

260. Not disputed.

261. Disputed in part. The Services agree that, to be used as benchmarks in this proceeding, agreements with on-demand services must be adjusted to account for the labels' complementary oligopoly. But SoundExchange's citation to *Web IV* does not support its assertion that an effectively competitive market is one that merely "mitigate[s] the effect of complementary oligopoly." Instead, that part of *Web IV* explained that steering competition

could "move the market *toward* effective, or workable, competition." *Web IV*, 81 Fed. Reg. at 26366 (emphasis added). And as Professor Shapiro explained in this proceeding, steering competition alone cannot render the market effectively competitive as a whole when a record label is "must have." *See* 8/18/20 Tr. 2636:21-2639:11 (Shapiro) ("Steering competition can lower the marginal rate, but not the average rate when you have must-have labels."); *see also* Joint PFFCL ¶ 17, 153.

262. Disputed. SoundExchange's contention is factually wrong because the Benchmark Agreements included terms from prior agreements, which were previously before the Judges. For instance, the [redacted] agreement carried forward terms from the 2013 agreement. *See* TX 5038 at 24 [redacted]). In addition, the Judges have previously made findings about the nature of the market for sound recordings for interactive services, and those findings apply no less to the Benchmark Agreements. *E.g., SDARS III*, 83 Fed. Reg. at 65231 ("[T]he Judges find there is no bona fide dispute but that these rates would partially reflect the complementary oligopoly effect of Majors."); *Phonorecords III*, 84 Fed. Reg. at 1953, *vacated and remanded*, *Johnson v. Copyright Royalty Bd.*, 969 F.3d 363, 372 (D.C. Cir. 2020) ("As must-have suppliers in an unregulated market, record companies are in a position to walk away from negotiations with the Services and, effectively, put them out of business."). To the extent SoundExchange implies that the circumstances of the interactive streaming market changed in 2017, they are wrong and provide no credible support. *See infra* ¶¶ 263, 266. SoundExchange makes this same time-worn argument in every proceeding, which the Judges have correctly rejected each time.

263. Disputed. The Benchmark Agreements were not negotiated under effectively competitive conditions because the record labels remain complementary oligopolists.

Complementary oligopoly, which results from multiple record companies being "must haves," leads to royalty rates that are even higher than the rates that would be charged by a single monopolist controlling the licensing of all recorded music. Shapiro WRT at 6; 8/18/20 Tr. 2642:22-2643:2 (Shapiro). The Majors are must-haves for [redacted] which is why during negotiations, [redacted]. *See* 8/18/20 Tr. 2651:25-2652:17 (Shapiro) (describing lack of meaningful carriage competition with must-have labels); *id.* at 3057:15-17 ("There's no reason for this label to agree to some competitive rate when they can shut down the service."); 9/9/20 Tr. 5929:17-24 (Sherwood). [redacted]. *See* 8/25/20 Tr. 3722:12-19 (Peterson); Peterson AWRT ¶¶ 5(c), 79-81; *infra* ¶¶ 410, 413, 430, 441; Joint PFFCL ¶¶ 139-47. [redacted] Peterson AWRT ¶ 78 ("[redacted]."); *see also* Joint PFFCL ¶ 136. On the other hand, since *SDARS III* (when the Judges re-affirmed that the labels were complementary oligopolists), Spotify's effective royalty rate [redacted]. Shapiro WRT at 23 Fig. 1.

264. Disputed. As discussed in more detail below, the majority (68%) of listening on

Spotify is through mechanisms over which Spotify cannot influence listening. That type of listening accounts for only 32% of plays on Spotify. 8/12/20 Tr. 1528:22-25, 1532:23-1533:4, 1538:10-13 (Orszag); *see also infra* ¶ 299.

265. Disputed. SoundExchange did not include negotiation documents in its written direct case (and only cited a small handful in its written rebuttal case), even though SoundExchange included testimony from numerous label witnesses and those documents reside in the record companies' own files. 8/12/20 Tr. 1651:20-24; 8/13/20 Tr. 1868:7-11 (Orszag) (agreeing he did not cite negotiation documents). Importantly, almost *none* of the negotiation documents SoundExchange repeatedly cites and excerpts in its PFFCL were identified, discussed, or relied on *whatsoever* in its written testimony (by Mr. Orszag or any other witness), and the vast majority have not been admitted into evidence. SoundExchange should therefore be precluded from relying on such documents now. *See* 37 C.F.R. § 351.10 (noting that a witness's testimony at a hearing is limited to "testimony of the witness in the written statements and an oral summary of that testimony"); § 351.4 (noting that written direct statements "shall include all testimony . . . along with all the exhibits); *see also Way of Life Television Network, Inc. v. FCC,* 593 F.2d 1356 (D.C. Cir. 1979) (error for agency to fail to follow its own procedures). On the merits, SoundExchange's argument that [redacted] evidence effective competition fails. Peterson AWRT ¶ 78 ([redacted]); Ex. 5602 ¶ 124, Table 11 (Orszag WDT) ([redacted]); *see also* Joint PFFCL ¶¶ 77-82 (extensively addressing negotiation documents and disputing SoundExchange's claims).

266. Disputed. Because labels remain must-haves in the sense they could [redacted]

they have complementary oligopoly power and a competition adjustment is necessary. *See* Peterson AWRT ¶¶ 35, 68; *see also* Shapiro WRT at 4. As for the Amazon Prime per-play rate, Mr. Orszag inflated the effective rate for Spotify by artificially excluding discounted plans. *See* Joint PFFCL ¶ 160. Moreover, he does not use the per-play rate at all, but rather alters the *Web IV* methodology by starting from Spotify's percent-of-revenue royalty. Joint PFFCL ¶ 161; *see also infra* ¶¶ 483, 485.

1. The Royalty Rates in the 2017 Are Not Effectively Competitive

267. Disputed in part. Rates negotiated in license agreements between the major record companies and do not reflect effective competition because the major record labels exercise complementary oligopoly power. Shapiro WRT at 6; 8/18/20 Tr. 2642:22-2643:2 (Shapiro); *supra* ¶ 263 (collecting additional sources). The major labels are must-have suppliers for interactive services, and it is that must-have nature that imbues them with complementary oligopoly power. Peterson AWDT ¶¶ 15(b), 35, 68; *see also* Shapiro WRT at 4 ("Effective competition is not possible in the presence of one or more 'must-have' record companies.").

See 8/9/20 Tr. 1072:16-1074:6 (colloquy between Willig and Judge Strickler); *see also* Joint PFFCL ¶ 117 (calculating unequal bargaining power between Sony and). Mr. Orszag's myopic focus on the short-term effects of a disagreement undermines his analysis. 8/25/20 Tr. 3712:10-3713:5 (Peterson); Peterson AWRT ¶¶ 6, 66; Joint PFFCL ¶¶ 85, 112-20 (discussing additional reasons why labels and Spotify do not have equal bargaining power).

268. Disputed in part. Mr. Orszag offered no meaningful evidence that

[redacted]. *Compare* Orszag WDT ¶¶ 109-11, *with supra* ¶¶ 263, 266, 267 (summarizing reasons why [redacted]); Shapiro SCWDT at 13; 8/18/20 Tr. 2651:25-2652:17 (Shapiro) (discussing how there can be no carriage competition among "must-have" record companies and that a threat to drop a label by an interactive service would not be credible).

269. Disputed. SoundExchange can find no solace in *Web II*. The Judges have since abandoned the approach of its earliest webcasting proceedings in favor of an approach that looks at whether a market is effectively competitive—making dicta from its prior webcasting cases inapposite. *Web IV*, 81 Fed. Reg. at 26333. In *Web II*, the Judges did not find that record labels were complementary oligopolies, and the evidence in that proceeding did not show that interactive webcasters "need[ed] the portfolios of the four major record companies in order to provide a service to consumers." 72 Fed. Reg. at 24093. Here, by contrast, both SoundExchange and the services agree that the major labels are must-haves for interactive services. *E.g.*, SX PFFCL ¶ 261; *Web IV*, 81 Fed. Reg. at 26366. Finally, Mr. Orszag himself conceded the he "ha[d] not undertaken" any analysis to determine if [redacted] had monopsony power. 8/12/20 Tr. 1632:2-6 (Orszag). [redacted] does not, as it [redacted]

270-71. Not disputed.

272. Disputed. SoundExchange's leading argument seems to be that because [redacted] exercises curatorial influence over a small portion (32%) of the listening on its platform, somehow the world since *Web IV* (and *Phonorecords III* and *SDARS* III) has changed. 8/12/20 Tr. 1528:22-25, 1532:23-1533:4, 1538:10-13 (Orszag); *see also infra* ¶ 299. Critically, however,

SoundExchange does not argue that major labels are no longer must-haves for [redacted]. It does not point to any evidence that [redacted] exercises curatorial influence [redacted]. 8/12/20 Tr. 1536:9-22 (Orszag) (testifying that there is no "[redacted]"); *see also* Joint PFFCL ¶¶ 67-71, 73-76, 92-104 (collecting evidence about [redacted]).

2. [redacted]

273. **Disputed in part.** There is no evidence that the market for physical recordings and downloads was effectively competitive. In fact, there are major indications this was not the case: the same oligopoly of three major labels existed in that market; SoundExchange has proffered no evidence that Apple had offsetting monopoly power in that market; and as a factual matter, both Google and Amazon are large sellers in that market. *See, e.g.*, Shapiro WRT at 8; 8/18/20 Tr. 2642:15-2643:22 (Shapiro); 8/12/20 Tr. 1496:17-21 (Orszag).

274. **Disputed.** *See infra* ¶¶ 275-278.

275. **Disputed in part.** [redacted]. *See* SX PFFCL n.13; 8/12/20 Tr. 1503:10-23, 1504:6-22 (Orszag); *infra* ¶ 279. [redacted] 8/13/20 Tr. 1902:1-17, 1903:10-17 (Orszag). As Professor Shapiro explained at trial, this is precisely the pricing behavior one would expect from complementary oligopolists seeking to grow their collective revenues, rather than to compete with each other. 8/19/20 Tr. 2864:8-23 (Shapiro).

276. **Disputed.** Dr. Shapiro's recalculation of effective rates to include all subscription plans reveals that since *SDARS III*, [redacted]

[redacted]. Shapiro WRT at 22-23, Fig. 1; *see* Joint PFFCL ¶ 137 (citing Shapiro WRT at 23 Fig. 1; 8/19/20 Tr. 2889:17-2890:5 (Shapiro)); *infra* ¶ 281.

277. **Disputed.** *See infra* ¶ 282.

278. **Disputed.** *See infra* ¶¶ 292-296.

i. [redacted]

279. **Disputed in part.** The Services do not dispute that several interactive streaming services [redacted]. Indeed, the fact that [redacted] during the same period illustrates that such [redacted] were due to concerns over the [redacted], and not any purported [redacted], consistent with the labels behaving as complementary oligopolists. *See* Peterson AWRT ¶ 78; Orszag WDT ¶ 152; Joint PFFCL ¶¶ 137, 144-46. This conclusion is buttressed by the evidence revealing the motivating factor for the [redacted]. *See* Joint PFFCL ¶¶ 139-142; Peterson AWRT ¶¶ 79-81; Shapiro WRT at 20; Leonard CWRT ¶ 67; TX 4023 at 1; 4026 at 1; TX 4022 at 1-2; ¶¶ 413, 430 *infra*. The services do dispute, however, the idea that [redacted] occurred after *Web IV*. On the contrary, [redacted] occurred well before *Web IV*. *See, e.g.*, 8/12/20 Tr. 1501:20-22 (Orszag); 9/3/20 Tr. 5588:11-5591:1 (Adadevoh); Peterson AWRT ¶ 78; Joint PFFCL ¶ 136. Further, the [redacted]

[redacted]. *See* SX PFFCL n.13; 8/12/20 Tr. 1503:10-23, 1504:6-22 (Orszag).

280. **Disputed in part.** The Services do not dispute the fact that, since *Web IV*, Amazon and Pandora have introduced subscription on demand services [redacted]. *See supra* ¶ 279. It is not surprising that in free market negotiations, new services [redacted]. *See, e.g.*, 8/13/20 Tr. 1902:1-17 (Piibe).

281. **Disputed in part.** It is far more accurate and appropriate for a benchmarking analysis to look at rates charged for all subscription plans (not just full price plans), and doing so reveals that since *SDARS III* [redacted]. Shapiro WRT at 22-23, Fig. 1; *see also* Joint PFFCL ¶ 137 (citing Shapiro WRT at 23 Fig. 1; 8/19/20 Tr. 2889:17-2890:5 (Shapiro)); SXM-PAN PFFCL ¶¶ 185-186; *supra* ¶ 135 (explaining that because the statutory rate will apply to *all subscribers* in the target market regardless of their chosen plan, the benchmark effective per-performance rate should reflect the rate charged by the Majors across *all subscribers* in the benchmark market).

282. **Disputed in part.** The purported rate discrepancy is addressed in paragraph 90.

283. **Disputed.** *See supra* ¶ 279.

284. **Disputed.** Nowhere on the record does Dr. Peterson suggest that the [redacted], nor is that conclusion a necessary implication of his position; he merely concludes that both negotiations indicate the labels' exercise of

complementary oligopoly power, and that [redacted], on its own, does not necessarily signal the presence of effective competition ([redacted]). *See* 8/25/20 Tr. 3722:22-3723:2 (Peterson). On the contrary, Dr. Peterson suggests that unique reasoning factored into the Benchmark Agreement negotiations, for example, the [redacted]. *See supra* ¶ 279; *infra* § V.H.3-4.

285. **Disputed.** SoundExchange mischaracterizes Dr. Peterson's testimony in asserting that he suggests the Judges should assume that rate concessions cannot obviate the need for a competition adjustment. In reality, Dr. Peterson concludes from the evidence that the Benchmark Agreements involved the same complementary oligopoly market that was at play during *Web IV*, and which requires a competition adjustment. *See* 8/25/20 Tr. 3722:22-3723:2; *supra* ¶ 279; Peterson AWRT Section IV.D; *Web IV*, 81 Fed. Reg. at 26332.

286. **Disputed.** [redacted] because of factors unrelated to changes in the competitive landscape, for example [redacted]. *See supra* ¶ 279; Peterson AWRT ¶¶ 78-81.

287. **Disputed in part.** *See supra* ¶ 279.

ii. [redacted]

288. **Disputed in part.** [redacted]. Joint PFFCL ¶ 158. Among those [redacted]. *Id.*; *supra* ¶ 180; 9/3/20 Tr. 5717:7-14 (Harrison); *see also* Shapiro WRT at 22 & n.60 (showing [redacted]); 8/19/20 Tr. 2890:13-17 (Shapiro); 9/3/20 Tr. 5709:5-23 (Harrison). Further, [redacted]

[redacted] shows that "it could be [redacted]." Adadevoh WDT ¶ 22; 8/26/20 Tr. 3951:18-3952:3 (Peterson). This alone is evidence "[redacted] . . . consistent with . . . complementary oligopol[ists]." 8/26/20 Tr. 3952:10-25 (Peterson).

289. **Disputed in part.** The [redacted]. 8/12/20 Tr. 1503:10-23, 1504:6-22 (Orszag). Further, the [redacted]. 8/13/20 Tr. 1902:1-17, 1903:10-17 (Orszag). [redacted]

290. **Disputed.** SoundExchange contends that [redacted]. [redacted] *See supra* ¶ 288.. [redacted] *See, e.g.*, TX 5037 at 82-84; TX 5038 at 2; TX 5011 at 45-46.

291. **Disputed in part.** The Services do not dispute that [redacted]. However, SoundExchange's suggestion that [redacted] is not reflected in the record. To the contrary, [redacted] 9/3/20 Tr. 5712:6-10. This is not

surprising considering, as stated *supra*, [redacted]. *See supra* ¶ 288; Joint PFFCL ¶ 146.

iii. [redacted]

292. **Disputed in part.** Although the [redacted], Dr. Peterson has shown that, according to royalty payment data, [redacted]. Peterson AWRT ¶¶ 52-55, Fig. 5; 8/25/20 Tr. 3705:1-3707:24 (Peterson) (explaining the royalty payment information shown in figure five of his written testimony and why the [redacted] indicates that the licensors are "exercising their complementary oligopoly"); *see also* Joint PFFCL ¶ 43; 8/26/20 Tr. 3948:13-17 (Peterson).

293. **Disputed in part.** The Services do not dispute that [redacted]. The Services dispute that [redacted] To the contrary, [redacted]. 9/3/20 Tr. 5614:5-5615:14 (Adadevoh) (also testifying that "[redacted]").

294. **Disputed.** Changes [redacted]. As discussed immediately above, Ms. Adadevoh's testimony reveals that [redacted]

[redacted]. *See supra* ¶ 293. Similarly, Mr. Piibe, when asked whether he [redacted]. 9/2/20 Tr. 5173:9-5174:10 (Piibe). [redacted]. 9/2/20 Tr. 5172:7-21 (Piibe).

295. **Disputed.** Contrary to SoundExchange's highlight of the [redacted] 9/2/20 Tr. 5170:1-6 (Piibe) (stating that the idea is intuitive). When asked by Judge Strickler if [redacted]. 9/2/20 Tr. 5169:6-5170:1 (Piibe). The idea that [redacted] is opportune speculation, not supported by the record, and belies common sense. *See supra* ¶ 294.

296. **Disputed.** The record does not reflect that [redacted]. 9/2/20 Tr. 5182:18-5183:18 (Piibe) ([redacted]). Further, [redacted]

. 9/2/20 Tr. 5183:7-18 (Piibe).

3.

297. Disputed. SoundExchange's shop-worn argument that the competitive landscape has changed since prior proceedings fails (again). The 2017 rate as made plain by the record labels' own documents. *See* TX 4021 at 3 (Warner); TX 2131 (UMG); TX 4022 at 1-2 (WMG); *see also* JPFFCL ¶¶ 139-47; *infra* ¶¶ 405-89. The labels gave *See* 8/19/20 Tr. 2882:25-2883:9 (Shapiro); TX 4023 at 1; 9/3/20 Tr. 5718:2-9 (Harrison).

i. Record Companies

298. Disputed. SoundExchange made this same argument that record labels have grown more dependent on services such as Spotify in *SDARS III*, and the Judges correctly rejected it. *SDARS III*, 83 Fed. Reg. at 65231.

[redacted] Nor are the labels "dependent" [redacted] 8/25/20 Tr. 3713:19-3714:4 (Peterson); *see also* 8/19/20 Tr. 2859:20-22 (Shapiro).

299. Disputed. Service-curated playlists are no help to SoundExchange's argument either. That type of listening accounts for only 32% of plays on [redacted]. 8/12/20 Tr. 1528:22-25, 1532:23-1533:4, 1538:10-13 (Orszag). Even of the playlist listening, SoundExchange's own label witnesses and experts [redacted]. 9/02/20 Tr. 5435:8-16 (Fowler); 9/09/20 Tr. 5949:21-5950:23 (Sherwood); 8/12/20 Tr. 1536:9-22 (Orszag) (testifying that there is no "[redacted]"). Nor was any label witness aware [redacted]. 9/2/20 Tr. 5371:21-5372:1 ([redacted]); 9/3/20 Tr. 5698:5-12 (UMG's Harrison, to similar effect); 9/3/20 Tr. 5531:22-5532:4 (Warner's Adadevoh); *see also* Services' JPFFCL ¶ 70.

300. Disputed. The hearing also revealed SoundExchange's argument about [redacted] to be entirely speculative, at best. [redacted]. *See, e.g.*, 9/9/20 Tr. 5952:15-5954:16 (Sherwood). And there is all the reason to believe a material number would not, [redacted] 9/3/20 Tr. 5738:6-24 (Harrison). Nor was there any

specific testimony [redacted]." 9/2/20 Tr. 5426:25-5427:3 (J. Fowler).

301. Disputed. Mr. Orszag and the record label witnesses incorrectly look at the short-term effects of a disagreement between [redacted], rather than assessing bargaining power that would result if there were long-term, sustained disagreement. 8/25/20 Tr. 3712:10-3713:5 (Peterson); Peterson AWRT ¶¶ 6, 66; 8/19/20 Tr. 2860:1-4 (Shapiro); Shapiro WRT at 11. At trial, SoundExchange's witnesses conceded [redacted]. 9/3/20 Tr. 5511:18-5512:12 (Adadevoh) ([redacted]); 9/3/20 Tr. 5723:19-5724:15 (Harrison) ([redacted]). And labels would fare better in an impasse than [redacted] "given that [they] would continue to receive royalties from other sources, whereas the service's entire subscription revenues would potentially be at risk." Leonard CWRT ¶ 77.

302. Disputed in part. While SoundExchange is correct that Dr. Peterson and Professor Shapiro consider [redacted], that is not their only basis to conclude that [redacted]. Peterson AWRT ¶¶ 6, 66. Dr. Shapiro's present discounted value model looks at short- and medium-term effects as well. *See* Shapiro WRT at 11 (present discounted value impact includes long-term effects); 8/20/20 Tr. 3105:13-16 (Shapiro) ("[redacted]

[redacted].").

303. Disputed. Mr. Orszag did not testify that emphasis "[redacted]," as SoundExchange's proposed fact alleges. Instead, he conceded that from the perspective of an economist, a "[redacted]" was the correct focus, though he noted that factors such as [redacted]. Tr. 1297:17-21 ("[redacted]"); *id.* at 1295:20-23 ([redacted]). [redacted] as SoundExchange also incorrectly claims. (Nor could they: as Shapiro explains, present discounted value impact includes long-term effects. Shapiro WRT at 11.)

304. Disputed. Dr. Shapiro expressly testified [redacted]. 8/20/20 Tr. 3105:10-16 (Shapiro). [redacted]." *Id.* at 3105:23-24. SoundExchange cannot simply close its eyes to Dr. Shapiro's testimony. And SoundExchange cites zero evidence in support of its claims about Dr. Peterson, which should be rejected.

305. Disputed. Unlike the Services' experts, who considered [redacted], all of the label witnesses myopically focused on short-term impacts rather than considering the economically correct long view. 8/25/20 Tr. 3712:10-3713:5 (Peterson); Peterson AWRT ¶¶ 6, 66; 8/19/20 Tr. 2860:1-4 (Shapiro); Shapiro WRT at 11; *see supra* ¶ 301.

a. Between 2013 and 2017, Record Companies Did Not Become Much More Dependent on Subscription On-Demand Services in General [redacted]

306. Disputed in part. Although streaming revenues have grown, SoundExchange

uses revenue figures that appear to include ad-supported *and* paid subscription on-demand streaming, rather than simply the revenue for subscription on-demand services. *Compare* SX PFFCL ¶ 306, *with* TX 5604, App. 2 (Tucker WDT).

307. Disputed in part. Although streaming revenues have grown, SoundExchange's revenue figures appear to include sources other than revenue from paid subscription on-demand streaming. *See supra* ¶ 306.

308. Disputed in part. The chart cited by SoundExchange shows a decline in categories for "Digital Physical" and "Digital Downloads," but this same chart shows that this decline has been more than offset by other sources of revenue, including growing SoundExchange distributions, ad-supported streaming, non-digital physical sales, and paid subscription streaming. Ex. 5604, App. 1. It is not apparent what figures SoundExchange relies on for its analysis of "retail revenue" and "sales revenue," as those figures do not tie to the chart it cites or even use the same terminology as the chart. The Services agree that streaming accounts for a larger percentage of the overall revenue for recorded music, however the industry's total revenue has increased substantially since 2013. *See id.* App. 2.

309. Disputed in part. The Benchmark Agreements included [redacted]. *See supra* ¶ 262. The chart cited by SoundExchange shows that Spotify's share of gross revenues for subscription interactive services in the United States has [redacted]. *See* TX 5602 ¶ 124, Table 11 (Orszag WDT). Its citation also shows that Spotify experienced [redacted]. *See id.* ¶ 124, Table 10 (Orszag WDT).

310. Disputed in part. While SoundExchange is correct that Spotify's revenue and subscribers grew after execution of the Benchmark Agreements, so did revenues for interactive

streaming as a whole. [redacted] *See* Ex. 5602 ¶ 124, Table 11 (Orszag WDT). SoundExchange's speculation about what "[redacted]" is not supported by the record. Warner's Ms. Adadevoh—the only fact witness SoundExchange cites—was not [redacted] 9/3/20 Tr. 5517:7-5519:24 (Adadevoh). The remaining witness, Mr. Orszag, had no personal knowledge of any of the negotiations.

b. [redacted] That SoundExchange Claims

311. Disputed. Record companies never seriously considered what would happen if [redacted]. *See supra* ¶ 301. Indeed, the record company witnesses [redacted]. *Id.* None considered what would happen [redacted]. Shapiro WRT at 9; 8/12/20 Tr. 1691:10-1692:10 (Orszag). Indeed, "the label would survive cutting off the on-demand streaming service, and its cost of not licensing that service would fall as users leave the unlicensed service for other services." Peterson WRT ¶ 66.

312. Disputed. [redacted]. 9/2/20 Tr. 5424:14-5425:18 (J. Fowler) ([redacted]

[redacted]); 9/9/20 Tr. 5932:4-22 (Sherwood) ([redacted]); 8/25/20 Tr. 3714:15-20 (Peterson); Peterson AWRT ¶ 66; *see also* Joint PFFCL ¶ 114. Moreover, the testimony of label executives [redacted]. *See, e.g.*, 9/2/20 Tr. 5388:8-18 (Piibe) ([redacted]); 9/3/20 Tr. 5731:16-5732:10 (Harrison) ([redacted]); *see also* Joint PFFCL ¶ 123. Sony's Mr. Piibe did not provide any support for his [redacted] to support SoundExchange's position. Shapiro WRT at 12; *see also* 8/19/20 Tr. 2860:5-17, 2865:9-2866:1 (Shapiro).

313. **Disputed.** These [redacted]. *See supra* ¶ 312.

314. **Disputed.** *See supra* ¶ 312-313. [redacted]. 8/25/20 Tr. 3714:21-3715:12 (Peterson); Peterson AWRT ¶¶ 6, 66; 8/19/20 Tr. 2859:4-25 (Shapiro); Shapiro WRT at 10-11.

315. **Disputed.** SoundExchange's efforts to shore up its theory based [redacted]—years after it signed its 2017 agreement—also fails. *See* TX 5077; *see also supra* ¶ 312. That document is focused on [redacted]

[redacted]. TX 5077 at 3, 7; *see also* 9/9/20 Tr. 5932:4-22 (Sherwood) ([redacted]). [redacted]

316. **Disputed.** [redacted]. TX 5077 at 2; *see also supra* ¶ 312, 315.

317. **Disputed.** [redacted]. *See supra* ¶ 315. [redacted] *See* TX 5077

c. [redacted]

318. **Disputed.** No evidence supports SoundExchange's wild speculation about [redacted]. *See, e.g.*, 8/11/20 Tr. 1286:9-15 (Orszag) ([redacted]). [redacted]. *See, e.g.*, 9/9/20 Tr. 5952:15-5954:16 (Sherwood). And there is all the reason to believe a material number would not, [redacted]

9/3/20 Tr. 5738:6-24 (Harrison). ." 9/2/20 Tr. 5426:25-5427:3 (J. Fowler); *see also* Joint PFFCL ¶¶ 126-29.

319-321. **Disputed.** *See supra* ¶ 318. .

322. **Disputed.** *See supra* ¶ 318. Moreover, SoundExchange's " are overblown because the labels' witnesses and their own documents explained that . TX 5077 at 3, 7; *see also* 9/9/20 Tr. 5932:4-22 (Sherwood) ( ); 9/2/20 Tr. 5424:14-5425:18 (J. Fowler) ( ).

323-327. **Disputed.** *See supra* ¶¶ 318, 322. In addition, Dr. Shapiro's . 8/20/20 Tr. 3105:10-16 (Shapiro).

d.

328. **Disputed.** , they would still receive data from their other digital partners. Indeed, SoundExchange's leading exhibit . *See* TX 5017 at 25. In a similar vein, Mr. Orszag discussed that

[redacted]. Orszag WDT ¶ 132. Access to that data [redacted].

329. **Disputed**. SoundExchange's argument that [redacted] is meritless. The only statements it cites in support are from [redacted] 9/3/20 Tr. 5724:15-18 (Harrison). But [redacted]. *See id.* 5726:8-17. And it also flies in the face of the low barriers to entry among interactive streaming services: [redacted]. Shapiro WRT at 9; 8/12/20 Tr. 1691:10-1692:10 (Orszag). Indeed, [redacted]. *Id.*; *see also* Joint PFFCL ¶¶ 133-34.

330. **Disputed.** *See supra* ¶ 329.

331. **Disputed.** SoundExchange's argument about [redacted] By refusing to accede, labels would see an additional benefit in quelling the demand for lower rates by standing their ground. *See* 8/25/20 Tr. 3715:7-11 (Peterson); 8/20/20 Tr. 3102:9-3104:6 (Shapiro) ([redacted]). Thus, [redacted]. *See* 9/3/20 Tr. 5732:23-5733:5 (Harrison) ([redacted]). Instead, it would re-affirm the labels' power to shut down

services. Low barriers to entry would also check against consolidation—if [redacted] exited the market, another entrant could quickly take its place. Shapiro WRT at 9; 8/12/20 Tr. 1691:10-1692:10 (Orszag); Leonard CWRT ¶¶ 78-79 (discussing how there are no significant barriers to entry or expansion, and "any service could easily expand to accommodate users switching from other services"). Indeed, Apple grew from nascent to one of the largest subscription streaming services in the United States in only two years. *See also* 9/3/20 Tr. 5725:7-12 (Harrison) ([redacted]). Finally, Mr. Orszag conceded that the interactive streaming market has elements of contestability, meaning actual entry is not needed. 8/11/20 Tr. 1271:14-1272:10 (Orszag).

332-334. **Disputed.** *See supra* ¶ 331. In addition, the article published by Professor Waldfogel (which should not be credited or admitted into evidence) is simply wrong. There is not "growing concentration in the streaming market": Spotify and Apple's [redacted], *see* Orszag WDT ¶ 124, Table 11. In fact, based on Mr. Orszag's own Herfindahl-Hirschman Index analysis, HHI on the services' side decreased between 2015 and 2018. Leonard CWRT ¶ 69 & n.143.

335-37. **Disputed.** *See supra* ¶ 331. SoundExchange can find no [redacted]. *See supra* ¶ 331; Shapiro WRT at 14.

338. **Disputed.** *See supra* ¶ 335. There is no evidence that international territories have barriers to entry that would make it difficult for a new service to enter the market in the event that [redacted].

339. **Disputed.** SoundExchange's final argument that [redacted], and by

common sense. Professor Shapiro offers the only empirical analysis of the relative impacts, [redacted]. See 8/19/20 Tr. 2860:5-17, 2865:9-2866:1 (Shapiro); Shapiro WRT at 11-12. Not licensing [redacted] would only cause [redacted] to lose [redacted] of the present discounted value of its royalty income, whereas [redacted] would lose roughly [redacted] of the present discounted value of its revenue and profits in the event of a failed negotiation. Shapiro WRT at 12; see also 8/19/20 Tr. 2860:5-17, 2865:9-2866:1 (Shapiro). On the other hand, labels "would recapture a portion of the royalties via other channels to which users turned to hear the label's music[, and] would have a greater ability to wait out the impasse, given that it would continue to receive royalties from other sources, whereas the service's entire subscription revenues would potentially be at risk given that it was not able to meet the primary driver of demand for an interactive service." Leonard CWRT ¶ 77.

340. **Disputed.** SoundExchange offers a hodgepodge of guesses as to why subscribers would not immediately abandon a streaming service in the event [redacted] These are also without merit. To start, all of the reasons are speculative, and [redacted]. In fact, a subscription interactive service likely would have to give immediate discounts on subscription fees to disgruntled users who were not getting what they paid for, [and] would suffer subscriber losses given the ease of switching to other services . . . ." Leonard CWRT ¶ 77. Listeners, after all, have no reason [redacted] 8/25/20 Tr. 3713:19-3714:4 (Peterson); *see also* 8/19/20 Tr. 2859:20-22 (Shapiro). Even if it took months for subscribers to leave, they would eventually migrate to

other platforms, meaning the label would [redacted] percent of revenue it [redacted] would shut down, losing everything. Shapiro WRT at 10-11; 8/19/20 Tr. 2859:4-25 (Shapiro); 8/25/20 Tr. 3714:15-20 (Peterson); Peterson AWRT ¶ 66.

341-43. **Disputed.** *See supra* ¶ 340.

344. **Disputed.** For all the reasons discussed above, the ultimate outcome of a disagreement between [redacted]—the relevant metric—is that the label would suffer a temporary loss of revenue but survive, whereas [redacted] would lose everything and shut down. 8/25/20 Tr. 3714:21-3715:12 (Peterson); Peterson AWRT ¶¶ 6, 66; 8/19/20 Tr. 2859:4-25 (Shapiro); Shapiro WRT at 10-11; *see generally supra* ¶¶ 298-343.

345. **Disputed.** *See supra* ¶ 344. For all of the speculation by Sony's Mr. Piibe, he could not say whether [redacted]. 9/2/20 Tr. 5360:11-18 (Piibe).

ii. Spotify [redacted] While Negotiating the Benchmark Agreements

a. Overview

346. **Disputed.** Boiled to its essence, SoundExchange's "market share" argument is that because Spotify has playlists, it can influence whose works are included on those playlists. We address all of SoundExchange's arguments in the lengthy section that follows, but four points bear noting. *First*, what SoundExchange is arguing about isn't steering. As the Judges described it in *Web IV*, "Steering is synonymous with price competition in the market." *Web IV*, 81 Fed. Reg. at 26343. There's no evidence by SoundExchange that record labels compete with each other on price to get more placement of their tracks on Spotify's playlists—[redacted]. 9/2/20 Tr. 5371:21-5372:1 (Piibe); 9/3/20 Tr. 5698:5-

12 (Harrison); 9/3/20 Tr. 5531:22-5532:4 (Adadevoh). *Two*, for all of SoundExchange's fixation on playlists, only a small percentage of listening (32%) is through a playlist where Spotify could exercise curatorial influence. 8/12/20 Tr. 1528:22-25, 1532:23-1533:4, 1538:10-13 (Orszag). On-demand services remain primarily on-demand services. *Third*, SoundExchange doesn't have "empirical studies" or any evidence that [redacted]. They don't have any evidence at all—even though labels have looked hard for it. *See* Joint PFFCL ¶ 68-71. Silence, sometimes, speaks volumes. *Fourth*, [redacted]. TX 5011 at 36 ([redacted]); TX 5074 at 22 (similar provision in [redacted]); TX 5037 at 45, 96 (UMG-Spotify 2017); TX 2062 at 38 (similar provision in [redacted]); TX 5020 at 20, 36; *see also* Joint PFFCL ¶¶ 92-97.

347. **Disputed in part.** While SoundExchange is correct that Spotify could influence listening to some extent through playlists, there is no evidence of [redacted]. *See, e.g.*, 9/3/20 Tr. 5537:3-12, 5539:6-10 (Adadevoh) ([redacted]); *see also* Joint PFFCL ¶ 71.

348. **Disputed.** SoundExchange's attack on Shapiro repeats the error at the heart of its playlist obsession: it conflates Spotify's ability to influence what appears on a playlist with steering. Steering, in the economically meaningful sense, is synonymous with price competition. *Web IV*, 81 Fed. Reg. at 26343. Yet label witnesses were clear [redacted]

[redacted]. 9/3/20 Tr. 5705:2-19 (Harrison) ([redacted]); 9/3/20 Tr. 5545:19-5546:13 (Adadevoh) ([redacted]); 9/2/20 Tr. 5341:20-25 (Piibe) ([redacted]); 9/02/20 Tr. 5435:8-16 (Fowler) ([redacted]); 9/09/20 Tr. 5949:21-5950:23 (Sherwood) (same). Because the ability to simply influence playlists is not the same as steering, there is nothing in Dr. Shapiro's opinions in *Web IV* and this proceeding to reconcile. Shapiro SCWDT at 11; 8/18/20 Tr. 2650:10-20, 2651:5-9 (Shapiro).

349-50. **Disputed.** *See supra* ¶ 348. There is not only no evidence of steering, [redacted]. *See* Joint PFFCL ¶¶ 77-86, 92-104.

351. **Not Disputed.**

352. **Disputed in part.** Dr. Shapiro testified [redacted] Tr. 8/20/20 3067:13-14 (Shapiro). But record labels [redacted]—the whole reason why SoundExchange's steering argument collapses. *See supra* ¶¶ 346, 348.

353. **Disputed in part.** Dr. Shapiro noted that a threat that a firm must offer a lower price or be steered away from is not possible when most-favored nation provisions are prevalent. 8/20/20 Tr. 3052:10-14 (Shapiro). [redacted]

[redacted] 8/13/20 Tr. 1905:23-1906:2 (Orszag) [redacted]).

354. **Disputed.** [redacted] is not "[redacted]" In fact, it is [redacted]. TX 5011 at 36 ([redacted]); TX 5074 at 22 (similar provision in [redacted]); TX 5037 at 45, 96 ([redacted]); TX 2062 at 38 (similar provision in [redacted]); TX 5020 at 20, 36; *see also* Joint PFFCL ¶¶ 92-97. What is more, [redacted], only [redacted]% of the listening on [redacted] would potentially be affected. 8/12/20 Tr. 1528:22-25, 1532:23-1533:4, 1538:10-13 (Orszag).

355. **Disputed.** SoundExchange hatched [redacted] argument during trial. Its written direct case contains not one citation to a negotiation document between [redacted]. Neither [redacted]. 9/3/20 Tr. 5693:16-22 ([redacted]); *id.* 5517:7-5519:24 ([redacted]).

356. **Disputed.** Given [redacted]. *See supra* ¶¶ 353, 354.

b. Spotify's Supposed Ability to Influence Record Company Market Share Did Not Change Following the 2013 Agreements

357. **Disputed in part.** While SoundExchange is correct that the ability to a listen to a song on demand is a defining characteristic of on-demand services, SoundExchange is incorrect

to the extent it implies that this has changed since 2013. Indeed, "[a] user's ability to play any song on demand remains a defining characteristic of interactive services and a driver of user demand for these services." Leonard CWRT ¶ 73. [redacted]'" *Id.* (citing TX 2122 at 8 ([redacted])). And a study of new subscribers "on Apple Music indicated that, as compared to other services, on-demand functionality is one of the primary reasons new subscribers choose Apple Music." Leonard CWRT ¶ 73.

358. **Disputed in part.** SoundExchange's own sources contradict its description of Spotify as "evolving into a platform that offered more curated listening." Orszag concedes that Spotify programs only "31% of all listening on Spotify" as of 2017. Ex. 5602 ¶ 142 (Orszag WDT). In other words, most of the listening on Spotify is through mechanisms over which Spotify does not exercise curatorial influence. And as discussed above, the ability to choose a song on demand remains the defining feature of on-demand services. *See supra* ¶ 357.

359. **Disputed in part.** As Spotify began to develop its own playlists, it promoted those playlists on its service. But nothing suggests that Spotify did this to "increase its curatorial influence," as SoundExchange claims. Critically, [redacted]. 9/02/20 Tr. 5435:8-16 (Fowler); 9/09/20 Tr. 5949:21-5950:23 (Sherwood). In other words, [redacted]. 8/11/20 Tr. 1313:14-18 (Orszag).

360. **Disputed in part.** *See supra* ¶ 359.

361. **Disputed in part.** SoundExchange's characterization of consumption of Spotify-controlled playlists as having "scaled quickly" is not supported by its sources, which claim that playlist listening moved from less than 20% of listening in 2015 to a mere 31% of listening in 2017. Orszag WDT ¶ 142.

c. SoundExchange Overstates Spotify's Ability to Steer Plays on Its Service

362. **Disputed.** Spotify does not "exercis[e] considerable influence over listening" because the record is clear that 68% of listening hours on Spotify come from forms over which Spotify exercises no control: either lean-forward listening or listening to user-generated playlists. Orszag WDT ¶ 61; 8/12/20 Tr. 1524:2-7 (Orszag); *see also* 8/12/20 Tr. 1538:10-1539:1 (Orszag) (agreeing that "68 percent of the time Spotify is not making the determination of what song to be played"); 8/12/20 Tr. 1532:23-1533:4 (Orszag) (agreeing that "68 percent, more than two-thirds, of listening on Spotify comes entirely from on-demand plays or user-generated playlists); 8/25/20 Tr. 3699:3-16 (Peterson); Peterson AWRT ¶ 34. Of the one-third of listening hours that does come from a service-generated playlist, over half of those (or 17% of total listening hours) come from algorithmic playlists, "personalized for each user" based on user listening behavior and are outside Spotify's control. Orszag WDT ¶ 61. Spotify does not have significant power to control playlists.

363. **Disputed.** SoundExchange is overstating the importance of editorial playlists. Label witness testimony and evidence shows that [redacted] TX 2074 at 2. For instance, [redacted] *Id.*; *see also* 9/2/20 Tr. 5431:1-20 (Fowler) ([redacted]

[redacted]), 5432:1-5433:1 (Fowler) ([redacted]), 5442:23-5443:1 (Fowler) ([redacted]); *supra* ¶ 362.

364. **Disputed.** *See supra* ¶¶ 362-363.

365. **Disputed.** As noted, SoundExchange's own evidence says [redacted] TX 2074 at 2. SoundExchange has no way of quantifying the extent to which new music is discovered through Spotify-controlled playlists versus through other sources. [redacted] 9/2/20 Tr. 5443:2-9 (Fowler). For that reason, it is inappropriate to characterize playlists as "the most important" means of discovery. *See also supra* ¶¶ 362-63.

366. **Disputed.** SoundExchange's evidence does not show a [redacted]. *See, e.g.*, *supra* ¶ 363. The only analysis SoundExchange cites for this assertion [redacted]. TX 1085 at 8-9. Moreover, [redacted].

367. **Disputed in part.** The Services do not contest that SoundExchange witnesses offered this testimony, but they contest that the testimony is supported and credible. Although SoundExchange cites to its label witness, Ms. Fowler and Mr. Sherwood, for the proposition that

[redacted]. 9/2/20 Tr. 5440:7-22 (Fowler); 9/9/20 Tr. 5955:2-13 (Sherwood).

368. **Disputed.** Ms. Fowler and Mr. Sherwood both testified [redacted]. *See supra* ¶ 367.

369. **Not disputed.**

370. **Disputed.** The evidence is clear that the algorithm, built off of "different signals [of how users] engage with content," controls Spotify's playlists. 9/2/20 Tr. 5405:6-5406:3 (Fowler). But SoundExchange's witnesses did not have any evidence that Spotify exerts any influence on the algorithm. 9/2/20 Tr. 5406:7-12 (Fowler); 8/11/20 Tr. 1316:2-19 (Orszag). And SoundExchange lacks a basis to suggest otherwise.

371. **Disputed in part.** Like algorithm playlists, SoundExchange has no evidence that Spotify exerts influence over the algorithm for the autoplay feature. *See supra* ¶ 370.

372. **Disputed in part.** As discussed *supra*, placement in Spotify playlists and "real estate" does not drive music streaming and discovery. *See supra* ¶¶ 362-363.

373. **Disputed in part.** The Services dispute that [redacted].

See, e.g., TX 4017 at 4 ([redacted]); *see also* Joint PFFCL ¶ 72 (summarizing evidence about non-music playlists).

374. **Disputed.** *See supra* ¶ 373.

375. **Disputed in part.** *See supra* ¶¶ 373.

376. **Disputed.** *See supra* ¶¶ 362-363, 365-366, 370, 373; *see also infra* § V.H.4.i-iii.

377. **Disputed.** The services dispute all assertions that rely on TX 5450*, which is not in evidence (Sirius XM and Pandora opposed SoundExchange's pending pre-hearing motion seeking its admission), was neither cited nor discussed in SoundExchange's written testimony, and constitutes inadmissible hearsay. Further, SoundExchange's own evidence indicates that 68% of listening hours on Spotify are user-selected and thus cannot be influenced by Spotify. *See supra* ¶ 362. And, as explained above, SoundExchange's argument about Spotify's purported "ability" to influence market share misses the mark, as SoundExchange has offered no evidence that Spotify exercises curatorial influence [redacted], which is the relevant consideration. *See supra* ¶ 272; *see also* Joint PFFCL ¶¶ 63-66.

378. **Disputed.** *See supra* ¶¶ 365-366, 377.

379-381. **Disputed.** *See supra* ¶¶ 362, 370, 377.

382. **Disputed in part.** As discussed above, the services dispute the extent to which Spotify can actually control the programming on playlists that are touted as driving discovery and listening growth, which are in most instances algorithmically generated or created by other users. *See* Orszag WDT n.195; *supra* ¶¶ 362, 370.

383. **Not disputed.**

384. **Disputed**. The primary witnesses upon which SoundExchange relies for this

conclusion, Ms. Fowler, actually testified [redacted]. *See supra* ¶ 367. What is more, Ms. Fowler was not aware of [redacted]. 9/2/20 Tr. 5441:2-22. Thus, the evidence shows that these opportunities are not something that labels contractually seek in their relationships with their partners.

d. [redacted]

385. **Disputed in part.** SoundExchange cites zero evidence to support that [redacted], and the record shows they are not. The labels insisted [redacted], as a way to ensure that they did not compete on price. *See* Joint PFFCL ¶¶ 101-04 (summarizing evidence). One [redacted] document described [redacted]—that is, to *avoid* competing on price. TX 4016 at 1. [redacted] made the same point, noting these provisions "[redacted]" TX 4028; *see also* See 8/25/20 Tr. 3715:22-3716:5 (Peterson) (complementary oligopolists have the ability to neutralize steering (*e.g.*, by imposing two-part tariffs)).

386. **Disputed.** SoundExchange's baffling argument [redacted]. As labels and [redacted] negotiated over terms in 2016 and 2017, [redacted]. *See, e.g.* 9/3/20 Tr. 5551:7-10 (Adadevoh) ([redacted]); *see also id.* at 5704:16-5705:1 (Harrison) ([redacted]

[redacted]). Even if there were some doubts on this score, [redacted]. *See, e.g.*, Peterson AWRT ¶ 69. That is, while [redacted] negotiated with [redacted]. TX 5074 at 22; TX 5020 at 20, 36. Indeed, since [redacted] launched in the United States, [redacted]. 8/12/20 Tr. 1703:24-1704:13 (Orszag); *see also* Joint PFFCL ¶ 100 (summarizing additional evidence).

387. **Disputed.** There is no evidence whatsoever that the [redacted] Instead, [redacted] *See supra* ¶ 385; *see also* Shapiro WRT at 22 (discussing that the [redacted] recognized that these [redacted] protected them against a "race to the bottom" in the form of [redacted]). The [redacted] ensured that [redacted]—that is, [redacted]. 8/20/20 Tr. 3058:3-13 (Shapiro); 8/13/20 Tr. 1905:23-1906:2 (Orszag) ([redacted]); *see also* 9/3/20 Tr. 5705:21-5706:14 (Harrison). The labels thought that this [redacted]. 8/25/20 Tr. 3722:12-19 (Peterson); Peterson AWRT ¶¶ 5(c), 79-81; *see also* Joint PFFCL ¶¶ 149, 150. On top of that, the labels insisted on [redacted]

[redacted].

388. **Disputed.** SoundExchange points to zero evidence from service witnesses that they "[redacted]." Nor is there any evidence on the record as to why [redacted] What little evidence is on the record on this score suggests just the opposite: it notes that [redacted]" SX PFFCL ¶ 388 (citing 9/2/20 Tr. 5216:12-25 (Piibe) and 8/20/20 Tr. 3172:6-12 (Shapiro)). In other words, both [redacted] appear to have viewed it the same way: [redacted].

389. **Disputed.** Nor does SoundExchange cite any evidence from a [redacted] witness—as opposed to just attorney speculation ("one might think")—[redacted] In any event, [redacted]. *See, e.g.*, TX 2108; 9/3/20 Tr. 5563:13-5565:5 [redacted] ([redacted]). [redacted] And to the extent that SoundExchange implies that [redacted], that is

undermined by the label witnesses themselves. *See* Joint PFFCL ¶¶ 98-99 (summarizing evidence); Peterson AWRT ¶ 73 ([redacted]). SoundExchange's own Mr. Orszag himself "assume[s] that as part of [his] work" that companies adhere to contractual provisions. 8/12/20 Tr. 1715:3-19 (Orszag).

390. **Disputed.** SoundExchange's efforts to conflate [redacted]. To start, even the language that SoundExchange cherry picks from the agreement shows material differences: [redacted]" Ex. 4031 at 7. [redacted] More to the point, no evidence supports that [redacted]. *See supra* ¶ 389; Joint PFFCL ¶¶ 98-99. Indeed, in 2017, [redacted] Leonard CWRT ¶ 66.

391. **Disputed.** SoundExchange's [redacted]. Indeed, [redacted] agreement with [redacted]—the only label SoundExchange cites for this argument—[redacted] TX 5037 at 45, 96; *see also* Joint PFFCL ¶ 94-96.

392. **Disputed.** SoundExchange cannot point to a [redacted]

[redacted] Contemporaneous label documents show that "[redacted]" Leonard CWRT ¶ 66. [redacted]" 9/3/20 Tr. 5537:3-12, 5539:6-10 (Adadevoh) (quoting TX 4014); *see also* Joint PPFCL ¶ 71. That argument is belied by SoundExchange's very next proposed fact, which [redacted] Peterson AWRT ¶72; *see also* Joint PPFCL ¶ 72.

393. **Disputed in part.** SoundExchange appears to equate [redacted]. One internal [redacted] document discussed that [redacted]. TX 4017 at 4. [redacted]" 09/03/20 Tr. 5544:23-5545:6 (Adadevoh) (discussing TX 4014 at 3); *see also* Joint PFFCL ¶ 72. And the fact that [redacted]

[redacted]. *See* Peterson AWRT ¶ 72.

394. **Disputed.** Record labels expressly negotiated provisions ensuring [redacted]. TX 5037 at 45, 96; *see also* Joint PFFCL ¶ 94-96. And they have expressly looked for [redacted]. TX 4014; *see also supra* ¶ 392.

395. **Disputed.** [redacted] The record shows that the [redacted]. *See* TX 2051 at 17; TX 2108 at 3-4; *see also* Joint PFFCL ¶ 98. The record also does not support SoundExchange's claims that the labels' [redacted] The paragraphs it cites to from [redacted] do not contain any statements in support, *see* Harrison WDT ¶ 56 and Piibe ¶¶ 29-30. [redacted] *See* Joint PFFCL ¶ 98.

396. **Disputed.** As discussed, [redacted]. *See supra* ¶ 392; Peterson AWRT ¶72; *see also* Joint PPFCL ¶ 72. [redacted]. *See supra* ¶ 392.

397. **Disputed.** At bottom, the record labels imposed a combination of [redacted] that prevented any price competition. *See supra*

¶ 385; *see also* Shapiro WRT at 22. In essence, they acted exactly as one would expect complementary oligopolists to act: [redacted] TX 4016 at 1; TX 4028; *see also* See 8/25/20 Tr. 3715:22-3716:5 (Peterson) (complementary oligopolists have the ability to neutralize steering (*e.g.*, by imposing two-part tariffs)). They do not support SoundExchange's arguments that the labels now compete. *See generally* Joint PFFCL ¶¶ 63-104 [redacted]).

e. The Record Confirms that Record Companies Did Not [redacted]

398. **Disputed.** Perhaps just wishing it were so, SoundExchange describes it—without any citation—as "clear" that [redacted], as is consistent with the behavior of complementary oligopolists. *See infra* ¶ 446; Joint PFFCL ¶¶ 148-56. [redacted] 8/25/20 Tr. 3722:12-19 (Peterson); Peterson AWRT ¶¶ 5(c), 79-81.399. That is, [redacted] Joint PFFCL ¶¶ 148-156. [redacted] Joint PFFCL ¶ 101.

As for Spotify's supposed ability to influence what users hear, the listening that Spotify programs accounts for only "approximately 31% of all listening on Spotify" as of 2017. Ex. 5602 ¶ 142 (Orszag WDT). SoundExchange has offered [redacted]. 9/02/20 Tr. 5435:8-16 (Fowler); 9/09/20 Tr. 5949:21-5950:23 (Sherwood). Indeed, their internal documents describe [redacted] TX 4016 at 1.

399. **Disputed in part.** Sony [redacted] long before [redacted]. Among other things, [redacted] TX 4070 at 5, 35, 36. [redacted] *Id.* at 1. SoundExchange cites no evidence related to [redacted] *See, e.g.*, 9/3/20 Tr. 5545:19-5546:8 (Adadevoh) ([redacted]); 9/2/20 Tr. 5341:11-13 (Piibe) ([redacted]). ([redacted] *See* 9/3/20 Tr. 5712:22-5714:15 (Harrison)).

400. Disputed. [redacted] did not [redacted] (the only witness cited in this proposed fact) [redacted]

9/3/20 Tr. 5517:7-5519:24 (Adadevoh); *see also* Joint PFFCL ¶ 81. 9/3/20 Tr. 5545:19-5545:24. *Id.* at Tr. 5545:25-5546:8; *see also* Joint PFFCL ¶ 89.

401. Disputed. The same shortcomings are true for SoundExchange's citations to expressly testified 9/2/20 Tr. 5341:20-25; *id.* 5343:11-13; *id.* 5318:20-5319:11; *id.* 5370:25-5371:7. TX 4070; *supra* ¶ 399.

402. Disputed. None of the evidence that SoundExchange cites suggests In fact, SoundExchange's leading example is an internal Sony document TX 2137 (emphasis in original). *Id.*

403. Disputed. The record does not show that [redacted] believed [redacted] SoundExchange's claims about [redacted] are contradicted by the record. [redacted]; *see also supra* ¶¶ 311-17 ([redacted]). And the evidence of [redacted]. *See, e.g.*, 9/9/20 Tr. 5952:15-5954:16 (Sherwood); 9/3/20 Tr. 5738:6-24 (Harrison); *see also supra* ¶¶ 318-27 ([redacted]). [redacted] *E.g.*, 9/9/20 Tr. 5929:17-24 (Sherwood).

404. Disputed. [redacted]. The labels simply acted as complementary oligopolists: [redacted]. Joint PFFCL ¶¶ 87-91, 148-156; *supra* ¶¶ 398-403. That is why there is zero evidence [redacted]. Joint PFFCL ¶¶ 87-91. [redacted] *See, e.g.*, 8/12/20 Tr. 1501:20-22 (Orszag) [redacted]); *see also* Peterson AWRT ¶ 78 ([redacted]).

4. SoundExchange's Distorted Account of the [redacted]

405. **Disputed.** *See supra* §§ V.H.2, V.H.3.i-ii.

406. **Disputed in part.** The Services have explained throughout their briefing, drawing faithfully on their economic experts' comprehensive testimony, the numerous reasons why the [redacted]—and, for that matter, why a mere demonstration that [redacted]" (the best SoundExchange can muster) is woefully insufficient to establish effective competition given [redacted]. *See* Joint PFFCL § II.A.ii.

The Services experts' conclusions were based on a careful review of [redacted] and the preceding negotiation record, which were properly addressed and contextualized in their written direct and rebuttal testimony. By contrast, and as discussed above, SoundExchange cited *zero* negotiation documents in its written direct testimony, and only a handful in its rebuttal testimony. *See supra* ¶ 265. Unsurprisingly, then, SoundExchange's discussion of these negotiation files contains almost no citations to actual supporting witness testimony, and instead relies on a collection of cherry-picked documents (not cited or relied on in written testimony) that were assembled piecemeal by its counsel in a last-ditch effort to poke holes in the Services' economists rigorous and timely-filed written testimony.[14] What is more, these documents do not at the end of the day [redacted]

[14] Of those negotiation documents SoundExchange cites in this subsection, only TX 5413* was identified in any capacity, however briefly, in Mr. Orszag's rebuttal testimony. What is more, TX 5413* and 5469* have *not* been admitted into evidence, and Mr. Harrison's improper attempt to sponsor them in a declaration appended to SoundExchange's pre-hearing evidentiary motion is subject to the Services' pending Motion to Strike. By making *no attempt whatsoever* in their PFFCL to highlight or distinguish these documents from those few that *have* been admitted, SoundExchange clearly seeks to have them admitted by default despite the many legitimate reasons (detailed in the Services' Motion to Strike) for the Judges having held them in evidentiary abeyance.

[redacted].

407. **Disputed in part.** Contrary to SoundExchange's assertion, Part V.H.4.i-iii of its PFFCL in fact presents a strategically curated selection of negotiation documents that provide a skewed account of the [redacted] and, as expanded upon in response to paragraph 406, were largely assembled by SoundExchange's counsel *after* the submission of written testimony.

408. **Disputed in part.** This paragraph is merely a conclusory summary of subsequent paragraphs responded to below. *See infra* ¶¶ 409, 410-11, 413, 418-423, 425, 431-35, 437, 442, 446, 450-54. To summarize, the fact is that [redacted], 8/20/20 Tr. 3074:6-10 (Shapiro), [redacted]. *See* TX 5413* at 1. [redacted]. *See* 8/20/20 Tr. 3074:6-10 (Shapiro); Joint PFFCL ¶¶ 92-104.

409. **Disputed.** The Services addressed [redacted] so-called [redacted] at length in their Joint PFFCL, including certain of the specific documents SoundExchange cites here. *See* Joint PFFCL ¶¶ 77-86. As a general matter, [redacted]. *See* 8/20/20 Tr. 3082:22-

3083:7 (Shapiro) ("[redacted]"); Joint PFFCL ¶ 85. Indeed, the documents cited in support of this "[redacted]"—presumably the best SoundExchange could unearth [redacted] after months of fruitless searching—are [redacted].

Specifically, in the conversation memorialized in TX 5413*—a document appearing nowhere in SoundExchange's written case and upon which Mr. Orszag did not rely—[redacted]" (emphasis added). TX 5413* at 1; *see also* Joint PFFCL ¶ 83. Similarly, TX 5401* (another document cited nowhere in SoundExchange's written case) shows that [redacted]. *See* TX 5401* at 3 (lead [redacted] negotiator explaining that she told "[redacted]"). [redacted], and [redacted][15] *See* TX 4014 at 1; 9/3/20 Tr. 5537:3-12, 5539:6-10

[15] Ms. Adadevoh's claim in her written testimony that [redacted]—without citation to a single source of documentary evidence—[redacted], as SoundExchange implies. Rather, as discussed below, that [redacted]. Adadevoh WDT ¶ 12 n.16. *See infra* ¶¶ 431-432.

(Adadevoh); Shapiro WRT at 17-18.

TX 5469* is another document that is not in evidence and was neither cited by SoundExchange witnesses nor relied on by Mr. Orszag. *See* Joint PFFCL ¶ 79. It is also plainly double-hearsay, reflecting [redacted]. *See* TX 5469*. Again, what is noteworthy, especially for a document that presumably is the best SoundExchange can muster on this point, is how [redacted]. At trial, Mr. Orszag characterized it as a "[redacted]" where [redacted] said "[redacted]" 8/12/20 Tr. 1743:5-8. What it *actually* says [redacted]" *See* TX 5469* at 1. It is, frankly, not even clear what that *means* [redacted]. Far more revealing are [redacted]. *See* Joint PFFCL ¶¶ 139-150.

410. **Disputed in part.** This paragraph offers no more than a conclusory summary of later sections responded to below. However, to summarize the Services' position, suffice it to say that [redacted]

[redacted]. *See* Joint PFFCL ¶¶ 67, 154. Moreover, [redacted]. *See* Joint PFFCL ¶¶ 92-100.

411. Disputed in part. SoundExchange's paragraph again constitutes a conclusory summary of later sections responded to below. For reasons the Services and their experts have described, [redacted]. *Id.*

i. The Evidentiary Record Does Not Support SoundExchange's Depiction of [redacted][16]

412. Not disputed.

413. Disputed in part. The evidence cited by SoundExchange merely reflects the unsurprising fact that [redacted]

[16] Of the negotiation documents SoundExchange cites in this subsection, only TXs 5223 and 5429* were identified in any capacity, however briefly, in Mr. Orszag's rebuttal testimony. TXs 5413*, 5414*, 5421*, 5415*, 5410*, 5429*, 5221*, and 5422*, have *not* been admitted into evidence, and Mr. Harrison's improper attempt to sponsor them in a declaration appended to SoundExchange's pre-hearing evidentiary motion is subject to the Services' pending Motion to Strike. At trial, Mr. Harrison, [redacted], testimony that is clearly insufficient for establishing the requisite personal knowledge required for their admission. *See, e.g.*, 9/3/20 Tr. 5652:13-5653:5. By making *no attempt whatsoever* to highlight or distinguish these documents from those few that *have* been admitted, SoundExchange clearly seeks to have them admitted by default despite the many legitimate reasons (detailed more fully in the Services' Motion to Strike) for the Judges having held them in evidentiary abeyance.

[redacted].[17]

It is flatly incorrect, however, to suggest that "[redacted]" The Services' PFFCL outlined in painstaking detail [redacted]. *See* Joint PFFCL ¶¶ 135, 144-150, 158; TX 4021; TX 4022; TX 4051; Shapiro WRT at 4 ("Monopolists routinely negotiate with their buyers and make concessions in those negotiations, but that does not signify that they lack monopoly power or that such negotiations result in outcomes that reflect the workings of an effectively competitive market."); *see also* 8/18/20 Tr. 2645:4-12 (Shapiro) (bilateral monopoly can lead to intense bargaining because of enormous gains from trade but "it's not effective competition or anything like it").

In fact, the cited documents are notable for other reasons more consistent with the Services' explanation of the negotiations. TX 4027, for example, shows [redacted], which supports an adjustment—discussed *supra* ¶¶ 224-226—for the extra-statutory functionality on Spotify's free tier. *See* TX 4027 at 6. Further, TX 5414* (a document not included in SoundExchange's written testimony and not yet admitted) indicates that [redacted]

[17] Of the documents cited in this paragraph, none were part of SoundExchange's written testimony, and TX 5414* is still not admitted (and Mr. Harrison, as with the exhibits addressed in the preceding footnote, *see supra* at p.137 n.16, could offer no meaningful explanation of the document (or demonstrate the requisite personal knowledge) given that he is [redacted]). 9/3/20 Tr. 5652:13-5653:5.

[redacted]. *See* TX 5414* at 1. And last, TX 4023 indicates that "[redacted]," consistent with the fact that the [redacted] TX 4023 at 1; *see also* Joint PFFCL ¶ 142 (discussing same).

414-15. **Not disputed.** *But see supra* ¶ 413.Importantly, when Mr. Harrison made the same "[redacted]" point on the stand, 9/3/20 Tr. 5749:17-5752:17, he acknowledged under questioning from the bench that [redacted] *Id.* As noted above, TX 5414* was not cited in SoundExchange's written case and has not yet been admitted.

416. **Disputed in part.** The (in)significance of the quoted documents to rate-setting and the evaluation of effective competition is explained in paragraph 413 above. Additionally, the notion that [redacted] is entirely unsupportable ([redacted]). TX 5421 was not cited anywhere in SoundExchange's written testimony and has not yet been admitted.

417. **Not disputed.** *But see* paragraph 413 above. TX 2131 (not cited in SoundExchange's written testimony) reveals once again [redacted]). *See* TX 2131 ("[redacted]"); Joint PFFCL ¶ 158 (noting [redacted]). Further, as discussed elsewhere, the fact that [redacted]

[redacted]. *See infra* ¶ 446; Joint PFFCL ¶¶ 148-156.

418. **Disputed in part.** The Services addressed [redacted] and its implications in depth in ¶¶ 63-108 of their Joint PFFCL, as well as in response to Part V.H.3 and in paragraphs 408 and 409 above. The Services do not dispute as a general matter that [redacted] (although they note that TX 5415*, cited here by SoundExchange, was not cited anywhere in any of its written witness testimony). [redacted]. *See* Joint PFFCL ¶¶ 67-76; *see also id.* ¶¶ 64-66 (distinguishing between mere editorial discretion and *price*-based song selection). Mr. Harrison explicitly conceded at the hearing that there was [redacted]" 9/3/20 Tr. 5698:5-12 (Harrison). And [redacted]. *See* Joint PFFCL ¶¶ 92-97, 100.

In TX 4024, [redacted]" *See* TX 4024 at 2 (emphasis added).

419. **Disputed in part.** Paragraph 419 comprises yet another paragraph relying on documents that were not previously cited or relied on in SoundExchange's written testimony, that are presented now without a shred of explanatory witness testimony, and which contain

inadmissible hearsay, including double hearsay (*e.g.*, [redacted]). *See, e.g.*, TX 5410* at 1. The Services refer to their response to paragraph 418 above (and the other responses cross-cited therein) regarding the significance and implications of [redacted]. To be clear, the record is decidedly *not* "replete with evidence" that [redacted]. *See* Joint PFFCL ¶¶ 64-65, 74-76 (summarizing SoundExchange's misguided view of steering as [redacted]); *id.* ¶ 69-71 (SoundExchange witnesses conceding lack of evidence of [redacted]).

Whatever concerns [redacted], the record *is* "replete" with the following undisputed facts: (1) [redacted], *see* Joint PFFCL ¶ 88; (2) [redacted]," *see* TX 4016 at 1) by [redacted], *see* Joint PFFCL ¶¶ 101-102; and (3) [redacted]. None of the cherry-picked quotes cited by SoundExchange in this section shows otherwise.

420. **Disputed in part.** *See supra* ¶¶ 409, 418-19; Joint PFFCL ¶¶ 77-86. In addition, (1) TX 5422* is a new document not cited in SoundExchange's written testimony and not yet admitted into evidence; and (2) the Judges should disregard statements ascribed to [redacted] in TX

5221 constituting [redacted]—namely, [redacted]. *See* TX 5521 at 5.

421. **Disputed in part.** SoundExchange once again fails to cite any corroborating witness testimony, and instead quotes documents not cited or relied on in its written case (or admitted into evidence). While the Services do not dispute that [redacted], the relevance of those facts to the instant rate-setting analysis is highly limited, as described above. *See supra* ¶¶ 410, 418-19. The Services reiterate the following: first, [redacted]. [redacted], and in fact demonstrates [redacted]. *See* Joint PFFCL ¶ 154. Second, for all of SoundExchange's talk of [redacted]—a perverse conception of "price competition" to say the least. *See* Joint PFFCL ¶¶ 154-55.[18]

422. **Disputed.** The [redacted]

[18] The Services also note that the July 2016 conversation reflected in TX 5410* precedes the exhibits cited in SoundExchange's prior paragraph (¶ 419) by several months, making SoundExchange's chronological narrative *unchronological*.

[redacted] TX 2062 ([redacted]) at 53-54; *see also* Joint PFFCL ¶ 98-99 (refuting SoundExchange's argument that the [redacted]).

In fact, TX 5429* (a [redacted] cited in paragraph 419 of SoundExchange's PFFCL) acknowledged that [redacted]. *See* TX 5429* at 4. That [redacted]. What is more, SoundExchange presents absolutely no evidence that [redacted], just that it [redacted].

423. **Disputed.** SoundExchange again fails to provide supporting witness testimony, and merely quotes documents (TX 5414* and 5421*) not cited or relied on in its written case (or admitted into evidence). The Services refer to their responses in paragraphs 410, 418, 419, and 421 above. As noted in greater depth there, the record clearly reveals that [redacted] TX 5421*, cited here by SoundExchange, provides the key reason: [redacted], exactly as the Services' experts have argued all along. *See* TX 5421* at 1; Joint PFFCL ¶¶ 138-143.

424. **Disputed in part.** "[redacted]" is merely a [redacted], as inevitably not all [redacted] will. Its absence in the agreement is reflective of a dynamic no different than that addressed *supra* ¶

423: [redacted] ([redacted]). In addition, as discussed in Joint PFFCL ¶ 101, TX 4016 (cited here by SoundExchange) shows that UMG [redacted]" to be avoided at all costs.

425. Disputed in part. *See supra* ¶ 424. This paragraph in no way supports SoundExchange's case, and instead forcefully refutes it. What it shows is [redacted]. *See supra* ¶¶ 408-410, 418-19, 421, 423. Again, [redacted]. [redacted] TX 5037 at 45, 96, [redacted] ([redacted]). [redacted] *see* Joint PFFCL ¶ 95; given the absence of specific evidence that [redacted] is not credible.

426. Disputed. [redacted]. [redacted]. Again, what is apparent from the evidentiary record is only that, predictably and in keeping with the course and tenor of any negotiation, [redacted]. [redacted]

[redacted], which were described in the Services' Joint PFFCL (*see* ¶¶ 146-47, 158).

427. Disputed in part. Nothing SoundExchange suggests here indicates [redacted] — par for the course in a deal negotiation, and not suggestive of [redacted]. *See supra* ¶¶ 424, 426.

ii. The Evidentiary Record Does Not Support SoundExchange's Depiction of [redacted][19]

428. Disputed. [redacted]. Ms. Adadevoh's conclusory claim that [redacted] is not credible, and is undermined by the actual record evidence detailed at length in the Services' Joint PFFCL and throughout this section. To be clear, there is no dispute that the [redacted]. Nor does the record reveal that [redacted]. [redacted], *see supra* ¶¶412-427, what the record shows [redacted]. At the end of the day, the driver of the [redacted]

[19] Of the negotiation documents SoundExchange cites in this subsection, none were cited or relied on in Mr. Orszag's testimony, and TXs 5520*, 5264*, 5401*, and 5265* have *not* been admitted into evidence. In addition, at trial Ms. Adadevoh [redacted], testimony that is insufficient for establishing the requisite personal knowledge required for their admission. *See, e.g.*, 9/3/20 Tr. 5502:8-21.

[redacted]). *See* Joint PFFCL ¶¶ 139-147.

429. **Not disputed.**

430. **Not disputed.** However, TX 4022 squarely affirms the *Services'* explanation of the actual drivers of the [redacted], including:

- [redacted]: "[redacted]," TX 4022 at 1;
- [redacted]: "[redacted]" *Id*;
- [redacted]: [redacted]." *Id*;
- [redacted]: "[redacted]." *Id*;
- [redacted]" *Id.* at 2;
- [redacted]" *Id.* at 1; and
- [redacted]: "[redacted]." *Id*; *see also* Joint PFFCL ¶¶ 151-156.

431. **Disputed.** As an evidentiary matter, the Services maintain their objections to TX 5264* (not yet admitted) on the grounds that Ms. Adadevoh [redacted]. At trial, her best attempt to cure these deficiencies was to note that it "appears to be [redacted]." 9/3/20 Tr. 5492:19-22 (Adadevoh). What is more, she openly admitted that she [redacted]

[redacted]. *Id.* 5493:2-4. She did not suggest that she had any personal knowledge of the documents' contents—and could only verify that [redacted]. *See id.* 5493:5-5495:14.

Even if authentic, TX 5264* is clearly hearsay (in fact, double hearsay, as it largely appears to provide a second-hand [redacted]); indeed, it is often difficult to tell whether the text reflects [redacted] (an issue Ms. Adadevoh [redacted]). The Services do not dispute that [redacted]. TX 5264* at 4. Without [redacted] TX 5265* at 2.

As to the alleged [redacted] SoundExchange's characterization is misleading: [redacted] (*i.e.,* [redacted]"). TX 5265* at 4-5. (As has been explained elsewhere, [redacted] repercussions, among other issues. *See* Joint PFFCL ¶¶ 151-156.) What is more, TX 5265*—which has not been admitted into evidence and was not cited in SoundExchange's written testimony—actually reveals [redacted]: [redacted]

[redacted]. *See* Joint PFFCL ¶ 103. And, ultimately, [redacted]. *See* TX 4044 at 10 (2017 [redacted]).

432. **Disputed in part.** The Services do not dispute that [redacted], as discussed in TX 4020, a document which again reveals that [redacted]. *See* TX 4020 at 1. Equally notable is [redacted]: [redacted]. *Id.* This directly contradicts Mr. Orszag's argument (discussed in ¶¶ 460, 473-74, 476 below) [redacted]. [redacted]. *Id.*

TX 4020 also reveals [redacted]). [redacted]. *Id; see also* Joint PFFCL ¶¶ 103-104 (discussing [redacted]).

433. **Disputed in part.** The Services do not dispute that [redacted]. [redacted] shows [redacted]

[redacted]), [redacted]. *See* Joint PFFCL ¶ 89. The [redacted] date of the offer in TX 5520*[20] [redacted]). *See infra* ¶ 435 and TX 4014); *see also* Joint PFFCL ¶ 89. TX 5520* also reveals that [redacted]. *See* TX 5520* at 3.

434. **Disputed.** Ms. Adadevoh's conclusory testimony lacks supporting evidence and is flatly contradicted by the evidentiary record. The Services addressed TX 5401*—[redacted]—in paragraph 409 above. [redacted].

435. **Disputed.** SoundExchange's attempt to explain away a document (TX 4014) that plainly eviscerates its effective competition argument is unconvincing and insufficient. The fact is that, [redacted], [redacted]. *See* Joint PFFCL ¶ 71 (discussing TX 4014). Moreover, [redacted]

[20] The Services also here note that TX 5520* was not cited or relied upon by any SoundExchange witnesses in their written testimony, lacks an appropriate sponsoring witness, and is not yet admitted into evidence. Ms. Adadevoh [redacted], and [redacted]. *See supra* ¶ 431.

[redacted]. *See* TX 4014 AT 3; *see also* Joint PFFCL ¶ 72.

436. **Disputed.** *See supra* ¶¶ 409, 434-35. TX 2124 [redacted]. *See* TX 2124 at 1. In any event, [redacted].

437. **Disputed.** The Services addressed the [redacted] in paragraphs 96, 98-99 of their Joint PFFCL and in paragraphs 385-397 above.

438. **Disputed.** TX 4025, [redacted] appears to capture a discussion [redacted]. It is unclear if [redacted]. [redacted]). These evidentiary deficiencies all weigh in favor of disregarding TX 4025 as unreliable hearsay.

Substantively, this document contains other comments, ignored by SoundExchange, [redacted]. To the extent the Judges give it any weight, the far more telling comments came from [redacted]: "[redacted]." *See* TX 4025 at 1; *see*

also Joint PFFCL ¶ 145 (discussing [redacted]).

439. **Disputed.** *See supra* ¶¶ 428-438.

iii. The Evidentiary Record Does Not Support SoundExchange's Depiction of [redacted][21]

440. **Disputed in part.** It is entirely unsurprising that [redacted]." This reflects precisely the kind of [redacted]. 8/20/20 Tr. 3082:22-23 (Shapiro) ("[redacted]"). Such facts alone—[redacted]—are not remotely supportive of SoundExchange's broader conclusions regarding [redacted]. As described below and in the Services' Joint PFFCL, [redacted]. *See infra* ¶¶ 441, 451; Joint PFFCL ¶ 141, 144, 146, 147, 149-150.

In fact, TX 4018 (cited by SoundExchange) illustrates two [redacted]. [redacted]"). TX 4018 at 3. But Sony [redacted]. See TX

[21] Of the negotiation documents SoundExchange cites in this subsection, *none* was cited or relied on in Mr. Orszag's testimony, and TXs 5461*, 5469*, 5451*, 5514*, 5468*, 5467*, and 5517* have not been admitted into evidence. In addition, at trial Mr. Piibe [redacted], testimony that is insufficient for establishing the requisite personal knowledge required for its admission. *See* 9/2/20 Tr. 5284:7-15.

5011 ([redacted]) at 22, 51; *see also* 8/13/20 Tr. 1888:17-1888:8 (Orszag) (acknowledging that the [redacted]) Joint PFFCL ¶¶ 102, 151-156. [redacted], TX 4018 demonstrates that [redacted].

441. **Disputed.** As explained in the Services' Joint PFFCL, that [redacted] is (in addition to being self-serving) beside the point. What is relevant is the following: (i) [redacted], 9/2/20 Tr. 5264:4-10 ([redacted]); (ii) [redacted], TX 4026 at 1; (iii) [redacted]," *id.* at 1-2; (iv) [redacted], 9/2/20 Tr. 5354:7-5355:7 (Piibe)—[redacted], *see infra* ¶ 459; and (v) [redacted] (*see supra* ¶ 440).

[redacted]" is also directly at odds with the testimony of Mr. Orszag, SoundExchange's own expert, who conceded at the hearing that [redacted], 8/11/20 Tr. 1367:4-5, 12-13, [redacted]

(such as TX 4026). 8/13/20 Tr. 1896:12-17 (Orszag). It also runs directly counter to the ."[22] TX 4026 at 1-2. Try as it might, cannot escape the key point in this entire drama, discussed further below: . *See infra* ¶ 446.

442. Disputed in part. As explained above, it is of little import to the rate-setting analysis that . *See supra* ¶¶ 410, 421. In fact, . *Id.*; Joint PFFCL ¶¶ 64, 67 (explaining the critical importance of price-based steering in considering whether a market is effectively competitive). Moreover,

[22] .

[redacted]. *See supra* ¶ 410; Joint PFFCL ¶¶ 92-100.

443. **Disputed in part.** *See supra* ¶ 442.

444. **Disputed in part**. The Services' PFFCL would far exceed the permissible page limit if compelled to address [redacted]. Suffice it to say that, while [redacted]. *See supra* ¶ 440-441.

445. **Disputed in part.** The fact that the [redacted] is not informative to the rate-setting analysis, or to evaluating the existence (or lack thereof) of effective competition. 8/20/20 Tr. 3083:4-7 (Shapiro) ("[redacted]."). Additionally, as explained above, (1) [redacted] and (2) TX 4018 illustrates that [redacted]." *Id.* ¶ 440.

446. **Disputed in part**. [redacted] is uninformative for the following critical reasons: there is *zero* evidence in the record that [redacted], [redacted]. *See* Joint PFFCL ¶ 90. To that point, [redacted]

[redacted], [redacted]. 9/2/20 Tr. 5341:20-25; *id.* 5343:11-13; *id.* 5318:20-5319:11; *id.* 5370:25-5371:7. [redacted] Universal.[23] Joint PFFCL ¶¶ 92-104.

Importantly, [redacted] reveal that (i) [redacted]), TX 4070 at 5; (ii) [redacted]" [redacted]; *id.* at 5, 35, 36; (iii) [redacted]; *id.* at 1; and (iv) [redacted]. TX 4026 at 1-2.

The takeaway: [redacted]

[23] Indeed, [redacted]. *See* TX 5074 ([redacted]) at 22 ([redacted]"); *see also* TX 5011 ([redacted]) at 36 (similar provision).

[redacted]). *See* Joint PFFCL ¶¶ 63-66, 69-71, 90-91.

Notably, [redacted]. TX 5469*, cited by SoundExchange (though not relied on in its written case), illustrates this point: [redacted]" TX 5469* (emphasis added). As explained at length in the Services' Joint PFFCL, the [redacted] ([redacted]) and is consistent with the behavior of complementary oligopolists. *See* Joint PFFCL ¶¶ 148-156.

Relatedly, [redacted]. *See* TX 2137 (cited by SoundExchange) at 1 ([redacted]). [redacted].

447. Disputed in part. The Services explained above the many reasons why the [redacted], including the numerous ways [redacted]

[redacted]. *See supra* ¶¶ 440-441, 446. And, given [redacted]. *See supra* ¶¶ 440, 442, 446; Joint PFFCL ¶¶ 92-104 ([redacted]). And, as detailed above, [redacted]. *See supra* ¶ 446. What SoundExchange's quoted statements instead reveal is that [redacted].

448. **Disputed.** This exaggerated statement from [redacted] does not square with the negotiation history. As explained above, [redacted]," [redacted]. *See supra* ¶¶ 440, 442. Further, [redacted]. *See supra* ¶ 446; Joint PFFCL ¶¶ 148-156.

449. **Disputed.** [redacted] are entirely speculative and unsupported (indeed, the referenced paragraph from [redacted] testimony does not cite to a single source or analysis). The Services addressed this argument head on in their Joint Brief. *See* Joint PFFCL ¶¶ 126-129. In sum, SoundExchange has made no attempt to demonstrate [redacted]

[redacted]. *Id.*

450. **Disputed.** The Services comprehensively refuted SoundExchange's flawed steering arguments in their Joint PFFCL at ¶¶ 63-108.

To avoid repetition, the Services will only emphasize the following important points here: (i) [redacted], *see supra* ¶¶ 440, 442; (ii) [redacted] (meaning SoundExchange is flatly wrong to suggest that [redacted]), *see supra* ¶¶ 410, 421, 433, 446; (iii) [redacted], *see* Joint PFFCL ¶ 61; *supra* ¶¶ 440, 446; *infra* ¶ 451; and (iv) [redacted], *see infra* ¶ 451. In sum, [redacted] were shown at the hearing to be not only overblown but unfounded.

451. **Disputed.** All of the [redacted] SoundExchange notes regarding the possibility of

[redacted]. *See supra* ¶¶ 440, 446. In fact, TX 5461* (cited by SoundExchange) shows that [redacted]. TX 5461* at 10. As noted above, [redacted] ([redacted]). *See supra* ¶ 440.

Further, [redacted]." TX 5011 ([redacted]) at 36 (emphasis added). [redacted]. Clearly, SoundExchange's theory [redacted] is undermined by its fixation on [redacted]. And, as explained above, these "[redacted]" did not [redacted], and do not support SoundExchange's arguments regarding bargaining power and competition. *See supra* ¶¶ 441, 446, 450; *see also* 9/02/20 Tr. 5435:8-16 (Fowler) ([redacted]).

Finally, four of the five exhibits SoundExchange cites in paragraph 451—TXs 5451*, 5461*, 5468*, and 5514*—are not admitted and were not cited or relied on in SoundExchange's written testimony (but were instead unearthed for the first time *during* trial).

452. Disputed. As explained above, [redacted]," [redacted]. *See supra* ¶¶ 440, 451. The Services reiterate that TX 5469* is full of double hearsay, not yet in evidence, and was not cited or relied on in SoundExchange's written case.

453. Disputed in part. The Services explained above how strikingly [redacted], how Mr. Orszag mischaracterized that "[redacted]" at the hearing, and how TX 5469* actually supports *Professor Shapiro's* explanation for why [redacted]," TX 5469* at 1, [redacted]. *See supra* ¶ 409.

454. Disputed in part. [redacted]. 9/2/20 Tr. 5341:20-25 ("[redacted]"'); 9/2/20 Tr. 5343:11-13 ("[redacted]."); 9/2/20 Tr. 5339:23-5340:11 (Piibe) ("[redacted]

[redacted]”). [redacted]. *See supra* ¶¶ 440, 441. [redacted] relevant to the instant rate-setting analysis.

455. Disputed in part. [redacted]). *See supra* ¶¶ 440, 446, 451. Additionally, it is highly misleading to look to what [redacted]. *See* Joint Brief ¶¶ 146-47 & n.18. [redacted]. *Id.* In fact, Mr. Orszag himself has demonstrated that [redacted]. *See* Orszag WDT ¶ 127 & tbl.13.1; 9/2/20 Tr. 5354:7-5355:7 (Piibe).

Last, [redacted]. *See supra* ¶ 441; *infra* ¶ 459.

456. Disputed in part. [redacted]

[redacted] does not cover up for SoundExchange's complete failure to establish that [redacted], as explained in paragraphs 109-137 of the Services' Joint PFFCL. Professor Shapiro also explained in detail why [redacted], [redacted]). *See* Shapiro WRT at 10-14.

[redacted] is not only inadmissible but also lends no credence to SoundExchange's arguments. Last, SoundExchange has already spilled a thousand words in support of its unconvincing theory that the '[redacted], so its [redacted]—excerpted from an exhibit not yet admitted or relied on in written testimony—is worthless.

iv. The Evidence Reveals That [redacted][24]

457. Disputed in part. The record is abundantly clear [redacted]. *See* Joint PFFCL ¶¶ 138-150. The Services detailed this history with numerous citations the documentary record in their Joint PFFCL. *See id.* ¶¶ 139-145.

458. Disputed. The fact that [redacted]

[24] The Services note that of the negotiation documents SoundExchange cites in this subsection, none were cited or relied on in Mr. Orszag's written testimony, and TXs 5264*, 5265*, and 5421* have not been admitted into evidence.

[redacted] is unremarkable and irrelevant to the Services' argument (and SoundExchange does not explain why it matters). Given the [redacted]. *See* Joint PFFCL ¶¶ 139-147.

459. **Disputed.** [redacted]. *See* Joint PFFCL ¶ 143 ([redacted]); ¶147 ([redacted]). The Services quoted [redacted] ([redacted]) on this topic in paragraphs 141 and 145 of their Joint PFFCL. *See also* TX 4026 at 1-2. And, contrary to [redacted]. *See* Joint PFFCL ¶ 141 & n.18; *supra* ¶ 433; *infra* ¶ 460. [redacted]. *See* Joint PFFCL ¶ 141; Orszag WDT tbl.13 at 62 (showing [redacted]).

460. **Disputed.** SoundExchange's *post hoc* explanation should be rejected. SoundExchange itself has emphasized [redacted]

[redacted]). [redacted]. "Logically," [redacted]. This is not just speculation: as noted above, [redacted]. *See supra* ¶ 432; TX 4020. Moreover, [redacted]" TX 2127 at 6; *see also* 8/13/20 Tr. 1900:3-19 (Orszag).

461. **Disputed.** *See supra* ¶¶ 431-32, 460.

462-63. **Disputed.** *See supra* ¶¶ 412-427, 460.

464. **Disputed.** The fact that [redacted] does not mean—as a matter of simple logic, not to mention the clear evidentiary record—that [redacted]. There can be many reasons that [redacted]. Thus, there is simply no inconsistency whatsoever with [redacted]. SoundExchange cannot rewrite or erase the vast evidentiary record [redacted]

[redacted] *See supra* ¶¶ 457-459; Joint PFFCL ¶¶ 139-147.

465. **Not Disputed.** The Services do not dispute the referenced share percentages but note that (a) [redacted] rates are *not* used as Mr. Orszag's benchmark; and (b) the Services' economists have demonstrated why the percentages in those ranges [redacted]. *See* Joint PFFCL ¶¶ 109-137.

466. **Disputed.** *See supra* ¶ 465. The Services respond further that (c) the record shows only [redacted]; (d) [redacted] did not address the [redacted] at all; (e) neither Mr. Orszag nor any record label witness [redacted]); and (f) neither Mr. Orszag nor any label witness has [redacted]. *See* Orszag WDT ¶¶ 138-150 (claiming that [redacted]); Orszag WRT ¶¶ 19-23 (same); Harrison WDT ¶ 23 (addressing the [redacted] briefly in the "[redacted]" section of his testimony, with no mention of [redacted]); Piibe WDT ¶¶ 41-49 (discussing the "[redacted]" without any mention of [redacted]). The argument that [redacted] appears instead premised on the discredited "[redacted]" assertion refuted in paragraph 465 and the Services' Joint PFFCL ¶¶ 109-137. For all these reasons, the [redacted] and [redacted] are uninformative to the Judges' rate-setting task.

467. **Disputed in part.** The Service do not dispute that [redacted] (a concession that would have been unlikely if [redacted] alleged by SoundExchange).

468. **Disputed.** *See supra* ¶¶ 465-466. SoundExchange offers no examination of the [redacted]. As SoundExchange acknowledges, [redacted]. The uncontested fact is that [redacted], and there has been no suggestion (much less an actual showing) that [redacted] possesses monopsony power. Moreover, as Professor Shapiro testified, that a [redacted] does not establish effective competition in any event.

469. **Not Disputed.** This paragraph is a straw man. The Services do not argue that [redacted]—only, as noted above, that [redacted]. *See supra* ¶ 463.

v. The Record Indicates that [redacted][25]

470. **Not Disputed.**

471. **Disputed.** This summary of Professor Shapiro's and Dr. Peterson's testimony is addressed in more detail in paragraphs 472-482 below and in the Services' Joint PFFCL at ¶¶ 144-53, 156.

472. **Disputed.** *See supra* ¶ 458; Joint PFFCL ¶¶ 139-47.

473. **Disputed in part.** *See supra* ¶¶ 412-427, 460. SoundExchange's argument—that [redacted]—is premised on a logical fallacy. That [redacted]

[25] The Services note that of the negotiation documents SoundExchange cites in this subsection, none were cited or relied on in Mr. Orszag's written testimony, and TXs 5421*, 5264*, 5265*, 5451*, 5469*, and 5513* have not been admitted into evidence.

[redacted].

The overwhelming documentary evidence shows that [redacted]. *See* Joint PFFCL ¶¶ 139-147.

474. **Disputed in part.** *See supra* ¶¶ 428-439, 460. As to the argument that [redacted], the Services' response is the same as is detailed in paragraph 473 with respect to [redacted].

475. **Disputed in part.** *See supra* ¶¶ 440-56.

476. **Disputed.** As an initial matter, the Services note the dearth of reference to *any* witness testimony—and to only a few pieces of documentary evidence—supporting the economic theory espoused. Moreover, SoundExchange's theory is flatly inconsistent with what it argues elsewhere. In the previous section (paragraph 460 specifically) SoundExchange claims that the [redacted] ([redacted]). Here, SoundExchange argues that because [redacted] (supporting the [redacted]), they did not really intend to [redacted]. SoundExchange's either-or explanation is logically discordant and presents a false choice.

These two explanations are not mutually exclusive, but rather part of a consistent story: [redacted]). As Professor Shapiro testified, [redacted]. *See* Joint PFFCL ¶ 143 n.17; 8/19/20 Tr. 2883:6-13 (Shapiro) ("[redacted].") (emphasis added). It is true that [redacted]; complementary oligopolists do not just [redacted]. But that does not mean that they were [redacted]. *See* Joint PFFCL ¶¶ 141, 146.

The [redacted] negotiations were discussed in paragraphs 440-456 above; what is clear from the referenced quotation, however, is *not* that [redacted]. [redacted]. Rather, it reveals that [redacted]." Ultimately, however, as [redacted], "[redacted]." *See* TX 4026 at 1-2; Joint PFFCL ¶ 145.

477. **Disputed.** SoundExchange's armchair economics—tellingly devoid of any supporting testimony from Mr. Orszag or Professor Willig—are incorrect. First, the [redacted]: it was (as SoundExchange repeatedly underscores) the [redacted], as well the [redacted]. *See* Joint PFFCL ¶ 147. Second, the premise for SoundExchange's contention here—that [redacted]% is somehow the [redacted]—is ill-conceived. SoundExchange provides no reason to believe that [redacted]. There is simply no evidence to support that view. That [redacted] does not inform the demonstrated reasons why they [redacted]. *See* Joint PFFCL ¶¶ 139-147.

478. **Disputed.** SoundExchange presents an incomplete gloss on the [redacted] testimony of Professor Shapiro and Dr. Peterson. *See infra* ¶¶ 480-482; Joint PFFCL ¶¶ 151-156.

479. **Disputed.** Paragraphs 405-477 above and paragraphs 139-147 of the Services' Joint PFFCL [redacted]. As those discussions make plain, it was not the case that [redacted] (as SoundExchange's rather crude formulation would have it). Rather, as complementary oligopolists, it was *in their collective interest* to do so [redacted].

480. **Disputed.** Professor Shapiro and Dr. Peterson do not argue that the [redacted] %. Rather, they explain that it [redacted]. *See* Joint PFFCL ¶¶ 151- 156. [redacted]. *Id.* The record is barren of any indication that, as SoundExchange suggests, [redacted] rather [redacted] %. *Id.* SoundExchange's claim that [redacted] is also irreconcilable with SoundExchange's prevailing theory that [redacted]. If [redacted] SoundExchange claims, it could [redacted].

481. **Disputed.** The record is absent of any credible testimony or documentary evidence supporting the claim that [redacted] (or, in SoundExchange's formulation, "[redacted]"). To the contrary, the record reveals that [redacted]. *See* 9/3/20 Tr. 5562:2-24, 5565:19-5567:5 ([redacted]); TX 2108 at 3. [redacted] cited testimony addresses not the [redacted], [redacted]"). Yet the fact that the [redacted] *See* Joint PFFCL ¶ 152. As to [redacted], SoundExchange offers but one citation to a lone

document (TX 5513*, not cited, relied on, or admitted into evidence) suggesting tha [redacted]. Again, that hardly suggests that [redacted]." And the cited [redacted] merely involves [redacted] ([redacted]).

482. **Disputed in part.** SoundExchange makes a fatal concession here: [redacted]. And it is wrong about the surrounding negotiation dynamics to boot. As Professor Shapiro explained, [redacted]. *See* Joint PFFCL ¶¶ 152-153. If [redacted]. *Id.*

5. The Record Supports the Need for a Competition Adjustment, and the Services' Proposed Adjustments Are Reliable and Justified

i. SoundExchange's Comparison of the [redacted] Is Inappropriate

483. **Disputed in part.** Pandora and Sirius XM agree that [redacted]'s effective per-play rate ($[redacted]) is an effectively competitive rate (since arguably no record company is a must-have for the service given its limited catalogue), and that the *difference* between the Amazon rate and the rate paid by subscription interactive services carrying full record-company catalogues ($[redacted]) serves as an appropriate basis for an effective competition adjustment, since the latter rate *is* reflective of the Majors' must-have status and complementary oligopoly power. *See* SXM-PAN PFFCL ¶¶ 215-216. That is not to say, however, that a rate in the neighborhood of $[redacted], charged to another interactive service for [redacted], is therefore necessarily effectively competitive, or that the Majors are

not "must have" for that service. *See* Joint PFFCL ¶¶ 160-161.

484. **Not Disputed.**

485. **Disputed.** The Services fully addressed this incorrect contention in their Joint PFFCL. *See* Joint PFFCL ¶¶ 160-161. As noted there, [redacted] pays $[redacted] solely for *one tier* of a comprehensive, multifaceted service—[redacted]. *See also* 9/3/20 Tr. 5717:7-14 (Harrison) ([redacted]). Given that dynamic, it is artificial and unpersuasive to suggest that the [redacted], *taken as a whole*, reflect the forces of effective competition based merely on the coincidental fact that the [redacted] happens to match the stated per-play rate paid by [redacted].

486. **Disputed.** *See* Joint PFFCL ¶¶ 160-161.

487. **Disputed.** SoundExchange's argument might hold water if Mr. Orszag used the $[redacted] effective per-play rate paid for the [redacted] as his benchmark. However, Mr. Orszag's benchmark effective per-play rate for Spotify is $[redacted], not $[redacted], because he artificially excludes all discounted plans from his calculations. *See* Joint PFFCL ¶¶ 178-179; SXM-PAN PFFCL ¶ 186; *supra* ¶¶ 92-97. Moreover, Mr. Orszag does not use the per-play rate *at all*, but rather alters the *Web IV* methodology by starting from Spotify's percentage-of-revenue royalty. *See* Joint PFFCL ¶¶ 19, 164; *supra* ¶ 102. Professor Shapiro, for his part, starts from the average effective per-play rate across ten interactive services ($[redacted]). *See* SXM/PAN PFFCL ¶ 216. The proper effective competition adjustment thus requires a consideration of the (larger) difference between that rate and the $[redacted], not the difference between the Amazon Prime rate and a $[redacted] effective Spotify rate that Mr.

Orszag does not use.

488. **Disputed.** *See* SXM-PAN PFFCL ¶¶ 218-220. As explained there, Mr. Orszag makes no effort to quantity what effect (if any) the [redacted] should have on Professor Shapiro's adjustment, and also fails to appreciate that [redacted] actually *supports* the conclusion that the [redacted]. *Id.* Further, the other "variables" noted by SoundExchange simply underscore the complexities inherent in any benchmarking analysis; the key point is that Professor Shapiro identified the need for an effective competition adjustment and proposed a suitable one, while Mr. Orszag has done neither. *See* 8/19/20 Tr. 2836:24-2837:9 (Shapiro); s*ee also* SXM-PAN PFFCL ¶¶ 218-220. Moreover, [redacted] alleged negotiation power cannot explain the [redacted] given the [redacted] ($[redacted]). *See* Shapiro SCWDT at 42 tbl.10. If [redacted] had the leverage SoundExchange ascribes to it, surely that rate would be much [redacted].

489. **Disputed.** Professor Shapiro did *not* concede that the effective [redacted] rate is understated. Rather, he testified that [redacted] is the very *reason* the rate is reflective of effective competition ([redacted]), 8/20/20 Tr. 3119:7-13; he also acknowledged only [redacted]—something not readily subject to quantification—*only then might* an adjustment be warranted. *Id.* 3119:14-3120:18. SoundExchange's comparison of [redacted] rate to [redacted] is inappropriate for the reasons explained in paragraph 487 above.

490. **Not disputed.**

491. **Disputed**. First, Mr. Orszag is wrong that the market for licensing subscription interactive services has grown more competitive since *Web IV*, for at least the reasons discussed in the Services' opening brief and elsewhere herein. *See, e.g.*, Joint PFFCL ¶¶ 57-161, 177. Second, SoundExchange's conclusory statement that "Dr. Peterson's approach to calculating a competition adjustment should be disregarded" because of this purported increase in competition is entirely unsupported. Neither SoundExchange nor any of the evidence it cites provide any explanation as to how any purported increase in competition undermines Dr. Peterson's *approach* to calculating a competition adjustment. Mr. Orszag simply argues generally that any competition adjustment at all is unnecessary (see Orszag WDT ¶¶ 108, 120-130), and that too is wrong. *See, e.g.*, Joint PFFCL ¶¶ 57-161, 177. Third, SoundExchange's claim that "the walk-away payoffs for the record companies have changed" due to interactive services' growth is also entirely unsupported. The only evidence it cites refers to a hypothetical presented to Professor Shapiro [redacted] since *Web IV*. *See* 8/20/20 Tr. 3102:9-3105:1 (Shapiro).

492. **Disputed**. SoundExchange's argument that Dr. Peterson's competition adjustment can only be applied to a benchmark "based on the rates paid by a number of different services" is nonsensical. Dr. Peterson used an *ad-supported* service as a benchmark to reflect "how the labels licensed services that were catering to listeners with a low willingness to pay." 8/25/20 Tr. 3633:6-22 (Peterson); *see also* Peterson AWRT ¶ 29 (discussing the sharp dichotomy in listener WTP); 8/12/20 Tr. 1548:7-10 (Orszag) (conceding that "consumers of ad-supported services and subscription services have different willingnesses to pay"); Peterson AWDT ¶ 44 (discussing other similarities that make non-statutory ad-supported services useful benchmarks). The only other ad-supported interactive service for which SoundExchange provided data is

SoundCloud, which [redacted]. *See* Peterson AWDT ¶¶ 51, 77; *see also* Shapiro CWDT at 36 Tbl. 8. Thus, applying Dr. Peterson's methodology to SoundCloud [redacted]. *See* Peterson AWDT ¶¶ 74, 77 [redacted]). As such, using only Spotify as a benchmark is [redacted] SoundExchange is apparently suggesting blending in *subscription* benchmarks, but as discussed, ad-supported rates should be determined using ad-supported benchmarks. *See also* 8/12/20 Tr. 1547:7-23 (Orszag).

Further, neither SoundExchange nor Mr. Orszag's testimony cited here establishes why or how Dr. Peterson's competition adjustment should be reduced if these rates are not blended in. As SoundExchange acknowledges, the adjustment is based on Pandora and iHeart data (*see* SX PFFCL ¶ 490), and thus has nothing to do with Spotify's market power. Moreover, SoundExchange's argument that Spotify's rates [redacted] is belied by the fact that [redacted]. Shapiro SCWDT at 36 Tbl. 8; Peterson AWDT ¶¶ 51, 77. Finally, as discussed throughout the Services' opening brief and herein, the evidence shows that the subscription streaming market has *not* become effectively competitive since *Web IV* and the Majors remain complementary oligopolists. *See, e.g.*, Joint PFFCL ¶¶ 57-161, 138-156, 177; Google PFFCL ¶¶ 45-53; *supra* ¶ 182. Thus, Dr. Peterson's [redacted] competition adjustment is warranted. *See* 8/25/20 Tr. 3632:8-12, 3652:21-3653:23 (Peterson) (explaining how complementary oligopoly power in the benchmark market necessitates his competition adjustment); Google PFFCL ¶¶ 35-53 (same).

493. **Disputed**. The Services dispute this paragraph on the same grounds as the preceding paragraph, as well as on the following additional grounds. First, SoundExchange provides no rationale whatsoever for why it is allegedly "necessary" to use the 12% competition adjustment made in *Web IV* instead of Dr. Peterson's [redacted] adjustment. This unsupported conclusory statement should be disregarded. While Professor Shapiro observes that [redacted] as discussed in the response to the preceding paragraph, [redacted]. Thus, any such effect of size on bargaining power appears to be de minimis at most. *See* Joint PFFCL ¶¶ 57-62. Third, neither SoundExchange nor Mr. Orszag's cited testimony establishes that *any* of his purported [redacted] in Spotify's rates is due to increasingly competitive conditions in the benchmark market. Rather, they appear to simply take as a given that increased competition is the source of the *entirety* of that alleged [redacted] and therefore claim that all of it should be subtracted from the 12% adjustment made in *Web IV*. As discussed in the Services' opening brief and in response to ¶ 492, there is no evidence that the [redacted] are due to increased competition, or that the interactive streaming market has become effectively competitive. *See, e.g.*, Joint PFFCL ¶¶ 57-161, 177; Google PFFCL ¶¶45-53.

In addition, Mr. Orszag's purported [redacted] appears to refer to Spotify's *subscription* rate, not its ad-supported rate, and therefore is inapposite to Dr. Peterson's ad-supported benchmark. *See* 8/25/20 Tr. 3838:1-14 (Orszag) ([redacted] is, purportedly, the percent change from 2015 to April 2019 reported in Table 15 of his WDT); Orszag WDT ¶153 Tbl. 15 (reporting "Interactive *Subscription* Services Effective Rates" (emphasis added)). SoundExchange cites no evidence regarding [redacted] in Spotify's ad-supported rate; to the contrary, [redacted]

[redacted], as discussed. 8/26/20 Tr. 3951:20-3952:24 (Peterson) (discussing Adadevoh WDT ¶ 22). Finally, as a matter of arithmetic, Mr. Orszag's own data shows that the [redacted] in Spotify's subscription rate over the stated period was actually [redacted] not [redacted] Orszag WDT ¶153 Tbl. 15 (reporting a [redacted]).

I. The Service-Side Economists' Criticisms of SoundExchange's Case Are Not "Red Herrings"

1. There Is Record Basis for Adjusting Per-Play Rates Because of Decreasing Song Length

494. Disputed in part. As explained in the paragraphs that follow, the "reasons" identified by SoundExchange for "why song length is not an issue" are unavailing. *See infra* ¶¶ 495-97. SoundExchange is quick to argue (incorrectly) that CPI adjustments are necessary, *see* Orszag WDT ¶ 82 n.118, *infra* ¶¶ 501-03, and that the per-play rate structure magically overcomes fundamental differences between categories of non-interactive services, *see* Orszag WRT ¶¶ 127-30, while ignoring that decreasing song lengths mean that services need to pay for more plays today than they have in the past just to maintain their pre-existing level of music use. As a matter of pure mathematics, decreasing song lengths argue against upward adjustments in the per-play rates charged to webcasters.

495. Disputed. SoundExchange's claim that any impact that decreasing song length might have on negotiated royalty rates "would already be reflected in the marketplace agreements and already included in the effective rates being proposed in this proceeding," SX PFFCL ¶ 495, makes little sense. All of the benchmarks proffered by the participants in this proceeding are priced as a percentage of revenue, rather than per-play. *See* NAB PFFCL ¶¶ 42-44; SXM-PAN PFFCL ¶¶ 222-24; Joint PFFCL ¶¶ 22-24, 44-48, 164. As such, the agreements

automatically adjust for differences in song length during their term in a way that the per-play rate structure cannot.

496. Disputed in part. The Services agree that there is "no evidence to suggest the reduction in song length has resulted in noninteractive services . . . earning more revenues and profits. *See, e.g.*, Leonard CWDT ¶ 117. It is a matter of basic arithmetic that decreasing song lengths mean that services report more plays and pay more under the statutory per-play rate structure, unless they reduce the overall amount of music they perform. Further, SoundExchange's speculation that stations could simply run more ads misunderstands the nature of ad-supported services. Ads can only be run if ads can be sold; having more available space for ads does not in any way guarantee that a service will be able to sell ads to fill that space.

497. Disputed. Dr. Leonard explicitly acknowledged that decreasing average song length in the Billboard Hot 100 suggested that the average length of songs played on *Hot 100 radio stations* has decreased over time. Leonard CWDT ¶ 117. However, he further testified that this trend may *also* have affected stations with other formats as well, given that other stations play Hot 100 songs and that decreasing song length phenomena may be occurring in other genres. *Id.* The testimony that SoundExchange cites from Mr. Ploeger does not prove otherwise. The 15-performance per hour figure Mr. Ploeger points to in contrast to a 17-performance per hour figure for current pop music channels was accepted as a reasonable estimate of songs per aggregate tuning hour for music-only services in *2002*. *See* Ploeger WRT ¶ 34 n.21 (citing *In re Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings*, 67 Fed. Reg. 45,240, 45,260 (July 8, 2002) ("*Web I*"). As such, the difference between that estimate and the higher performance per-hour figure Mr. Ploeger cites for current pop music stations could just as easily

be explained by the very decreasing song length phenomena SoundExchange seeks to disprove.

2. There Is No Basis for Adjusting Per-Play Rates for Unilateral Market Power

498. Not disputed.

499. Disputed in part. As an initial matter, there's no real dispute that unilateral conduct can give rise to anticompetitive effects—even SoundExchange's expert agrees with that basic proposition. *See* 8/10/20 Tr. at 1067:22-1068:16 (Willig) (agreeing that "there's an entire branch of antitrust law that condemns certain anticompetitive conduct that a single firm could engage in by itself"). SoundExchange points to language from prior *Webcasting* proceedings, including *Web IV*, where the Judges declined to adjust rates to account for "the market power that a Major enjoys individually by ownership of its collective repertoire" in the absence of any evidence that that power was "the consequence of improper activity or that it is being used individually by a Major to diminish competition." SX PFFCL ¶ 499 (quoting *Web IV*, 81 Fed. Reg. at 26368 (quotations omitted). However, Dr. Leonard's point is that where—as the record establishes here with respect to the interactive services market, *e.g.*, SX PFFCL ¶ 261,—a label has achieved "must have" status by aggregating a sufficient amount of substitutes such that it has effectively monopolized the market for a complementary input, it has used its repertoire "to diminish competition." *See* Leonard CWDT ¶ 23. Indeed, complementary oligopoly power can be exercised *unilaterally*; a label need not act in concert with others in order to leverage that power. As an example, as Dr. Leonard opines, the labels have unilaterally exercised their complementary oligopoly power in the interactive services market by [redacted]. *See* Leonard WRT ¶¶ 62-66.

500. Disputed in part. SoundExchange offers no support for its argument that the reduced transaction costs associated with the aggregation of rights sufficiently correct for any

diminution in competition arising from a label's unilateral exercise of complementary oligopoly power. Indeed, although SoundExchange cites *Web II* in support of its argument, the Judges did not find that record labels were complementary oligopolies in *Web II*. 72 Fed. Reg. at 24093. In this proceeding, in contrast, both SoundExchange and the Services agree that the major labels are must-haves for interactive services. *E.g.*, SX PFFCL ¶ 261; *Web IV*, 81 Fed. Reg. at 26366.

3. Dr. Leonard Explained that the Judges Should Eliminate Inflation-Based Adjustments

501. Disputed in part. While SoundExchange accurately describes Mr. Orszag's proposal, NAB disagree with Mr. Orszag's assumption that noninteractive services' revenue "can be expected to increase over time at least at the rate of inflation" as represented by the Consumer Price Index ("CPI"). *See* NAB PFFCL ¶¶ 207-08; Leonard CWDT ¶¶ 118-20; *see, e.g.*, 8/27/20 Tr. 4450:5-13 (Newberry) ("COVID has been a very tough period. . . . [O]ur revenues have been off by as much as 60 percent in some months"). Indeed, Mr. Orszag admitted that in making this assumption he did not distinguish between subscription and advertising revenues, did not analyze whether services' revenues per-play have actually increased at the rate of inflation, and did not analyze whether simulcasters revenues per simulcast play have actually increased at the rate of inflation. NAB PFFCL ¶ 208 (citing 8/12/20 Tr. 1764:7-1765:5 (Orszag)).

502. Disputed. Dr. Leonard based his opinion that prices in the music industry have not increased on both evidence that subscription prices for interactive music services have stayed constant or declined over the last few years, as SoundExchange acknowledges, but also on the fact that the per-play royalty for sound recording rights for ad-supported Spotify was lower in the first quarter of 2019 as compared to 2018. *See* Leonard CWDT ¶ 78 ("I have calculated the effective per-play royalty rate that Spotify pays for its ad-supported interactive service to be

[redacted] for 2018 and [redacted] for January 2019 through March 2019."); *see also id.* 119 & n.148. Moreover, he explained that any yearly increase in the statutory rate should not be tied to the CPI because "[p]rices in other industries reflected in the CPI may be driven by economic factors that play no role in the music industry." *Id.* ¶ 118. As an economic matter, any yearly increase in the statutory rate "should be tied to the increase in prices in a narrower industry—*e.g.*, music services and the royalties paid by such services." *Id.*

503. Disputed. Given that Dr. Leonard's opinion is that increases in the statutory rate should be tied to increases in the *music services* industry, it is hard to understand why SoundExchange believes the subscription prices for premium Spotify subscriptions are "not material." Moreover, SoundExchange provides no explanation whatsoever for why it ignores entirely Dr. Leonard's discussion of the per-play royalty for sound recording rights for ad-supported Spotify. *See* Leonard CWDT ¶¶ 78, 119 & n.148. SoundExchange has also presented no explanation for why advertising prices, which Mr. Orszag admitted do not increase or decrease at exactly the rate of CPI, are more informative. 8/12/20 Tr. 1765:6-14 (Orszag) (admitting that when there's an economic downturn or pandemic advertising revenues would not increase or decrease at exactly the rate of CPI).

504. Disputed. It is NAB's view that Dr. Peterson's testimony does not support Mr. Orszag's conclusion that an inflation adjustment based on CPI is appropriate. As discussed above, SoundExchange has not established that advertising revenues track the rate of inflation. *See supra* ¶ 503; 8/12/20 Tr. 1765:6-14 (Orszag); Leonard CWDT ¶¶ 78, 119.

VI. THE SERVICES' EVIDENCE DEMONSTRATES THEIR UNDENIABLE PROMOTIONAL VALUE[26]

505. Disputed in part. Sirius XM and NAB indeed assert that their services are promotional of the purchase and streaming of sound recordings on other platforms. The Judges are required to consider evidence of promotional value both in establishing the rates and terms, 17 U.S.C. § 114(f)(1)(B)(i)(I), and (as relevant to NAB's proposal) whether those rates and terms should distinguish among different types of services, 17 U.S.C. § 114(f)(1)(B). The Services provided overwhelming and undisputed evidence that labels compete to place their songs on satellite and broadcast radio. *See generally* NAB PFFCL Section III.C.2; SXM-PAN PFFCL ¶¶ 43-45. SoundExchange's assertion that this evidence can safely be ignored because the Services did not "propose a specific and quantified adjustment" based on the promotional value of their services has no grounding in the statute, which does not impose any such limitation on the kinds of evidence the Judges are required to consider. *See* 17 U.S.C. § 114(f)(1)(B).

In any event, in NAB's case, the point of this evidence is explanatory—it provides one reason *why* the benchmark agreements NAB offered have lower effective per-play royalty rates for simulcast streaming than custom radio streaming, and why the average effective per-play rates under agreements with iHeart, the largest NAB simulcaster, is well below the current statutory rate. Leonard CWDT ¶¶ 74-75; *see also* NAB PFFCL ¶ 37, 40-41. This is entirely consistent with past rate-setting proceedings. *See SDARS III*, 83 Fed. Reg. at 65253 (noting that no party sought a promotional adjustment because of the difficulty in quantifying, and because promotional value is "baked in" to benchmark agreements); *see also Web IV*, 81 Fed. Reg. at

[26] For clarity, in NAB's view, the evidence demonstrates that simulcast transmissions of terrestrial radio are entitled to a lower per-play rate than custom radio and other nonsubscription noninteractive services. It takes no position on the impact of Sirius XM's promotional value on the rate for subscription noninteractive services, as that product exists in a different market than terrestrial radio.

26326 ("[I]t is not necessary to make additional adjustments to benchmarks to reflect the promotion and substitution factors. The Judges hold in this determination, as they have held consistently in the past, that the use of benchmarks 'bakes-in' the contracting parties' expectations regarding the promotional and substitutional effects of the agreement.").

SoundExchange also misunderstands the relevance of promotional value to Dr. Leonard's opportunity cost analysis. Dr. Leonard explained at the hearing that he did not quantify a promotional effect in his opportunity cost analysis—but that not doing so rendered the result conservative in SoundExchange's favor. Thus, given the undisputed evidence of the promotional value of radio, the actual opportunity cost for record labels associated with simulcasts is *lower* than that calculated by Dr. Leonard. 8/24/20 Tr. 3408:1-18 (Leonard); *see also* 8/20/20 Tr. 3408:1-18 (Shapiro). Indeed, it is even possible that record labels would see an "opportunity benefit," as Judge Strickler put it, to the extent that lower rates for simulcasters lead terrestrial radio broadcasters to promote additional listening to royalty-bearing simulcasts, in lieu of royalty-free over-the-air broadcasts. NAB PFFCL ¶ 133 (citing 8/24/20 Tr. 3403:21-3406:18 (Leonard); 8/27/20 Tr. 4458:23-4459:14 (Newberry); Wheeler CWDT ¶¶ 29-30).

506. Disputed. SoundExchange suggests that the evidence that the Services provided of the promotional value of satellite and terrestrial radio consists of merely "anecdotes." But the evidence proffered was *not* limited to anecdotes. For example, iHeart's Tom Poleman gave detailed testimony about his experiences interacting with labels as iHeart's Chief of Programming, which spoke directly to the Judges' prior concerns that emails could simply express common courtesy. *See* NAB PFFCL ¶ 155 (citing 8/27/20 Tr. 4418:22-4420:4, 4420:14-4421:9; Poleman WDT ¶¶ 6-19). He also testified about iHeart's coveted On the Verge, AIP and DAIP programs and their promotional benefits. *See* NAB PFFCL ¶¶ 156-158 (citing Poleman

WDT ¶¶ 23-34; 8/27/20 Tr. 4421:10-4423:4, 4427:25-4429:16 (Poleman)); *see also infra* ¶¶ 512, 542. That testimony, from someone tasked with overseeing programming on approximately 850 radio stations, stands on its own as evidence of the promotional value of radio. What SoundExchange calls "anecdotes" are, in fact, *examples* used to support that testimony based on relevant first-hand experience. Professor Shapiro likewise testified about the promotional power of advertising-supported statutory services as compared to advertising-supported interactive services. Shapiro WDT at 40-41.

Moreover, NAB provided hard numbers—actual dollars spent on promotional efforts—to show that the record labels regard terrestrial radio (regardless of the mode of transmission) as significantly *more* promotional than pureplay webcasters. For the years 2016-2019, [redacted]. TX 2056 at 14. [redacted], while generally devoting no resources to promotional activities directed at "pure non-interactive webcasters that do not offer a premium interactive tier of service." *Id.* at 15-16; *see also* TXs 2105, 2106, 2107 (majors radio marketing spend by year); 9/9/20 Tr. 5944:5-9 (Sherwood) (agreeing that [redacted]); TX 2078 at 19 (same); 9/9/20 Tr. 5976:11-5977:15 (Gauthier) (making no mention of promotion to noninteractive services other than radio).

Labels would not spend this kind of money on radio promotion if they did not believe that it would benefit their bottom lines. Indeed, as Judge Strickler posited to Dr. Ford:

> [I]f we were to assume or to be urged that non-interactive services were net substitutional, not net promotional, why would we see any attempts by any label to try to promote their music on a non-interactive service? I think there was an expert who sort of cheekily said in a prior proceeding, you would see exactly the opposite; you would see the labels urging Pandora and iHeart and other non-interactive services, please don't play our music, we don't want our music played here because—the impetus for such a policy would be that you're costing us money because the plays on non-interactive services are net substitutional compared to the higher royalties we could get from an interactive service.

8/18/20 Tr. 2563:21-2564:11. Judge Strickler later put a finer point on this same question: "[T]he question is why would anyone promote at all? Why would we see any of these anecdotes if the non-interactive service was not promotional?" *Id.* at 2566:12-14. That observation is exactly correct—you wouldn't. And Dr. Ford's extended and meandering response did nothing to actually address that critique. *Id.* at 2566:15-2568:3. More convincing was the common-sense observation of Sirius XM's Steven Blatter, who testified that "if recording executives really thought we were substitutional, they would not aggressively seek airplay on Sirius XM as they continue to do today. . . . [N]ever once in my 30+ years as a radio programmer and executive has a single artist, record label employee or artist manager asked that I not play the music they represent. Blatter WDT ¶ 5.

SoundExchange could have proffered testimony from record label promotional personnel to rebut the evidence presented by the Services. But SoundExchange assiduously shied away from presenting testimony from those personnel in this proceeding. *See* 9/9/20 Tr. 5939:22-5940:10 (Sherwood) (admitting that he is not responsible for promotions, and no witness from Warner's promotions department will testify). Instead, it proffered the testimony of a supposed expert, Dr. Ford. But Dr. Ford's admitted unfamiliarity with the evidence in this proceeding, as well as his numerous admissions that contradict his written position, make him unfit to opine on the topic. Dr. Ford admitted that he did not review a single of the Services' (or even

SoundExchange's) benchmarks. 8/18/20 Tr. 2579:20--2583:9; *see also* NAB PFFCL ¶¶ 203-206. He accordingly had not, and could not: 1) determine whether NAB's deals reflecting bifurcated rate structures for simulcast and custom radio reflect differences in the promotional value of the two, or 2) quantify the degree to which differences in net promotional effects are baked-in to the agreements. *Id*. at 2581:19-25. He conceded, however, that he would expect such agreements to "bake in" the net promotional effect of a service or services. *Id*. at 2577:20-2578:11; NAB PFFCL ¶ 204.

507. Disputed. The Services are not seeking, and at no point during this proceeding sought, a specific numerical promotional adjustment. SoundExchange misconstrues the Judges' holding concerning evidence of promotional value in *Web IV*. The *Web IV* Judges found that the qualitative evidence that NAB supplied "ably demonstrated a distinction between simulcasting and other webcasting." *Web IV*, 81 Fed. Reg. at 26321. In other words, far from rejecting what SoundExchange here calls "anecdotal evidence," the Judges appropriately *credited* it. *See, e.g.*, *id.* at 26322. The Judges simply called for evidence that this "distinction supports differential royalty rates for simulcasters." *Id*. at 26321. NAB has filled that evidentiary gap in this proceeding, including through its benchmarking analysis and its confirmatory survey evidence and opportunity-cost analysis. *See* NAB PFFCL ¶¶ 32-51, 23 & n.9, 112, 117-20, 154-64.

508. Disputed. Again, the Services are not seeking, and at no point during this proceeding sought, a specific numerical promotional adjustment. SoundExchange's proposed findings on this point continue to misconstrue the written record and ignore the entire hearing as if it never happened. *See supra* ¶¶ 505-07.

509. Disputed. Labels would not expend any resources promoting to noninteractive streaming services if those services were not net promotional. *See supra* ¶ 506.

510. Disputed. Within the category of noninteractive services, NAB of course has provided overwhelming proof that radio (whether delivered over the air or the internet) is more promotional than custom radio. *See supra* ¶¶ 506-07; NAB PFFCL Section III.C. This includes the iHeart-Indie benchmarks (NAB PFFCL ¶¶ 29-51), the PRO benchmarks (*id*. ¶¶ 87-111), survey evidence (*id*. ¶¶ 112-26), Dr. Leonard's opportunity-cost analysis (*id*. ¶¶ 127-45), and fact witness testimony showing that record labels consider radio more promotional than custom radio (*id*. ¶¶ 146-73).

511. Disputed in part. The Services agree that the promotion is baked into *noninteractive* benchmark agreements. But SoundExchange has made no such showing for the interactive benchmarks that Orszag is relying on. *See supra* ¶ 249. But, again, at no point have the Services argued that a specific numerical promotional adjustment is necessary here. *See supra* ¶¶ 505-07. Indeed, the Services have not proposed a promotional adjustment to Mr. Orszag's benchmark because subscription interactive services are not an appropriate benchmark for ad-supported noninteractive services given the incompatibility of the two markets and SoundExchange's benchmark should be rejected in full. *See supra* ¶¶ 65-70, 249.

512. Disputed. *See supra* ¶¶ 505-506.

513. Disputed. Dr. Ford's opinion about "what matters" in this proceeding is an inadmissible (and incorrect) legal opinion. *See* 17 U.S.C. § 114(f)(1)(B); *id.* § 114(f)(1)(B)(i); Dkt. No. 22374 (Services' Mot. Objecting to Portions of SoundExchange's Written Testimony) at 25-30. To support its claim that the Services have failed to "quantify alleged promotional effects," SoundExchange cites only to Dr. Ford's flawed and incomplete written testimony. *See supra* ¶¶ 505-506.

A. NAB's and Sirius XM's Evidence Supports Their Benchmarking Analysis and Shows that even the Majors View them as More Promotional than Other Webcasters.

514. Not disputed.[27]

515. Disputed in part. The observation by Dr. Ford that record labels would not want to cannibalize their own sales is an observation that may be true, but is entirely irrelevant given the actual record in this case. Record labels expend *substantial* resources on promotion efforts, particularly on radio. *See supra* ¶¶ 506-07. They would not do so if they did not believe that it would benefit their bottom lines. *Id*.

516. Disputed in part. Notably, Dr. Ford's suggestion that a record label might be concerned about a service that "promotes additional plays on terrestrial radio" but "draws plays away from subscription services" is entirely hypothetical. He identifies no service that has that characteristic. Again, the actual record in this case—which Dr. Ford appears to have consciously avoided—demonstrates that satellite and terrestrial radio are highly promotional of other streams of revenues. *See supra* ¶¶ 505-07.

517. Disputed. The evidence demonstrates conclusively that the record companies believe that the non-interactive services are net promotional for their catalogs. *See supra* ¶¶ 506-07. As Judge Strickler put it, "Why would we see *any* of these anecdotes if the non-interactive service was not promotional?" *Id.* at 2566:12-14 (emphasis added). In any event, as explained above, the evidence in this record is not limited to anecdotes, but includes testimony from individuals with extensive firsthand relevant industry experience, as well as evidence of the labels' own promotional spending and their own empirical evidence. *See supra* ¶ 506.

[27] Again, the Services object to SoundExchange's proffer of Dr. Ford's testimony in support of legal conclusions and issues for the finder of fact about "what ultimately matters" in this proceeding.

Similarly, in asserting that the Services did not address the type of listening that they promote (*see* SX PFFCL ¶ 516), SoundExchange ignores the wealth of fact witness and expert testimony proffered in this case that speaks to this question. *See*, *e.g.*, 8/24/20 Tr. 3433:11-19 (Leonard); Leonard CWRT ¶ 101 (discussing radio's ability to promote listening on interactive services); 8/27/20 Tr. 4422:17-4423:4 (Poleman); Poleman WDT ¶¶ 30-34; NAB PFFCL ¶ 157 (discussing artists who take advantage of iHeart's royalty-free programs, knowing it will lead to other revenue streams, such as concert tours, in the long run); Williams CWDT ¶ 25 (discussing royalty-free program); 8/27/20 Tr. 4452:23-4453: (Newberry) ("We're saying to our listeners, here's when the new music is coming out. Here's where you can access that. Here's how you can get tickets to the concerts. It's . . . a promotional relationship that's been symbiotic."); 8/18/20 Tr. 2570:3-2571:8, 2575:8-20 (Ford) (agreeing "there are instances in which terrestrial radio is an important part of the promotional mix for record labels"). Even the labels acknowledge as much: A [redacted] deck presented at its [redacted]." TX 2078 at 13; 9/9/20 Tr. 5943:22-5944:9 (Sherwood). That same presentation emphasized the importance of radio to the success of a sound recording, [redacted]" TX 2078 at 17. For "[redacted]" *Id*. For "[redacted]" For "[redacted]." *Id.*; *see also id.* at 19-20; TX 2084 at 2 [redacted]; *see also* NAB PFFCL ¶ 160.

B. NAB's Opportunity Cost Analysis Conservatively Favors SoundExchange; if Promotional Effects are Included, Labels' Opportunity Cost is Even Lower

518. Disputed in part. As Dr. Leonard detailed in his written report, it is not necessary to show relative promotional value. *See* Leonard CWDT ¶¶ 108-11. His analysis revealed that the promotional offset of simulcast reduces a label's net opportunity cost *even if* simulcast and custom radio are equally promotional. *Id.* ¶ 111. This, coupled with the record evidence showing that simulcast is more promotional of sound recordings than is custom radio, means Dr. Leonard's analysis yields results that are conservative in SoundExchange's favor and the actual opportunity cost of simulcasts for record labels is *lower* than that calculated by Dr. Leonard. *See* 8/24/20 Tr. 3408:1-18 (Leonard); *see supra* ¶¶ 505-07; NAB PFFCL ¶ 133 (citing 8/24/20 Tr. 3403:21-3406:18 (Leonard); 8/27/20 Tr. 4458:23-4459:14 (Newberry); Wheeler CWDT ¶¶ 29-30). The same is true for Professor Willig: his opportunity cost analysis is also too high because it does not account for promotional effects at all. *See, e.g.*, 8/24/20 Tr. 3408:1-18 (Leonard); 8/20/20 Tr. 3408:1-18 (Shapiro); *see also* 8/6/20 Tr. 784:20-785:6 (Willig). If those are included, then the opportunity cost is lower than what he calculated. *See* 8/24/20 Tr. 3408:1-18 (Leonard); 8/20/20 Tr. 3408:1-18 (Shapiro).

519. Not disputed.

520. **Disputed in part**. SoundExchange is wrong to state the Services presented no quantitative evidence of relative promotion. That includes NAB's benchmarks—which, to use Dr. Ford's terminology, "bake in" promotional value in assigning a lower royalty rate to simulcast than to custom radio, in addition to average per-play rates well below the statutory rate, *supra* ¶¶ 506-09—as well as significant fact witness testimony showing that, *e.g.*, simulcast is more promotional of other revenue streams than is custom radio, *supra* ¶¶ 510, 512. This also

includes testimony from the Majors showing that they expend significantly more resources marketing their artists to radio than to other webcasters. *See supra* ¶¶ 506-07.

521. Disputed. As discussed above, Professor Willig's conversion metrics (new evidence presented for the first time at the hearing) relied on flawed data and overlook the degree to which Pandora users convert to mid-tier or on-demand services *outside of the Pandora ecosystem* (*e.g.*, Spotify's subscription tier), in addition to Pandora's own subscription tiers. *See supra* ¶¶ 178, 190. That is the relevant consideration. SoundExchange's [redacted]% figure is also meaningless, as it has nothing to do with the [redacted]. In short, Professor Shapiro's opportunity cost analysis is conservative because it did not factor in Pandora's promotional power (which would have lowered the resulting opportunity cost), while Professor Willig erred in not accounting for Pandora's conversion power (and his flawed Pandora conversion analysis does not suggest otherwise). Moreover, this proposed finding ignores the substantial evidence that terrestrial radio (regardless of the mode of transmission) is regarded by labels as promotional. *See supra* ¶¶ 506-07.

522. Disputed in part. SoundExchange again misunderstands the Services' point regarding accounting for promotional effects in an opportunity-cost analysis. The fact that no Services expert calculated these effects as part of his analysis means that each is conservative. If promotional effects are included then the opportunity cost for the label is even lower than that calculated by the experts. *See supra* ¶¶ 505, 518.

523. Disputed in part. To begin with, the starting premise of this proposed finding of fact is mistaken. Yes, record companies and services can negotiate direct deals that take into account a service's ability to upsell users from a free to paid subscription tier. But, as discussed above, there is a more fundamental problem with Mr. Orszag's failure to adjust his benchmark

for promotional and substitutional effects since he deliberately chose full-price subscription interactive services as his benchmark—*i.e.*, one of the principal "other revenue streams" on which the statute requires the Judges to consider noninteractive services' effect. *See supra* ¶ 249. Moreover, that is not the only form of promotional value that matters. The statute requires the Judges to broadly base their decision on all the ways that "use of the service . . . may promote the sales of phonorecords or otherwise . . . may enhance the sound recording copyright owner's other streams of revenue from the copyright owner's sound recordings." 17 U.S.C. § 114(f)(1)(B); *see supra* ¶ 505; 8/24/20 Tr. 3433:3-19 (Leonard). The record is replete with examples of how satellite and terrestrial radio increase consumption of sound recordings. *See supra* ¶¶ 506-07; *see also* NAB PFFCL Section III.C. SoundExchange's expert Professor Tucker—to whom SoundExchange cites as the basis of its point—conceded that willing buyers and willing sellers would account for significant differences in how various non-interactive webcasters promote a record label's other revenue streams. 8/18/20 Tr. 2443:14-2444:13, 2449:8-2450:2. Her view that the statutory license *cannot* account for such differences is, of course, contrary to the plain terms of the statute. *Compare* Tucker WDT ¶ 84 *and* 8/18/20 Tr. 2449:8-2450:2, *with* 17 USC §114(f)(1)(B); *see also* NAB PFFCL ¶¶ 200-02.

C. The Services' Evidence Establishes Their Promotional Value

524. Disputed. SoundExchange is wrong in claiming that the Services failed to provide evidence of relative promotional value. For example, and as discussed above, NAB established at the hearing that radio (regardless of mode of transmission) is more promotional than custom radio. *See supra* ¶¶ 505-07, 510, 512; *see also*, NAB PFFCL Section III. It did so via its benchmarks, which price simulcast lower than custom radio, as well as fact witness

testimony showing that record labels consider radio more promotional than custom radio. *See supra* ¶¶ 505-07; *see also* NAB PFFCL ¶¶ 29-51, 87-111, 146-73.

525. Disputed in part. SoundExchange ignores the Judges' prior determinations recognizing that noninteractive benchmark agreements—such as those that iHeart offer here—account for relative promotion. *See, e.g.*, *Web IV*, 81 Fed. Reg. at 26326; *see also supra* ¶ 506. The benchmark agreements that NAB presented evidence that the market prices simulcast at a lower rate than custom radio, a fact readily explained by their differential promotional value. *See* Leonard CWDT ¶ 74; *see generally* NAB PFFCL Section III.A; *see supra* ¶ 249. By contrast, Orszag's interactive benchmarks do not reflect promotional value, because those services are not promotional of themselves.

526. Disputed in part. The reference to anecdotes in Figure 11 is unsupported by any trial testimony; there is no evidence that the evidence presented by the Services was "chosen from the tail" of the distribution of the promotional effect of the terrestrial and satellite radio.

527-28. Not disputed.

529. Disputed. With respect to simulcasts, the record evidence in fact shows that record labels spend huge sums on radio promotion, and no money on promotion to other pureplay non-interactive streaming services. That is the evidence that SoundExchange is ignoring in its analysis. *See supra* ¶ 506.

D. The Services' Qualitative Evidence Supports Their Benchmarking Analysis by Highlighting the Promotional Value that is Baked into the Benchmarks

530. Disputed. The premise behind SoundExchange's assertion that the Services' "anecdotal evidence is unpersuasive" is simply wrong. The "anecdotes" as SoundExchange calls them are just one part of an unbroken record demonstrating without question the promotional value of radio. *See supra* ¶¶ 506-07.

1. The Unrebutted "Anecdotes" Show that Simulcast is Economically Different from Other Webcasters

531. Disputed in part. SoundExchange again confuses the point of evidence of promotional value. That value is baked into the benchmarks. *See supra* ¶ 505. Qualitative evidence such as that provided by the Services explains why, for example, NAB's benchmarks from labels and the PROs alike price simulcast at a lower rate than custom radio. *Supra* ¶¶ 505-07. Dr. Ford's focus on promotional effects in his written testimony was rendered meaningless by his trial testimony. Dr. Ford admitted that he did not review a single of the Services' (or even SoundExchange's) benchmarks. 8/18/20 Tr. 2579:20-2583:9; *see supra* ¶¶ 506, 513; *see also* NAB PFFCL ¶¶ 203-206. He accordingly had not, and could not, determine: 1) whether NAB's deals reflecting bifurcated rate structures for simulcast and custom radio reflect differences in the promotional value of the two types of services, or 2) to quantify the degree to which differences in net promotional effects are baked-in to the agreements. 8/18/20 Tr. 2581:19-25; *see also supra* ¶¶ 506.

532. Not disputed.

533. Disputed. In fact, there is no better quantification of the "causal chain" between "exposure and artist and record company income," than the fact that the major record labels spent [redacted] on radio promotion efforts while devoting [redacted] to promotional activities on pure non-interactive webcasters. TX 2056 at 13-16. Other evidence similarly demonstrates conclusively that record labels themselves have quantified the promotional value of radio, and found it to be strong. For instance, a [redacted]. TX 2078 at 17-18. Mike Sherwood of Warner Records reinforced these points, agreeing that "Warner Records wants to

ensure that a track generates revenues from streaming over a sustained period of time," and that [redacted] that [redacted] 09/09/20 Tr. 5940:15-20; 5944:5-9. That evidence cannot be dismissed as mere "anecdotal evidence"; it is empirical evidence, straight from the mouth of a record label. As for Dr. Ford, it is telling that he did not appear to ask for or study any of these record label documents in formulating his opinions—yet another reason to reject his incomplete, hired-gun opinions. *See generally*, Ford WDT (notably does not include list of materials considered or cite to these materials). Finally, his view that "in the end, the success of a sound recording is inextricably tied to its quality—something that cannot be quantified" is incompatible with his opinion that the Judges should reject the Services' qualitative evidence of promotional value, given the statute's requirement that the Judges consider evidence of promotional value when setting rates in this proceeding. 17 U.S.C. § 114(f)(1)(B)(i)(I).

534. Disputed. *See supra* ¶¶ 507, 530-31.

2. The Evidence Needs Not Distinguish Between Webcasts and Broadcasts on Terrestrial and Satellite Radio To Demonstrate the Promotional Value of Simulcasts

535. Disputed in part. This proposed finding encompasses yet another observation that is true but irrelevant. By definition, internet simulcasts of satellite and terrestrial radio provide the same content as the over-the-air signal. *See* Orszag WRT ¶ 37. So, of course, the labels' recordings "were not played solely on Sirius XM's internet radio platform or on NAB's simulcasts." But to the extent SoundExchange asserts that the only relevant promotional value is the hypothetical standalone promotional value of a simulcast, that argument is mistaken, as discussed below.

536. Disputed in part. NAB's fact witnesses are not the only ones that have suggested that record labels view simulcasts and terrestrial radio as one and the same. Experts

on both sides of the case agreed with that proposition. 8/24/20 Tr. 3426:16-3427:2 (Leonard); Leonard CWDT ¶¶ 32, 36; Orszag WRT ¶¶ 37-38, 46; 8/12/20 Tr. 1766:21-25 (Orszag). As Orszag acknowledges, the relevant entities for purposes of the Judges' analysis in this proceeding are radio broadcasters, not "hypothetical standalone 'simulcasters.'" Orszag WRT ¶ 37. So do record label witnesses. *See infra* ¶ 538.

537. Disputed in part. SoundExchange is correct that NAB has previously argued that simulcast should receive a lower royalty rate than other webcasters. Its statement that NAB made this argument "without success," however, is incorrect. The *Web IV* Judges found that the qualitative evidence that NAB supplied "ably demonstrated a distinction between simulcasting and other webcasting." *Web IV*, 81 Fed. Reg. at 26321. The Judges called for NAB to provide additional evidence as to why "that distinction supports differential royalty rates for simulcasters." *Id*. NAB has filled that evidentiary gap in this proceeding. *See supra* ¶ 505; *see also* NAB PFFCL ¶¶ 32-51, 23 & n.9.

538. Disputed. SoundExchange claims, without any citation to the record, that testimony from the "record label side" contradicts NAB's assertions that radio (regardless of mode of transmission is more promotional than other webcasters. In fact, the converse is true: UMG's Aaron Harrison testified that [redacted]. 9/3/20 Tr. 5734:6-5735:21. Labels do not differentiate over-the-air broadcasting and internet simulcasting when pitching webcasters like iHeart for airplay. *See* NAB PFFCL ¶ 164. Rather, they treat the two as one and the same. 8/27/20 Tr. 4416:25-4417:13 (Poleman); Poleman WDT ¶ 7; 8/27/20 Tr. 4453:22-4454:25 (Newberry). Imprints of each of [redacted]

[redacted]. TX 2057 at 9-11; NAB PFFCL ¶ 164. Consistent with Dr. Leonard's testimony, even SoundExchange's own experts, Jonathan Orszag and Catherine Tucker, acknowledge that over-the-air and simulcast are a bundled product. Orszag WRT ¶¶ 37-38, 46; 8/12/20 Tr. 1766:21-25; 8/18/20 Tr. 2431:20-24 (Tucker); *see also* NAB PFFCL ¶ 3. What matters, therefore, is the promotional power of the two together. 8/24/20 Tr. 3426:16-3427:2 (Leonard); Leonard CWDT ¶¶ 32, 36.

The single out-of-context quote that SoundExchange cites in no way undermines Dr. Leonard's consistent testimony on this point. Indeed, *immediately* after the line that SoundExchange quotes, Dr. Leonard makes his view crystal clear: "[O]ne reason [labels] like commercial or terrestrial radio for . . . promotional purposes, sure, is the reach is bigger and, you know, simulcast extends that reach. . . . [S]omebody listening who hears a song, I don't think there is any reason why their response to that is going to depend on whether they're on simulcast or on -- on listening on the actual radio." *See* 8/24/20 Tr. 3575:3-15.

539. Disputed. The claim that simulcasting has "less promotional value than terrestrial radio because simulcast listenership is so small" makes no sense whatsoever. There is no reason to believe that—on a listener-by-listener basis, which is how sound recording royalties for simulcasters are calculated—the promotional impact of simultaneously played, identical programming is any different depending on whether the signal carrying those soundwaves at one point crossed over the internet or whether it crossed over the air. In fact, such a conclusion is so counterintuitive that it is incumbent on SoundExchange to prove such a disparity in promotional effect. It has not even attempted to do. Instead, all the available evidence supports the conclusion that broadcast radio carries the same promotional impact regardless of the transmission medium by which consumers hear it. *See supra* ¶ 538; NAB PFFCL ¶¶ 162-64.

540. Disputed in part. SoundExchange is correct that the tight playlists featured on radio make simulcast, as a bundled product with the over the air transmission, more promotional than other webcasters. The claim that the promotional value of simulcasts does not matter because "very few people to listen to simulcasts," makes no sense. *See supra* ¶ 539.

541. Disputed. SoundExchange notably cites to zero hearing testimony for its statement that labels are "more focused" on promoting artists to on-demand streaming services than to radio. That is because there is none. SoundExchange could not produce any evidence of the amounts they spend on promotion to on-demand streaming services, even as they admitted spending [redacted] promoting their recordings on radio. *See* TX 2056 at 14-16. In fact, the evidence shows that the major labels have spent *more* money on radio promotion even as on-demand streaming has become more popular. TX 2105 (Sony radio promotion spending of [redacted] in 2018 versus [redacted] in 2016); TX 2106 (Warner radio promotion spending of [redacted] in 2019 versus [redacted] in 2016); TX 2107 (Universal radio promotion spending on terrestrial radio of [redacted] in 2018 versus [redacted] in 2016); *see also* 8/24/20 Tr. 3435:20-3436:23 (Leonard); TX 2056 at 14-16; TXs 2055, 2075, 2077 (label marketing plans emphasizing promotion on radio); *see supra* ¶¶ 506, 533.

Moreover, iHeart's Tom Poleman also testified that outreach that he receives from labels seeking to have their artists played on radio and simulcast dwarfs that of iHeart's other products—including on-demand. 8/27/20 Tr. 4415:11-19, 4416:13-4417:21 (Poleman); *see, e.g.*, TX 2006*; *see also* TXs 2010, 2011*, 2012* (regarding iHeart premieres and album release analyses); *see* NAB PFFCL ¶ 155.

542. Disputed. SoundExchange cites to a stand-alone statement from Mr. Harrison's WRT for this claim. Mr. Harrison is not an economic expert. He speculation that

"[s]imulcasting *may* have the effect of protecting terrestrial radio (which pays no sound recording royalty) from competition with royalty-paying internet webcasting services," Harrison WRT ¶ 21 (emphasis added), is based on no evidence, empirical or otherwise, and should be fully disregarded. Moreover, that assertion is belied by Harrison's testimony that [redacted]. 9/3/20 Tr. 5735:11-21.

3. SoundExchange's Focus on Anecdotes Misinterprets the Purposes of the Services' Qualitative Evidence

543. Disputed. SoundExchange repeats its misguided argument about anecdotes, yet again, in a proposed finding that is nearly identical to—and as inaccurate as—its PFFCL ¶ 506. *See supra* ¶ 506.

544. Disputed. SoundExchange's criticisms boil down to the observation that anecdotes are anecdotes. Of course they do not cover "the hundreds and thousands of unique sound recordings played by Sirius XM and NAB's members in a single year." That does not deprive them of evidentiary force in the context of this case, where there is ample other evidence that satellite and terrestrial radio do have promotional value. *See supra* ¶ 506. Moreover, as explained, that evidence explains why, *e.g.*, NAB's benchmarks from labels and the PROs alike price simulcast at a lower rate than custom radio. *See supra* ¶¶ 505-507; *infra* ¶ 545.

545. Disputed in part. SoundExchange is correct that the Services point to emails from label personnel thanking them for playing their artists, and acknowledging the tremendous lifts in popularity that their artists received as a result. But SoundExchange's singular focus on these emails evidencing net promotion again misses the mark. Evidence such as this does not stand alone in this case like it did in *Web IV*—nor is it necessary here. Rather, it helps explain NAB's benchmarks, which bake-in promotional value in charging lower rates to simulcasters

and lower average rates than under the statutory license and distinguishes the services from Mr. Orszag's Spotify subscription benchmark. *See supra* ¶¶ 505-07.

546. Disputed in part. As with evidence of thank-you emails from the labels, NAB offers evidence of events, performances and various special events to explain their benchmarks, which have baked into them iHeart's promotional value. *See supra* ¶¶ 505-07.

547. Disputed in part. It is true that Mr. Blatter provided in his testimony five specific instances where Sirius XM's promotion of a particular track had a demonstrated and outsized impact on streams/sales, in most of which cases Sirius XM's promotional role was explicitly recognized. But Dr. Ford's superficial "investigation" of these success stories, in "the trade press and through conversions with the relevant record labels" does not and cannot prove otherwise. First, in sharp contrast to Mr. Blatter, Senior Vice President and General Manager of Music Programming at Sirius XM, who has served in that role for 16 years and been in the radio industry for 30, Dr. Ford has *never* worked at a record label, has *never* worked at Sirius XM (or Pandora), has *never* managed artists, and beyond unsubstantiated hearsay ("teleconferences with record company executives"), has *zero* personal knowledge of the possible causes of a particular track's success. *See* 8/18/20 Tr. 2615:6-2616:18 (Ford). Rather, his grounds for claiming that the words of recognition Mr. Blatter regularly receives for Sirius XM's promotional efforts are not sincere are only that he "[qualifies] as a human being." *Id.* 2600:4-8.

Although Dr. Ford is an expert, meaning he does not need personal knowledge to provide an expert opinion, here his "expert opinion" is completely divorced from his expertise and largely constitutes fact witness testimony for which he lacks the relevant facts. Dr. Ford is an expert in industrial economics, not an expert in "expressions of gratitude" or "common courtesy"—while he could certainly offer an empirical assessment of the factors contributing to a

particular track's success or to Sirius XM's net promotional or substitutional effects, he offers *no empirical analysis whatsoever*. *Id.* 2598:24-2601:9, 2607:25-2608:7, 2614:2-2614:25, 2616:22-2620:21, 2622:8-2623:2. Instead, SoundExchange cloaks its thinly veiled attempt to discredit Mr. Blatter's decidedly more informed testimony in the formalities of expert credentials by offering lay observations (second-hand at that) masquerading as economic analysis. *Id.* 2606:12-2607:4. Dr. Ford's provision of anecdotal evidence derived from conversations with record industry personnel and publicly available articles is unhelpful and, by his own admission, completely irrelevant. *Id.* 2609:1-2613:20. In truth, Dr. Ford has "concluded" *nothing*. *See id.* 2622:18-2623:2 ("Q: Your testimony does not conclusively rule out that Sirius XM may have promotional effects that would require adjusting the proposed benchmark rate, correct? A: I think my testimony says it doesn't matter what Sirius XM does...what Sirius XM does is a piece of the puzzle; it is not the—not really answer the question."

548. Disputed. SoundExchange is here attempting to circumvent evidentiary rules and smuggle in articles not in evidence, and which plainly constitute hearsay, to prove the truth of the matter asserted under the guise of Dr. Ford's expert reliance. As explained *supra* ¶ 547, SoundExchange has *not* offered through Dr. Ford *any* empirical or quantitative indication that factors other than Sirius XM streaming "cannot be underestimated in examining the song's meteoric rise," or that "Sirius XM [being] the only or most important factor contributing to the song's success is patently incorrect." Such qualitative and deficient observations should therefore be disregarded.

549. Disputed. *See supra* ¶ 547. SoundExchange's conclusory assertion that Mr. Blatter's explanation of the success of Ice Nine Kills' "A Grave Mistake" is insufficient or

overstated is completely unsupported and entirely dependent on articles that are plainly hearsay and which are not in evidence.

550. Disputed in part. *See supra* ¶ 547. Sirius XM has never contested that [redacted] or that "more than just Sirius XM spins are important to popularizing a song." That is plainly true. But that truism in no way undercuts Sirius XM's demonstrated and unique promotional value, and Dr. Ford has not shown otherwise.

551. Disputed in part. SoundExchange is correct that NAB offered evidence of iHeart's role in helping to break pop star Halsey. *See* Poleman WDT ¶ 17. Again, the point is not whether the Services were solely responsible for the success of a particular artist. The evidence is offered *in addition to* and as an explanation for NAB's benchmarks, which bake-in the promotional value of the licensed services. *See supra* ¶¶ 505-07, 535.

VII. PROFESSOR WILLIG'S OPPORTUNITY COST AND MODELING ANALYSIS IS DEEPLY FLAWED

A. Introduction

552. Disputed in part. Professor Willig calculated royalty rates that would be negotiated in a hypothetical marketplace that he modeled, but that hypothetical marketplace is decidedly not the "hypothetical 'effectively competitive' market" that is required by the statute. *See Web IV*, 81 Fed. Reg. at 26333.

553. Disputed in part. While the Services do not dispute that Professor Willig calculated royalty rates based on his Shapley Value analysis, the rates he derived from that deeply flawed model are not reasonable because they do not reflect willing buyer/willing seller outcomes in an effectively competitive market. *See* Joint PFFCL § II.C.

554. Disputed. Professor Willig has not demonstrated that his royalty rate calculations are robust to different input data, model specifications, or bargaining models. Rather, Professor

Willig's results consistently overstate record companies' opportunity costs, including through, among other things, the unfounded assumption that major labels are "must haves" for noninteractive services, awarding indies 100% retention of plays in a "walk away" scenario, treating all indie labels as a single entity, allowing for collusion between record companies in the model, and aggressively interpreting ambiguities in the Zauberman study. *See* Joint PFFCL § II.C.ii-iii. Although Professor Willig considered Pandora's financial projections, he used only Scenario 2 from Pandora's December 20, 2018 Merger Proxy statement (rather than more recent and more accurate financial data) and overstated Pandora's margins by incorrectly allocating Pandora's potential variable cost savings based on reduced listening on Pandora's free tier to other tiers or services and by failing to deduct non-music revenue from his calculation of Pandora's margin. *See* SXM-PAN PFFCL¶¶ 31-32; Joint PFFCL ¶¶ 276-286. Additionally, Professors Willig's "sensitivity tests" are unreliable because Professor Willig arbitrarily makes large changes to multiple variables throughout his various scenarios—including power and retention ratios—in order to reach purportedly consistent results. *See* SXM-PAN PFFCL ¶¶ 176-180; 8/19/20 Tr. 2778:5-2783:22, 2790:11-2793:7 (Shapiro). These are not proper sensitivity tests. 8/19/20 Tr. 2775:8-2776:10 (Shapiro). They merely show that Professor Willig is adept at making a variety of offsetting changes when he changes any variable in a manner that, by itself, would lead to lower rates, so that his various scenarios generate similarly inflated results.

B. Shapley Values Are the Wrong Approach for This Proceeding

555. Disputed. The Shapley Value approach is inappropriate for assessing the rates that would be negotiated in the hypothetical marketplace for noninteractive webcasters. Joint PFFCL § II(C)(ii); *see also* Shapiro WRT at 59; 8/19/20 Tr. 2740:22- 2742:7 (Shapiro).

1. Shapley Values Explained

556-59. Not disputed.

560. Disputed in part. The Services do not dispute that Professor Willig provided an analogy of two patent owners to illustrate how Shapley Values can be calculated or that Professor Willig explained how his model can delineate royalty rates that purportedly reflect the parties' Shapley Values. However, the Shapley Value approach is inappropriate for assessing the rates that would be negotiated in the hypothetical marketplace for noninteractive webcasters. *See* Joint PFFCL § II(C)(ii); *see also* Shapiro WRT at 59; 8/19/20 Tr. 2740:22- 2742:7 (Shapiro).

561. Disputed in part. While a Shapley Value analysis will result in each party earning at least its fallback value, the Shapley Value model is inappropriate for calculating rates in this context because, among other things, it fails to account for negative contracting externalities and assumes the record companies are free to collude. Shapiro WRT at 59-60; 8/19/20 Tr. 2740:22- 2742:7 (Shapiro); Peterson AWRT ¶ 84.

562-63. Not disputed.

564. Disputed. The royalties amounts from alternate services that constitute the measure of opportunity cost are in some categories—on-demand service in particular—inflated by the Majors' complementary oligopoly power, and above even the monopoly price. *See, e.g.*, Joint PFFCL ¶ 149; 8/19/20 Tr. 2648:17 – 2649:2 (Shapiro). To the extent the opportunity cost in the bargaining models is inflated over effectively competitive levels, it would be perfectly appropriate for the Judges to set rates *below* that opportunity cost, lest the complementary oligopoly power present in other markets infect the statutory market as well. *See SDARS III*, 83 Fed. Reg. at 65231. Moreover, there is no reason to believe SoundExchange's glib (and evidence free) suggestion that services unable to afford the statutory rate have untapped business plans just waiting in reserve that they could unleash in the face of rate increase; that illogically suggests such services are currently intentionally operating less profitably than they could be.

2. Why Shapley Values Are Not an Appropriate Tool

565. Disputed. The Services do not dispute that the Copyright Act requires the Judges to apply the willing buyer/willing seller standard when setting the rates in this proceeding or that the Judges "shall base their decision" in part on "whether use of the service may substitute for or may promote the sales of phonorecords or otherwise may interfere with or may enhance the sound recording copyright owner's other streams of revenue from the copyright owner's sound recordings." 17 U.S.C. § 114(f)(1)(B). However, the Shapley Value model used by Professor Willig is inappropriate for setting rates in this context, in part because it fails to accurately calculate copyright owners' fallback value and opportunity cost of licensing to noninteractive distributors. Joint PFFCL § II(C)(ii); Shapiro WRT at 59-62. The fact that the Shapley Value "'will not exceed the willingness to pay' of the service" and that "will 'exceed opportunity costs in the case where there's positive value created'" says little about whether it actually identifies the rate that would be negotiated in the marketplace between a willing buyer and a willing seller, let alone the rate the negotiated under circumstances of effective competition.[28]

566-67. Disputed. *See supra* ¶ 565.

568. Disputed in part. The Services do not dispute that this paragraph accurately quotes section 114(f)(1)(B)(i)(II), but Professor Willig's Shapley Value model is inconsistent with that statutory objective. Shapiro WRT at 59; 8/19/20 Tr. 2740:22-2742:7 (Shapiro).

569. Disputed. While a Shapley Value model can in theory calculate the incremental value each party brings to a negotiation, Professor Willig's model is not "appropriately specified" given the improper inputs and erroneous assumptions embedded in it. *See* Joint PFFCL § II(C).

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[28] Additionally, Google contends that, consistent with past CRB practice, the Judges need not look to theoretical modeling of any sort when suitable benchmarks are available. *See* Google PFFCL ¶¶ 11-20.

570. Disputed. While a Shapley Value approach considers all possible orders of the parties' arrival to a negotiation, Professor Willig's Shapley Value analysis does not accurately reflect the relative values that record companies and distributors bring to the negotiation, in part because it improperly assumes that all major record companies are "must-haves," *see* Joint PFFCL ¶¶ 185-186; 8/26/20 Tr. 3938:3-10 (Shapiro), and it ignores negative contracting externalities that, if considered, would significantly lower copyright owners' opportunity costs. Joint PFFCL ¶ 224; Shapiro WRT at 61-62; 8/19/20 Tr. 2751:5-2754:13 (Shapiro). Additionally, the "empirics of Professor Willig's model" underlying his conclusion that "if noninteractive distributors 'were to be unavailable in the industry, very little in the way of net value would be lost from the point of view of the record companies'" are entirely dependent on faulty assumptions that each Major is a "must-have" and could shut down a noninteractive service by withholding a license, and that when a statutory service shuts down, each record label would retain the same number of plays it previously enjoyed on the statutory service on other forms of distribution. *See* Joint PFFCL ¶ 232. This assumption that each label retains 100% of its plays in a shut-down scenario is not only completely unrealistic, it also ensures that in Professor Willig's model the label can earn royalties on all of those lost plays from elsewhere. *Id.*; Peterson AWRT ¶¶ 103-105; Willig CWDT ¶¶ 31-34; 9/19/20 Tr. 2796:16-2798:21 (Shapiro); *see also* 9/19/20 Tr. 2778:22-2779:12 (Shapiro).

571. Disputed. In *Phonorecords III*, a proceeding not governed by the willing buyer/willing seller standard, the Judges credited a specific implementation of a Shapley Value analysis as one way to address concerns about the Majors' complementary oligopoly power in the licensing market for interactive services. Willig CWDT ¶ 14 (citing *Phono III*). That reasoning has no applicability to this proceeding. Here, because Professor Willig's Shapley

Value model bakes in complementary oligopoly power for the Majors, it gives additional returns to the major record companies—the precise result the Judges in *Phonorecords III* sought to avoid. *See* Joint PFFCL ¶ 221; 8/24/20 Tr. 3443:22-3444:15 (Leonard); *Johnson v. Copyright Royalty Bd.*, 969 F.3d 363, 372, 382-83 (D.C. Cir. 2020).

572. Disputed. Far from eliminating any "expression of market power in the anticompetitive sense, the antitrust sense, in the abusive sense" as Professor Willig testified, *see* 8/5/20 389:25-390:2, Professor Willig confers complementary oligopoly power to the Majors because he assumes each is a "must-have," resulting in royalty rates that are even higher than what would be charged by a single monopolist controlling the licensing of all recorded music. Shapiro WRT at 6; 8/18/20 Tr. 2642:22-2643:2 (Shapiro).

573. Disputed. As discussed above, Shapley Value is inappropriate for assessing the rates that would be negotiated in the hypothetical marketplace for noninteractive webcasters. *See supra* ¶¶ 553-55; *see also* Shapiro WRT at 59; 8/19/20 Tr. 2740:22-2742:7 (Shapiro).

C. Willig's Failure to Construct a Model Reflecting Effective Competition

574. Not disputed.

575. Disputed. Contrary to SoundExchange's claims, Professor Willig's choice of six modeled participants is neither "granular" nor "realistic." First, Professor Willig uses an amalgam of all independent labels, which inflates the bargaining power wielded by independent labels in his model. Peterson AWRT ¶¶ 113-117; 8/25/20 Tr. 3730:18-3732:16, 3740:21-3741:13 (Peterson); Joint PFFCL ¶¶ 248-51. Further, he models only two services and uses Pandora's subscription and nonsubscription offerings as a proxy for the entire industry, which substantially influences his results by falsely assuming that the entire statutory streaming industry monetizes at the same level as Pandora, which is not a statutory service. 8/25/20 Tr. 3736:6-11 (Peterson); Peterson AWRT ¶¶ 122-132; Google PFFCL ¶¶ 71-72.

576. Disputed. Professor Willig's choice to use an amalgam of indies impacts the model in several ways. These assumptions become readily apparent when certain other assumptions in the model are relaxed. For instance, as Dr. Peterson explained, when Professor Willig's faulty assumption that major labels are "must have" is relaxed, a coalition that features the amalgamation of indie labels will have power to shut down a service when acting collectively with a major, which is different than if a single indie were acting in concert with a major. Peterson AWRT ¶¶ 114-117; 8/25/20 Tr. 3730:18-3732:16 (Peterson). Second, Professor Willig improperly assumed that each label could not have its music played on one of the modeled services and still retain 100% of its share of plays. Even if the faulty 100% retention assumption is corrected and retention is based on a more sound basis (such as market share), then the indie labels still have an outsized retention ratio because they are treated as a single entity with a large market share (that is actually bigger than two of the majors). Peterson AWRT ¶ 113; 8/25/20 Tr. 3740:21-3741:13 (Peterson); Willig CWDT at 26 fig. 7. In that way, Professor Willig's unfounded must-have assumption essentially ensures that his model cannot be fully "fixed." *Id*.

577. Disputed. The choice to amalgamate the indies does impact the results. In fact, the quote from Professor Willig in paragraph 577 undercuts SoundExchange's conclusion that there is no impact; Dr. Willig carefully worded his testimony to say treating indies differently "wouldn't have changed the answer in terms of the royalties *paid to the majors*." *See* SX PFFCL ¶ 577 (emphasis added). The plain implication of this quote is that it does impact the results with respect to the indies, and that a model structure that was truer to the real world may have resulted in rates that differed between indies and Majors in light of the major labels' unchecked market power. Moreover, SoundExchange's position in paragraph 578 wholly contradicts the thesis of paragraph 577. There, when talking about the similar assumption of combined distributors,

SoundExchange takes the position that modeling a single entity rather than the plurality of entities that exists in the real world alters the results of the model by "simplify[ing] away competition" and "raising their respective market power in the negotiation," which would also be true of the amalgamation of indie labels. *See* SX PFFCL ¶ 578. SoundExchange cannot have it both ways. Additionally, as explained in response to paragraph 576, the treatment of indies as one amalgamated entity severely skews the model's results when certain other of Dr. Willig's assumptions are relaxed, including the "must have" assumption and the "100% retention" assumption, which is one of the reasons Professor Willig's model cannot be corrected to generate an effectively competitive rate. *See supra* ¶ 576; Joint PFFCL¶¶ 248-51.

578. Disputed. While it may be true that having only two services reduces inter-service competition (in the same way having only one indie label in the model reduces indie label competition), it is not "conservative" because the choice to model only two services cannot be untangled from Professor Willig's decision to use two tiers of the Pandora service as the only services in his model. As the Services' experts explained, using projections of Pandora's profits and costs [redacted] the output of the models because Pandora monetizes [redacted] level than statutory streaming services. Peterson AWRT ¶¶ 122-132; Google PFFCL ¶¶ 71-72. If Dr. Willig were to have modeled more services (and used the profits and costs of those additional services as inputs), then the results of his model would have [redacted]. *Id*. In that sense, the structure of Professor Willig's model is very much not "conservative" (whereas Professor Shapiro's use of Pandora in his analysis is).

579. Disputed. Professor Willig's model did not correctly maintain competition between the collective ad-supported noninteractive distributor and the collective subscription noninteractive distributor. The record demonstrates relatively low degrees of competition

between ad-supported and subscription services based on bimodal willingness to pay. *See* 8/24/20 Tr. 3406:21-3407:25; Leonard CWDT ¶¶ 57-59. And the survey evidence confirms this, with low diversion ratios between ad-supported noninteractive services and subscription noninteractive services, especially between simulcasts and subscription non-interactive services. *See* NAB PFFCL ¶¶ 117-120; Hauser WDT App. R.

580. Disputed. Professor Willig's Shapley model does not model "an appropriate number of players" because it models the Majors as a complementary oligopoly with each having the ability to shut down services with no net loss of plays. As discussed above, that is fundamentally at odds with the task at hand, which is to set the rates that would prevail between willing buyers and willing sellers in a hypothetical market characterized by effective competition. *See supra* ¶¶ 577-78.

581. Disputed in part. The Services do not dispute that this paragraph accurately describes the organization or structure of SoundExchange's findings of fact, the methodology followed by Professor Willig, or that opportunity cost is an essential element of Shapley analysis. However, the Services dispute any implication that Professor Willig's model properly employed the various inputs described in the paragraph or properly calculated record label opportunity costs, as addressed in detail below. *See infra* ¶¶ 583-648; *see also* Joint PFFCL ¶¶ 230-275.

582. Disputed in part. The Services do not dispute that this paragraph accurately describes the organization or structure of SoundExchange's findings of fact and the methodology followed by Professor Willig. The Services dispute the conclusion of this paragraph that the structure of Professor Willig's model ensures "no noninteractive service will pay more in royalties than it can generate in profits." SoundExchange claims that "[t]he key empirical inputs for this part of the model are the fixed costs and marginal profit rates of the noninteractive

distributors." But, Professor Willig did not actually use the fixed costs or marginal profits of the Services in his model. Instead, he used data on a single service, Pandora, that consistently [redacted]. 8/25/20 Tr. 3736:6-11 (Peterson); Peterson AWRT ¶¶ 122-32; Google PFFCL ¶¶ 71-72. Further, he chose not to use actual data about Pandora and instead relied on contested financial projections of both Pandora's future revenue and future costs. Peterson AWRT ¶¶ 122-32; Joint PFFCL ¶¶ 283-286. As the Services' experts explained, these decision heavily skew the model and can cause the model to suggest supra-competitive rates. Peterson AWRT ¶¶ 122-32; Joint PFFCL ¶¶ 283-286.[29]

1. Professor Willig Miscalculates Opportunity Cost Due to Faulty Inputs

i. Professor Willig's Unjustified "Must-Have" Specification

583. Not Disputed.

584. Disputed. Professor Willig's claim that his model is "robust to other specifications about whether and to what extent the major record companies are 'must-have' to noninteractive services" is disingenuous and wrong. First, Professor Willig claims to have performed multiple "sensitivity tests" in his written rebuttal testimony, but in each of those tests Professor Willig changed other inputs to the model as well in order to conceal the impact of changing just the "must have" specification. 8/19/20 Tr. 2775:8-2784:14 (Shapiro) (explaining that in each of Professor Willig's sensitivity tests multiple aspects were changed, including, for instance, using inflated retention and diversion numbers). Second, to whatever extent Professor Willig's Shapley analysis is "robust" to changes in the "must have" assumption, it is simply because of other features in the model that ensure supracompetitive rates, including his assumption that all labels retain 100% of plays when a statutory services is blacked out and the

[29] While Professor Shapiro also used Pandora data, that makes his analysis conservative. The opposite is true for Professor Willig.

fact that the Shapley model allows for multiple labels to take concerted action. As the Services' economists explained, these various specifications built into the Shapley analysis prevent Professor Willig's model from being "fixed" by removing the "must have" assumption. Peterson AWRT ¶¶ 83-85, 88-91; 8/25/20 Tr. 3730:18-3732:16, 3738:10-3741:12 (Peterson); 8/19/20 Tr. 2784:23-2787:12 (Shapiro).

585. Disputed. The "past statements of the Judges" that Professor Willig relied upon was a single line from *Web IV* in which the Judges did not actually make a factual finding about the "must have" assumption; rather, the Judges noted that no participant in that proceeding had put forth evidence denying that major labels are "must have." *See Web IV*, 81 Fed. Reg. at 26364 (noting only that Services' economic experts had not expressly rejected possibility that Majors were "must haves" for noninteractive services). In contrast to *Web IV*, this case featured abundant evidence from the noninteractive service market demonstrating that none of the Majors is a "must have" in that market. *See, e.g.*, *infra* ¶¶ 590, 601-03; Joint PFFCL ¶¶ 191-98.

Professor Willig's references to "testimony of the Services' own expert witnesses and industry evidence" are unavailing and not credible. During the hearing, it was shown that the quotations Professor Willig cited from Service experts were taken disingenuously out of context (in some instances even pulled from sections of testimony where an expert was directly refuting the "must have" assumption). 8/10/20 Tr. 939:12-940:16 (Willig); Peterson WRT ¶ 114 n.118 (showing that excerpted statements from Dr. Peterson were contained within section of testimony entitled "Correcting Professor Willig's Erroneous Assumption that the Major Labels Are Essential to Non-Interactive Streaming Services . . ."); Leonard CWDT ¶ 72 n.99; Joint PFFCL ¶¶ 209-14. And Professor Willig's citation to industry documents was disastrous: he relied only on documents pertaining to *interactive* services (as to which there is widespread

agreement that Majors are "must have"). *See, e.g.*, Joint PFFCL ¶¶ 202-07; TX 5053 at 13 ([redacted]); TX 5051 at 14; 8/10/20 Tr. 947:17-25 (Willig).

586. Disputed. SoundExchange's attempts to rely on findings in *Web IV* and *SDARS III* to support Professor Willig's unfounded "must have" assumption are irrelevant as the Board examines issues *de novo* in each rate period and must consider the record currently before it. *SDARS III*, 83 Fed. Reg. At 65228 ("The Judges are charged with setting rates and terms de novo for each period."). There is no dispute that evidence such as the LSEs is new. Shapiro SCWDT at 16. SoundExchange is also mistaken to claim that the Board found Majors to be "must have" in *Web IV*. Instead, the Judges simply noted that no participant had attempted to disprove the "must have" assumption. *Web IV*, 81 Fed. Reg. at 26364; *see supra* ¶ 585. SoundExchange's citations to the *SDARS* cases are similarly unavailing, especially considering that those cases addressed an entirely different industry (satellite transmissions) with a single service, and SoundExchange has not established a record demonstrating that the two different industries are sufficiently similar that the same assumption could be ported over to the entire webcasting market, which includes a diverse array of services.

587. Disputed. *See supra* ¶ 586.

588. Disputed. Professor Willig's attempt to bolster the "must have" assumption by citing Dr. Leonard is misplaced. *See* Joint PFFCL ¶¶ 210-11. When read in its full context, the quotation from Dr. Leonard does not support Professor Willig at all. Dr. Leonard's statement pertains to the fact that simulcast transmissions are typically tied to terrestrial radio programming, which means that a simulcaster must have all necessary rights to simulcast that same programming a radio station plays. *Id.*; Leonard CWDT ¶ 72 n.99; 8/24/20 Tr. at 3569:21-

3572:8 (Leonard). Of course, simulcasters have a greater ability to substitute for major label content at the point of programming their underlying terrestrial radio broadcasts. And, Dr. Leonard was very clear when making the statement that what holds true for simulcasters does *not* hold "for other non-interactive services." *Id*. However, even if one were to look at simulcasts as a standalone product after programming selections have been made by the terrestrial broadcaster, thereby making the Majors must-haves, the statute requires the Judges to set an effectively competitive rate that does not reflect the complementary oligopoly power of must-have major labels. *See* Joint PFFCL ¶¶ 210-11; *supra* ¶ 585.

589. Disputed in part. SoundExchange is correct that the Majors are "must have" for the on-demand services. But SoundExchange is wrong to suggest that fact has any bearing on whether or not the Majors are "must have" for noninteractive services. The Services put forth evidence at trial demonstrating that the ability of noninteractive services to steer away from certain content, including completely avoiding content from certain Majors, is due to the fact that statutory services (unlike on-demand services) decide what music is played. *See, e.g.*, 9/1/20 Tr. 4879:7-14 (Diab) (explaining how a noninteractive service can obfuscate lack of catalogue completeness); 8/25/20 Tr. 3653:13-23 (Peterson) (explaining that on-demand services are unlike statutory services in that consumers expect full catalogue); 8/19/20 Tr. 2711:8-2712:1 (Shapiro) (experimental evidence disproves the "must have" assumption on Pandora); *see also* Joint PFFCL ¶¶ 191-98 (cataloguing factual evidence that refutes the "must have" assumption).

SoundExchange's retort is that [redacted] SoundExchange also

offers Mr. Orszag's opinion that services types are "converg[ing]," *id*., which he bases primarily on an observation that on-demand services are now offering more service programmed playlists. *See* Orszag WDT ¶¶ 141-45 (touting the increased popularity of programmed playlists). But this observation by Mr. Orszag says nothing of statutory services' ability to steer plays. Moreover, Mr. Orszag argument that "convergence" makes the must-have assumption equivalent on the two service types is fully undercut by the fact that, by his own admission, [redacted] services are still of user-picked tracks, *see id*. at ¶ 61 (noting that [redacted]), which illustrates the key difference between the two service types. It also ignores that listening to service generated playlists on on-demand services includes numerous interactive features, *see supra* ¶¶ 80, 83, 362, 370, that would limit the effectiveness of attempts to steer.

590. Disputed. SoundExchange's attempt to bolster the "must have" assumption through self-serving testimony of label witnesses also fails. Conspicuously absent from paragraph 590 is any mention of [redacted]. That is because [redacted]. Peterson AWRT ¶¶ 97-98; 9/1/20 Tr. 4878:5-4879:18 (Diab). Similarly, the statements from [redacted]. 9/1/20 Tr. At 4851:8-4852:5 (T. Fowler); *see also* TX 1029* at 16 and TX 1030* ([redacted]); Joint PFFCL ¶¶ 191-98.

591. Disputed. As discussed in the above paragraph and in the Services' Joint PFFCL, the Services have put forth a mountain of real-world evidence and rigorous experimental data

that disproves the "must have" assumption. *See, e.g.*, Joint PFFCL ¶¶ 191-98. SoundExchange's answer to that evidence in paragraphs 591-95 is to argue that major labels have to be "must haves" because sound recordings are not fungible and only a fraction of songs are "hits." SoundExchange's testimony regarding "hits" misses the mark. First, SoundExchange's evidence on this matter is largely anecdotal. *See, e.g.*, SX PFFCL ¶ 593 (providing anecdotal evidence concerning a Jay-Z album release). But SoundExchange has consistently taken the stance that anecdotal evidence of this type should be disregarded. *See, e.g.*, Ford WRT at 19 (heading entitled "The Judges Have Rightly Rejected Anecdotal Testimony About Promotion."); 8/18/20 Tr. 2609:22-2610:3 (Ford) (discussing disregard for "artist level" anecdotes). The difference between the Services' so-called anecdotal evidence and SoundExchange's is that the Services' comes from fact witnesses citing examples that support their views based on deep firsthand knowledge, while SoundExchange offers cherry picked snippets selected by its economists with no firsthand knowledge of the cited examples. Second, SoundExchange's argument is full of logical leaps. For instance, SoundExchange has failed to put forth any evidence to suggest that "hits" are disproportionately concentrated with the major labels or that a statutory streaming service would need access to all (or some specified portion) of major hits to be sustainable. Without evidence on these issues, there is no basis on which the Judges could conclude that "hits" make the Majors "must have." It is just as likely that a significant portion of hits originate with indie labels or that a service could operate without a Major because a sufficient percentage of hits could be obtained through licensing the other two Majors. And a key part of the value proposition of noninteractive services is music discovery. Westergren WDT (*Web IV*) ¶¶ 16, 24; Phillips WDT ¶¶ 8, 49; 9/3/20 Tr. 5734:6-5735:21 (Harrison). Pandora is popular with users precisely because it does not rely on playing hits with

which users are already familiar. Phillips WDT ¶ 49; *see also, e.g.*, TX 5153 at 14 (noting music discovery among top Pandora "features and attributes" among users). And the evidence is that the major labels recognize that radio plays a critical role in determining what songs become "hits" in the first place. *See supra* ¶¶ 506, 517, 533. There is simply no evidence to support the inferences SoundExchange wants the Judges to make, and there is voluminous evidence demonstrating that statutory services, by their very nature, are capable of operating without a major label. *See, e.g.*, 9/1/20 Tr. 4878:5-4879:18 (Diab); *see also* Joint PFFCL ¶¶ 191-98.

592. Disputed. All of the evidence cited in support of this paragraph concerns on-demand streaming services and is thus irrelevant to the proposition SoundExchange is attempting to establish. There is no dispute that access to hit recordings is critical to on-demand services and that each of the Majors is a must-have for an on-demand streaming service. But there is no reason to assume that Majors are must-haves for noninteractive services just because they are must-haves for on-demand services, and there is plenty of evidence that the opposite is true. *See* Joint PFFCL ¶¶ 191-98; *see also supra* ¶ 590.

593. Disputed. All of the evidence cited in support of this paragraph concerns on-demand streaming services and is thus irrelevant to the proposition SoundExchange is attempting to establish. *See supra* ¶¶ 590, 592.

594. Disputed. *See supra* ¶¶ 590-93.

595. Disputed in part. The Services do not dispute the accuracy of the quotation but refer the Judges to the extensive evidence discussed elsewhere showing that no label is a must-have for a noninteractive service. *See, e.g.*, *supra* ¶¶ 590-93; *see* Joint PFFCL ¶¶ 191-98.

596. Disputed. *See supra* ¶ 590; *infra* ¶ 597; Joint PFFCL¶ 208.

597. Disputed. SoundExchange's argument that service documents concerning

consumer preferences prove the "must have" assumption—like its argument about "hits" in SX PFFCL ¶¶ 591-95—is based on unsupported logical leaps. All of the documents cited and discussed in SoundExchange paragraphs 596-99 involve the same theme, which is that some consumers (primarily consumers [redacted]) prefer less repetition in what they hear. SoundExchange apparently wants the Judges to believe that the variety of songs played on a statutory service is driven by whether that service has licenses with the major labels (and that loss of a major label would therefore stifle playlist variety). But no evidence exists to support that assumption. In fact, at trial Professor Willig was forced to admit that all of the documents concerning consumer preferences regarding [redacted] that had always operated with the catalogues of all major labels, which meant that [redacted] 8/10/20 Tr. 959:14-961:15 (Willig) (also admitting that he has no idea how many songs are currently played on the Pandora service as it operates with all major labels). Additionally, Chris Phillips explained that [redacted] which belies the notion that licensing agreements affect the "variety" of tracks on statutory services. 8/31/20 Tr. 4658:16-4661:12 (Phillips). And radio simulcasters have "tight playlists" and a greater degree of repetition than other non-interactive services. 9/3/20 Tr. 5734:6-5735:21 (Harrison).

598-99. Disputed. *See supra* ¶ 596.

600. Disputed. SoundExchange asserts that anecdotal evidence suggesting on-demand services do not like it when an artist does an exclusive release on a competing on-demand service somehow bears on the question of whether Majors are "must have" for a noninteractive service.

First, this is again an attempt by SoundExchange to argue its point through anecdotal evidence, which is hypocritical given SoundExchange's unambiguous stance that the Judges should generally disregard anecdotal evidence. *See supra* ¶ 590. But even if SoundExchange had reliable evidence on this point, it would not matter. SoundExchange's argument again ignores a fundamental difference between on-demand services and statutory services—namely that consumers of on-demand services expect access to all of the world's music, whereas users of statutory services do not. 9/1/20 Tr. 4879:7-14 (Diab); 8/25/20 Tr. 3653:13-23 (Peterson); 9/3/20 Tr. 5729:19-5730:18 (Harrison) (explaining that the Majors are must-have for an on-demand services because "consumers pay each month on the assumption that they will have access to all or substantially all content"). That difference in consumer expectations is fundamental to understanding why statutory services can operate without a label's catalog (or could easily withstand a competitor having an exclusive artist or album), whereas the same situation creates a challenge for an on-demand service. *See, e.g.*, 8/31/20 Tr. 4660:22-4662:13 (Phillips).

601. Disputed. SoundExchange attempts to cite [redacted] concerning its [redacted] and [redacted]. This is wrong and based on an incomplete presentation of the evidence surrounding these two services. To begin, it is undisputed that [redacted]. Peterson AWRT ¶¶ 97-98; 9/1/20 Tr. 4878:5-4879:18 (Diab). But the story does not stop there. [redacted]

[redacted]. TX 1029* at 16 and TX 1030*; Joint PFFCL ¶ 194. [redacted]. 9/1/20 Tr. at 4851:8-4852:5 (T. Fowler). The documents SoundExchange cites in support of paragraphs ¶¶ 601-603 [redacted] described in this paragraph, and [redacted].

602-03. Disputed. *See supra* ¶ 601.

604. Disputed. SoundExchange's attempt to bolster the "must have" assumption based on the Simonson survey also fails, both because of problems with the survey's reliability and with Professor Willig's attempt to employ the survey results in his analysis. To start, as Professor Hanssens explained at trial, the Simonson survey does not accurately measure likely changes in listening. *See* SXM-PAN PFFCL ¶¶ 120-23. First, that survey asks about loss of a favorite artist rather than loss of a label; the two are fundamentally different since many famous artists have released works on multiple labels. 8/26/20 Tr. 4092:11-4093:4, 4094:22-4096:8 (Hanssens). Second, the question assumes the listener notices the change and is negatively impacted by it, which is not likely to be true of all listeners, thus overstating the results. 8/26/20 Tr. 4093:5-8 (Hanssens). Third, the survey never quantified how much listening there was in the first place, which limits the ability of the survey to produce reliable quantitative outputs. 8/26/20 Tr. 4096:24-4097:4 (Hanssens); 8/27/20 Tr. 4315:16-22 (Simonson). And, fourth, the answers to

Professor Simonson's question were so broad, unequal, and nonspecific that the results are not reliable. 8/26/20 4096:20-23 (Hanssens); 8/27/20 Tr. 4289:18-20, 4316:14-4317:24 (Simonson) (explaining that respondents provided only a broad range of how much listening time would be lost, *e.g.*, 25-49%). With respect to simulcast listeners, Professor Simonson's survey deliberately excluded respondents who listened exclusively to simulcasts, making the survey particularly useless in gauging the behavior of simulcast listeners. 8/27/20 Tr. 4320:17-4321:6 (Simonson); Simonson CWRT App. D, Question 70; 8/27/20 Tr. 4332:19-25 (Hauser). In addition to flaws in the Simonson survey, Professor Willig's use of the survey was also flawed. First, Professor Willig (and SoundExchange in its PFFCL) assert that respondents indicated [redacted]% less listening, when in reality respondents indicated how much they may decrease listening by selecting one of several broad ranges, *e.g.*, "25-49%." And there is no basis in the Simonson survey to infer that a respondent choosing the "25-49%" option really mean [redacted]% less listening, rather than 25% or 49%. 8/27/20 Tr. 4289:18-20, 4316:14-4317: 24 (Simonson). Additionally, Professor Willig's use of the Simonson results assumes that all consumers notice the absence of their favorite artists, but at trial Professor Willig admitted that would not be the case in the real world. 8/10/20 Tr. 972:4-973:14 (Willig) (admitting he could not quantify what percentage of consumers would actually know about the loss of a label).

605. Disputed. *See supra* ¶ 604.

606. Disputed. *See supra* ¶ 604; SXM-PAN PFFCL¶ 123 (Willig's [redacted]% estimate not based on empirical evidence). In addition, there is no evidence that a [redacted]% decline in the number of plays on a service would cause it to shut down.

607-08. Disputed. *See supra* ¶ 604; Joint PFFCL ¶¶ 233, 237; SXM-PAN PFFCL ¶¶ 120-123.

609. Disputed. As discussed above, SoundExchange has sought to bolster the "must have" assumption, which Professor Willig admitted he made in his direct testimony without any support or analysis, through a wide variety of *post hoc* arguments that simply do not work. But SoundExchange's final attempt to justify the "must have" assumption is perhaps its worst. Here, SoundExchange materially misrepresents the nature of countervailing evidence provided by the Services (and materially misrepresents what is stated in interrogatory responses). To start, SoundExchange falsely states, without actually citing to any specific interrogatory, that "[i]n an interrogatory response, the Services acknowledged that they are unaware of any documents or evidence supporting the contention that [redacted] other than the Label Suppression Experiments conducted by Dr. Reiley." SX PFFCL ¶ 609. In reality, SoundExchange did not serve interrogatories on all services (*e.g.*, it never served interrogatories on Google), and the interrogatory it is presumably asking about only sought the basis for Dr. Shapiro's statement that no label should be considered a "must have" for Pandora. *See* TX 5151 at 4-5. Professor Shapiro based his findings regarding the "must have" assumption (as applied to Pandora) on the LSEs, which, even if they were truly the only evidence the services had, are more than sufficient to outweigh the various *post hoc* lawyer arguments SoundExchange has advanced on trying to bolster Professor Willig's unsupported assumption. But, contrary to SoundExchange's claim in paragraph 609, the Services provided much more evidence, including that [redacted]. *See* Joint PFFCL¶¶ 191-98. In the end, under the statutory standard requiring

effectively competitive rates, the must-have status of any labels is something that needs to be corrected for, so it is unclear why SoundExchange appears ready to die on the hill of whether Professor Willig's must-have specification is correct or not. 8/24/20 Tr. 3400:17-3401:1, 3408:19-3410:5 (Leonard). Even if Professor Willig is right, the fact that he has done nothing to address the competitive issues that such a specification bakes into his analysis is a fatal defect in his testimony in this case. *See* Joint PFFCL ¶¶ 185-90.

ii. Willig's Faulty Assumption Concerning Collective Indie Labels

610. Disputed in part. The Services do not dispute that Professor Willig's model did not treat indie labels as "must have" in the same way as it did major labels. However, Professor Willig built other mechanisms into his model, including an absurd-on-its-face 100% retention assumption discussed in response to paragraphs 613-20, which ensured that opportunity costs for indie labels were just as inflated as those for the "must have" major labels. 8/25/20 Tr. 3730:18-3732:16, 3738:10-3741:12 (Peterson); 8/19/20 Tr. 2784:23-2787:12 (Shapiro). And Professor Willig's choice to aggregate all of the indies effectively ensured that his model could not be "fixed" by relaxing the 100% retention assumption because doing so would still award the labels an outsized market share that hinders the ability to estimate actual retention and bargaining power. Peterson AWRT ¶ 113; 8/25/20 Tr. 3740:21-3741:13 (Peterson). Further, as Dr. Peterson explained, when Professor Willig's faulty assumption that Majors are "must have" is relaxed, a coalition that features the amalgamation of indies will have power to shut down a service when acting collectively with a Major, which is different than if a single indie were acting in concert with a Major. Peterson AWRT ¶¶ 114-117; 8/25/20 Tr. 3730:18-3732:16 (Peterson). Put simply, Professor Willig's treatment of indies skews the results of his modeling.

611. Disputed. *See supra* ¶ 610.

iii. Willig's Assumption of 100% Retention Means His Rates Are Not Effectively Competitive

612. Not disputed.

613. Disputed in part. Paragraph 613 purports to describe how Professor Willig's models addressed "diversion" and "retention" of plays for major labels when not licensing a statutory service. While much of the paragraph correctly describes his modeling exercise, SoundExchange erroneously claims that Professor Willig's model accounts for user diversion to "non-music options." One of Professor Willig's data sources (the Share of Ear study) did not even ask consumers about non-music activities, thus making it impossible that Professor Willig factored in non-music options in his diversion analysis based on that data set. *See* 8/10/20 Tr. 1099:16-25 (Willig). And when using the Zauberman data, which clearly showed that many users would divert significant time to non-music alternatives, Professor Willig failed to incorporate the data concerning diversion to non-music alternatives into his models in important ways. SoundExchange admits that for diversion to paid subscriptions and CDs/MP3s/vinyl (*i.e.*, the two sources of diversion that drove the vast majority of opportunity cost in Professor Willig's model) Professor Willig did nothing to account for time lost to non-music alternatives or to factor in that statutory services may increase the amount of a consumer's music listening. *See* SX PFFCL ¶ 838. As Service experts explained, this failure skewed Professor Willig's results. *See* Joint PFFCL ¶¶ 273-74; Shapiro WRT at 86-89; Peterson AWRT ¶¶ 119-21.

614. Disputed. SoundExchange is correct that there is a dispute between Professor Willig and Services' experts concerning proper retention ratios for blacked-out indies. But SoundExchange is incorrect in asserting that there is sufficient record evidence to support Professor Willig's far-fetched assumption that a blacked-out label would retain 100% of plays diverted to other sources. In fact, the assumption is so far-fetched and counter-intuitive that

multiple service experts initially criticized it as an inadvertent, mathematical error in Professor Willig's model. Peterson AWRT ¶ 110; Shapiro WRT at 92; 8/19/20 Tr. 2796:16-2798:7 (Shapiro). Because an indie does not have the power to shut down a service, a noninteractive service that is still operating could simply shift plays to other music and thus retain users' plays in the absence of an indie's catalog. 8/6/20 Tr. 792:5-793:11 (Willig); 8/19/20 Tr. 2796:16-2798:21 (Shapiro); Peterson AWRT ¶¶ 108, 110. Indeed, statutory services operate in such a way that consumers cannot pick certain songs and are unlikely to notice if specific songs are missing from the service. 8/19/20 Tr. 2797: 7-19 (Shapiro).

Professor Willig's only response is that some users would notice specific indie content was missing and go seek that same content out elsewhere. *See* SX PFFCL ¶¶ 615-17. These arguments overlook multiple, basic realities, including that most users have no idea what artists or tracks are associated with a particular label and would therefore not know what tracks to seek out elsewhere. Simonson WRT ¶ 28; 8/6/20 Tr. 789: 9-17 (Willig); Zauberman WRT ¶ 36. Also, some of the diverted listening time would go to other forms of passive listening (like satellite radio) where the listener would have no ability to seek out particular songs, even if she could identify what content had been lost from the non-interactive service. SXM-PAN PFFCL ¶¶ 112, 132; 8/19/20 Tr. 2796:17-2798:7 (Shapiro). And Professor Willig conceded that this "seeking out" behavior would not always occur, *see* 8/6/20 Tr. 614:18-615:2 (Willig) (qualifying that consumers would "often" seek out same music elsewhere), which means that the 100% retention ratio is not realistic even by his own admission. Finally, Professor Willig's assumption is directly refuted by empirical evidence from the LSEs. 8/19/20 Tr. 2780:24-2781:17 (Shapiro); 9/1/20 Tr. 4916:25-4917:16 (Reiley); *see infra* ¶ 618.

615. Disputed in part. Professor Shapiro did assume that, in the event of a blackout,

the label would retain a share of diverted plays equal to its normal average play share, but this assumption was entirely reasonable and supported by empirical evidence. Shapiro SCWDWT at 72, 79 (app. F); 8/19/20 Tr. 2779:2-3, 2779:13-21 (Shapiro); *see also supra* ¶ 614.

616. Disputed. *See supra* ¶¶ 614-15.

617. Disputed. *See supra* ¶ 614. First, TX 5169 does not address what users of a noninteractive service would do in the event of a record label blackout, and more specifically, whether they would "fill the void" with on-demand listening. It simply notes the uncontested fact that [redacted]. Moreover, TX 5169 actually indicates that [redacted].

618. Disputed. Professor Willig tacitly admits that listeners would not seek out lost indie content 100% of the time in the real world, *see* 8/6/20 Tr. 815:20-816:10 (Willig), so he seeks to rescue his 100% retention assumption by arguing that for some forms of listening (*e.g.* CDs), the diversion to an indie's content may actually be more than 100% of the indie's share on a statutory service. This is a variant of the "two wrongs make a right" approach that Professor Willig attempted to employ several times in his analysis. *See, e.g.*, 8/6/20 Tr. 843:6-845:25 (Willig) (colloquy with Judge Strickler discussing purportedly offsetting inaccuracies in Willig's use of survey data). But, as Judge Strickler observed, "having two inaccuracies pointing in different directions doesn't make the [] result more accurate . . . It just makes the [] results inaccurate overall." *Id*.

Unsurprisingly, Professor Willig presents no data to suggest that diversion over 100% of an indie's normal market share is such a common occurrence that it outweighs instances in which listeners divert their time to a mix of indie and major label content. In fact, he flatly

admits to the lack of "any empirical evidence" on this subject and referred to the issue as an "empirical hole" in the record. 8/6/20 Tr. 825:5-12 (Willig); 8/10/20 Tr. 1030:14-19 (Willig). Given this admitted lack of evidence on the subject, it is astounding that Professor Willig built his models to assume 100% retention of plays by every label. In any event, he is wrong to claim there is an empirical hole in the record. As Dr. Reiley explained, the LSEs provide direct evidence on this point. That evidence shows that, in the event of a blackout on a noninteractive service, users do not seek content from that label when listening to songs on-demand at a rate higher than the label's normal average play share. Reiley WRT ¶ 18 n.5; 9/1/20 Tr. 4916:25-4917:16 (Reiley); *see also* 8/19/20 Tr. 2780:24-2781:17 (Shapiro).

619. Disputed. *See supra* ¶ 618.

620. Disputed. SoundExchange's claim that Professor Willig's assumption of a 100% retention rate does not matter to the results of his model is wrong. In fact, Dr. Peterson demonstrated that the 100% assumption creates absurd results, like indies having identical fall back values to the Majors. 8/25/20 Tr. :10-3741:12 (Peterson); Peterson AWRT ¶¶ 109-113 & fig. 8. When the 100% retention is relaxed, the fall back values for the indies decrease dramatically and are much lower than that of the Majors. *Id*.

SoundExchange points to Professor Willig's "sensitivity tests" as evidence that the 100% retention assumption does not matter, but this too is a red herring. As Dr. Shapiro explained, each of Professor Willig's sensitivity tests involved other assumptions to ensure the model did not produce results consistent with effective competition. 8/19/20 Tr. 2775:8-2784:14 (Shapiro). For example, Professor Willig's substitution of an assumption of 90% retention is only marginally less absurd than his initial assumption of 100%. 8/19/20 Tr. 2778:22-2779:22 (Shapiro). Further, as Dr. Peterson explained, any effort to relax the 100% retention assumption

for indies will fall short because the amalgamation of indies will always retain an inflated market share, which is one of the reasons that Professor Willig's model cannot be fully "fixed." Peterson AWRT ¶ 113; 8/25/20 Tr. 3740:21-3741:13 (Peterson).

iv. Willig's Flawed Diversion Ratios

621. Disputed in part. The Services do not dispute that Professor Willig's model requires assessing where plays would divert to and that Professor Willig used the Zauberman study as a source for such data. However, the Services dispute that the Zauberman study is reliable. To the contrary, it is full of ambiguities and methodological errors. *See infra* ¶¶ 761-62, 764-66, 768-72, 776-77, 779-86; Joint PFFCL ¶¶ 287-302. The survey also does not specifically address simulcasters and it is questionable to what extent its results reflect simulcast listeners' behavior. NAB PFFCL ¶¶ 191-95. Making matters worse, Professor Willig introduced a number of unsupported assumptions into his model when interpreting the Zauberman data, including by assuming that all listeners switching to CD/MP3/vinyl listening would legally purchase new copies of albums (rather than pirate albums or listen to existing music collections), assuming that every respondent diverting listening time to a subscription service would have to purchase a new subscription (rather than use an existing subscription), and assuming that listeners were 100% likely to buy a new streaming subscription or CDs/MP3s/vinyl even if those same consumers said they would not engage in those forms of listening at a set date in the future. Joint PFFCL ¶¶ 252-264 (documenting and explaining each of the ways Professor Willig made assumptions about the Zauberman data and how those assumptions distort opportunity cost calculations in his modeling).

622. Disputed in part. Although it is true that Professor Willig sought to corroborate the results of his model by using "Share of Ear" data, Professor Willig conceded the limited

usefulness and unreliability of that data. 8/10/20 Tr. 1090:18-1092:16, 1099:16-1101:1 (Willig). Professor Willig admitted that, compared to other available data sources, the Share of Ear data was "really not comparably informative" and "wasn't particularly as apt . . . for the purposes at hand." *Id*. Professor Willig conceded that Share of Ear data failed to measure important factors, including diversion of time to activities other than music listening. 8/10/20 Tr. 1099:8-1101:1 (Willig). And the Services have detailed numerous other reasons why the Share of Ear study is not a reliable source of data for Professor Willig's modeling. *See* Joint PFFCL ¶¶ 265-68.

v. Royalties from Other Forms of Distribution

623. Not disputed.

624. Disputed in part. Professor Willig endeavored to use currently observable sound recording royalty rates for some music distribution channels to estimate record company opportunity cost, and the Services do not dispute that doing so was appropriate and more reliable than attempting to use projections here. Professor Willig, however, ignored his own advice in using faulty projections of the royalty rates for diversion to noninteractive webcasters. *See infra* ¶ 684. And, as discussed below, Professor Willig eschewed actual data in favor of unreliable projections for purposes of his analysis of webcaster willingness-to-pay. *See infra* ¶¶ 657-58. Additionally, the rates he calculated for "other forms of distribution" include serious methodological errors, discussed below, that cause Professor Willig to inflate his record company opportunity cost estimates. *See infra* ¶¶ 626, 629-30, 634, 637-38; Joint PFFCL ¶¶ 254-262.

625. Disputed in part. *See supra* ¶ 624.

a. Subscription Interactive

626. Disputed in part. The Services do not dispute that this paragraph describes what Professor Willig did to assess the opportunity cost for plays diverted to interactive subscription

services, nor is there any dispute that new subscriptions generate additional royalties whereas diversion to existing subscriptions does not. However, Professor Willig attempted to distinguish between new and existing subscriptions using the Zauberman survey, which is unreliable for that purpose. SX PFFCL ¶ 626; Willig CWDT ¶ 37; *id.* at 106 (app. E ¶ 11). As the Services made clear in their initial proposed findings, a series of design flaws render Professor Zauberman's survey incapable of accurately assessing whether a given user switched to a new, royalty-bearing subscription or an existing subscription that does not generate additional incremental royalties. Joint PFFCL ¶¶ 297-99 (noting survey's inability to distinguish users who had an existing paid subscription but did not use it, or did not remember using it, in past thirty days). The likely result of these flaws is an upward bias in switching to new subscriptions, *id.* ¶ 299, thus causing Professor Willig to substantially inflate his opportunity cost estimate. *Cf.* Hauser WDT App. R (showing diversion ratio of only 1.4% to new paid subscription to on-demand services).

b. Ad-Supported Interactive

627. Not disputed.

628. Not disputed.

c. Physical Purchases and Digital Downloads

629. Disputed in part. This paragraph correctly describes what Professor Willig did, but the method by which Professor Willig "obtain[ed] a weighted average for this category of opportunity cost," SX PFFCL ¶ 629, is incorrect. Shapiro WRT at 84 (app. D); 8/19/20 Tr. 2805:25-2807:4 (Shapiro). Professor Willig used the retail revenues of each listening format (CDs, vinyl, and digital downloads) in this category as weights, which "gives excessive weight to the spending categories with a higher royalty per purchaser." *Id.* Instead, Professor Willig should have obtained a weighted average by weighing each format by *unit* purchases. *Id.*; *see also* Joint PFFCL ¶¶ 271-72. Professor Willig acknowledged this was an error. 8/5/20 Tr.

504:21-24 (Willig). And Professor Willig fails to adjust the figure he derives for the incremental increase in listening to these media. *See infra* ¶ 630.

630. Disputed in part. There is no dispute that this paragraph recounts the average monthly spending data that Professor Willig relied on for CDs, vinyl, and digital downloads. But Professor Willig wrongly assumes that users of noninteractive services—whose diverted listening would account for only a tiny incremental increase in listening to CDs, vinyl, and digital downloads—will spend average amounts on those media.

First, no economist in this proceeding performed an empirical study of what a noninteractive listener who diverts some listening to CDs, vinyl, or downloads would spend relative to the current average. Professor Willig relied on what he believed to be "the best available estimate." 8/8/20 Tr. 847:23. SoundExchange criticizes Professor Shapiro for doing the same thing. SX PFFCL ¶ 638. The dispute here centers on which expert made more reasonable assumptions about purchaser behavior.

Second, Professor Shapiro's decision to scale purchases to listening is well-reasoned and explained in detail, whereas Professor Willig's "average monthly spend" assumption is not supported by any written testimony and, more to the point, loses sight of the goal. To address the underlying question—opportunity cost—the focus is on *new* royalties generated from diverted plays. 8/5/2020 Tr. 504:6-7 (Willig) ("[W]hat counts is the amount of *extra* royalties per new purchaser of those physical modes of distribution." (emphasis added)). Put another way, a focus on *incremental* changes over existing listening behaviors is necessary to accurately capture opportunity cost, which depends on *incremental* changes in royalties. Despite acknowledging that use of CDs, vinyl, and downloads is declining, 8/5/2020 Tr. 503:14-17 (Willig), and that Zauberman survey respondents expected to allocate only 1.5% and 1.1% of

incremental increased listening time to these media (under an ad-supported and subscription noninteractive service blackout, respectively), Shapiro WRT at 88 (app. D), Professor Willig nevertheless assumed that all of these individuals would spend 100% of the current average. That is, whether a given listener incrementally increases her use of these media by 5%, 50%, or 95% (much less 1.1%), Professor Willig inexplicably assumed that all of these listeners would spend 100% of the consumer average on new CDs, vinyl, and digital downloads each month. This assumption is particularly outlandish when applied to users diverting from ad-supported services who have "demonstrated low (or zero) willingness to pay." Joint PFFCL ¶ 264; *cf.* Shapiro WRT at 39 (noting "users who have (still) not subscribed continue to demonstrate their low WTP for music"). By contrast, Professor Shapiro's approach focuses on the metric that matters: *incremental* increased listening to these media and the royalties derived therefrom. *See* Shapiro WRT at 87; SXM-PAN PFFCL ¶¶ 143.

631. Not disputed. However, the effect on overall opportunity cost of using Professor Willig's updated royalty data for CDs, vinyl, and downloads instead of the slightly older data he used in *SDARS III* is negligible. *See infra* ¶ 989. Professor Shapiro used Professor Willig's own updated data to correct Professor Willig's calculation of average monthly royalties per purchaser. *See infra* ¶ 634; Shapiro WRT at 84-85.

632. Disputed in part. Professor Willig's calculations are inaccurate for reasons stated in response to paragraph 629, *supra*.

633. Not disputed.

634. Disputed in part. There is no dispute that, at trial, in response to criticism from Professor Shapiro, Professor Willig acknowledged his own error in weighting the average royalties for CDs, vinyl, and downloads by retail revenues rather than units purchased. But

SoundExchange's injection of new analysis on this issue in its post-trial briefing—an attempt to correct Professor Shapiro's correction, as it were—is wholly inappropriate.

As Professor Shapiro testified, correcting Professor Willig's mistake reduces the "Weighted Average Monthly Royalties per Purchaser" from $2.01 to $1.67. Shapiro WRT at 84-85. Although Professor Willig claimed on the stand that his own recalculations in light of Professor Shapiro's criticisms led him to a new, higher number ($2.17), he offered no support in the record for how he purportedly reached that number. *See* 8/5/20 Tr. 504:9-505:6 (Willig). Nor could he have done so: counsel for SiriusXM and Pandora correctly objected to Professor Willig's attempt to introduce new analysis at trial, *id.* 505:7-18, and the only reason the objection was never ruled upon is that counsel for SoundExchange voluntarily chose to drop this line of inquiry, *id.* 505:19-506:17, 514:17-515:25, rather than pursue it.

On that record, the Judges should disregard SoundExchange's belated effort to justify Professor Willig's new, higher average royalty with new details and calculations that SoundExchange chose not to introduce at trial. *See* SX PFFCL ¶¶ 634-37.

635. Disputed in part. There is no dispute that this paragraph describes how Professor Shapiro corrected Professor Willig's calculation of Weighted Monthly Average Royalties per Purchaser for CDs, vinyl, and downloads. SoundExchange's belated critique of that correction should be disregarded for the reasons stated above. *See supra* ¶ 634.

636. Disputed. *See supra* ¶ 634.

637. Disputed. *See supra* ¶ 634. Given the foregoing, Professor Willig's claim that he continued to use his original $2.01 number "out of conservatism" is misleading. SX PFFCL ¶ 637 (citing 8/5/20 Tr. 503:24-504:1 (Willig)). With no support in the record for any higher figure, Professor Willig's real choice was between his admittedly incorrect original estimate of

$2.01 or Professor Shapiro's corrected $1.67. Professor Willig made the more favorable choice for SoundExchange, even though he admitted the estimate was wrong.

638. Disputed in part. No dispute that Professor Shapiro criticized Professor Willig for failing to consider the amount of expected *listening* to CDs/vinyl/digital downloads in calculating how much users would *spend* on those media. As Professor Shapiro explained, "[i]n reality . . . consumers choose how much or how little they listen to these media during a month, and make purchases accordingly." SX PFFCL ¶ 638. SoundExchange is wrong that there is "no evidence" to support Professor Shapiro's common-sense view. Data from the Zauberman study indicates that respondents switching from a statutory streaming service to CDs/MP3s/vinyl would only allocate a small percentage of their future listening time to CDs/MP3s/vinyl (14.1% of time for users of a free service and 9.9% for users of a subscription service), thus suggesting that that those users would not spend as much as the average purchaser of those media. *See* Shapiro WRT at 86-87. Professor Willig should understand this because he himself factored expected listening into his *SDARS III* model. *Id*. at 87. But Professor Willig did not explain why he failed to follow that same approach in this proceeding, and SoundExchange's attempt to rationalize it here is unsupported by any citation to the record. *See* SX PFFCL ¶ 638.

639. Disputed in part. There is no dispute that Professor Shapiro's corrections to Professor Willig's opportunity cost calculations for CD/MP3/vinyl purchases would reduce SoundExchange's proposed royalty rates by the amounts stated. But SoundExchange's reference to the purportedly "corrected number of $2.17" is inappropriate and finds no support in the record for the reasons described above. *See supra* ¶ 634.

d. Terrestrial Broadcast

640. Not disputed.

vi. Plays-Per-User Ratio

641. Not disputed.

642. Disputed in part. There is no dispute that Professor Willig used public financial projections from Pandora, and information provided in discovery, to arrive at the stated figures for plays per user per month. However, as detailed elsewhere, Professor Willig should have relied on Pandora's Long Range Scenario ("LRS") projections instead of the highly optimistic Merger Scenario 2 projections from Pandora's public proxy statement. *See* SXM-PAN PFFCL ¶ 32; Joint PFFCL ¶ 283; *infra* ¶¶ 659-66.

643. Disputed. *See supra* ¶ 609.

644. Disputed in part. There is no dispute that Pandora's counsel criticized Professor Willig's calculations by pointing out that Pandora's actual number of active users near the end of 2019 was [redacted] than the lower than the projected number of monthly active users during 2021-2025. But this criticism was not "immaterial," as SoundExchange urges, because Professor Willig's use of projections that had already proven to be unreliable artificially inflated Pandora's willingness to pay. *See infra* ¶¶ 657-66; Joint PFFCL ¶ 283.

645. Disputed in part. There is no dispute that the tautology offered by SoundExchange—when looking at optimistic projections, the latest actual data will be lower than the projections—is accurate. However, if the goal is to understand "[redacted]'" SX PFFCL ¶ 645 (quoting 8/10/20 Tr. 902:23-903:10 (Willig)), testimony from Pandora management itself makes clear that the LRS is created for "routine business planning" and is a "more recent and balanced picture of Pandora's financial condition." Joint PFFCL ¶ 283 (quoting Ryan WRT ¶¶ 36, 39). Moreover, the 2019 actual data was so much lower than the projected numbers as to render the projections unreliable, and Professor Willig had no answer for where the massive growth required to reach

the projected numbers would come from or how such growth would affect his analysis. 8/6/20 Tr. 863:1-864:2 (Willig).

646. Disputed in part. Because fixed costs are, by definition, fixed, using an inflated number of users decreases the fixed cost per user and, conversely, using a lower (and more accurate) number of users increases the fixed cost per user.

647. Disputed in part. There is no dispute that the formula in paragraph 647 appears in Professor Willig's written testimony, nor that Sirius XM's public financial data show that Pandora users consumed 13.44 billion ad-supported listener hours in 2019. However, SoundExchange's figure of [redacted] ad-supported monthly active users is not supported by the record. First, SoundExchange appears to have eyeballed this number from an unlabeled graph that does not identify the underlying data. (Indeed, SoundExchange does not even state which month's data it is relying on; the "middle" of a year is ambiguous.) Second, to account for seasonality and ensure an apples-to-apples comparison, audience projections are given as "*average* monthly users," averaged over the course of a calendar year, as opposed to relying on figures from any given month. Willig CWDT at 101 (ex. D.6); Willig WRT at 140 (app. L-3); Shapiro WRT at 79 ("monthly users, *on average*" (emphasis added)). Thus, this figure that SoundExchange ballparks from "the middle of 2019" is not a suitable replacement for average MAUs in an equation. Finally, the "[redacted]" number SoundExchange proffers is not supported by a citation to any written or oral testimony; it is an untimely attempt to conduct new analysis in its proposed findings.

vii. Record Company Play Shares

648. Not disputed.

2. Willingness to Pay Inputs

649. Not disputed.

i. Using Pandora as a Proxy [redacted] the Output of Professor Willig's Models

650. Disputed in part. The Services do not dispute that Professor Willig used Pandora's financials as a proxy for the noninteractive distributor market. However, the Services dispute that Pandora was the only service for which Professor Willig "was able to obtain the necessary forward-looking data." As explained above, SoundExchange did not request that data from others. *See supra* ¶ 609.

651. Disputed in part. The Services do not dispute that Professor Shapiro used financial data from Pandora's ad-supported service as a proxy for ad-supported webcasting, and financial data from Pandora Plus as a proxy for subscription webcasting. *See* SXM/PAN PFFCL ¶ 152. However, this does not "corroborate" Professor Willig's analysis; Professor Shapiro was Pandora's expert, and his use of Pandora as a proxy was conservative because it led to higher values. 8/25/20 Tr. 3783:21-3784:5 (Peterson). Further, while neither Dr. Peterson nor Dr. Leonard proposed an alternative to using Pandora financials as a proxy, their benchmarking analyses did not require such a proposal. 8/25/20 Tr. 3787:17-3788:1 (Peterson); Leonard CWDT ¶¶ 63-75.

652. Disputed in part. The Services do not dispute that Dr. Peterson's testimony indicates that Pandora's ability to generate revenue is not representative of the entire industry. Peterson AWRT ¶¶ 44-47, 132. The Services dispute SoundExchange's assertion that using a "less profitable noninteractive service as a proxy 'wouldn't have any effect on what's important for the analysis, namely profitability per-play,'" as the profitability of a service affects the modeling and using a [redacted] Google PFFCL ¶¶ 71-72; *see also* Peterson AWRT ¶ 47.

653. Disputed in part. The Services do not dispute that Professor Willig and

Professor Tucker provided the testimony cited, but the testimony is not accurate. As noted above, the profitability of a service affects the benchmarking analysis and using a more profitable service for benchmarking would increase the proposed statutory rates derived from the analysis. *See supra* ¶ 652.

654. Disputed. SoundExchange is arguing a strawman. Dr. Peterson never claimed that Professor Willig should have used Google as a proxy for the industry rather than Pandora. Dr. Peterson's own benchmarking analysis did not require using any service as a proxy. *See* Google PFFCL ¶¶ 71-72 (arguing this as a strength of Dr. Peterson's analysis). And his criticism of Professor Willig and Mr. Orszag was that Pandora is not an apt proxy for the statutory industry, not that they should use Google data. Peterson CWRT ¶¶ 44-47; 8/25/20 Tr. 3691:19-3693:18. Instead, Dr. Peterson suggested that Professor Willig and Mr. Orszag should have sought out some "central tendency" based on a broader group of webcasters in order to prevent their results from being skewed by using a single entity (especially an entity that is a known outlier in terms of revenue generation). 8/25/20 Tr. 3736:18-3737:20 (Peterson); Peterson CWRT ¶¶ 44-47. Finally, SoundExchange's comments in SX PFFCL ¶ 654 concerning Google's revenue are both immaterial (for the reasons explained above) and wrong. At no point was any evidence presented to suggest that Google [redacted]. *See* 8/25/20 Tr. at 3789:7-15 (Peterson) (explaining it would be irrational for Google to forego revenue).

655. Disputed in part. It is not disputed that Dr. Peterson did not try to identify a central tendency that would serve as an apt proxy for the webcasting industry. Indeed, his benchmarking analysis did not require that. *See* Google PFFCL ¶¶ 71-72. But it was incumbent on Mr. Orszag and Professor Willig to use data representative of the entire industry since their

models required doing so in order to be useful and accurate. And they failed in that task. *Id.*; Peterson CWRT ¶¶ 44-47; 8/25/20 Tr. 3736:5-11 (Peterson); 8/10/20 Tr. 1054:7-16, 1101:2-11 (Willig). Professor Shapiro's use of Pandora data as a proxy, in contrast, makes his analysis conservative.

656. Disputed. *See supra* ¶ 655. SoundExchange simply has no answer for the fact

[redacted]

ii. Using Projections May be Appropriate Only Where One Also Uses Forecasts for All Other Inputs

657. Disputed in part. The Services do not dispute that Professor Willig used forward-looking estimates for parts of his analysis, however, Professor Willig did not use forward-looking estimates for all of his analysis, and his analysis was indefensibly inconsistent on this score. As Professor Shapiro explained, if one uses forecasted margins "one should also use forecasts for the other inputs into the model, including opportunity costs," which Professor Willig does not do. Shapiro WRT at 48 n.141; 8/19/20 Tr. 2731:21-2732:20 (Shapiro). Further, "[w]hile there is nothing inherently wrong with using forecasts one must be careful doing so because they depend on varied assumptions about the future and there may be multiple forecasts from which to choose." Shapiro WRT at 48.

658. Disputed. While forward-looking projections may be used to estimate marginal profit rates (so long as one is using the forward-looking projections for costs as well), using historical data to estimate marginal profit rates allows the analysis of the entire model based on data that is "consistent in terms of time frame." 8/19/20 Tr. 2731:21-2732:20 (Shapiro). Professor Shapiro's use of consistent, actual data is more reliable than Professor Willig's mixing and matching historical data and projections for different time periods. 8/19/20 Tr. 2731:25-

2732:10 (Shapiro).

iii. The LRS is Pandora's Best Long-Term Forecast and is More Reliable than Merger Proxy Scenario 2

659. Disputed. As the record established, the Merger Proxy statement projections were based on "upside" assumptions to determine what potential investors might stand to gain in an acquisition or merger. SXM/PAN PFFCL ¶ 31; Joint PFFCL ¶ 283. Specifically, the Scenario 2 projections used by Professor Willig (and Professor Tucker) were intentionally created "to present a more optimistic view" of Pandora's financial health "driven primarily by audience and hours growth from improvements in marketing efficiency, higher marketing spending and growth in audience engagement through Pandora's new content and product capabilities." *Id*. Instead, a "more recent and more balanced picture of Pandora's financial condition" is the Long Range Scenario ("LRS"), more recent financial document kept in the ordinary course of business to model five-year company performance. SXM-PAN PFFCL ¶ 32; Joint PFFCL ¶ 283. Indeed, the LRS [redacted] SXM/PAN PFFCL ¶ 32.

660. Not disputed.

661. Disputed. SoundExchange relies on semantic quibbling from a prior proceeding regarding whether the LRS is a forecast for purposes of U.S. securities laws, which has nothing to do with how Sirius XM and Pandora use the LRS for business planning purposes and whether the LRS represents the best estimates of future financial performance. Mr. Ryan testified that the LRS is "certainly [Pandora's] best long-term forecast that we have right now." 8/31/20 Tr. 4738:3-14 (Ryan).

662. Disputed. *See supra* ¶¶ 659, 661.

663. Disputed in part. While profit-per-play is a metric to be assessed for willingness to pay, it is not the only metric to be considered. The number of plays per user and per subscriber are important and, as the record shows, the Merger Proxy Scenarios were based on assumptions that overestimated those numbers. *See* Ryan WRT ¶¶ 29-30.

664. Disputed in part. The cited testimony relates only the estimate of profits-per-play and does not address any of the other relevant metrics in the Merger Proxy Scenarios and LRS that inform the analysis of reasonable rates here. *See supra* ¶ 663.

665. Not disputed.

666. Not disputed.

iv. Professor Willig's Willingness To Pay Calculations Are Modestly Sensitive to The Classification of Pandora's Costs

667. Disputed in part. The Services do not dispute that Professor Willig attempted to consider distributors' fixed costs, but he did not do so correctly. Shapiro WRT at 77-78 (app. C); Ryan WRT ¶¶ 12-22.

668. Disputed in part. Professor Willig admits that his model is modestly sensitive to the classification of costs. 8/5/20 Tr. 540:21-541:10 (Willig).

v. While Professor Willig Addressed Certain Criticisms of His Initial Analysis, Criticisms of Professor Willig's Allocation of Costs Remain

669. Disputed in part. The Services do not dispute that Professor Willig updated his willingness to pay calculations, however, the Services dispute that these updates were "based on new information" as the assumptions underlying the Merger Proxy statement projections were made available to Professor Willig soon after the filing of the Written Direct Testimony submissions in this matter. *See* 8/5/20 Tr. 362:8-363:3 (Willig). Further, even with his updated

calculations, Professor Willig still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286.

670. Disputed in part. The Services dispute that Professor Willig "anticipated" or "mooted" this issue. Even with his updated calculations, he still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286; *see supra* ¶ 669.

671. Disputed in part. The Services dispute that Professor Willig "anticipated" or "mooted" this issue. Even with his updated calculations, he still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286; *see supra* ¶ 669.

672. Disputed in part. The Services dispute that Professor Willig "anticipated" or "mooted" this issue. Even with his updated calculations, he still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286; *see supra* ¶ 669. Professor Willig's errors in allocating product development costs were exposed at trial. In his written rebuttal testimony and trial testimony, Professor Willig continued to allocate product development costs incorrectly to the advertising-supported and Pandora Plus services in proportion to their respective share of revenue. *See* Willig WRT at 138, rows [15]-[18]. Mr. Ryan explained that Professor Willig simply does not understand the financial data he is using: allocating Pandora's product development costs across service tiers in proportion to share of revenue is inappropriate because a reduction of listening hours on the free tier would result in variable cost savings on the free tier, rather than spread across multiple tiers, "because that is the tier that's driving the change." Joint PFFCL ¶¶ 277-282; 8/31/20 Tr. 4671:3-13 (Ryan).

673. Disputed in part. The Services dispute that Professor Willig "anticipated" or "mooted" this issue. Even with his updated calculations, he still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286; *see supra* ¶ 669.

674. Disputed in part. The Services dispute that Professor Willig "anticipated" or "mooted" this issue. Even with his updated calculations, he still utilizes significantly overstated marginal profit rates for Pandora in his analysis. Joint PFFCL ¶¶ 276-286; *see supra* ¶ 669.

675. Disputed. While Professor Willig corrected certain calculations, there are still residual errors in his calculations, including errors based on Professor Willig's improper inclusion of non-music revenues. Joint PFFCL ¶¶ 284-85. Using Professor Willig's analysis but correcting for the accurate inputs from the Scenario 2 assumptions, the total pre-royalty profit rate per play for ad-supported noninteractive is [redacted] and the total pre-royalty profit rate per play for subscription noninteractive is [redacted]. *See* Shapiro WRT Figs. 6 & 7.

676. Disputed in part. The Services do not dispute that Professor Willig's attempt to correct some (but not all) of the errors in his initial analysis resulted in modestly higher Shapley Values. These results, however, are substantially inflated by the numerous errors identified elsewhere. *See* Joint PFFCL ¶¶ 231-242, 248-286. These substantially inflated results are by no means "conservative," modestly or otherwise.

vi. Professor Willig's Analysis Fails to Properly Allocate Revenue

677. Disputed in part. The Services do not dispute that Professor Willig acknowledged at trial that he failed to exclude revenue from non-music content (sports, news, talk). The Services dispute that Professor Willig's failure to exclude these revenues "gets the Services nowhere," as Professor Willig continues to overstate the revenue attributable to Pandora's free tier. The Merger Proxy statement projections include an expectation of growth in non-music content, including a forecast that 12% of ad-supported listening by 2025 would be associated with non-music content. Joint PFFCL ¶ 284. Specifically, the model underlying Scenario 2 projected non-music revenues to be [redacted] in 2021, [redacted] in 2022, [redacted] in 2023, [redacted] in 2024, and [redacted] in 2025. *Id.* Professor

Willig did not deduct this non-music revenue from his calculation of Pandora's margin, and, thus, he overstates Pandora's revenue. *Id.* ¶ 285. This is true regardless of whether the projected non-music revenue was realized as the revenues were built into the model. *Id.*

678. Disputed. By including Pandora's non-music content in his analysis, Professor Willig increases both revenues and plays. Shapiro WRT at 76 (app. C); 8/19/20 Tr. 2801:8-2802:5 (Shapiro). Professor Willig's computation incorrectly includes non-music related advertising revenues in the numerator, but there is no corresponding increase for plays in the denominator since there are generally no plays of sound recordings associated with non-music content. Thus, his computation increases revenues but not plays, and therefore is inappropriately biased upward. Shapiro WRT at 76 (app. C); 8/19/20 Tr. 2801:8-2802:5 (Shapiro).

679. Not disputed.

3. Fixed Costs of Record Companies

680-81. Not disputed.

D. Professor Willig's Inflated Opportunity Cost Estimates Are Not a Reasonable Floor for the Royalty Rates at Issue

682. Disputed in part. There is no dispute that Figure 13 of SoundExchange's PFFCL displays Professor Willig's estimated opportunity cost to record companies for "outside forms of music distribution," SX PFFCL ¶ 682, and describes the calculations that Professor Willig performed. But the accuracy and utility of that estimate, and the soundness of the methods that produced it, are disputed. For all the reasons detailed herein and in the Services' Joint PFFCL, Professor Willig's opportunity cost calculations are wildly inflated. *See supra* ¶ 574-81; Joint PFFCL §§ II.C.i, II.C.iii; NAB PFFCL ¶¶ 185-89; Leonard CWRT ¶¶ 7-36.

683. Not disputed.

684. Disputed. SoundExchange's assertion that "there is no exogenous royalty rate for

one type of noninteractive service that can be applied to compute the opportunity cost for the other type of noninteractive service" is wrong. Professor Willig relied on "currently observable sound recording royalty rates as a proxy for the sound recording royalty rates that will prevail during the relevant 2021-2025 period," Willig CWDT ¶ 36, for diversion to all other forms of distribution. There is no principled reason why he could not also have applied the "currently observable" statutory rates for noninteractive distributors, just as he did with all other types of distribution. *See* 8/24/20 Tr. 3415:15-3416:15 (Leonard) (noting there is "no reason" existing statutory rate for one type of noninteractive service cannot be applied to compute proposed rate for the other, and that if Dr. Leonard had not done so, NAB's rate proposal "would be even lower"); 8/19/20 Tr. 2749:17-2750:4 (Shapiro) (solving simultaneously for both subscription and ad-supported noninteractive streaming would have produced lower rates).

Moreover, Professor Willig's approach circularly reinforces the many problems arising from his inflated opportunity cost estimates. *See supra* ¶¶ 583-648; Joint PFFCL §§ II.C.i, II.C.iii. Instead of relying on fixed, observable rates for noninteractive distributors that have been adopted by the Judges, he instead bakes all of his numerous opportunity cost errors into his opportunity cost calculations for noninteractive distributors. The result is wildly inflated opportunity cost, which in turn results in wildly inflated royalty rates.

685. Disputed in part. No dispute that this paragraph describes Professor Willig's opportunity cost estimates and certain steps by which he calculated them. But his opportunity cost estimates are incorrect for the reasons discussed here and in the Services' initial proposed findings. *See supra* ¶¶ 583-648; Joint PFFCL §§ II.C.i, II.C.iii; NAB PFFCL ¶¶ 185-89

686. Not disputed.

E. Professor Willig's Inflated Opportunity Cost Estimates Drive the Royalty

Rates Produced By His Shapley Analysis, Rendering Them Unreasonable

687. Disputed in part. There is no dispute that this paragraph describes the process Professor Willig followed in using his Shapley Value model to derive the royalty rates he proposes. But his Shapley Value model does not produce "reasonable royalty rate[s]" because it is inappropriate for this proceeding, is incorrectly specified, and reflects numerous other errors with his inputs. *See generally supra* §§ VII.A-D; Joint PFFCL § II(C). Professor Willig's analysis also completely fails to consider or determine a royalty rate specific to simulcasters. *See* NAB PFFCL ¶¶ 185-89.

688. Disputed in part. *See supra* ¶ 687.

689. Not disputed.

690-91. Disputed in part. *See supra* ¶ 687.

F. The Same Inflated Opportunity Cost Estimates Produce Inflated Royalty Rates in Professor Willig's Nash-in-Nash Bargaining Model "Sensitivity Check"

692. Not disputed.

693. Disputed in part. Professor Willig's many errors with the inputs to his Shapley Value model were imported into his Nash-in-Nash analysis. Willig CWDT ¶ 65. Accordingly, the rates derived from Professor Willig's Nash-in-Nash model are fatally flawed as well. *See generally supra* §§ VII.A-D; Joint PFFCL § II(C).

G. The Evidence That Purportedly Supports Professor Willig's Rate Proposal is Inapposite and Should Be Given No Weight

698. Disputed in part. There is no dispute that Professor Willig's Shapley Value model, with its many documented flaws, produced the royalty rates stated, but there is no basis for the Judges to "accept the specification that the major record companies are 'must haves' to noninteractive services." *See supra* ¶¶ 583-609. And even if they were to, Professor Willig's

numerous other errors also inflate his proposed rates. *See supra* ¶¶ 610-81.

699. Disputed. Professor Willig's so-called "sensitivity scenarios" do not provide a basis for the Judges to adopt "similar royalty rate levels" to those proposed by SoundExchange "even if the Judges determine that the major record companies are not 'must haves.'" To the contrary, Professor Willig's scenarios import numerous other flaws from his bargaining models. For example, all four scenarios rely on record company opportunity costs that are significantly inflated. *See* 8/19/20 Tr. 2777:12-18 (Shapiro); *infra* ¶¶ 700-09. And by purportedly "correcting" Professor Shapiro's computation of royalty rates from outside distributors and use of Pandora's financial data—neither of which needed correcting, *see infra* ¶¶ 963-86, 999-1005—Professor Willig further inflates his results. Professor Willig's alternate scenarios are not even legitimate sensitivity analyses. As Professor Shapiro explained, "if you make large changes to the inputs, you're going to get changes to the outputs." 8/19/20 Tr. 2776:2-7. Each time Professor Willig alters one variable in his analysis that would make it less favorable to SoundExchange, he changes other variables to make them more favorable to SoundExchange and offset the results. 8/19/20 Tr. 2775:14-2776:7 (Shapiro); *see, e.g.*, *id.* 2778:11-19. These do not reflect that Professor Willig's analysis is robust (it is not) or that Professor Shapiro's model is sensitive to reasonable changes (it is not). They show only that Professor Willig is adept at making offsetting changes to his model to generate results similar to his original analysis.

700. Disputed in part. There is no dispute that Scenario No. 1 uses Professor Willig's Shapley Value model while (i) crediting Professor Shapiro's power and retention ratios and (ii) assuming that Pandora "must have" licenses from "at least two of the three" Majors. But the royalty rates in this scenario remain inflated because he is still presenting Shapley Values (which fail to account for negative contracting externalities) instead of Nash-in-Nash bargaining or

Myerson Values (which do). *See* 8/19/20 Tr. 2777:12-23 (Shapiro); 8/10/20 Tr. 1032:13-1033:10 (Willig); *supra* ¶¶ 565-73; *infra* ¶¶ 800-32 (explaining the poor fit of Shapley modeling to this proceeding). The results are further inflated by Professor Willig use of the inflated opportunity costs and webcaster willingness-to-pay from his original model. *See* 8/19/20 Tr. 2777:12-23 (Shapiro); 8/10/20 Tr. 1032:13-1033:10 (Willig); Joint PFFCL § II.C.

701. Disputed. SoundExchange blatantly misrepresents the testimony of Professor Shapiro, who did *not* suggest that losing the repertoire of two major record companies would [redacted]. To the contrary, Professor Shapiro was asked what would happen if [redacted]" to which he replied, "[redacted]" 8/20/20 Tr. 3197:23-3198:4 (emphasis added).

SoundExchange also inappropriately cites hearing testimony from Professor Willig in which he selectively and misleadingly quoted a footnote in Dr. Peterson's Amended Written Rebuttal Testimony. 8/5/20 Tr. 436:25-437:18 (Willig) (quoting Peterson AWRT ¶ 114 n.118). As discussed more fully in the Services' Joint PFFCL, Dr. Peterson was referring to a scenario in which one major plus *every independent label* goes dark—and even then, he was merely "presum[ing]" that such a coalition "may" cause a noninteractive webcaster to shut down, not opining that it would. *See* Joint PFFCL ¶¶ 213-14. Indeed, Dr. Peterson noted there was "no evidence on this point." *Id.* ¶ 214. The context for this remark, moreover, was Dr. Peterson's larger point that Professor Willig's "must have" assumption is erroneous. *Id.*

At best for SoundExchange, the record is inconclusive as to whether a noninteractive webcaster could survive without the repertoire of two major record companies. There is certainly some evidence suggesting it *could* survive such a loss of repertoire: [redacted]

[redacted]. 8/31/20 Tr. 4658:16-4659:4 (Phillips); *see also* TX 1029* at 16 and TX 1030* ([redacted]); Joint PFFCL ¶¶ 191-98.

702. Disputed in part. SoundExchange fails to support its contention that Professor Shapiro's sensitivity test added LSE-derived power ratios "inconsistently." It did not. The Services agree that the LSEs did not test what would happen if Pandora lost the content of two majors at once.

703. Disputed in part. Professor Shapiro did not make an "extreme assumption" but rather *proved*, through the LSEs, that there is enough "substitutability of music repertoires" such that no single record company is "must have" for Pandora's non-interactive service. *See* Joint PFFCL ¶¶ 195-98; SXM-PAN PFFCL ¶¶ 64-85. There is no dispute that Professor Willig's Scenario No. 1 produces royalty rates "[redacted]," but that is because Scenario No. 1 imports numerous errors from Professor Willig's original Shapley Value model and fails to account for negative contracting externalities. *See supra* ¶¶ 699-700. Correcting for these errors yield rates meaningfully *below* current statutory rates: *See* Shapiro WRT at 62, Fig. 11 (showing Myerson Values of [redacted] for ad-supported webcasters and [redacted] for subscription webcasters); 8/19/20 Tr. 2750:6-2754:13 (Shapiro).

704. Disputed in part. Although Professor Willig presented three additional scenarios in which he used Nash-in-Nash bargaining and dropped his erroneous must-have assumption, those scenarios likewise imported numerous other flaws from his original model, including inflated measures of record company opportunity costs and overstated estimated of webcaster willingness to pay. *See* 8/19/20 Tr. 2777:12-18 (Shapiro); *infra* ¶¶ 705-09.

705. Disputed in part. Here again, the resulting royalty rates remain far too high, first because Professor Willig imports the inflated opportunity cost and webcaster willingness-to-pay from his original model. *See* Willig WRT ¶ 90; 8/10/20 Tr. 1034:2-14 (Willig); 8/19/20 Tr. 2778:5-19 (Shapiro). Making matters worse, this scenario unreasonably alters Professor Shapiro's "Retention Ratios"—*i.e.*, the assumptions made, in the event of a label blackout, about what percentage of diverted plays would be of that label's recordings. *See* SX PFFCL ¶ 705. Professor Willig's altered retention ratios are completely unrealistic. Whereas Professor Shapiro reasonably assumed that each label's retention ratio would equal its natural performance share, *see* SXM-PAN PFFCL ¶ 132, Professor Willig unrealistically assumed that the blacked-out label would earn 90% or even 100% of all diverted plays. As Professor Shapiro explained at the hearing, such near-perfect retention by a label is impossible in light of the fact that listeners often have no ability to choose particular songs for some of the alternative sources (*e.g.*, for plays that are diverted to other noninteractive services) and generally do not know which artists are associated with which labels. *See, e.g.*, 8/19/20 Tr. 2779:2-12; Joint PFFCL ¶¶ 232-242.

Moreover, while there is no evidence at all to support Professor Willig's unrealistic assumption that retention ratios would range from 90 to 100 percent, there *is* empirical evidence, detailed in Pandora and Sirius XM's initial proposed findings, that corroborates Professor Shapiro's assumption that the retention ratio would be consistent with the record company's natural performance share. SXM-PAN PFFCL ¶ 178. In short, Professor Willig's drastic alteration of the retention ratios from a reasonable assumption to an absurd one is totally uninformative of what a reasonable royalty rate should be.

706. Disputed in part. Here again, the royalty rates remain too high, first because Professor Willig again relies on his significantly higher opportunity-cost and willingness-to-pay

calculations, rather than Professor Shapiro's assessments. *See* Willig WRT ¶ 90; 8/19/20 Tr. 2784:10-14 (Shapiro). Inflating the results further, Scenario No. 3 more than doubles the "Power Ratio" Professor Shapiro derived from the LSEs from 0.7 to 2.0. *See* SX PFFCL ¶ 706; Willig WRT ¶ 88. Without any valid reason to do so, Professor Willig assumes that the percentage of performances lost by the label blackout is *more than double* that label's market share. 8/10/20 Tr. 1034:24-1035:9 (Willig). The effect of more than doubling the power ratio is to dramatically increase the record company's opportunity cost, *see* 8/19/20 Tr. 2783:4-22 (Shapiro), yet Professor Willig has no credible basis for making this extreme adjustment in the first place. Indeed, in his own written testimony, Professor Willig more reasonably assumed a power ratio of 1.0 for the indies, which he acknowledged would not be must-have. Willig WRT at 59 n.154; 8/5/20 Tr. 402:18-403:3 (Willig)). He purports to rely on the Simonson survey, *see* SX PFFCL ¶ 706; Willig WRT ¶ 88, but, as discussed elsewhere, survey evidence like that offered by Professor Hanssens and Professor Simonson cannot be used to determine the *magnitude* of lost listening. *See infra* ¶¶ 964, 971; SXM-PAN PFFCL ¶¶ 112, 173. Worse still, Professor Willig admits that even the Simonson survey would only imply a 2.0 power ratio *as to Warner* (the smallest Major), and yet, in Scenario 3, he applied that exaggerated ratio to all the Majors. *See* Willig WRT ¶ 88. So, in the case of Universal, which would have had only a 1.0 power ratio based on the same modified Hanssens survey results, Professor Willig is doubling an already questionable figure. *See id.*; 8/19/20 Tr. 2782:11-16 (Shapiro).[30]

707. Disputed in part. There is no dispute that in Scenario No. 4, Professor Willig dropped his erroneous must-have assumption and applied a power ratio of 1.0 to all record companies, thus testing a scenario in which the percentage of lost plays on the noninteractive

[30] As Professor Shapiro explained, using a power ratio of 1.0 to estimate lost listening for each of the Majors generates outcomes only modestly higher than those calculated using estimates based on the LSEs. *See supra* ¶ 140.

service equals the record company's market share. But to spin the dials, Scenario No. 4 then applies a retention ratio midway between each record company's average play share and 100%. By making these adjustments—and by using the inflated opportunity cost and willingness-to-pay from his original model—Professor Willig was able to replicate royalty rates roughly in line with Scenarios 1, 2, and 3. As Professor Shapiro testified, Professor Willig failed to offer any reasonable or empirical basis to inflate either the power and retention ratios in this dramatic fashion, let alone both. 8/19/20 Tr. 2790:11-2793:7 (Shapiro). And indeed, the LSEs show those assumptions are completely unreasonable here. *See* SXM-PAN PFFCL ¶¶ 77, 82.

708. Disputed in part. This paragraph summarizes the results of Professor Willig's four "Scenarios," but these results are not informative of reasonable royalty rates in this proceeding, for the reasons set forth above. *See supra* ¶¶ 699-707.

709. Disputed in part. This paragraph summarizes the results of Professor Willig's four "Scenarios," but these results are not informative of reasonable royalty rates in this proceeding, for the reasons set forth above. *See supra* ¶¶ 699-707. In addition, there is nothing "small" about the changes that Professor Willig makes to Professor Shapiro's assumptions in Scenarios 1-4. *See id.* As Professor Shapiro explained, "if you make large changes to the inputs, you're going to get changes to the outputs." 8/19/20 Tr. 2776:2-7. Here, Professor Willig's inputs are not supported by the record, *see supra* ¶¶ 699-707, whereas Professor Shapiro's are, *see* SXM-PAN PFFCL ¶¶ 134-54.

I. Professor Willig's Model Inappropriately Relies on the Zauberman and Simonson Surveys

710. Disputed in part. SoundExchange asserts that three surveys in this case agree on the diversion ratios, ignoring the Hauser survey entirely. *See* 8/27/20 Tr. 4318:15-19 (Simonson). And, as discussed below and in the Joint and NAB PFFCL, the Hanssens,

Simonson, and Zauberman surveys all tend to overestimate the diversion ratios to paid alternatives. *See infra* ¶¶ 1241, 1249, 1256; NAB PFFCL ¶¶ 114-15, 121; Joint PFFCL ¶¶ 291-94; *see also* 8/27/20 Tr. 4338:7-4339:15, 4345:13-4346:2, 4346:25-4348:11 (Hauser); Hauser WDT ¶ 102 & n.111; Hauser WRT ¶¶ 55-58; 8/24/20 Tr. 3421:15-3423:21, 3446:5-3448:7 (Leonard); Leonard CWRT ¶¶ 19-21 & n.37.

711. Disputed in part. The fact that the Hanssens diversion ratio to new on-demand services is higher than Zauberman's does not prove that the Zauberman survey is "conservative"; it is more appropriately explained by the fact that both surveys overestimate the number of users who will pay for an on-demand subscription. *See supra* ¶ 710. Professor Zauberman's survey design and Professor Willig's use of his survey results are self-serving and maximize label opportunity costs. *See* Joint PFFCL ¶¶ 252-69, 287-302.

1. Professor Zauberman's Survey is Unreliable and Uninformative

712. Disputed in part. The Services dispute that Professor Zauberman's survey was "carefully designed and executed," and produced "reliable" results. *See* Joint PFFCL ¶¶ 287-302; NAB PFFCL ¶¶ 115, 190-95.

713. Disputed in part. SoundExchange describes how Professor Zauberman "defined 'Streaming Radio Services,'" but tellingly fails to note that this was *not* a defined term in his survey and that the definitions actually viewed by respondents were inconsistent. *See* Zauberman WDT App. D, S7 (defining music-listening options, including "paid streaming radio service" and "free streaming radio service"); Joint PFFCL ¶¶ 288-90; NAB PFFCL ¶¶ 190-91. SoundExchange ignores entirely Professor Zauberman's admission at trial that he unintentionally toggled between his initial definition of "free streaming radio service," and an incorrect definition that described "on-line streams of AM/FM radio stations" as a service that "allow you to listen to customized radio stations with advertisements," like Pandora. *See* Joint PFFCL

¶¶ 288-90; NAB PFFCL ¶¶ 190-91; 8/27/20 Tr. 4245:19-4251:18 (Zauberman).

714-15. Not disputed.

716. Disputed in part. While pretests help ensure that respondents understand a survey, there are several problems in Professor Zauberman's survey that may not have been detected in pretesting, including the limits of respondent recall and bias towards music options. *See* NAB PFFCL ¶ 190 n.44; Hauser WRT ¶¶ 26, 28. For example, Professor Zauberman claimed that the issue of his inconsistent definitions of "free streaming radio" services did not surface in pretesting, 8/27/20 Tr. 4251:19-4252:21, but there is no indication that any of the 20 people he pretested were simulcast listeners who would have noticed the error, *see* Zauberman WDT ¶ 30.

717. Disputed in part. Professor Zauberman committed a fundamental error by failing to include attention checks to confirm that respondents were sufficiently engaged in the survey and providing reliable responses. *See* Joint PFFCL ¶ 301; *infra* ¶¶ 765-66, 768-71; Hauser WRT ¶¶ 8, 31-34.

718. Not disputed.

719. Disputed in part. The Services agree that a correctly designed internet survey that is representative of the target population can be used to draw valid statistical inferences about the target population. But, for all the reasons explained in the Joint PFFCL and NAB PFFCL, the Zauberman survey is not "correctly designed." *See* Joint PFFCL ¶¶ 287-302; NAB PFFCL ¶¶ 190-95.

720. Not disputed.

721. Disputed in part. Even when specifically discussing the list of music-listening options, descriptions, and examples Professor Zauberman provided to respondents at the outset

of the survey and repeated throughout, SoundExchange again fails to mention how Professor Zauberman unintentionally toggled between his initial definition of "free streaming radio service," and an incorrect definition that described "on-line streams of AM/FM radio stations" as a service that "allow you to listen to customized radio stations with advertisements," like Pandora. *See* Joint PFFCL ¶¶ 288-90; NAB PFFCL ¶¶ 190-91; 8/27/20 Tr. 4245:19-4251:18 (Zauberman). This is remarkable given that Zauberman admitted at trial that "[i]ncluding different definitions for the exact same term in a survey is not a best practice in [his] field." 8/27/20 4253:19-23; *see also id.* at 4242:11-4243:18, 4244:25-4245:18 ("very important" to draft definitions to avoid confusing respondents); 8/6/20 Tr. 838:1-9 (Willig).

722-27. Not disputed.

728. Disputed. As Professor Hauser explained more fully in his written rebuttal testimony, it was not consistent with best survey practices for Zauberman to only ask the time allocation question of respondents who indicated they would use a free on-demand streaming option that pays royalties on a per-play basis (in the free hypothetical), and *also* indicated they would use multiple replacement options. *See* Hauser WRT ¶¶ 49-53. If Professor Zauberman wanted to obtain a random sample to estimate per-play royalties on a given day, he should have sampled *all* respondents who indicated they would switch to a streaming service that pays royalties on a per-play basis. *See* Zauberman WDT ¶ 59 (explaining that he "understood from counsel that it was necessary to gather this information because *free* music streaming services generally pay royalties on a per-play basis"); *id.* ¶ 62 (explaining that "it was important to measure listening time across all days of the week"). Instead, he only asked a *subset* of respondents to allocate their time—specifically, those respondents who selected a free on-demand service (in the free hypothetical) and "at least one other music listening option (or 'do

something other than listen to music').." Zauberman WDT ¶ 75. This is significant because Professor Willig self-servingly assumed that all respondents who only selected a free on-demand streaming option would allocate 100% of their of their time on a given day to that service, even though it's possible they "would not have expected to listen to the unavailable streaming service on the indicated day in the next week" and "would logically have allocated 0 percent of time to listening to the" service. Hauser WRT ¶ 52; Willig WDT App. E at 9 n.14 ("[I]f a respondent indicates that his/her only switching option is Free-OD, then 100 percent of the time is allocated to Free-OD").

729. Not disputed.

730. Disputed in part. Figure 10 is titled "*Average* Time Allocation Among Free Streaming Radio Listeners," but the percentages do not add up to 100%. Zauberman WDT ¶ 77 Figure 10 (emphasis added). And, as Judge Strickler pointed out, "it would be impossible for the average listener to spend more than 100 percent of the average listener's time." 8/6/20 Tr. 828:7-829:5 (Willig). The same is true of Figure 11. Zauberman WDT ¶ 78 Figure 11. Rather than own up to this error, SoundExchange instead created an entirely *new* "Time Allocation Example" figure in its PFFCL, which apparently relies on Zauberman's raw survey data. This new figure does not excuse or explain the inaccuracy of Professor Zauberman's Figures 10 and 11.

2. The Hanssens and Simonson Surveys Generate Numerically Similar Results to Professor Zauberman, but Structural Differences Prevent a Clean Comparison

731. Disputed in part. Both Professor Hanssens and Professor Zauberman ran surveys designed to test how consumers would respond if their noninteractive streaming services were no longer available in the same form; however, the nature of the change is different. Professor Hanssens' survey (and Professor Simonson's replication and modification thereof) asks

respondents to imagine the loss of favorite artists and some newly released music, *i.e.* a service *degradation*. Hanssens CWDT ¶¶ 33, 39. By contrast, Professor Zauberman's survey instructs respondents that all Free or Paid streaming services (depending on which of his two hypotheticals respondents were administered) were no longer available at all. Zauberman WDT ¶ 55. The Services do not contest that the results of Professor Hanssen's survey (and Professor Simonson's replication thereof) are reliable, but, as explained, *infra* ¶ 754, do contest that Professor Simonson's Q225 in his Modified Survey is reliable.[31]

i. The Hanssens Pandora Survey Is Reliable for Determining a Diversion Ratio, but *Not* a Loss Ratio

732. Disputed in part. *See supra* ¶ 731.

733-34. Not disputed.

735. Disputed. Professor Hanssens does not dispute that his survey may properly be used to determine *where* lost listening hours would divert in the event of the loss of a given record company's repertoire. Indeed, that is the very purpose of Professor Hanssens' survey. Hanssens CWDT ¶ 21. What Professor Hanssens vehemently disputes is that his survey may be used to determine a *loss* ratio, *i.e.* the *magnitude* of lost listening in response to a label blackout, rather than the *direction* of lost listening. *See* Willig WRT ¶¶ 31-32. As discussed below (*infra* ¶ 931) in Sirius XM and Pandora's PFFCL (*see* ¶¶ 112, 122, 173), there are numerous reasons why Professor Hanssens' (and, for that matter, Professor Zauberman's) survey cannot be used

[31] For the reasons described in NAB's PFFCL, it is NAB's view that the Zauberman, Hanssens, and Simonson surveys cannot reliably estimate the switching behavior of simulcast listeners. They do not even attempt to do so. *See* NAB PFFCL ¶¶ 190-99. All three surveys lump together simulcast and custom radio. *Id.* And the Hanssens and Simonson surveys go one step further, deliberately *excluding* simulcast listeners from their survey pool. *Id.* (citing 8/27/20 Tr. 4320:17-4321:6 (Simonson); Hanssens CWDT ¶ 27, App. 6, SP70; Simonson CWRT App. D, Question 70; 8/27/20 Tr. 4332:19-25 (Hauser)). Moreover, because of the way they were designed to allow respondents to choose as many switching options as they wanted, all three surveys suffer from cheap talk problems that upwardly bias the diversion ratios to paid alternatives. *See infra* ¶¶ 1241, 1249, 1256; NAB PFFCL ¶¶ 114-15, 121; Joint PFFCL ¶¶ 291-94.

for that purpose. Professor Hanssens' survey cannot quantify the *amount* of lost listening because: (1) the survey asked a qualitative question without quantifying how much music is missing, (2) artists are often represented by more than one label (meaning that the loss of a label is not necessarily coincident with the loss of an artist), (3) there is great heterogeneity in music tastes among respondents (such that the loss of a particular label may not mean the loss of their favorite music or artists), and (4) the survey targets only the subset of Pandora users who *noticed* and were *dissatisfied* by a label blackout—not simply *any* user subject to the blackout. *See* 8/18/20 Tr. 2668:8-2669:23 (Shapiro) ("[I]f you asked people how much would you reduce your listening to Pandora if it didn't have Warner Music, it's not going to work because people don't really know what the Warner catalogue is like. And so you can't meaningfully run a survey with that."); 8/19/20 Tr. 2716:23-2717:23 (Shapiro); 8/26/20 Tr. 4091:23-4093:8, 4094:22-4095:1, 4095:23-4096:8, 4096:24-4097:4, 4099:18-4108:8, 4105:5-17, 4109:2-5, 4154:2-9, 4156:6-13 (Hanssens); Hanssens CWDT ¶¶ 33-34; 8/27/20 Tr. 4315:16-22 (Simonson).

As Professor Shapiro clearly explained, the surveys' usefulness begins and ends with measuring diversion ratios: *i.e.*, among users who notice the loss and *do* change their listening habits in response to a blackout, how much of *their* diverted listening goes toward new on-demand subscriptions, and how much goes to other forms of entertainment. 8/19/20 Tr. 2716:23-2717:21 (Shapiro); 8/26/20 Tr. 3935:21-3938:2 (Shapiro). Therefore, it is wrong to assume (as Professor Willig does) that in the event of a label blackout that causes only some modest reduction in listening across Pandora and not a full shutdown, that [redacted]% of survey respondents would pay for a new on-demand subscription. Again, the [redacted]% figure is operative *only* under the specific conditions of Professor Hanssens' hypothetical, which is that they would do so *if they were dissatisfied* and *relative to the other choices provided*, *not* that in a real-world

label blackout, [redacted]% of all Pandora users would actually so divert. In order to determine how the typical Pandora user would react in terms of the *likelihood* of diversion, rather than the *direction* of diversion, the sole appropriate measure is the results of the LSEs. *See infra* ¶ 969. This interpretation of Professor Hanssens' results is corroborated by the absurdity of the conclusions Professor Willig draws from his attempt to use the Hanssens survey as a loss ratio: he posits that users who so divert would listen, on average, to only *2.6 songs per month* with an on-demand subscription, or only *one song per month* with a Sirius XM satellite subscription—behavior that Professor Willig himself admitted "is not really credible or believable." 8/10/20 Tr. 1015:24-1016:18 (Willig); *see also infra* ¶ 964.

736. Not disputed. However, as explained above, SoundExchange misinterprets the survey results to signify magnitude rather than direction, and in so doing unjustifiably maligns Professor Hanssens and his credibility. *See supra* ¶ 735; *infra* ¶ 931.

737-38. Not disputed.

739. Disputed in part. Professor Hanssens' methodology and rationale is accurately quoted, but the key to Professor Hanssens' testimony on this point is not just that consumers are value maximizers and that a loss of content equates to a loss of value, but more importantly, that he *specifically told respondents that they were dissatisfied*. 8/26/20 Tr. 4136:15-4137:2 (Hanssens). As Professor Hanssens testified, "If you are dissatisfied, you experience a loss of value. The fact that there are several options is helpful in this case because if tells consumers that they have a way to restore that value, if you wish." *Id.*

740. Not disputed. But, importantly, Professor Hanssens also testified that not all consumers have the same *value preferences*. While it is indeed counterintuitive that respondents who are told that they are dissatisfied will listen *more* to that service, it does not logically follow

that the loss of a particular catalog will automatically impact every user simply because it constitutes a diminution in available options. *See* 8/26/20 Tr. 4108:8-12 ("Q. And you agree that the loss of access to a given record company's catalogue translates to a loss of value that can vary consumer-by-consumer, right? A. With—with the provision that it can vary from consumer-to-consumer, including zero loss, yes."); *id.* at 4108:21-25 ("Q. So if the loss of a record company's catalogue reduces the availability of music that a consumer likes, then the quality of the experience has declined, right? A. Not necessarily."); *supra* ¶ 735; *infra* ¶ 964.

741. Not disputed.

742. Disputed in part. There is no dispute that [redacted]% of *qualifying respondents* indicated that they would purchase a new subscription to an on-demand service. Hanssens CWDT ¶ 49, tbl.3. However, Professor Hanssens' survey results can only be read to indicate that respondents would do so only *under the specific conditions of Professor Hanssens' hypothetical* (*i.e.,* users who noticed and were dissatisfied by changes in the repertoire)which cannot be generalized to all Pandora users who experience a label blackout. *See supra* ¶ 735; *infra* ¶ 964.

743. Disputed in part. There is no dispute that the [redacted]% figure represents a diversion ratio, not a "loss rate." However, SoundExchange's representation that Professor Shapiro attempted to characterize Professor Hanssens' results as a "loss rate" blatantly misrepresents the record. The language that SoundExchange quotes *plainly contradicts* the proposition that SoundExchange claims it supports: "Q. Okay. But in any event, whether it's 21 percent of 19 percent, that's not a number that you used in your analysis, right? A. No, I think I explained pretty clearly on my direct that *you cannot use survey analysis to calculate the loss rate*." 8/20/20 Tr. 3136:18-23 (Shapiro) (emphasis added); *see also id.* at 3137:7-8 ("[I]t's not

usable for calculating the loss rate"); *id.* 3137:18-19 ("[I]t's not reliable to use the survey to calculate the loss rate, period."); 8/26/20 Tr. 3936:12-14 (Shapiro) ("This is not a question about a label blackout. It's not."); *infra* ¶ 971.

744. Disputed in part. There is no dispute that Professors Zauberman and Hanssens generate similar results in terms of which replacement options respondents would choose. However, the correct percentage of respondents who would divert to increased use of a free on-demand service is [redacted]%, not [redacted]%. Hanssens WDT ¶ 49, tbl.3. Neither survey focused on simulcast listeners. NAB PFFCL ¶¶ 191-99. The one survey that did found a much different diversion ratio of 5%. NAB PFFCL ¶ 129; Hauser WDT App. R.

ii. As a Mere Replication/Modification of the Hanssens Survey, the Simonson Survey is Consistent with the Hanssens Survey, but Cannot Corroborate Professor Zauberman's Findings

745. Disputed in part. The Services do not contest that the results of Professor Zauberman are comparable to those of Professor Hanssens and Professor Simonson. However, as explained *infra* ¶ 754, the Services contest that Professor Simonson's Q225 in his Modified Survey is reliable. Moreover, as described above, Professor Hanssens' survey results can only be read to indicate what respondents would do *under the specific conditions of Professor Hanssens' hypothetical*, which oversamples, and cannot be generalized to all Pandora users who experience a label blackout. *See supra* ¶¶ 735, 742.

746-48. Not disputed.

749. Disputed in part. It is true that Professor Simonson removed the language in Professor Hanssens' survey indicating that respondents were "not satisfied" with and "noticed" service degradation. Simonson CWRT ¶¶ 95-96. However, the fact that a consumer noticed a change in the availability of music on a service is necessarily implicit in a hypothetical instructing the respondent to imagine the fact of such a change. *See* 8/6/20 Tr. 975:13-18

(Willig) ("The fact is being presented to them here. [] [A]nything about their awareness *beyond that* . . . is not actually addressed.") (emphasis added). Similarly, dissatisfaction is implicit in a hypothetical referencing the loss of some of respondents' "favorite artists and some newly released music." 8/27/20 Tr. 4316:7-13 (Simonson); 8/26/20 Tr. 4094:6-10 (Hanssens).

750. Not disputed. *See supra* ¶ 749.

751. Disputed in part. It is true that Professor Simonson's Modified Survey generated responses comparable to those of Professor Hanssens. *See* Simonson CWRT ¶¶ 96, 99; 8/27/20 Tr. 4285:12-24 (Simonson); *id.* 4315:23-4316:6; 8/26/20 Tr. 4094:1-5 (Hanssens). However, for the reasons set forth above, even in Simonson's modified hypothetical the respondents were aware of the degradation. *See supra* ¶¶ 735, 749; *infra* ¶ 964.

752. Disputed in part. SoundExchange accurately describes how Professors Simonson and Willig designed and construed Q225; however, Q225 and Professor Willig's interpretation thereof are fatally flawed. *See infra* ¶¶ 753-54.

753. Disputed. *See infra* ¶¶ 754, 935-36

754. Disputed. Q225 does not provide reliable and unbiased information about how much listening is reduced for a multitude of reasons. *See* SXM-PAN PFFCL ¶¶ 120-23; *supra* ¶¶ 735, 739; *infra* ¶ 964. These include: (1) the loss of a particular label (which is itself not specified by the question) is not coincident with the loss of an artist as the hypothetical contemplates; (2) users would have vastly different reactions to the suppression of particular labels based on their varied music taste; (3) Professor Simonson's question still implicitly indicates notice and dissatisfaction; and (4) a quantitative answer can only respond to a quantitative question (*i.e.,* it is necessary to know the numerical extent of degradation (which Professor Simonson did not provide)) in order to assess the quantitative extent of any reduced

listening occurring in response. 8/26/20 Tr. 4092:11-4093:8, 4094:22-4096:8, 4096:15-4097:4, 4109:2-5 (Hanssens).

Moreover, Professor Simonson's answer ranges are so wide and unequal that they are incurably biased and unreliable, and Professor Willig's use of the range midpoints is empirically unsound. *See* SXM-PAN PFFCL ¶ 123; *see also* 8/26/20 4096:20-23 (Hanssens) (indicating that the answer ranges are too wide and unequal); 8/27/20 4292:3-11 (Simonson) (Judge Strickler observing that Professor Simonson's answer choice brackets become larger with each subsequent range); 8/27/20 Tr. 4289:18-20, 4316:14-4317:24 (Simonson) (admitting that his survey provides no empirical basis from which to believe that most respondents selecting the 25-49% bracket actually meant [redacted]% less listening as Professor Willig construed the results to mean); Willig WRT ¶ 56; Willig WRT app. J at 125 ¶ 16; 8/10/20 Tr. 978:16-19 (Willig).

Importantly, the effect of Professor Simonson's unprincipled increase in the answer choice bracket sizes is an overestimated diversion ratio, because it becomes increasingly more likely for a respondent to fall into a bracket with a higher upper limit percentage value, which in turn carries a heavier weight in the calculations. 8/10/20 1027:7-1028:17 (Willig). Finally, at the hearing, Professor Simonson also admitted that he did not pretest Q225, meaning he had no way of knowing if respondents understood it or could answer it accurately. 8/27/20 4293:20-23 (Simonson).

755. Disputed in part. The survey data of Professors Zauberman, Hanssens, and Simonson are generally comparable, though there are important differences in the survey designs and the data collected, as discussed above. However, for the reasons stated elsewhere, *see supra* ¶¶ 735, 754, and *infra* ¶ 964, the surveys can only be used to measure the direction of change, not the magnitude. *See* 8/26/20 Tr. 4155:25-4156:5 (Hanssens) (Q: "So just to be clear, this is a

measure of where respondents had switched their listening, not a measure of how much listening would be lost on a degraded service, right? A. I agree. It—it's about the direction of change, yes."). Moreover, given the differing hypotheticals and Professor Zauberman's definitional errors, the survey results are not an apples-to-apples comparison as suggested by Figure 19.[32] And none is informative when it comes to the behavior of simulcast listeners, specifically. NAB PFFCL ¶¶ 190-99.

756. Disputed. The fact that the Hanssens and Simonson diversion ratios are higher than Zauberman's does not prove that the Zauberman survey is "conservative." Professor Zauberman's survey design and Professor Willig's use of his survey results are self-serving and maximize label opportunity costs. *See* Joint PFFCL §§ C.iii.4 & D.

757. Disputed. The Services dispute that the Zauberman survey "elicited informative data regarding the behavior of ad-supported noninteractive listeners" and is "roughly accurate." As described in the Joint PFFCL, Professor Zauberman's survey suffers from several flaws that render its results unusable for this proceeding. *See* Joint PFFCL ¶¶ 287-302. Moreover, as discussed in NAB's PFFCL, the Zauberman survey cannot reliably estimate the switching behavior of simulcast listeners. *See* NAB PFFCL ¶¶ 190-99.

3. SoundExchange's Critiques of the Hanssens Survey are Unfounded, and Professor Zauberman's Survey Is Not "Conservative"

758. Disputed. Professor Simonson's assertion that Professor Hanssens improperly required respondents to consider whether they would increase listening to various entertainment options before selecting music replacement options, Simonson CWRT ¶ 72, betrays a misunderstanding of Professor Hanssens' survey. *See* SXM-PAN PFFCL ¶ 115. P30/X30 only

[32] As noted above, it is NAB's view that the Zauberman, Hanssens, and Simonson surveys cannot be used to measure the switching behavior of simulcast listeners. *See supra* ¶ 731 n.31.

included two options total—one music option and one non-music option. Hanssens CWDT ¶¶ 34, 42. Illustrative non-music examples such as "Video games" were not separate options that the respondent could select. *Id.* Moreover, Professor Hanssens did not actually use the non-music data in reporting his diversion results, but included it merely "for completeness reasons." 8/26/20 4097:24-4098:7 (Hanssens). Professor Simonson offers no empirical analysis indicating that the framing of P30/X30 created any bias in the survey results.

759. Disputed. *See supra* ¶ 758.

760. Disputed in part. It is true that Professor Hanssens did not allow respondents to complete the Pandora and Sirius XM surveys on their smartphones, which was done "[t]o ensure that the survey was easy to read and respond to, and survey instructions and other content could be properly displayed . . . ." Hanssens CWDT ¶ 26 n.19. SoundExchange offers no empirical evidence indicating that Professor Hanssens would have received different results had he not done so, and Professor Hanssens specifically ensured that his survey population reflected the typical demographic characteristics of Pandora users.

761. Disputed. Professor Zauberman's treatment of diversion to paid streaming services was definitely not "conservative." First, Professor Zauberman failed to ask respondents whether they already pay for a subscription to an on-demand service, *see* 8/27/20 Tr. 4237:12-4239:1 (Zauberman), which led Professor Willig to assume (without any analysis) that any respondent that had not recently listened to an on-demand service would need to purchase a new subscription. *See* Joint PFFCL ¶¶ 256, 297-99; 8/6/20 Tr. 798:21-799:9 (Willig); 8/24/20 Tr. 3444:18-3445:20 (Leonard); Leonard CWRT ¶ 18. In this way, the survey (and Dr. Willig's use of the survey) were not at all conservative in that they likely overestimated the number of respondents to the survey that would purchase a streaming subscription.

Second, Professor Zauberman's decision to not let recent users of a paid on-demand service choose the option of subscribing to another on-demand service is not conservative. SoundExchange has no valid basis for its claim in paragraph 761 that "[redacted]." The lone exhibit that SoundExchange cites for this proposition is ambiguous on that point. [redacted]. *See* TX 5144 at 13. [redacted]. *See id.* [redacted] *See id.* [redacted]).

762. Disputed. That Professor Zauberman used incomplete definitions of service types does not make his survey conservative. To start, the respondents to the survey were already using a noninteractive service, so they would have already understood that a "FREE streaming radio service" was likely to include advertisements and limit skips. Additionally, SoundExchange suggests (but does not fully explain) that failing to fully explain the functionality limitations of a "Free on-demand streaming service" was somehow conservative. This is counterintuitive. Diversion to a free on-demand service would create positive opportunity cost in Professor Willig's model. It is likely that a more complete definition would have swayed respondents towards options with lower opportunity costs (like AM/FM radio).

763. Disputed. *See infra* ¶¶ 780-81; Joint PFFCL ¶¶ 254-55, 300.

4. The Services' Critiques of the Zauberman Survey Demonstrate That His Survey Is Unreliable

764. Disputed. For the reasons articulated in the Joint PFFCL and the NAB PFFCL, Professor Zauberman's survey suffers from several flaws that render its results unusable for this proceeding. *See* Joint PFFCL ¶¶ 287-302; NAB PFFCL ¶¶ 190-95.

765. Disputed. SoundExchange tellingly spends a full five pages of its PFFCL attempting to defend Professor Zauberman's decision not to include attention checks, in addition to the substantial time it dedicated to the topic at trial. But, attention checks represent best practices in survey research and not including them could have exacerbated the other flaws the Services identified in the Zauberman survey. Hauser WRT ¶¶ 8, 31-32; 8/27/20 Tr. 4334:16-4335:1 (Hauser); Hauser WDT ¶ 40; *cf.* 8/27/20 Tr. 4203:10-4204:18 (Zauberman) (explaining that he has included attention checks in prior surveys and could have done so here). SoundExchange claims that Professor Hauser's critique is "contrary to all available evidence," SX PFFCL ¶ 765, despite the fact that *both* Professor Hauser and Professor Hanssens included multiple attention check questions in their own surveys that respondents failed, which is powerful evidence in and of itself. Hauser WDT ¶¶ 40-42; Hanssens CWDT ¶ 29. In addition, Professor Hauser explained that "[t]here's entire literature showing that attention checks are . . . really important to getting high-quality responses." 8/27/20 Tr. 4336:23-25.

766. Disputed in part. Even if attention checks are not *always* necessary, Professor Hauser explained that they are "particularly" important "on Internet panels, [where] there's a lot of people who do not pay full attention to the survey," and they are "widely used." 8/27/20 Tr. 4334:16-4335:1. When asked by Judge Strickler whether he has done surveys where he does include attention checks, Professor Zauberman responded, "Of course, Judge." *Id.* at 4203:10-12. Zauberman further agreed with Professor Hauser that attention checks were invented "[w]ith

the expansion of the Internet panel, that's where we needed" them. *Id.* at 4204:1-8. Moreover, while Professor Hanssens testified that implementing "the principle of parsimony" is "*one way* to reduce the risk that a respondent's attention will deteriorate over the course of taking the survey," he did not testify that it is a replacement for attention check questions as SoundExchange suggests. 8/26/20 Tr. 4114:7-4115:14 (emphasis added).

767. Not disputed.

768. Disputed. Even if Professor Zauberman is right that Dynata provided a high-quality panel, that does not prove that his survey would not have also benefited from attention checks. Indeed, Professor Hauser also used "one of the premier panels," ProdegeMR, which he has found "to be consistently reliable and a high quality supplier of qualified survey respondents." Hauser WDT ¶ 70. But even still, a number of respondents failed Professor Hauser's attention checks. Hauser WRT ¶ 34. While Zauberman speculated that there is "no reason to believe" attention checks would have affected his survey results, he presented no empirical evidence demonstrating that to be the case. 8/27/20 Tr. 4201:18-19.

769. Disputed. Professor Zauberman's "other checks" are a part of normal, rigorous survey design and are not a replacement for attention checks. *See* Joint PFFCL ¶ 301. For example, while Zauberman specifically claims that he was able to identify people not paying attention by eliminating "speeders" who go through the survey quickly and straight line their answers, Professor Hauser testified that this is not enough to ensure respondents paid sufficient attention and read the instructions carefully. Hauser WRT ¶ 31; *see, e.g.*, 8/27/20 Tr. 4207:17-19 (Zauberman).

770. Disputed. SoundExchange asserts that Professor Hauser made "no attempt to distinguish between the need for attention checks in a highly reliable internet survey using a pre-

screened panel, like a Dynata panel, versus internet surveys like Amazon Turk, which do not have the same safeguards." That is, however, because "[a]ttention checks represent best practices in survey research" regardless of the panel used. *See* Hauser WRT ¶ 31; *supra* ¶ 768.

771. Disputed. Ironically, SoundExchange critiques Professor Hauser for not citing any academic literature on attention checks, even though Professor Zauberman himself cited zero authority indicating that attention checks are unnecessary when a survey is conducted by a reputable firm using prescreened panels. SoundExchange also disregards Professor Hauser's testimony at the hearing that "[t]here's entire literature showing that attention checks are . . . really important to getting high-quality responses." 8/27/20 Tr. 4336:23-25 (Hauser).

772. Disputed. As the Judges correctly concluded at trial, Professors Zauberman and Simonson failed to raise any critique of Professor Hauser's attention checks in their written rebuttal testimony and, in doing so, waived the right to raise this new argument at trial or in post-trial briefing. 8/27/20 Tr. 4198:12-4201:2 (Zauberman); *id.* at 4295:13-4296:20 (Simonson); *see also id.* at 4337:3-8 (Hauser). SoundExchange inappropriately attempts to revive its critique of Hauser's attention checks in its Proposed Findings of Fact, notably without any citation to the record. This argument should be disregarded in its entirety.

773. Disputed. SoundExchange failed to critique Professor Hauser's attention checks in either Zauberman's or Simonson's written rebuttal testimony, even though it had every opportunity to do so. *See supra* ¶ 772. So Professor Hauser's expert testimony on the subject stands unrebutted. It is improper and unfair for SoundExchange to try to sneak this critique into its post-trial submissions, particularly given that the Judges expressly ruled this is outside the scope of proper surrebuttal. 8/27/20 Tr. 4198:12-4201:2 (Zauberman); *id.* at 4295:13-4296:20 (Simonson). Moreover, even if the Judges were to consider this belated and unsupported

critique, Professor Hauser's attention checks were appropriate and the failure rates are "common within the academic literature." *See id.* at 4335:17-4337:2 (Hauser). Moreover, after eliminating respondents who failed the attention checks, Professor Hauser "performed a number of tests to make sure that there's no demographic skew, or that if there is any slight demographic skew, it does not affect results by reweighting." *Id.* at 4336:7-12 (Hauser). His sample was not distorted in any way by the attention check failure rates, and SoundExchange has presented no evidence showing that it was. *Id.*

774. Disputed. This proposed finding of fact is improper and should be disregarded, as explained above. *See supra* ¶¶ 772-73. Moreover, SoundExchange cites to no academic literature or other support for its conclusion that the Hanssens' (and therefore Simonson's) attention checks are "standard" whereas Hauser's are not. As discussed above, the difficulty of Professor Hauser's attention checks and resulting failure rates were in line with what is accepted in academic literature. *See* 8/27/20 Tr. 4335:17-4337:2 (Hauser); *supra* ¶¶ 772-73.

775. Disputed. SoundExchange's comparison of Professor Hauser's attention check failure rates to Hanssens' and Simonson's borders on sanctionable given that this was *precisely* the content of the Zauberman slides that the Judges did *not* permit SoundExchange to use at trial. 8/27/20 Tr. 4198:12-4201:2 (Zauberman); *see supra* ¶¶ 772-74. Indeed, Figure 20 is a slightly more detailed version of the exact chart on Zauberman demonstrative 20, which SoundExchange was not allowed to use because Professor Zauberman failed to raise this critique against Professor Hauser in his written testimony even though he had every opportunity to do so. *Id.* And, as if that were not bad enough, SoundExchange also cites to the testimony of Professor Simonson that the Judges explicitly *struck* from the record for the same reason. 8/27/20 Tr. 4295:12-4296:20 (striking Professor Simonson's testimony at 4295:13-22).

776. Disputed. As discussed above, Professor Zauberman admitted he "didn't run the study" with attention checks and "cannot be sure" they would not have affected his survey. *See* 8/27/20 Tr. 4207:8-12. *See supra* ¶¶ 765-66, 768-69. Moreover, the unrebutted record evidence makes clear that attention checks are not "superfluous" and do not "negatively impact[] the sample." *See supra* ¶ 773; Hauser WRT ¶ 34; 8/27/20 Tr. 4336:7-12 (Hauser).

777. Disputed. SoundExchange next claims there "is no sound basis for NAB's argument that the Zauberman Survey . . . fail[ed] to adequately distinguish between new and existing replacement options." The Services explained in their Joint PFFCL, however, the significance of this survey design flaw. *See* Joint PFFCL ¶¶ 297-99. For example, Zauberman's survey design is inappropriate because it cannot distinguish between a respondent who did not have an existing paid subscription and a respondent who either had an existing paid subscription but *did not use it* in the past thirty days or *did not recall* using it in the past thirty days. 8/27/20 Tr. 4235:10-24 (Zauberman). As Professor Hauser explained, both academic research and his own survey pretest indicate that thirty days is too long for respondents to remember their own listening behavior accurately. Hauser WRT ¶¶ 24-26; *see also* 8/27/20 Tr. 4360:1-9.

778. Disputed. SoundExchange is flat wrong that NAB has "provided no [] evidence" demonstrating that there are respondents who do not listen to their subscriptions in a given month. *See* Joint PFFCL ¶¶ 297-99. To the contrary, Dr. Leonard explained that it is not uncommon for consumers to have inactive paid subscriptions. *See* Leonard CWRT ¶ 18. "For example, in the third quarter of 2018, Spotify had 5 million inactive premium subscribers, which is 6% of total premium subscribers and up from 1% earlier the same year." *Id.* (citing "1 Potentially Troubling Trend for Spotify," The Motley Fool, November 6, 2018, https://www.fool.com/investing/2018/11/06/1-potentially-troubling-trend-for-spotify.aspx).

"Performing the same calculation . . . using data from Spotify's SEC filings from October 2019, the number of inactive users has increased to around 6 million." *Id.* ¶ 18 n.27 (citing Spotify Form 6-K, October 2019). This is further supported by UMG's Aaron Harrison's testimony that [redacted] 9/3/20 Tr. 5732:6-17 (Harrison).

779. Disputed. SoundExchange perplexingly argues that if a respondent already subscribed to an interactive service, they would not indicate that they would purchase a new subscription in response to Zauberman's replacement question. But that is *precisely* the problem: respondents who did not listen or recall listening in the prior thirty days, were *only* presented with an option to "subscribe" rather than "listen" to an interactive service. *See* Zauberman WDT App. D, Q2. Even if SoundExchange is right that such respondents would answer "no" or "unsure" to the new subscription, this would still be a significant inaccuracy in Zauberman's survey that could have easily been avoided by simply asking what subscriptions respondents had.

780. Disputed. Similarly, even if SoundExchange is right that Professor Zauberman's failure to allow respondents to distinguish between listening to CDs, vinyl, or digital music files they owned already and those they would purchase introduced a "conservative bias" because of the way Professor Willig used this data, this is nonetheless another inaccuracy in Zauberman's survey results. *See* Joint PFFCL ¶¶ 254-55, 300. As Judge Strickler put it, "having two inaccuracies pointing in different directions doesn't make the survey result more accurate. It just makes the survey results inaccurate overall." 8/6/20 Tr. 845:14-17 (Willig).

781. Disputed. The diversion ratios from the Hanssens survey and modified Hanssens survey conducted by Simonson do not "undercut NAB's argument that the Zauberman Survey

overstates diversion to new purchases of CDs, vinyl records, and MP3s," as SoundExchange claims, because they both suffer from cheap talk problems that upwardly bias the diversion ratios to paid alternatives. *See infra* ¶¶ 1241, 1249, 1256; NAB PFFCL ¶¶ 114-15, 121. Moreover, both the Hauser survey [redacted] suggest that far fewer people would purchase new CDs or digital music files. *See* Hauser WRT ¶ 47; TXs 2037, 2038, and 2041 at 6 ([redacted] Professor Hauser's survey indicates that only 1.8% of respondents would purchase new CDs or digital music files, in comparison to the 14.8% that Willig counted as purchasing new CDs or digital music files. *Compare* Hauser WDT App. R, *with* Willig WDT Figure 6. Professor Zauberman's survey likely would have demonstrated diversions similar to Hauser's if he had given respondents the opportunity to distinguish between owned and new CDs/digital music files. And, if taken at face value, the survey evidence demonstrates fundamental differences between simulcast listeners and listeners of other ad-supported webcasters that warrant a differentiated rate structure. NAB PFFCL ¶¶ 114-15, 121.

782. Disputed. The Services are *not* contending Zauberman's 30-day period "is too short to accurately reflect the current listening of all relevant respondents," as SoundExchange claims. To the contrary, as the Services have explained, Professor Zauberman erred by asking respondents which music-listening options they used in the past 30 days rather than simply asking survey respondents what services they subscribed to. *See supra* ¶ 777; Joint PFFCL ¶¶ 297-99. This is an error both because Professor Zauberman cannot distinguish between respondents who don't subscribe and those who didn't listen in the prior thirty days, but also because thirty days is too long a period for respondents to accurately recall whether they listened. *Id.* These critiques are by no means in tension, as SoundExchange claims.

Professor Hauser also did not base his critique of the 30-day period solely on his pretest

results, as SoundExchange suggests. Rather, as Professor Hauser explained, this critique is based on his pretest, qualitative interviews, prior experience in designing surveys, and academic research, all of which indicate that thirty days is too long for respondents to remember their own listening behavior accurately. Hauser WRT ¶¶ 24-26 (citing, *e.g.*, Buchanan, Tony W., "Retrieval of Emotional Memories," *Psychological Bulletin Journal* 133, 5, 2007, pp. 761–779, at p. 765); *see also* 8/27/20 Tr. 4359:24-4360:9. Moreover, as discussed further below, SoundExchange is not correct that pretests are used *only* to assure that survey language is not confusing. Pretests also help ensure that "the respondents' answers accurately reflected respondents' beliefs and/or behavior." Hauser WDT ¶ 62; *see infra* ¶ 1266. Indeed, even Professor Zauberman conceded that his "choice of time period, the past 30 days," was not informed by his pretests even though he could have pretested whether "too many people said they were confused over 30 days." 8/27/20 Tr. 4182:5-19.

783. Disputed. Professor Willig incorrectly assumed that all diversion to CDs and MP3s would be paid for rather than pirated, and SoundExchange's arguments to the contrary lack merit. First, SoundExchange states that there is no evidence to suggest survey respondents would interpret "'Purchase' to mean 'Steal.'" This argument is disingenuous since the Zauberman survey did not ask respondents if they would "purchase" new media but rather asked if respondents would listen to CDs or MP3s they "currently <u>own</u> or would purchase." Zauberman CWDT App. D, Q2. Second, the burden was not on the Services to support that "own" could imply piracy; it was incumbent on Professor Zauberman to write more precise questions or on Professor Willig to support his own assumptions regarding the meaning of "own." *See* 8/10/20 Tr. 1089:15-1090:17 (Willig) (admitting that he was not aware of "any indication, given to respondents in the Zauberman study, that they should interpret the word

'owned' to mean that files or CDs were legally [] acquired"). In fact, SoundExchange witnesses touted how piracy is commonplace and should be factored into analysis of the record industry. *See* TX 5617 at 14 (testimony of Dr. Ford). Finally, as SoundExchange notes, Professor Hanssens actually built options into his survey that allowed for the possibility that respondents would pirate, borrow, or receive as gifts copies of CDs and MP3s. *See* 8/26/20 Tr. 4142:20-4144:11 (Hanssens) (explaining piracy could fall under the "other" means of obtaining music in his survey). This inclusion by Professor Hanssens actually highlights the deficiency of the Zauberman study in not accounting for these alternatives.

784. Disputed. The Services have not misunderstood the structure of Professor Zauberman's time allocation questions. Rather, as explained in the Joint PFFCL, the allocation results are an example of hypothetical-bias or cheap-talk problems in the Zauberman survey. *See* Joint PFFCL ¶¶ 257-62, 291-92. As Professor Hauser explained, when the Zauberman respondents were actually asked to allocate time to the music-listening options they selected in the switching question, "44 percent of those who selected a new paid on-demand subscription . . . allocated zero percent of their time" to that subscription. 8/27/20 Tr. 4349:17-4350:1; *see also* 8/24/20 Tr. 3446:5-3447:7 (Leonard); Leonard CWRT ¶ 21. The fact that they allocated no time to this option indicates that they probably would not pay for it in the real-world. Leonard CWRT ¶ 21; 8/24/20 Tr. 3447:21-3448:7 (Leonard); 8/27/20 Tr. 4349:17-4352:1 (Hauser). Professor Hauser recognized that not every respondent would expect to listen to the unavailable streaming service on the indicated day in the next week, but "44 percent is a very, very high number . . . that strongly indicates a . . . cheap talk problem." 8/27/20 Tr. 4349:22-4350:8. This high percentage cannot be explained by Professor Zauberman's sampling frame. *Id.*

785. Disputed. *See supra* ¶ 784.

786. Disputed. As discussed above, the number of respondents who selected a new paid on-demand subscription but allocated zero percent of their time to that subscription is too high to be explained by Zauberman's sampling frame. *See supra* ¶ 784.

787. Disputed. Dr. Peterson was clear that "zero allocation" responses are inconsistent. As Dr. Peterson explained, [redacted] Peterson AWRT ¶¶ 137-138; 8/25/20 Tr. 3746:8-3748:10 (Peterson). Dr. Leonard agreed with this position, and he further explained that because questions concerning future allocation of listening time came later in the questioning sequence than the questions concerning which forms of listening a respondent would switch to, it is likely that some respondents took more time to consider whether they would actually spend the extra money on a paid subscription or CDs/MP3s/vinyl and decided that was not a realistic option for them. 8/24/20 Tr. 3446:5-3448:7 (Leonard). Notably, even Professor Willig initially admitted that he considered the zero allocation responses to be "ambiguous" (though he later changed his testimony at trial after he "thought about it more"). 8/10/20 Tr. 1093:20-1094:6, 1095:25-1096:11 (Willig).

5. SoundExchange Has No Evidence that the Survey Experts' Focus on Current Users Leads to Understated Results

788. Disputed in part. It is true that the Hanssens, Zauberman, and Simonson Surveys do not include as part of their survey population potential users of the relevant statutory services. However, it is wrong to conclude that the results they generate are therefore necessarily understated—the fact is that SoundExchange has no evidence one way or the other. One is also left to wonder why, if the impact on potential users is so critical, SoundExchange's

own experts likewise failed to measure it.

789. Disputed in part. *See supra* ¶ 788. The Services do not contest that customer acquisition is important to their businesses. However, that does not mean that there is any reason to believe that potential customers would respond differently to the various surveys than did current users. SoundExchange's contrary assertion is both hypocritical and uninformative.

J. The Services' Other Criticisms of Professor Willig Are Well Founded

1. An Effective Competition Adjustment is Needed to Correct the Shapley Value Model

790. Disputed. SoundExchange mischaracterizes the nature of the Services' economic experts' criticism of Professor Willig's flawed Shapley Value analysis and his unfounded and now debunked assumption that each of the Majors is a must-have for a noninteractive webcaster. Professor Willig admit that the Judges are tasked with setting a rate that reflects effective competition. Willig CWDT ¶ 6; *see also Web IV* at 26404-05. But his assumption that each of the Majors is a must-have, and the incorporation of that assumption into his opportunity cost analysis and his Shapley Value and Nash-in-Nash models, "hardwire[s]" complementary oligopoly power into his analysis. Shapiro WRT at 55-57; *see also* Joint PFFCL ¶¶ 184, 240, 245; NAB PFFCL ¶¶ 130-31. Thus, his Shapley Value model does not generate results consistent with effective competition and should be discarded for that reason alone.

Moreover, while dropping Professor Willig's must-have assumption would be appropriate to account not only for the inability of his Shapley Value model to generate a result that reflects effective competition but also to reflect the mountains of evidence that Major labels are not must-haves for a noninteractive webcaster, that change is not sufficient to salvage his model. Among other reasons, Professor Shapiro explained at length that the Shapley Value model fails to capture the negative contracting externalities that would affect negotiations

between a willing buyer and a willing seller in the target market and is therefore not the right tool for assessing the outcome here. Shapiro WRT at 63; 8/19/20 Tr. 2751:5- 2754:13 (Shapiro); *see also* Joint PFFCL ¶¶ 224-29. Professor Willig should have calculated the Myerson Value, rather than Shapley Value. In sum, it is not merely that Professor Willig's Shapley Value model requires an adjustment, it is that he used the wrong model in the first instance. Shapiro WRT at 7, 59; Leonard CWRT ¶ 36; Peterson WRT ¶ 84; 8/19/20 Tr. 2817:4- 2818:10 (Shapiro).

791. Disputed. The assertions in paragraph 791 are contradicted by SoundExchange's own expert testimony and economic theory. First, in SoundExchange's selective quoting of Professor Willig's trial testimony, it omitted the following portion: a party that is must-have should perhaps "be denied the ability to hold everything up in an abusive way that speaks of market power or complementary oligopoly power." 8/25/20 Tr. 3865:19-21 (Willig). That testimony flies directly in the face of SoundExchange's argument that a party exercising monopoly or complementary oligopoly power "shouldn't be denied the value that it brings . . . because that's part of the marketplace." SX PFFCL ¶ 791 (quoting *id* 3865:17-24). Second, denying a complementary oligopolist the opportunity to deploy its market power in an anticompetitive fashion is at the core of complying with the effective competition standard in this proceeding. 8/18/20 Tr. 2635:14-25, 2639:15-18; 2641:9-16; 2642:15-2643:4 (Shapiro). Professor Willig is answering the wrong question: what rates would best reflect the complementary oligopoly power of a market with three must-have suppliers and no must-have buyers? His analysis is uninformative with respect to the question of what rates would emerge in negotiations between a willing buyer and a willing seller in a market with effective competition—*i.e.*, the actual question the Judges are tasked with answering.

792. Disputed. Major record companies do not derive must-have status from "hits" in

their catalogs. Joint PFFCL ¶¶ 202-08, 215-16. Pointing to documentary evidence that is defective or inapposite does rescue SoundExchange's argument. Such evidence includes documents that: (1) [redacted], which are not at issue in this proceeding, *see, e.g.*, TXs 5051, 5165; or (2) state a [redacted] *see* TXs 5053, 5152*; or that some [redacted], *see* TXs 5153, 5160. Each of the exhibits cited above is discussed in greater detail in the Services' Joint PFFCL. *See* Joint PFFCL ¶¶ 202-08, 215-16. SoundExchange cites to an additional handful of documents, each of which fits neatly into one of the above categories and also should be accorded no weight. *See* TXs 1090 at 5 ([redacted]); 5158 at 13 (Pandora internal deck discussing [redacted]); 5163, 5164 ([redacted]); 5166 (discussing [redacted]).

793. Disputed. Given that hits do not confer must-have status on the Majors, *see* Services Joint PFFCL ¶ 216, where "hits and the appeal of a portfolio of music" does or does not "come from," SX PFFCL ¶ 793, is irrelevant and inapposite to the core issue: the appropriate opportunity cost calculations and empirical evidence of whether a Major is a must-have for a noninteractive distributor.

794. Disputed. The Shapley Value model does not eliminate every "possibility of any abusive, anticompetitive, or holdout value that any party might attempt to exert." Even if the Shapley Value model accounts for all possible arrival orderings of the parties to a negotiation,

Professor Willig's Shapley Model reflects a lack of effective competition and is not useful for that reason. *See supra* ¶ 790-91. Because Professor Willig's assumption that major record companies are "must-haves" for noninteractive services is imbedded in his Shapley Value model, it confers complementary oligopoly power to the Majors resulting in royalty rates that are even higher than what would be charged by a single monopolist controlling the licensing of all recorded music. *See supra* ¶ 572. Shapiro WRT at 6-7; 8/18/20 Tr. 2642:22-2643:2 (Shapiro).

795. Disputed in part. Must-have status itself does not preclude the possibility of steering, but Professor Willig's hopelessly flawed Shapley Value model does not account for the possibility of steering in any way. *See* 8/6/20 Tr. 778:12-21 (Willig). It is a non-sequitur to argue that the existence of steering counsels against the need for a model that reflects effective competition or, at the very least, an appropriate effective competition adjustment (among the other necessary adjustments) to Professor Willig's Shapley Value model—especially since the model does not account for steering in any way.

796. Disputed. Despite Professor Willig's contention that the Shapley Value model sets the characteristic function of each subset of negotiating parties as the maximum value that subset can create, 8/10/20 Tr. 1071:20-1072:7, 1077:13-1078:21, Professor Willig's resulting rate proposal would still require an effective competition adjustment to reflect, among other things, the possibility of steering competition. *See* Joint PFFCL ¶ 17; Shapiro WRT at 8; *see also* 8/10/20 Tr. 1068:25-1069:8 (Willig) (admitting that a music service could engender some degree of this type of price competition, even in the face of three must-have catalogs). As Professor Shapiro explained at the hearing—and as detailed at length in Section II.A.ii of the Services' Joint PFFCL—an effective competition adjustment remains necessary given the sustained complementary oligopoly power and must-have status of the Majors in his benchmark

market. 8/19/20 Tr. 2849:25-2850:8 (Shapiro).

797. Disputed. *See supra* ¶ 796.

798. Disputed. Professor Willig's model does not account for steering competition. Even if Professor Willig's model purportedly takes into account the possibility of "competitive pressures enter the model in the most extreme form, namely, severing the licensing agreement," 8/10/20 Tr. 1071:8-10, 1072:6-7 (Willig), this is not the same as incremental steering by a distributor, which would force record companies to compete against each other based on prices. *See* Services Joint PFFCL ¶ 17; Shapiro WRT at 8; *see also* 8/10/20 Tr. 1068:25-1069:8 (Willig). Professor Willig's model conspicuously fails to account for this type of price competition.

799. Not disputed.

2. The Shapley Value Model Builds In Complementary Oligopoly Power Among Record Labels

800. Disputed. Professor Willig's Shapley Value model reflects anticompetitive behavior by the record companies that is contrary to the governing willing buyer-willing seller standard. *See* Joint PFFCL ¶¶ 182-83. As part of that critique, the Services have explained that, as a cooperative game theory model, the Shapley Model does allow players in the model to work in concert in unrealistic ways. *See* Joint PFFCL ¶¶ 243-247. This criticism is valid.

801-802. Disputed in part. Professor Willig testified that his Shapley Value model does not reflect anticompetitive *collusion*. 8/5/20 Tr. 389:5-9, 392:10-14 (Willig), but, that misses the point. Professor Willig's Shapley Value analysis reflects an unfounded assumption that the Majors are must-haves, and confers must-have status for *all* sound recording licensors by awarding any label that does not license the streaming service in his model a 100% share of the plays diverted to other royalty bearing forms of listening (with the label's share of diverted plays

often referred to as the "retention" ratio in Professor Willig's analysis). *See* Joint PFFCL ¶¶ 181-83; 8/5/20 Tr. 342:10-14 (Willig) 345:17-346:15. And, as explained in the Services' initial filing, the Shapley model is flawed in that it does allow for collusive behavior (especially in scenarios where the "must have" assumption is relaxed and groups of labels can collectively act to shut down a service). *See* Joint PFFCL ¶¶ 243-247

803-805. Disputed in part. Professor Willig discussed his patent analogy to explain characteristic function value within a Shapley Value model, but the Services dispute the implication that Professor Willig's Shapley Value model reflects effective competition. It does not. *See infra* ¶¶ 807-808; Joint PFFCL ¶¶ 181-83, 243-47.

806. Disputed. SoundExchange misses the point. Professor Shapiro's testimony cited here addresses the anticompetitive rates that result from Professor Willig's Shapley Value model, even in the absence of collusion or cooperation, because complementary oligopoly power is hardwired into Professor Willig's model. 8/26/20 Tr. 3928:2-6 (Shapiro) ("[H]is Shapley model with complementary oligopoly especially, gives a monopoly rate. Actually, I showed it was higher than the monopoly rate."); Shapiro WRT at 56-57 (Shapiro WRT).

807-808. Disputed in part. The Services do not dispute that Professor Willig provided the testimony cited. However, rather than being a "conjectural monopoly scenario," Professor Willig's Shapley Value model is infected with complementary oligopoly power, as demonstrated by Professor Shapiro's testimony, and yields proposed rates that are even higher than those that would be charged by a single monopolist controlling the licensing of all recorded music. *See* Joint PFFCL ¶ 13; Shapiro WRT at 6, 58, fig.10; 8/18/20 Tr. 2642:22-2643:2 (Shapiro). This flaw is inherent to Professor Willig's Shapley model, as demonstrated by complementary oligopoly power also arising in Professor Willig's patent analogy. *See* Shapiro WRT at 57-58.

Professor Willig's speculation that "the split would change, but also the size of the pie, I think predictably, would be much shrunken" if the three Majors were consolidated into a single monopolist, 8/5/20 Tr. 397:5-13, does not change the fact that his model results in anticompetitive rates *higher* than those charged by a single monopolist. *See* Shapiro WRT at 6, 58. SoundExchange has no answer for this fundamental defect in Professor Willig's analysis.

Additionally, the purported "competition" between record companies that Professor Willig alludes to in the testimony cited refers to competition to obtain rights to particular recording artists, not price competition in negotiations with streaming services. 8/5/20 Tr. 394:12-13 (Willig) ("They are competing like crazy in the marketplace to be the record companies that have the rights to the big hits and the best selling artists."). While no Major is a must-have to a recording artist, competition to sign artists does not explain away the complementary oligopoly power that is hardwired into Professor Willig's models as a result of his (factually incorrect) assumption that each of the Majors is a must-have to a noninteractive webcaster. For the reasons explained by the Services' economists at trial and summarized above, Professor Willig's Shapley Value model should be disregarded in its entirely. *See supra* ¶¶ 800-802. At a minimum, it would require (among other adjustments), and adjustment to reflect the salutary effects of effective competition on his proposed rates. *See* Shapiro WRT at 58; *id.* at Figure 10.

809. Not disputed.

810. Disputed. The fact that, in Professor Shapiro's water utility hypothetical, Shapley Value would result in a royalty of $1,000 when the water company first sought $2,000 does not confirm the viability of the Shapley Value model in this proceeding. *See* 8/26/20 Tr. 3922:6-3923:6 (Shapiro). In other words, the mere fact that the resulting royalty rate is lower than the

water company's opening offer does not in any way eliminate the influence of market power. *Id.* While $1000 may be an amount that is below the maximum that a family is willing to pay given the necessity of water for human life, that royalty is untethered from any competitive rate. Complementary oligopoly and monopoly rents all have willing buyers and sellers, but they are not effectively competitive

811. Disputed. Professor Shapiro offered this analogy simply to demonstrate that the Shapley Value model is not able to eliminate monopoly or complementary oligopoly power, not to advocate for public utility-style ratemaking. 8/26/20 Tr. 3922:3-3926:1. His demonstration that Shapley Value does not correct for monopoly power does not depend on the licensor in the analogy being a public utility. *Id.*

812. Disputed. Professor Shapiro's water company analogy demonstrates a simple point: the Shapley Value is not tethered to competition in the marketplace and can generate results that are orders of magnitude above a competitive rate. Joint PFFCL ¶¶ 180-184. Professor Shapiro did not suggest that Judges discharge their rate-setting task by assessing record company costs and applying a margin. Paragraph 812 sets up a straw man because SoundExchange has no substantive answer to Professor Shapiro's actual criticism of Professor Willig's model.

813. Disputed. Paragraph 813 is a straw man that has no connection to Professor Shapiro's actual testimony or the analyses that support his proposed rates. *See supra* ¶¶ 810-12. Professor Shapiro's testimony that "one way" to think about what would be an effectively competitive rate in his water company analogy would be to consider the costs and risks involved with running a water company was not a suggestion that a willing buyer-willing seller rate in this proceeding should be determined by assessing the sellers' costs and applying a margin. Indeed,

Professor Shapiro testified directly to the contrary. 8/26/20 Tr. 3925:19-3926:1. At trial, Judge Strickler understood clearly the purpose of Professor Shapiro's simplified analogy: "Your point is that there may be something above an appropriate return to the water company, if the water company gets even $1,000, that may be too much." *Id.* 3926:22-25. SoundExchange ties itself in knots trying to distinguish Professor Shapiro's water company analogy from the willing-buyer willing standard in the current proceeding. But that analogy illustrates why Professor Willig's analysis is wrong; it is not the basis for Professor Shapiro's well-reasoned testimony about the rates that would emerge from a properly specified Nash-in-Nash bargaining model or an assessment of Myerson Value. SoundExchange has no response to the basic point that Professor Willig's Shapley Value model hardwires complementary oligopoly power for the Majors:

> So the Shapley Value is not able at all to eliminate monopoly power here—well, does not eliminate monopoly power. It's not as bad as 2,000 if the monopolists could just get all the surplus, but it's still way above the competitive rate. And Shapley Value is just not adequate for that purpose. It's not tethered to competitive rates.

8/26/20 Tr. 3923:23-3924:4 (Shapiro).

814. Disputed. *See supra* ¶ 813; *infra* at Part VIII.B.

815. Disputed in part. Professor Shapiro introduced multiple water companies into his hypothetical to explain how competition could reduce the rate from the $1000 rate generated by a Shapley Value model with a single monopolist distributor. 8/26/20 Tr. 3923:13-15 (Shapiro). Professor Shapiro did not suggest that the water company example was a metaphor for the sound recording marketplace. 8/26/20 Tr. 3928:11-25 (Shapiro). The Services do not dispute that Professor Shapiro testified that here, rather than ascertaining a certain rate of return for the record companies, the Judges should consider the parties' opportunity costs under the willing buyer-willing seller standard. *Id.* The Services dispute that there are errors in Professor

Shapiro's opportunity cost analysis, as addressed at length below. *See infra* at Part VIII.

816-818. Disputed. SoundExchange misstates Professor Shapiro's testimony to set up a straw man and has no substantive response to the actual point Professor Shapiro was making. *See* 8/26/20 Tr. 3923:8-3924:4. Professor Shapiro never testified or implied that the only model of an effectively competitive market that eliminates monopoly power is one in which numerous alternative sellers offer an interchangeable and perfectly substitutable product. *See id.* SoundExchange's attempt to distinguish Professor Shapiro's water company analogy on the grounds that sound recordings are not as interchangeable of a commodity as water utterly fails to rebut Professor Shapiro's point: Shapley Value does not correct for monopoly or complementary oligopoly power. *See infra* ¶ 800; *see also* Joint PFFCL ¶¶ 182-183.

3. Professor Shapiro's So-Called "Myerson Value" Approach Is Superior.

819. Disputed in part. Professor Shapiro's testimony demonstrated that Myerson Value is superior to Shapley Value in this proceeding because it accounts for negative contracting externalities. *See* Joint PFFCL ¶¶ 224-229; Shapiro WRT at 61-62; 8/19/20 Tr. 2751:5- 2754:13 (Shapiro); 8/26/20 Tr. 3938:11-19 (Shapiro). The Services do not dispute that the differences between the two would be relatively small if one were to adopt Professor Willig's unfounded assumption that each of the Majors is "must-have" for webcasters (thus hardwiring the model to reflect complementary oligopoloy power, rather than effective competition). Shapiro WRT at 62; 8/19/20 Tr. 2755:1-2756:10 (Shapiro); Joint PFFCL ¶ 226. However, without that assumption, Myerson Value produces significantly lower rates close to the results of Professor Shapiro's Nash-in-Nash model. 8/19/20 Tr. 2750:6-2754:13 (Shapiro); Joint PFFCL ¶ 227.

820. Disputed. At trial, Professor Willig unsuccessfully attempted to distinguish Professor Shapiro's use of the term "Myerson Value" from Professor Myerson's original

research paper for which that term was named. 8/6/20 Tr. 745:19-746:13, 8/10/20 Tr. 966:18-967:9 (Willig). Subsequent publications use the term "Myerson Value" exactly as Professor Shapiro does. 8/19/20 Tr. 2751:5-2754:13 (Shapiro). As Professor Shapiro explained, more recent research has established the differences between Myerson Value and Shapley Value and has shown that the recursive Nash-in-Nash model corresponds to the Myerson Value where (as here) there are contracting externalities. 8/19/20 Tr. 2750:6-2754:13 (Shapiro); Joint PFFCL ¶ 229.

821. Disputed. Professor Shapiro's Myerson Value approach is well-founded and does not introduce any anticompetitive behavior. *See* 8/19/20 Tr. 2750:6-2754:13 (Shapiro); Joint PFFCL ¶¶ 217-231. Professor Shapiro made clear that there were no "side payments or bribes" in his Myerson Value calculation:

> [T]he money is going from the webcaster to each of the record companies in the form of licensing payments, royalty rates. There is no money going from one record company to another. That would be a side payment or side payments between the record companies, . . . nor is a record company paying the webcaster anything. The money is going in the other direction . . . . [N]or is there any money going between the webcaster and a record company if they don't have a license.

8/25/20 Tr. 3911:5-20 (Shapiro); *see also* 8/19/20 Tr. 2823:4-9 (Shapiro). Professor Willig failed to identify any.

822. Not disputed.

823-825. Disputed in part. Professor Willig provided the testimony cited, but Professor Shapiro explained with regard to the two terms in his equation that Professor Willig highlighted that he wrote out his equation to isolate the difference between Shapley Value and Myerson Value to make clearer how Myerson Value accounts for negative contracting externalities, while Shapley Value does not. 8/25/20 Tr. 3911:24-3912:7 (Shapiro). Professor Willig did not show

any connection between these terms and any side payments. *Id.* at 3912:8-14. Professor Shapiro rejected Professor Willig's unsubstantiated claim that Professor Shapiro's Myerson Value model includes "a transfer of value like a bribe from A to get B and D to stop competing with A by joining together" and explained that no such conditional payments or payments being made without a license occur in Professor Shapiro's model. *Id.* at 3912:15-3913:11.

826. Not disputed.

827-830. Disputed in part. The Services do not dispute that Professor Willig provided the testimony cited, but Professor Shapiro explained why Professor Willig was mistaken and that the outcome of Professor Shapiro's Myerson Value analysis "does not involve any side payments among the record companies." 8/19/20 Tr. 2823:4-9. Professor Shapiro also explained that the fact that his Myerson Value calculation is equivalent to his recursive Nash-in-Nash calculation confirms that there are no illegal or anticompetitive side payments or transfers of value in his Myerson Value approach. 8/25/20 Tr. 3913:12-3914:18. Because the recursive Nash-in-Nash model involves only bilateral negotiations, there cannot be any side payments or contingent payments involved since the record companies are never in negotiation together. *Id.* The fact that the recursive Nash-in-Nash results equal the Myerson Value results disproves Professor Willig's illogical, unsupported "side payment" argument.

831. Disputed in part. The Services do not dispute that Professor Willig attempted to testify at trial about an alternate analysis that was not part of his written testimony as an improper surrebuttal to Professor Shapiro and was foreclosed from doing so. 8/25/20 Tr. 3874:22-25 (Willig). SoundExchange cannot fix in the errors the model that was actually the subject of admissible testimony with reference to what Professor Willig might have done differently if he had thought of it in time. Nothing in Paragraph 831 can change the fact that

Professor Willig's only Shapley Value analysis admitted in this proceeding is fundamentally flawed because it fails to account for negative contracting externalities. *See* Joint PFFCL ¶¶ 224-29; Shapiro WRT at 61-62; 8/19/20 Tr. 2751:5- 2754:13 (Shapiro); *see also* 8/6/20 Tr. 751:22-24 (Willig) ("I don't reject the idea that there might be negative contracting externalities . . . .").

832. Disputed. As Professor Shapiro testified, the important externalities that apply here are the externalities that arise when the major record labels are not must-haves. 8/19/20 Tr. 2754:14-25. Professor Willig's suggestion that Professor Shapiro did not consider additional contracting externalities is unpersuasive because Professor Shapiro's recursive Nash-in-Nash analysis yielded the same results as his Myerson Value analysis. 8/25/20 Tr. 3913:12-3914:18. Regardless, as made clear by Professor Shapiro's testimony regarding his Myerson Value analysis, Professor Willig's Shapley Value model fails to account for any negative contracting externalities and is therefore inherently unreliable. *See* Joint PFFCL ¶¶ 224-29.

4. Dr. Peterson's Critiques Regarding Diversion to Non-Music Options Are Well Founded

833. Disputed in part. It is correct that Dr. Peterson repeatedly criticized Professor Willig's models for inflating opportunity cost by ignoring evidence that noninteractive streaming may increase the number of tracks a consumer would otherwise listen to. It is undisputed that the Zauberman study showed that many listeners diverting away from a noninteractive services would simply listen to music less if no ad-supported noninteractive service were available. *See* SX PFFCL ¶ 836. Professor Willig did not fully account for that evidence. Peterson AWRT ¶¶ 119-21; 8/26/20 Tr. 3968:20-3970:19 (Peterson).

But, to distract from the real issue, SoundExchange has sought in paragraphs 833-840 to construct a straw man version of Dr. Peterson's position by suggesting Dr. Peterson argued that

Professor Willig's model *never* in any way considered diversion to non-music alternatives. *See, e.g.*, SX PFFCL ¶ 833. In reality, Dr. Peterson fully explained his position that Professor Willig chose to only consider diversion to non-music alternatives when assessing opportunity costs associated with diversion to listening types where a per play royalty is paid (*e.g.*, ad-supported on-demand services), which accounted for a small portion of opportunity cost in Professor Willig's model. 8/26/20 Tr. 3968:20-3970:19. This limited use of the data on non-music diversion led Dr. Peterson to make two distinct criticisms of the Willig models. First, Professor Willig ignored time spent on non-music alternatives when assessing opportunity costs associated with other listening options, including diversion to paid subscriptions and CDs/MP3s/vinyl, which combined to make up 78% of the opportunity cost in Professor Willig's analysis. *Id*. Second, Dr. Willig's Shapley Value model is designed so that when a label is blacked out on a noninteractive service, it recaptures 100% of its performances whether the noninteractive service shuts down or not, which means the model assumes that noninteractive services do not generate additional plays beyond what a user would seek out otherwise through other listening alternatives. Willig CWDT at C-2-3 (demonstrating that shares for each label are not diminished in any way but instead assume 100% retention of plays); 8/6/20 Tr. 791:6-792:4 (Willig).

834. Disputed. As explained in response to SX PFFCL ¶ 833, Dr. Peterson explained during trial that Professor Willig failed to consider time diverted to non-music listening when calculating opportunity costs associated with diversion to paid subscriptions and CDs/MP3s/vinyl, which made up the bulk of opportunity costs in Professor Willig's models. 8/26/20 Tr. 3968:20-3970:19 (Peterson). While Professor Willig claimed he did take into account time lost to non-music alternatives, his answers on the subject were carefully worded and made it clear that the issue was only considered in certain narrow circumstances; Professor

Willig never denied (nor could he) that he failed to account for time spend on non-music listening when calculating opportunity cost related to diversion to paid subscriptions and CDs/MP3s/vinyl. *See* SX PFFCL ¶ 838; *see also* 8/25/20 Tr. 3884:14-3886:3 (Willig). With regard to Dr. Peterson's second argument regarding the overall design of the Shapley model and its treatment of retention of plays, Dr. Willig admitted that any label that was blacked out on the ad-supported non-interactive service would recover 100% of its performances through diversion. 8/6/20 Tr. 791:6-792:4 (Willig). Thus, Dr. Willig admits both elements of Dr. Peterson's critique regarding the diversion of listeners and performances.

835. Disputed. *See supra* ¶¶ 833-34; *see als*o Willig CWDT at C-2 (demonstrating Professor Willig's math concerning the 100% retention assumption).

836. Disputed. *See supra* ¶¶ 833-34.

837. Not disputed.

838. Disputed in part. SoundExchange here admits that Professor Willig "fully credited" royalties for purchases of CDs/MP3s/vinyl without regard for time spent on non-music listening. While SoundExchange is correct that Professor Shapiro also criticized Professor Willig for this issue, it is incorrect to suggest that Dr. Peterson "adds nothing to that debate." As explained above, Dr. Peterson spelled out at trial the ways in which Professor Willig failed to account for non-music listening when calculating opportunity costs. *See supra* ¶¶ 833-34.

839. Disputed in part. SoundExchange is correct that Professor Willig only employed the time allocation questions for consumers switching to "services that generate royalties on a per-play basis." It is undisputed that Dr. Zauberman's survey only asked about time allocation when respondents indicated they would adopt a service that generated royalties on a per play basis. Zauberman WDT at 60-61. Therefore, information on time allocation on non-music

activities is not even available for respondents diverting solely to other listening alternatives.

SoundExchange is incorrect to imply that Professor Willig's limited use of time-allocation information contradicts Dr. Peterson's position on the issue. *See* 8/26/20 Tr. 3968:20-3970:19 (Peterson). As Dr. Peterson explained, accounting for time allocation for one narrow category of diversion is insufficient, especially since Professor Willig allowed for multiple royalty bearing forms of diversion for a single user. 8/6/20 Tr. 834:19-8:35:2 (Willig). For example, if a respondent to the Zauberman study indicated that they would allocate 90% of listening time to a free on-demand service, 5% of time to something other than music listening, and the other 5% split between listening to CDs and a subscription on-demand service, then Professor Willig would treat that person as spending the full amount on CDs and the paid subscription in his model without tempering those amounts based on listening time. *See id*.

840. Disputed. SoundExchange is wrong to assert that Dr. Peterson's testimony on this issue was inconsistent. Dr. Peterson fully explained his position on direct examination, and SoundExchange has simply ignored that testimony. *See* 8/26/20 Tr. 3968:20-3970:19 (Peterson). Additionally, SoundExchange is intentionally conflating Dr. Peterson's testimony on two different issues to give the appearance of a contradiction. As explained in response to paragraph 833, Dr. Peterson argued that: (1) Professor Willig only accounted for non-music listening time with regard to some categories of diversion; and (2) the structure of Professor Willig's model failed to account for the likelihood that noninteractive services lead to additional plays that would not occur on other forms of listening. In explaining this second argument, Dr. Peterson stated that "if there are a million plays on the service . . . a million plays are diverted and a million plays are collected in the aggregate by the labels." 8/25/20 Tr. 3800:1-6 (Peterson). SoundExchange now tries to characterize this comment about the structural flaws in Professor

Willig's model as part of the first argument so that it can claim Dr. Peterson contradicted himself. The Judges should see this tactic for what it is.

5. Professor Willig Failed to Even Consider Modeling a Hypothetical Negotiation About Rates to Be Paid by Simulcasters

841. **Disputed.** SoundExchange asserts that "NAB has levied the charge that Professor Willig's model fails to incorporate simulcasting," and argues that "this is simply not the case." SoundExchange misses the point entirely. NAB does not contend that Professor Willig's model fails to *incorporate* simulcasters but, rather, that Willig's Shapley Value and Nash-in-Nash models do not *separately analyze simulcast* and therefore have little to no bearing on NAB's differentiated rate proposal. *See* NAB PFFCL ¶¶ 185-189; Leonard CWRT ¶¶ 4-6. Because Willig's analyses generate a single royalty rate for all ad-supported noninteractive services, *see* 8/10/20 Tr. 1050:17-20 (Willig), and are based on inputs (the Zauberman survey and Pandora financials) that tell us little to nothing about simulcasters, they are not useful tools for analyzing the appropriateness of NAB's differentiated rate proposal, *see* NAB PFFCL ¶¶ 185-89; Leonard CWRT ¶¶ 4-6.

842. **Disputed.** Notwithstanding Professor Willig's claim during the hearing that his choice to treat simulcast and custom radio as one and the same was a "conscious decision" consistent with past CRB rulings, 8/10/20 Tr. 1053:2-11, Professor Willig conceded on cross examination that he had testified at his deposition that he "ha[d]n't thought about modeling a hypothetical negotiation about rates to be paid by simulcasters *at all*" and that it was an "intriguing question" he could not answer, *id*. at 1053:14-1054:6 (emphasis added); *see also id.* at 1060:2-6 (admitting he would "have to change a number of inputs" in his model to calculate a simulcaster-specific opportunity cost). Indeed, his written testimony offers no justification for treating simulcast and custom radio interchangeably. Professor Willig performed no analysis of

whether consumers experience simulcast and custom radio in fundamentally different ways. *Id*. at 1050:21-25. He did not analyze the relative value of non-music content on simulcast, *id*. at 1051:1-4, or simulcasters' contribution of non-music content to simulcast programming relative to a record company's contribution of sound recordings, *id.* at 1051:5-9. As a consequence, Willig's testimony provides no independent analysis of whether simulcast and custom radio should pay identical rates for their uses of sound recordings. *See also* NAB PFFCL ¶¶ 185-89.

VIII. PROFESSOR SHAPIRO'S OPPORTUNITY COST AND BARGAINING ANALYSES USE RIGOROUS EMPIRICAL EVIDENCE TO MODEL EFFECTIVE COMPETITION IN THE NONINTERACTIVE MARKET

843. Disputed in part. SoundExchange correctly summarizes Professor Shapiro's definition of opportunity cost as the product of *L* x *R*, where L is the percentage of plays the service would lose if a label's repertoire were unavailable, and *R* is the average royalty earned by the record companies for each play diverted from the service to other forms of listening. For the reasons discussed in this section, Professor Shapiro's analysis is economically sound, not "fundamentally flawed" as SoundExchange erroneously contends.

844. Disputed in part. There is no dispute that the LSEs were designed to measure the impact of a record label blackout on the amount of listening to Pandora's ad-supported service, and that Professor Shapiro uses the results of these experiments to compute *L*, the percentage of performances that would be lost due to a blackout. There is also no dispute that Pandora did not tell its listeners or the broader marketplace about the experiments while they were ongoing. SoundExchange incorrectly contends that the blind nature of the experiments undermines their validity, arguing misguidedly that the experiments fail to reflect the "real-world structure of the marketplace, including competition among distributors." However, as detailed in Part A below, Pandora's scientists had good reason to keep the experiments blind, and SoundExchange vastly overstates the likely impact on the results. The LSEs are highly

informative of blackout conditions and show that no record label is even close to being "must have" for Pandora's ad-supported service. *See infra* ¶¶ 852-940.

845. Disputed. Professor Shapiro's adjustments to the LSE results are appropriate and conservative, not "arbitrary" as SoundExchange contends. *See infra* ¶¶ 941-62. Desperate to rebut the LSEs' empirical showing that no record label is "must have" for Pandora's ad-supported service, SoundExchange and Professor Willig scour and distort the record to find any scrap of evidence that might suggest the opposite. As discussed elsewhere, however, those efforts fail. *See infra* ¶ 1050; Joint PFFCL ¶¶ 191-216. Finally, the LSE results are not at all "inconsistent" with the results of the Modified Hanssens survey; they simply measure different things: the LSEs measure the total *amount* of lost listening, while the surveys determine where that lost listening goes. *See supra* ¶¶ 735, 742-43; *infra* ¶¶ 931-40, 964, 971.

846. Disputed in part. There is no dispute that (1) *R* (the other component of Professor Shapiro's opportunity cost calculation, *see supra* ¶ 843) is the average royalty earned by the record companies for each play diverted from a noninteractive service to other forms of listening; and (2) subscription services earn royalties from diverted plays only to the extent those plays generate new, incremental subscriptions. For the reasons discussed below, Professor's use of per-play (not per-subscriber) royalties to calculate *R* is not an "error" as SoundExchange contends, but entirely appropriate to his determination of per-play opportunity cost and (ultimately) the per-play royalty rates proposed by Sirius XM and Pandora. *See infra* ¶¶ 964-79.

847. Disputed. As described in Part C below, s*ee infra* ¶¶ 984-89, Professor Willig's purported "corrections" to Professor Shapiro's opportunity cost calculations are not corrections at all; they merely swap in Professor Willig's *own* unreliable inputs, thereby inflating the results. *See infra* ¶¶ 984-89. Furthermore, Professor Willig's attempt at "[r]eplacing the LSEs with the

results of the Modified Hanssens Survey" is an exercise in futility, because the survey (unlike the LSEs) cannot measure the total amount of diverted listening in response to the label blackout. *See id.*

848. Disputed. As discussed in Part D, *see infra* ¶¶ 990-95, Professor Shapiro appropriately uses Sirius XM's webcasting service as a proxy for subscription webcasting. *See infra* ¶¶ 990-95.

849. Disputed. As described in Part E, *see infra* ¶¶ 996-1018, Professor Shapiro accurately measures the profitability of Pandora's ad-supported service using Pandora's actual financial data and a careful analysis of Pandora's fixed and variable costs—rather than the overly optimistic projections favored by Professor Willig.

850. Disputed in part. There is no dispute that a bargaining model can be an appropriate tool for calculating a willing buyer/willing seller rate, and that Professor Shapiro uses a Nash-in-Nash bargaining model in this proceeding. For the reasons discussed in Part F, however, *see infra* ¶¶ 1023-52, SoundExchange is wrong to argue that Professor Willig's Shapley Value model is superior. *See infra* ¶¶ 1023-52. And, while Professor Shapiro's assumptions are well supported, his model is robust to reasonable changes in those assumptions. *See infra* ¶¶ 1053-55.

851. Disputed in part. More accurately stated, Professor Shapiro concludes that the *current* benchmark evidence reveals that the appropriate statutory rate for 2021-2025 is below the current statutory rate. As discussed in Part G, *see infra* ¶¶ 1056-61, there are good reasons that noninteractive services have not [redacted], and Professor Shapiro's conclusion is consistent with those market facts. *See infra* ¶¶ 1056-61.

A. Professor Shapiro's Diversion Ratios Rest on Reliable Results from Dr. Reiley's Label Suppression Experiments

852. Disputed. As detailed in this subsection, Professor Shapiro's parameter "L" is not flawed, and the Label Suppression Experiments ("LSEs") are the best, most reliable evidence of the effects of a record label blackout on listening on Pandora's ad-supported radio tier. 9/1/20 Tr. 4927:2-4928:12 (Reiley).

853. Not disputed.

854. Not disputed. Though to be certain, the LSEs do not "purport" to show—they do show with adequate precision that Pandora would experience little to no loss in listening hours on its ad-supported service if it stopped playing the entire catalog of a particular record company. Ex. 4091 ¶¶ 11, 21-23 (Reiley CWDT); Ex. 4108 ¶¶ 4, 12-16 (Reiley WRT).

855. Disputed. As shown in the following paragraphs, SoundExchange's claims that the LSEs were flawed lack merit. Dr. Reiley's responses to each of their criticisms demonstrate that the LSEs were properly designed and executed, and they successfully answered the question of interest, *i.e.*, determining the causal effects of a label blackout on Pandora users' listening. *See, e.g.*, Reiley CWDT ¶¶ 7-9, 27-36; 9/1/20 Tr. 4926:1-4928:12 (Reiley); *see also, e.g.*, SXM-PAN PFFCL § III.A.iv.

856. Disputed. The inapplicability of Professor Hanssens' testimony to the LSEs is detailed below. *See supra* ¶¶ 735, 740, 742-43, 745, 751; *infra* ¶¶ 931, 933-35. As Professor Shapiro testified, it is improper to use survey evidence to estimate how listeners would respond to a record company blackout on a noninteractive streaming service, and Professor Willig's reliance on such evidence renders his testimony *unreliable*. 8/18/20 Tr. 2668:8-2669:23 (Shapiro). Professor Hanssens concurred, forcefully rejecting the notion this his surveys could be used to reliably estimate the magnitude of lost listening instead of where that lost listening

would go. 8/26/20 4099:24-4101:17.

1. The LSEs Were Properly Designed

i. Pandora Appropriately Elected Not to Inform Treatment Group Users of the Experimental Design

857. Disputed in part. Pandora does not dispute that the LSEs were blind, but disputes that being so makes them unreliable. The legitimate scientific reasons for keeping the LSEs blind are discussed in the following paragraph. As also discussed below, SoundExchange dramatically exaggerates (i) the degree to which the blackout of a label on Pandora would be publicly reported or discussed; (ii) the degree to which Pandora users would see or pay attention to any such communications; and (iii) the degree to which—*if* such communications occurred and *if* Pandora users were aware of them—they would actually care enough to alter their listening behavior. *See infra* ¶¶ 858-64. SoundExchange's exaggerated claims to that effect are based on speculation and incongruous anecdotes about on-demand service blackouts.

858. Disputed in part. Professor Tucker's conclusory claim regarding the propriety of a blind experiment is not based on a "scientific" flaw in the experiments; it is based on her contention that a blind experiment does not capture certain communications that might happen in the event of a real-world blackout. Dr. Reiley, to the contrary, provided the scientific reasons why a blind study was appropriate: chiefly, a phenomenon known as the "Hawthorne effect" shows that participants in an experiment may modify their behavior simply because they are aware of the experiment, that they may well become angered by perceived unfair and differential treatment, and that as a result they may artificially alter their behavior. 9/1/20 Tr. 4927:7-4928:1 (Reiley).

There is no good reason (much less a "scientific" one) to believe that Pandora itself would notify users in the event of a label blackout in the real world (and it has many more

reasons not to). *See* SXM-PAN PFFCL ¶ 91; 8/31/20 Tr. 4663:9-4665:9 (Phillips). Nor is there reason to believe that any communications Pandora might have delivered to users in the LSE treatment groups would come close to replicating the sort of real-world, *third-party* communications that Professor Tucker wrongly claims are an inevitability.

859. Disputed. Pandora does not dispute that the LSEs did not capture the impact (if any) of third-party communications that might be received by Pandora users in the event of a real-world blackout, but vigorously disputes that SoundExchange has demonstrated any likely impact from such communications that would somehow invalidate the use of the LSEs. *See infra* ¶¶ 861-62. Professor Shapiro's analysis, moreover, included a sensible adjustment to account generously for the potential impact of such communications (and Pandora counter-strategies, which SoundExchange's experts largely ignore) on user behavior. Shapiro SCWDT at 21-22; 8/19/20 Tr. 2701:25-2705:11 (Shapiro).

860. Disputed in part. SoundExchange offers only rank speculation devoid of compelling supporting evidence. *See* SXM-PAN PFFCL ¶¶ 87-88; 8/17/20 Tr. 2385:6-2386:10 (Tucker). Pandora does not dispute that Pandora competitors might have an incentive to publicize the blackout, but SoundExchange has offered no evidence (beyond its witnesses' speculation) as to whether and how such publicity and communications would occur, who would be responsible for them, and how often they would occur—let alone whether they would actually affect Pandora users' listening. *See, e.g.*, 8/17/20 Tr. 2385:6-2386:10 (Tucker). Whereas Pandora has contact information for every account holder and the ability to reach every active Pandora user with messaging, no record company, artist, or other third party has any reliable method for reaching the vast majority of Pandora users.

861. Disputed in part. SoundExchange again offers no evidence to demonstrate, let

alone quantify, if or how knowledge of a label blackout would impact Pandora users' listening. *See* SXM-PAN PFFCL ¶¶ 87-88. It instead offers only anecdotes concerning publicity about *on-demand* services losing portions of their catalogs, but no evidence that there would be publicity regarding the loss of a label on Pandora's noninteractive *radio* service. Or, if there were, that lean-back listeners of Pandora's *noninteractive* radio service—who unlike on-demand listeners cannot chose their own content—would have an expectation of hearing a particular track or artist, that they would notice that a label's catalog was missing, or that they would care if they learned a catalog was missing. *See* SXM-PAN PFFCL ¶¶ 87-88.; 8/18/20 Tr. 2384:16-2385:13 (Tucker).

Furthermore, the suggestion that artists, managers, and the suppressed labels would have incentives to "punish" Pandora for not playing their music is speculative and contradicted by the record evidence. [redacted], and SoundExchange's witnesses have not cited a single instance of negative publicity by [redacted] or its artists regarding that service. Peterson AWRT ¶¶ 97-98; 9/1/20 Tr. 4878:5-4879:18 ([redacted]).

862. Disputed. There is no credible evidence that Pandora would affirmatively notify its users of the loss of access to a label's repertoire. Pandora witness Chris Phillips testified that there is no reason to believe that Pandora would do so (particularly since the LSEs show that virtually no users would actually change their behavior in response to a blackout). *See* 8/31/20 Tr. 4663:9-4665:9; SXM-PAN PFFCL ¶ 91. Additionally, while Professor Tucker attempts to rely on an internal [redacted] document (TX 5385*, which was not admitted for the truth of the matter asserted) to suggest that *Pandora* would notify its users of a label blackout, that document [redacted]

[redacted]), and she conveniently ignores the far more relevant fact: [redacted]. *See supra* ¶ 861; Joint PFFCL ¶ 192.

863. Disputed. SoundExchange's summary paragraph merely repeats the arguments refuted above. The fact remains that the LSEs provide the best evidence of the actual changes (or lack thereof) in listening behavior based purely on the suppression of a particular label's catalog. 9/1/20 Tr. 4928:6-12 (Reiley); SXM-PAN PFFCL ¶ 92. As Dr. Reiley testified, "actual consumption experience is what matters a lot more than being told what I'm consuming. . . . [A]nd that, I think, is going to have the biggest impact of anything on – on a consumer's choice . . . of how much to listen to Pandora." 9/1/20 Tr. 4928:6-12.

864. Disputed. Professor Shapiro explained that if the sort of messaging that Professor Tucker (and other SoundExchange witnesses) speculate about did in fact occur, then it is equally plausible that Pandora would engage in counter-messaging. 8/19/20 Tr. 2704:20-2706:20. In doing so, he also testified about his experience studying messaging and counter-messaging in the cable television industry. *Id*. at 2705:3-10. More to the point, any lack of evidence or inability to quantify Professor Shapiro's counterpoint merely reflects the completely hypothetical, speculative, and unquantifiable premise to which he is responding, *e.g.*, the purported reaction of Pandora competitors in the event of a label blackout on Pandora. Judge Strickler himself acknowledged that this messaging and counter-messaging discussion was precipitated by *Professor Tucker's* speculative testimony on the subject. *Id.* at 2705:12-19 ("the speculation first [came] from Professor Tucker").

The unreliability of Professors Tucker's conjecture is underscored by SoundExchange's implausible suggestion that Pandora would have internal documents reflecting or contemplating

counter-messaging to communications from labels that themselves would exist only in the event of a hypothetical Pandora blackout. The bottom line is that SoundExchange has tasked numerous witnesses with offering evidence-free speculation to advance what is in truth an unsupported argument: that the blackout of a label on Pandora's statutory, noninteractive radio service would actually generate a meaningful level of public messaging that users would receive, notice, and care enough about to alter their listening behavior.

865. Not disputed. The Services have explained the reasons for the blind treatment, which was an essential and justified feature of the LSEs, not a bug. *See supra* ¶¶ 857-58.

866. Disputed in part. SoundExchange merely repeats its critique that the LSEs did not capture the effect of communications that might occur in the event of a real-world blackout on Pandora's noninteractive service, which the Services have responded to above. *See supra* ¶¶ 857-864. That Pandora took no steps to determine whether treatment group users detected the suppression is not relevant because SoundExchange has not demonstrated (beyond rank speculation) that in a real-world blackout any meaningfully large portion of Pandora users would actually learn of the blackout through public sources, or otherwise detect the suppression, and alter their listening behavior as a result. *See, e.g.*, SXM-PAN PFFCL ¶¶ 87-90; 8/17/20 Tr. 2385:6-2386:10 (Tucker); *see also supra* ¶¶ 857, 860, 861, 864. There is no credible evidence that a meaningful portion would.

867. Disputed. Faced with a real-world situation in which a [redacted], SoundExchange offers no substantive response, but rather an unsupported and conclusory assertion that [redacted] . . ." What the [redacted] experience makes clear is the following: neither the [redacted]

[redacted]. Peterson AWRT ¶¶ 97-98; Diab WDT ¶ 15 ("[redacted]"); 9/1/20 Tr. 4879:10-14 (Diab) ("[redacted].")

868. Disputed. [redacted], *see supra* ¶ 867, [redacted]. But SoundExchange's criticism of the LSEs has nothing to do with Pandora's product functionality or the user experience—it is based on communications and messages that SoundExchange speculates users would hear and change their listening behavior in response to. *See supra* ¶¶ 857-58, 860-62; 864, 866. There is no obvious reason to believe that product functionality would somehow inform the degree to which the trade press, for example, would cover such blackout event, and SoundExchange has offered none. Further, SoundExchange does not bother to explain how the [redacted] functionality differs from Pandora's in a way that would [redacted]

[redacted].

869. Disputed in part. *See supra* ¶ 868. SoundExchange offers more rank, unsupported speculation that a blackout on Pandora's noninteractive service would cause a different public reaction than the existing blackout on [redacted] (to which there has been no reaction whatsoever), but offers no testimony from a single expert or fact witness in support of that particular proposition (the cited testimony from Professor Tucker is unrelated).

870. Disputed. Pandora did not "fail" to inform users about the unavailable content. It did not do so as a matter of experimental design and for the reasons explained above. *See supra* ¶ 858; *see also* SXM-PAN PFFCL ¶¶ 91-92. Further, none of the design aspects of the LSEs "worked to impede users' detection" of the suppression. Pandora did not suppress content in Premium Access sessions because those sessions fall outside of the statutory license at issue in this proceeding. SXM-PAN PFFCL ¶ 12. To the extent Pandora's algorithm "might make it difficult for listeners to notice immediately that they are not hearing songs from their favorite artists," that is a function of Pandora's algorithm—not the LSEs—and is further evidence that a major-label blackout on Pandora's ad-supported service would likely not have a major impact on users' listening. Reiley CWDT ¶ 36; Joint PFFCL ¶ 208.

871. Not disputed.

872. Not disputed. To clarify, both Professor Shapiro and Dr. Reiley were clear that the decision not to suppress the treatment labels in Premium Access sessions—which are limited non-statutory on-demand listening sessions offered to Pandora's free-tier users—was intentional,

not a suppression error of any kind. *See supra* ¶ 870. SoundExchange nowhere explains why Pandora should have suppressed spins of a label from a directly licensed feature that offers on-demand listening when it was trying to assess the impact of a blackout on its statutorily compliant noninteractive service. [redacted].

873. Disputed. Despite SoundExchange's wrongheaded assertion that the absence of suppression during Premium Access sessions "disguised" the overall experimental suppression, its witnesses offer no evidence whatsoever that users in the treatment group would have detected the suppression if not for the treatment label's music being available in Premium Access. SoundExchange's speculation disguises that it conducted no analysis of whether the treatment group users actually heard the suppressed label's music in a Premium Access session, if so how many times, etc. In short, there is no evidence that those sessions masked suppression that would otherwise have been noticed.

Notably, there is no evidence that users in the LSE treatment groups reacted to the suppression by seeking out substantially more Premium Access sessions or plays of the suppressed label within those sessions (meaning there is certainly no reason they would have been more likely than usual to hear suppressed content during those sessions). The experimental data show the opposite. Reiley WRT ¶ 18, n.5; SXM-PAN PFFCL ¶ 75 n.6.

874. Disputed in part. The Services do not dispute that some users in the treatment groups heard a small number of recordings from the suppressed labels. Dr. Reiley disclosed and contextualized those plays in his testimony, and explained that the total deviations from the intended suppression were quite small. *See* Reiley CWDT ¶¶ 27-31; Reiley WRT ¶¶ 17-25;

9/1/20 Tr. 4926:1-24. Dr. Reiley also explained that there was no reason to believe that the deviations had a significant effect on the results or lead to different conclusions. Reiley WRT ¶¶ 25-26 & fig.3; 9/1/20 Tr. 4925:21-4926:24 ("[I]f we were able to suppress all songs, we would not see any big difference.").

875. Disputed. Dr. Reiley's "intent" is irrelevant, and even those users who heard a track from a suppressed label still received the experimental treatment, just not perfect suppression. *See* SXM-PAN PFFCL ¶¶ 70-72; Reiley CWDT ¶¶ 12, 14. Regardless, Dr. Reiley's findings in fact reveal a suppression of approximately [redacted]% of the suppressed labels' tracks, and his experimental results document the negligible listening impact of that suppression. *See supra* ¶ 874; SXM-PAN PFFCL ¶¶ 76-85.

ii. Pandora Appropriately Elected Not Inform Users of the Experimental Treatment

876. Disputed in part. Professor Shapiro and Dr. Reiley acknowledged that the LSEs do not test the effect of public messaging that might occur as a result of a label blackout; but that's not to say that users in the LSEs did not notice or know that their music mix had changed—only that Pandora did not tell them.

877. Disputed. As explained in Sirius XM's and Pandora's PFFCL, SoundExchange offers *no* credible evidence that Pandora's free-tier users know which artists are on each label, such that publicity about Pandora losing access to a label's catalog would be noticeable or meaningful to them. SXM-PAN PFFCL ¶ 88; Tucker CWRT ¶ 23; 8/18/20 Tr. 2417:23-2419:19 (Tucker), *id.* at 2384:16-2385:13 (conceding that she has identified no examples of how the press would react where a lean-back radio service lost access to a label's repertoire); *id.* 2390:5-2391:17 (admitting that she has not quantified how many people actually saw or read the articles cited or, in the case of a blackout of a label on Pandora, would actually see any reporting around

that factor act or make a decision with respect their listening on account of such articles). Even assuming that information about a label blackout on Pandora *would* elicit a user response, there is absolutely no basis to conclude that users would "respond strongly" or look for alternative music sources. The cited testimony from SoundExchange's survey experts is of negligible value here, as none of their survey or consumer-behavior expertise is specific to music streaming. *See* 8/27/20 Tr. 4219:2-4220:7 (Zauberman) (conceding that he is not an expert in the music industry and has *never* conducted a survey specifically related to music).

878. Disputed. As explained in detail in Sirius XM's and Pandora's PFFCL, Professor Tucker's cited materials fall woefully short of supporting her point for numerous reasons, including: (i) [redacted] (8/18/20 Tr. 2393:24-2394:25 (Tucker)); (ii) the results depended on [redacted] (*id.* 2395:20-2396:2, 2397:2-17); (iii) an [redacted] (*id.* 2395:13-19, 2398:12-25; 2399:18-24); and (iv) [redacted], 8/31/20 Tr. 4658:10-4660:20 (Phillips), [redacted]. *See* SXM-PAN PFFCL ¶ 89.

879. Disputed. As explained above, the LSEs provide the best evidence of the actual changes (or lack thereof) in listening behavior based purely on the suppression of a particular label's music catalog. SXM-PAN PFFCL ¶ 92; 9/1/20 Tr. 4928:6-12 (Reiley) ("[A]ctual consumption experience is what matters a lot more than being told what I'm

consuming. . . . [A]nd that, I think, is going to have the biggest impact of anything on – on a consumer's choice . . . of how much to listen to Pandora.").

2. The Very Small Number of Implementation Errors in the LSEs Do Not Undermine Their Reliability or Usefulness

880. Disputed. Dr. Reiley acknowledged that a very small number of suppressed label spins occurred that should not have, but they do not invalidate the results of the experiments. Reiley CWDT ¶¶ 27-34; *see supra* ¶ 874. Sirius XM and Pandora address specifics below.

881. Disputed in part. *See supra* ¶ 880. The failure to achieve perfect suppression does not negate the usefulness or reliability of the LSE results, which are incredibly informative nonetheless. As Professor Shapiro and Dr. Reiley testified, there is no reason to believe that the effects of moving from [redacted]% suppression to [redacted]% suppression would be significant or nonlinear, and certainly would not be so material as to discredit what is incredibly relevant and unique evidence. *See* 8/19/20 Tr. 2710:17-2711:7 (Shapiro) ("[T]his is very valuable, directly relevant information, new evidence. And if there are imperfections to most—a lot of the evidence you see, I would imagine, is not a reason to throw them out at all. It's—it's very pertinent information that we don't have from any other source, so you should use it."); 9/1/20 Tr. 4926:1-24 (Reiley) ("In various experiments that I have run, I generally see—when I change the dosage received in the experiment, I see fairly continuous responses to increases. . . . [I]t's very hard to imagine that once we finally eliminate the—the final song from a record label, that is what's going to suddenly going to make somebody quit listening to Pandora"); Reiley WRT ¶ 25-26.

882. Disputed in part. Dr. Reiley addressed the technical implementation errors he encountered forthrightly in his testimony so as not to suggest a level of perfection that did not exist, and explained how small the leakage was as a result thereof. Reiley CWDT ¶ 31; Reiley WRT ¶ 20. Moreover, SoundExchange's claim that suppression was turned off "several days of

the treatment period" is a gross exaggeration. As Dr. Reiley explained in his written direct testimony, these glitches lasted for but a few hours. Reiley CWDT ¶ 31.

883. Disputed in part. Dr. Reiley acknowledged his placement of 125-song and eight-hour data caps in the experiments, but those caps were hardly "arbitrary." As he explained at trial, these caps are part of the standard Pandora A/B framework reasonably implemented to avoid statistical outliers that could skew experimental results, and were therefore instituted prior to and independently from the LSEs. 9/1/20 Tr. 4988:25-4989:24. What these caps reveal, however, is that even Pandora's *heaviest* users—who would have experienced the strongest suppression (and been in the best position to notice it)— *still listened more than 8 hours*. *See* 8/27/20 Tr. 4313:3-9 (Simonson). That in itself constitutes strong evidence rebutting Professor Willig's foundational (and, for the purposes of his analysis, dispositive) assumption that the loss of a label would cause users to flee to other platforms and the service to shut down, or that users did not experience enough suppression to feel its effects.

884-85. Not disputed. But see *supra* ¶ 883.

886. Not Disputed. However, Dr. Reiley acknowledged and explained at length in his written and oral testimony all the many reasons to believe the few spins of "miscellaneous provider" tracks were *not* tracks from the suppressed label. *See* SXM-PAN PFFCL ¶ 98; Reiley CWDT ¶ 30; Reiley WRT ¶ 23 (noting that his team tested a sample of miscellaneous provider tracks and determined that only [redacted]% of them (*i.e.*, [redacted]% of [redacted]% of total plays) were from the suppressed label); 8/18 20 Tr. 2403:11-2404:24 (Tucker) (acknowledging sample results and conceding lack of contrary evidence); 9/1/20 Tr. 4921:3-4924:9 (Reiley) ("Most of [the miscellaneous provider tracks] are going to be tracks that belong to other owners, since no single label has a majority of spins on our service").

887. Disputed. First, the [redacted]% figure reported here by SoundExchange ([redacted]% per Professor Tucker's testimony) includes miscellaneous provider tracks played *during Premium Access sessions*. *See* Tucker CWRT app. 1 at lines 13-14. Premium Access sessions were *intentionally excluded* from the LSEs, because they fall outside of the statutory license and are akin to on-demand sessions. *See* 8/18/20 Tr. 2681:1-17 (Shapiro). It is therefore inaccurate to characterize spins playing on Premium Access sessions as "issues" compromising the integrity of Dr. Reiley's results. Second, the [redacted]% number represents only the number of users who heard a *single* miscellaneous provider track over a 90-day period. Notably, Professor Tucker does not provide the *average* number of miscellaneous provider tracks users over this 90-day period, which would be a much more meaningful measure. Third, and most importantly, Professor Tucker conceded that the fact tha [redacted]% of users heard a miscellaneous provider track during the experimental period does not mean that they heard a *suppressed label track* (as SoundExchange implies). *See* 8/18/20 Tr. 2403:11-22 (Tucker). For the reasons described above in paragraph 886, it is unlikely that more than a small number of miscellaneous provider tracks were actually suppressed label tracks from the treatment group at issue. *Id.* 2404:1-2406:13.

888. Not Disputed. However, again, Dr. Reiley explained why the decision to include users who upgraded to Pandora Plus or Premium was proper as a matter of scientific protocol. *See* Reiley CWDT ¶ 3; Reiley WRT ¶ 19 ("I have not excluded those listeners or their listening metrics from the analysis because they did receive at least partial treatment *prior* to the upgrade, and their decision to upgrade (unlike those in the control group) could have been influenced by the suppression"). Moreover, the number of spins occurring post-upgrade were too small in any event to skew the results. *Id.*

889. Not Disputed. *See supra* ¶ 888.

890. Disputed. SoundExchange's Figure 22 is unreliable in a number of respects, is based on Professor Tucker's misinterpretation of the LSEs' underlying data, and is an altogether inaccurate measure of what it purports to illustrate. First, the bottom-line Figure 22 statistics—that [redacted]% and [redacted]% of users in the [redacted] and [redacted] Treatment Groups experienced some error in their suppression treatment, respectively—are highly misleading, as a significant percentage of the users captured by those figures merely heard so-called "miscellaneous provider" tracks during the test period; there is no reason to believe that those were tracks from the suppressed labels. Tucker CWRT app. 1; 8/18/20 Tr. 2402:24-2403:3, 2405:5-9 (Tucker); SXM-PAN PFFCL ¶ 98. In fact, as Dr. Reiley testified, his team tested a sample of "miscellaneous provider" tracks and found that only [redacted]% of them (*i.e.*, [redacted]% of [redacted]% of total plays) were from the suppressed label. Reiley CWDT ¶ 30; Tr. 4921:3-4924:9 (Reiley) (explaining that miscellaneous provider tracks comprise legacy tracks Pandora has not matched to the [redacted]); Tr. 2403:25-2404:5 (Tucker) (acknowledging sample results); SXM-PAN PFFCL ¶ 98.

Lines [2] and [3] of Figure 22 also drastically overstate the percentage of Pandora users in the LSE treatment groups who Professor Tucker claimed listened to few or no spins on Pandora's ad-supported service during the experimental period. *See* 9/1/20 Tr. 4932:7-4933:6, 4940:10-4941:6 (Reiley); *cf.* Tucker CWRT ¶¶ 33, 67-68; *id.* app. 1. Those flawed results stem from Professor Tucker's misinterpretation of the "all_tracks" metric from Pandora's experimental data, which she incorrectly thought captured all spins delivered to users in the treatment groups (despite this error having already been exposed at her deposition). *See* Tucker CWRT app. 1 ("Notes & Sources" for lines [4]-[11]); 8/18/20 Tr. 2406:15-2407:12 (Tucker).

However, as explained in detail in Pandora's PFFCL, Dr. Reiley made clear that the "all_tracks" data field only captured certain reasons that tracks delivered to users terminated (skips, etc.), but not *all* such reasons, and did *not* capture all spins delivered to users, as Professor Tucker wrongly surmised. See PAN-SXM PFFCL ¶ 99; 9/1/20 Tr. 4902:18-21 (Reiley).

Professor Tucker also conceded that lines [3] through [7] of Figure 22 lines do not actually reflect errors, but rather light listening by treatment-group users that was representative of Pandora listening generally (and therefore entirely appropriate to incorporate into Dr. Reiley's examination of the *average* listening impact across Pandora users). 8/18/20 Tr. 2407:22-2408:15, 2408:25-2410:22 (Tucker); *id.* 2423:22-2424:15 (Tucker). Similarly, while lines [5] and [16] of Figure 22 show the percentage of users with at least one day of eight listening hours, the eight-hour cap that SoundExchange discusses elsewhere, *see supra* ¶ 883, has nothing to do with failed suppression or leakage, but instead concerns the measurement of the impact of suppression on total listening hours. And, as noted above, it is telling that Pandora's heaviest users—who would have experienced the strongest suppression—*still* listened for more than eight hours on a given day. *See supra* ¶ 883.

891. **Not disputed.** The percentage of users who heard just one spin from a suppressed record company during the experimental period is not a particularly meaningful measure, especially as compared to how many such spins treatment-group users heard on *average* over the total period. Further, SoundExchange's Premium Access statistics only serve to disprove Professor Willig's argument that for Pandora users who divert to an on-demand service, the suppressed label will earn a share of diverted plays on the on-demand service that is higher than their natural performance share (resulting in a high "retention ratio"). *See* SXM-PAN PFFCL ¶ 177-78. The [redacted]% [redacted] and [redacted]% [redacted] figures—which are well below

their natural market shares on Pandora's ad-supported service—illustrate that users did *not* seek out those suppressed labels' tracks with greater frequency when given the opportunity to do so during the on-demand Premium Access sessions. *See* Shapiro SCWDT app. F at 76 (showing market shares on Pandora's ad-supported service of [redacted]% and [redacted]% for [redacted] and [redacted] in 2018, respectively).

892. **Disputed.** Stated more precisely, approximately [redacted]% of total spins in the [redacted] treatment group constituted unintentional spins of [redacted] tracks. Reiley CWDT ¶ 34. Given [redacted] natural market share of [redacted]%, the LSEs achieved an approximate [redacted]% suppression of [redacted] spins (not "recordings" as SoundExchange writes). Reiley WRT ¶ 26. *See also* Tucker CWRT ¶ 70 (noting "approximately [[redacted]] suppression").

893. **Disputed.** SoundExchange's description of the cited testimony is highly misleading at best. Dr. Reiley did not testify that there "may be" additional underlying data errors. He testified that he is not aware of any such additional errors, he has "high confidence that we don't have additional errors," and that they "seem[] very unlikely, given the amount of time that has been spent going over these data files, but, sure, anything is possible." 9/1/20 Tr. 4960:5-4961:14 (Reiley). He also clarified that even if it unclear why a track from a suppressed label leaked, he measured and reported *all* leaked tracks streamed to the treatment groups in his written testimony. *Id.* 4959:1-4960:4.

Quite obviously, Dr. Reiley's acknowledgement that "anything is possible" in response to questions from SoundExchange's counsel about errors that *may in theory be possible* does not suggest there is any reason whatsoever to believe more leakage exists than was comprehensively reported in Dr. Reiley's written testimony. And SoundExchange's ability to "identify additional tech errors" was necessarily a result of the scope of its discovery requests, *not* a failing of the

LSEs or the withholding of information.

894. **Disputed in part**. SoundExchange's recitation of several errors that were ultimately corrected by Dr. Reiley merely distracts from the more pertinent fact: Dr. Reiley in the end quantified and reported every spin of a suppressed label's tracks. *See* Reiley CWDT ¶¶ 27-31; Reiley WRT ¶¶ 17-25. His thoroughness is reflected in the fact that he even tested "miscellaneous provider" tracks—or tracks in the system that have not been attributed to any particular label—to measure whether any such tracks were heard by treatment-group users and actually associated with a suppressed label. Reiley WRT ¶¶ 21-24. The fact that Dr. Reiley was not certain about the precise technical reason for each "leaked" spin of a suppressed label's track does not mean that he did not accurately identify and quantify those spins. He did.

895. **Disputed in part.** As Dr. Reiley testified, "miscellaneous provider" tracks are ones that have already been exposed to a painstaking internal matching process, featuring the use of machine learning and human curation, designed to match a track's data with the DDEX feeds received from record companies to determine the origin of the track. *See* Reiley CWDT ¶¶ 28-30; Reiley WRT ¶¶ 21-24; 9/1/20 Tr. 4921:3-4924:9. The fact that they are designated as "miscellaneous provider" tracks means they did *not* match a [redacted] data feed. Reiley CWDT ¶¶ 28-30. Given this rigorous process, there is no reason to assume that Pandora's "miscellaneous provider" tracks are populated with tracks from the [redacted]. *Id.* Yet out of an abundance of caution, and in the interest of full disclosure, Dr. Reiley ran tests for both the [redacted] and [redacted] treatment groups to estimate the incidence of suppressed-label tracks in the "miscellaneous provider" pool. Reiley CWDT ¶ 30; Reiley WRT ¶¶ 21-24; 9/1/20 Tr. 4923:6-4924:9. His results revealed that only [redacted]% to [redacted]% of "miscellaneous provider" tracks (*i.e.*, [redacted] [redacted]% of [redacted]% of total plays) were licensed by [redacted] and [redacted] (figures which are substantially

below those labels' natural market shares). Reiley CWDT ¶ 30; Tr. 4921:3-4924:9 (Reiley).

896. **Disputed.** Dr. Reiley did not acknowledge, as SoundExchange incorrectly claims, that a slight deviation from perfect suppression can make a "significant difference." To the contrary, he testified that based on his experience with prior experiments it is "nearly impossible" to believe that there would be a significant nonlinearity in the LSEs results if the suppression was increased from [redacted]% to [redacted]% because. Reiley WRT ¶ 26; 9/1/20 Tr. 4926:1-24. As he explained: "The linearity through the extremely high degree of suppression that we achieved, and the fact that [redacted] in listening hours at that suppression level is no more than about [redacted]% even at the outer bounds of our confidence intervals for the largest label in our experiment, makes it nearly impossible that listening would have fallen off the cliff with a perfect suppression, or that the small number of unsuppressed tracks on their own somehow 'saved' a disproportionate amount of listening time." Reiley WRT ¶ 26; *see also* 9/1/20 Tr. 4926:10-13 ("[I]t's very hard to imagine that once we finally [redacted], that is what's going to suddenly going to make somebody quit listening to Pandora."). Dr. Reiley also showed that his results were linear at [redacted]%, [redacted]%, and [redacted]% suppression, meaning there is no reason to believe there would be a sharp, *non*linear [redacted] in listening above [redacted]%. Reiley WRT ¶ 26 & fig.3.

SoundExchange, for its part, has not demonstrated that low-level leakage actually undermines Dr. Reiley's results—*e.g.*, it has not proven that a treatment-group user hearing one [redacted] track over a three-month period would somehow [redacted], or that suppressing one final track would precipitate a huge [redacted] in listening. This is especially unlikely to be the case given that listeners generally do not know which label a given track is associated with, so there is no reason to expect that a particular treatment-group user

would have known that they heard suppressed label's track. *See* 8/26/20 Tr. 4093:1-4 (Hanssens) (explaining that "artists can have more than one label and people, for the most part, or maybe almost always, do not know which label represents an artist.").

Indeed, the only "evidence" identified by SoundExchange in support of its theory that [redacted]% suppression is insufficient is an academic article cited by Professor Tucker about a study involving free chocolate, from which she infers that "people *can* behave differently at the extremes of a distribution." Tucker CWRT ¶ 71 (emphasis added); 8/18/20 Tr. 2425:2-2426:14 (Tucker). Yet that study—beyond being totally incongruous with the instant rate-setting proceeding—was about behavior when the price of goods moves from inexpensive to free, not when marginal alternations are made to a free product.

3. The LSEs Demonstrate Major Record Companies Are Not Must-Have

897. Disputed. As demonstrated below, the purported "limitations" SoundExchange identifies either do not have merit or are inapposite to the LSEs. *See infra* ¶¶ 898-940.

i. The LSEs Are the Best Available Evidence for Estimating True Long-Run Effects

898. Disputed. It is misleading to suggest that the experimental period was "only 28 days" insofar as that incorrectly implies that the treatment was only applied for 28 days, rather than the full three months. And SoundExchange's claim that the LSEs "do not provide any useful guide to the long-run effects" is wrong. First, in response to Professor Willig's claim that the Majors are must-have, Dr. Reiley ran the experiments for an additional three months and presented results after six months of treatment. Reiley WRT ¶ 12 & fig.1. These results, which are consistent with Professor Shapiro's extrapolation of long-term effects of the initial three-month experiments, show that the amount of lost listening is nowhere near sufficient to satisfy Professor Willig's must-have assumption. Second, Dr. Reiley offered detailed testimony which

demonstrates that there is no good reason to believe that long-term results would reveal a materially greater loss of listening. 9/1/20 Tr. 4907:14-4909:1, 4910:16-4911:5 (Reiley); Reiley CWDT ¶¶ 35-37; Reiley WRT ¶¶ 26-31. His estimates of long-run effects are hardly shot-in-the-dark "guesses," but are instead based on his experience running hundreds of experiments in academia and industry, including approximately one hundred experiments in his current role at Pandora. Reiley CWDT ¶¶ 2-3, 35; Reiley WRT ¶ 27; 9/1/20 Tr. 4896:20-23 (Reiley). The ad-load experiments are a good predictor for the long-run effects of the LSEs because the ad-load experiments also "measur[ed] the impact on listeners of making a. . . change" in the listening experience on the same population of users engaging with the same service (ad-supported). 9/1/20 Tr. 4907:22-4908:9 (Reiley). That they ran for so long, a rarity in the business world, would also make it difficult to find a more suitable comparator for long-run effects. *See id.* In particular, the loss rates from the LSEs, when extrapolated for long-term effects in accordance with Dr. Reiley's experience with the ad-load experiment, provide a dependable approach to reliably estimate the long-run impact. Reiley CWDT ¶ 36; Reiley WRT ¶ 27.

Last, these critiques hardly provide a basis for discarding or invalidating the results. As Dr. Reiley explained, even if one was to take an extremely conservative approach—the outer bound of the confidence interval representing the most lost listening ([redacted]% in the case of [redacted] after six months), and double that figure to account for long-run effects—"the raw level of potential listener loss in the long run remains quite small, in the range of [redacted]%." Reiley WRT ¶ 31. That result is *many* multiples less than the amount of lost listening necessary to justify Professor Willig's extreme and unfounded must-have assumption.

899. Disputed. *See supra* ¶ 898.

900. Disputed in part. Dr. Reiley did acknowledge that long-run effects cannot

necessarily be determined with perfect accuracy from short-run data. But, for reasons stated above, disparaging Dr. Reiley's well-reasoned long-run estimates as "really a 'guess'" without explaining the empirical basis for his estimates misrepresents his testimony and is inaccurate. *See supra* ¶ 898.

901. Disputed. SoundExchange's suggestion that there is no basis to credit Dr. Reiley's judgment regarding the long-term effects of the LSEs is entirely without merit. As stated above, Dr. Reiley has run roughly one hundred experiments at Pandora, including one of the longest-running experiments in this space: the ad-load experiment which ran for twenty-one months. Dr. Reiley's experience with the ad-load experiment—which is squarely within his perceptive experience—provides a far stronger basis to understand the long-run effects and substantially outweighs the formality of expert qualification in establishing who is best suited to opine on long-run effects. Considering his personal experience with experiments at Pandora and his educational background, Dr. Reiley is perhaps the single best individual anywhere to discuss the long-run effects of the LSEs.[33] *See* Reiley CWDT ¶¶ 2-3, 5-10; *supra* ¶ 898.

902. Disputed in part. As discussed above, the studies supporting Dr. Reiley's extrapolation have a number of commonalities with the LSEs. *See supra* ¶ 898. Despite any alleged shortcomings, extrapolations from similar studies are superior to uninformed speculation from SoundExchange's drove of experts.

903. Disputed. *See supra* ¶ 902. Dr. Reiley was forthcoming in testifying that the

[33] Sirius XM & Pandora have pointed out in briefing that: 1) the CRB does not strictly adhere to the distinction between Federal Rules of Evidence 701 and 702, instead relying on the standard established by 37 C.F.R. § 351.10(e) for this sort of testimony (which is easily satisfied here); 2) Dr. Reiley's testimony is squarely grounded in his perception, and that his testimony concerns technical subject matter does not transform him into an expert witness; and 3) SoundExchange has not offered a credible reason to discount his testimony merely because he is a fact witness—his educational background and rich work experience render him more than able to assist the Judges in understanding the LSEs and the conclusions flowing therefrom. *See* Services' Resp. to SoundExchange's Objections to Written Test. 2-6.

only way to establish long-run effects with absolute certainty is to conduct a longer term experiment; but theoretical perfection ought not be the enemy of a rigorously conducted, highly informative experiment. 8/19/20 Tr. 2710:21-2711:7 (Shapiro) ("I would just say to the Judges this is very valuable, directly relevant information, new evidence. And if there are imperfections to most -- a lot of the evidence you see, I would imagine, is not a reason to throw them out at all."). Additionally, none of SoundExchange's citations here support its contention regarding "scientific[] validity" – they merely rehash the various criticisms offered by SoundExchange's expert witnesses. As stated above, Dr. Reiley's well-reasoned extrapolations are far better supported than the speculation offered by SoundExchange's experts.

904. Disputed. *See supra* ¶¶ 901-03. The academic literature cited by Professor Tucker which analyzes, among other things, the pricing of chocolates, the differences in promotional impact between new and established customers, and "distributing information on urban market prices of food crops through rural radio stations in Uganda" can hardly provide better insight into the LSEs than can Dr. Reiley's personal experience with dozens of experiments on Pandora users. *See* Tucker CWRT ¶¶ 80 nn.157-58 (promotional pricing and Uganda, respectively), 102 n.200 (chocolate pricing); 8/17/20 Tr. 2425:11-21 (Tucker) (same). What is more, Professor Tucker did cite to an article describing an experiment conducted online using an A/B framework. From this article, Professor Tucker concluded that "Research suggests that short-term measures of consumer satisfaction can provide useful proxies for long-term effects of a treatment." Tucker CWRT ¶ 77 n.154. The LSEs do just that.

Additionally, overly simplistic comparisons of narrow aspects of different experiments are uninformative. While Dr. Reiley has performed experiments that were longer or involved more participants, he testified that "I've run plenty of experiments where I had dozens . . . of

subjects in my experiment. It is true that I've also run experiments with, you know, over 10 million listeners, . . . but *that was to answer a different question*." 9/1/20 Tr. 4901:13-18 (Reiley) (emphasis added). In evaluating an experiment, the focus is not baseless comparisons to other experiments, but instead whether the experiment as designed will answer the specific research question posed. And here, the LSEs did just that.

905. Disputed in part. There is no dispute that some users experienced treatment less than three or six months. In the real world, however, Pandora users come and go from the service, and some use it much more than others. Mirroring the realities of how Pandora users engage with the service in the real world and "good experimental practice" both counsel towards including those users in the study. Reiley CWDT ¶ 32; 9/1/20 Tr. 4903:18-4905:2 (Reiley).

906. Disputed in part. There is no dispute that listeners were added to the experimental groups throughout the experiment. However, for reasons discussed above, this is not a flaw but the product of careful and rigorous experimental design. *See supra* ¶ 905.

907. Disputed. Errors in Figure 22 from SoundExchange's proposed findings prevent it from being a reliable resource. *See supra* ¶ 890. Additionally, light listeners—who contribute to Pandora's revenue and are part of its user base all the same—are likely to experience little treatment as a function of their light overall listening. This is not a flaw but the product of careful and rigorous experimental design. *See supra* ¶ 905.

ii. The LSEs Have Ample Statistical Power

908. Disputed. SoundExchange's claim that the LSEs were underpowered is directly contradicted by Dr. Reiley and Dr. Shapiro and, importantly, is premised on a distortion of what the LSEs were designed to detect. First, the LSEs were designed to assess whether the majors are must-have suppliers for an ad-supported noninteractive webcaster. The must-have assumption is premised not on some minor change in listening patterns, but on such a dramatic

drop in listening as to threaten the webcaster's very existence—something on the order of a drop in listening hours greater than fifty percent. Joint PFFCL ¶ 185; 9/1/20 Tr. 4090:22-4901:9 (Reiley). Thus, claiming that the LSEs were "underpowered" requires SoundExchange to demonstrate that the LSEs were incapable of detecting a seismic shift in listening—a burden SoundExchange falls far short of meeting. *See also supra* ¶ 904.

Next, Dr. Reiley conclusively testified that the LSEs "absolutely" employed sample sizes more than sufficient to address Dr. Shapiro's question. 9/1/20 Tr. 4900:16-20; Reiley CWDT ¶ 18. He went on to explain that "the statistical power here gives us confidence intervals in the range of plus or minus 4 or 5 percent in listening hours" which was "plenty" to address the research question. 9/1/20 Tr. 4901:5-9, 4907:3-11 ("Clearly anything more than a 5 percent reduction, we would have been able to detect. But we didn't see anything that large."). SoundExchange has not offered any testimony that contradicts these facts.

909. Disputed. This is a red herring—what Pandora thought the potential consequences of the experiments *might be* before conducting the experiments is irrelevant. Pandora did not "anticipate" that "removing a [redacted] content could have negative business consequences," SX PFFCL ¶ 909, it simply did not know. Given the at least theoretical possibility that the suppression could have a significant impact on listening hours, using sample sizes large enough to answer the question, but no larger, was nothing more than a prudent business decision. 9/1/20 Tr. 4901:25-4902:12 (Reiley).

910. Disputed in part. Framing the decision to use a [redacted] as choosing to not "impose" some inapt "limitation" placed on the [redacted] is misleading and contrary to the evidence. The primary driver of the sample sizes was to ensure adequate statistical power to answer the question Dr. Shapiro presented. *See supra* ¶ 908. Given that [redacted]

[redacted], Dr. Reiley simply needed "to have higher statistical power in those experiments. That's why the larger sample size." 9/1/20 Tr. 4900:5-15 (Reiley).

911. Disputed. As discussed, overly simplistic comparisons of an isolated feature of the LSEs to other studies with different research questions are irrelevant. *See supra* ¶¶ 904, 908; 9/1/20 Tr. 4901:13-18 (Reiley).

912. Not disputed.

iii. The LSEs Are Applicable to Subscription Noninteractive Webcasting Services

913. Not disputed.

914. Disputed in part. The salient distinction between an ad-supported service and a subscription service is simply how the user pays for the service, in time listening to advertisements or in paying for a subscription to avoid listening to advertisements. SXM-PAN PFFCL ¶¶ 8, 18. The music programming and user experiences are otherwise functionally the same. SoundExchange has failed to adduce any evidence whatsoever establishing that a paid subscriber would be more or less sensitive to a label blackout than an ad-supported user.

915. Disputed. Professor Willig was qualified to offer expert opinions "in the fields of microeconomics, industrial organization, the use of statistics in economics, and the use of survey research and economics." 8/5/20 Tr. 308:6-14 (Willig). Notably, he was not qualified as an expert in the predilections of Pandora users, and SoundExchange offers no evidentiary support for his speculation that Pandora Plus subscribers, as compared to Pandora's ad-supported listeners, are "[redacted]." SX PFFCL ¶ 915 (quoting 8/5/20 Tr. 588:25-589:2 (Willig)). While Professor Shapiro acknowledged that Pandora Plus subscribers tend to listen to more plays per month than ad-

supported Pandora listeners, he offered no insight into whether or not changes in availability of music are, in fact, more quickly noticed by Plus subscribers. Instead, he merely acknowledged that subscribers "could" feel differently than ad-supported listeners, but that without actually running an experiment, he "can't say exactly what would happen." 8/20/20 Tr. 3170:25-3171:3, 3171:14-18 (Shapiro).

916. Not disputed.

iv. The LSEs Reliably Predict the Effect of Losing [redacted]

917-19. Not disputed.

920. Disputed in part. Neither Dr. Reiley nor Professor Shapiro has asserted that the results of a [redacted] treatment group would be "identical" to the others. (and of course the [redacted] treatments were not identical). Rather, Professor Shapiro conservatively assumed that the results of an [redacted] experiment would be equivalent to the higher of the two, scaled up for [redacted] slightly larger market share. The question is whether SoundExchange has adduced any reasons to believe the experiments conducted were *not representative* of a [redacted] blackout. It is not possible to test every single label, so the goal is to select representative samples, just as Dr. McBride did in the Steering Experiments accepted by the Judges in *Web IV*. *Web IV*, 81 Fed. Reg. at 26369. There is no reason to believe that suppressing [redacted]—a broad-based major record company with a varied catalog just like [redacted]—would meaningfully differ. And given that listeners are generally unable to identify which record company owns the rights to a given track, as SoundExchange's experts have admitted, SoundExchange has not identified any good reason to believe that suppressing [redacted] catalog would produce meaningfully different results. 8/11/20 Tr. 789:14-16 (Willig).

v. SoundExchange's Belated Attempt to Analyze Downstream Costs of a Blackout Lacks Evidentiary Support

921. Not disputed.

922. Disputed. The LSEs design was not premised on the assumption that Pandora would retain access to the blacked out label's content on its interactive service tiers. That issue is simply irrelevant to the question that the LSEs are trying to answer. Moreover, there is no basis for the contrary assumption SoundExchange is suggesting. For example, [redacted]. *See* Joint PFFCL ¶ 192.

923. Not disputed.

924. Disputed. First, this paragraph constitutes untimely new analysis. SoundExchange could have easily included in its written rebuttal testimony analysis of how the general structure of a given direct license agreement does or does not comport with the LSEs, but it failed to do so. The cited testimony from Mr. Harrison does not offer an opinion on the LSEs, the circumstances that may attend a label blackout absent the statutory license, or even a noninteractive webcaster. *See* Harrison WDT ¶¶ 19-26 (presenting history [redacted] negotiations). SoundExchange has proffered no explanation for why an interactive service like [redacted] are representative of any future negotiations, much less negotiations with a noninteractive service. Similarly, the other testimony from Mr. Harrison cited by SoundExchange contemplates the impact of a blackout on [redacted] or [redacted], interactive services, and SoundExchange has offered no explanation of how that does or does not compare to the impact of a blackout on a noninteractive service subject to the statutory licenses at issue in this proceeding. *See* Harrison WDT ¶¶ 35-36. Moreover, [redacted]

[redacted]. *See supra* ¶ 922.

925. Disputed in part. Even if the issue SoundExchange presses in paragraph 925 of its initial PFFCL is true (a point which Sirius XM and Pandora does not concede), SoundExchange has not adduced any evidence demonstrating why this hypothetical technical issue is relevant to the LSEs. For example, there is no testimony indicating that Pandora would be unable to resolve these potential issues (Dr. Reiley offering no opinion on a hypothetical future concern provides SoundExchange no refuge), and the infringement liability SoundExchange posits in paragraph 926 certainly would present Pandora with significant incentives to resolve all technical issues—incentives that were absent from the LSEs. There is simply no evidence that this hypothetical technical issue would compel Pandora to enter into a license agreement that it otherwise could forego and operate without.

926. Disputed in part. *See supra* ¶ 925.

927. Not disputed. SoundExchange notably has made no showing of how these (hypothetical) costs would impact any of the bargaining models offered in this proceeding, much less whether such costs would have an even remotely material effect on the models' outputs. Nor are they different in kind or nature from the same types of costs that, for example, [redacted].

928. Disputed in part. All of the various costs referenced by SoundExchange are exogenous to the LSEs, which *only* address lost listening. Furthermore, none of the bargaining models offered in this case (nor Professor Tucker's testimony) even attempt to quantify, let alone address, any such costs. Willig CWDT ¶¶ 25-50 (defining his model and describing all empirical

inputs); Shapiro SCWDT at 72-82 (app. F) (describing his model); *see generally* Tucker CWDT (failing to quantify anything relevant to either bargaining model).

929. Disputed. *See supra* ¶ 928.

930. Disputed in part. *See supra* ¶ 928. Professor Shapiro did not ignore the impact on new consumers, but instead he made the reasonable assumption that the impact on existing users' listening served as a reasonable proxy for the impact on new users' listening. *See* Shapiro SCWDT at 78-82 (app. F); 8/20/20 Tr. 3178:14-17 (Shapiro) (explaining that he did not distinguish between new and existing customers in applying loss rate). Notably, the "prior testimony" SoundExchange refers to in paragraph 930 of its initial PFFCL comes from a different context entirely—the AT&T matter involved an antitrust review of a potential merger by the Department of Justice; it was not a rate-setting proceeding, it did not concern the music industry, and it did not involve a bargaining model.

vi. The Various Surveys Measure Distinct Listening Metrics from the LSEs, and Are Not Inconsistent

931. Disputed. *See supra* ¶¶ 735, 742-43, 754-55 (and the panoply of references cross-cited therein). The LSEs are not at all inconsistent with Professor Hanssens' survey, as they measure two distinct listening metrics. The LSEs measure the *magnitude* of lost listening across all users in the event Pandora loses access to a particular record company, whereas Professor Hanssens' survey measures the *direction* of lost listening for users told that they notice that Pandora is missing some of their favorite artists and popular songs. That is, Dr. Reiley examined *whether* listeners would change their listening in response to a blackout (including within his test those who neither notice nor care), SXM-PAN PFFCL ¶¶ 70-75, whereas Professor Hanssens evaluates among users who are affected by the blackout, how much of *their* diverted listening goes toward new on-demand subscriptions, and how much goes to other forms

of entertainment.[34] 8/19/20 Tr. 2716:23-2717:21 (Shapiro); 8/26/20 Tr. 3935:21-3938:2 (Shapiro). For similar reasons, Professor Zauberman's survey and Professor Simonson's Modified Hanssens survey cannot be used to measure the extent of lost listening in the event of a blackout of a particular label and are therefore also not inconsistent with the LSEs. Zauberman's survey was premised on the shutdown of statutory services—thus forcing all respondents to move to a new service, while Simonson's survey was merely a variation of the Hanssens' survey. *See* 8/18/20 Tr. 2668:8-2669:23 (Shapiro) ("[I]f you asked people how much would you reduce your listening to Pandora if it didn't have Warner Music, it's not going to work because people don't really know what the Warner catalogue is like. And so you can't meaningfully run a survey with that."); 8/20/20 Tr. 3136:21-23 (Shapiro) ("I think I explained pretty clearly on my direct that you cannot use survey analysis to calculate the loss rate."); 8/20/20 Tr. 3137:7-8 ("[I]t's not usable for calculating the loss rate"; *id.* 3137:18-19 ("It's not reliable to use the survey to calculate the loss rate, period"); 8/26/20 Tr. 3936:12-14 (Shapiro) ("This is not a question about a label blackout. It's not."); 8/26/20 4099:24-4101:17 (Hanssens) (explaining that the survey results cannot be used to measure a loss rate because "The scenario is different. Again, you are using. . .a scenario with, let's call it, label suppression, whereas my scenario is different, as I've already talked about. And, secondly, my percentages reflect only the subset of Pandora users who actually would be affected by this in the sense that they noticed it and they were dissatisfied by it. So those are two different subsets"); 8/26/20 Tr. 4155:25-4156:5 (Hanssens) (Q: "So just to be clear, this is a measure of where respondents had switched their

[34] Although Professor Hanssens asks in P20 if respondents would, under the conditions of his hypothetical, listen to Free Internet Radio less, about the same amount, or more hypothetical (or did not know/were not sure), he subsequently removed from his calculations respondents who answered that they would listen more or that they did not know/were not sure. Hanssens CWDT ¶¶ 39, 41 & n.46. His calculations therefore only include respondents who would listen less or the same amount.

listening, not a measure of how much listening would be lost on a degraded service, right?" A. "I agree. It—it's about the direction of change, yes.").

932. Not Disputed.

933. Disputed. SoundExchange's representation of Professor Hanssens' survey results is misleading, *see supra* ¶ 931, and its interpretation thereof is fatally flawed. As an initial matter, SoundExchange reports a mistaken number: 60.1% of respondents to Professor Hanssens' Question P20 (asking whether respondents would use Free Internet Radio services less, about the same amount, or whether they did not know or were not sure), not 61.8%, answered that they would use Free Internet Radio services less. Hanssens CWDT ¶ 40 tbl.1. The 61.8% figure referenced by SoundExchange is not one that appears in Professor Hanssens' testimony: it is one that *Professor Willig* presented in *his* testimony to account for Professor Hanssens' subsequent exclusion of the 21 respondents who answered "Don't know/unsure" to Question P20 as well as the 53 respondents who answered that they would listen to alternative sources of music less, or did not know/were not sure, in Question P30. *Id.* ¶¶ 41 n.46, 42 tbl.2, 43 & n.50; Willig WRT ¶ 31 & n.55, app. J at 9.[35]

More important, and as explained at length above [elsewhere], the "use less" response is premised on a question informing the respondents that they have lost access to their favorite artists and popular songs, and thus captures only the subset of Pandora users that would notice, be affected by, and care enough about a label blackout to alter their behavior. SoundExchange's use of Professor Hanssens' results as a loss rate is plainly inappropriate, and it *in no way*

[35] Used properly as a diversion ratio, it is appropriate for Professor Hanssens to remove these respondents from his calculations (because if they "do not know" or "are unsure" of whether or where they would divert their listening hours in response to Professor Hanssens' hypothetical, they are clearly uninformative for his purpose: direction). SoundExchange's reliance on the 61.8% number is even more attenuated and erroneous because it further removes two groups of respondents who did not answer Professor Hanssens' P20 and P30 in a way favorable to its own cause.

undercuts the results of the LSEs. *See supra* ¶ 931.

934. Disputed. The issue of users being told they were "dissatisfied" in the Hanssens survey is a red herring. The far more important point, as noted above, is that the Hanssens respondents were told that some of their favorite artists and popular songs were missing from the service—phrasing that establishes that they notice and are affected by the change to the service (and necessary to test whether they'd shift their listening and where to). That difference between the Hanssens survey and LSEs exists whether or not the survey explicitly references user "dissatisfaction." And as both Professor Simonson and Professor Hanssens testified, dissatisfaction is in any event *implicit* in a hypothetical referencing the loss of some of respondents' "favorite artists and some newly released music," 8/27/20 Tr. 4316:7-13 (Simonson); 8/26/20 Tr. 4094:6-14 (Hanssens). *See supra* ¶ 735.

935. Disputed in part. *See supra* ¶ 749-51 (and the references cross-cited therein). It is true that Professor Simonson removed the language in Professor Hanssens' survey indicating that respondents were "not satisfied" with their Free Internet Radio service and found similar results. But the suggestion that the stability of the results "refutes" Professor Hanssens' argument is wrong for reasons explored in response to paragraph 934 above. As both Professor Simonson and Professor Hanssens testified, dissatisfaction is implicit in a hypothetical referencing the loss of some of respondents' "favorite artists and some newly released music," 8/27/20 Tr. 4316:7-13 (Simonson); 8/26/20 Tr. 4094:6-14 (Hanssens), meaning *both* the Hanssens survey *and* the modified Simons survey are still incomparable to the LSEs for reasons explained, whether or not the "dissatisfaction" phrasing is included. In addition, Professor Hanssens' purported agreement with SoundExchange's contention that the instruction of dissatisfaction is irrelevant, excerpted in the final line of this paragraph, was nothing of the sort.

Instead, Professor Hanssens testified that users could experience dissatisfaction if they learned about degradation from a third-party, and *being so dissatisfied*, would not necessarily respond in a materially different way than that which his survey captures, but "is not something that [he has] been asked to investigate." 8/26/20 Tr. 4129:25-4131:24 (Hanssens). If dissatisfaction were not inherent in the question in Professor Simonson's survey, then (unlike with the Hanssens survey) there is no reason to disregard the significantly higher number of consumers who responded that they would *increase* their listening to Free Internet Radio following Professor Simonson's modification. *See* Simonson WRT at Table 1.A (percentage of respondents who said they would listen *more* jumped from 5.9% to 20.6%). But that is what Professor Willig did, generating higher rates from his model as a result. 8/10/20 Tr. 994:17-996:25 (Willig).

936. Disputed. *See supra* ¶ 754 (and the cross-references cited therein). First, Simonson's asking how much less respondents would listen cannot overcome the fundamental issue explained above: that the respondents were reacting to a degradation scenario different from a real-world label blackout. Professor Simonson's Q225 is an improper vehicle for assessing lost listening because: (1) the question does not specify the loss of a *label*—but the loss of *favorite artists* (which are not necessarily coincident, as artists are often carried by more than one label and users have varied music tastes); (2) Q225 still implies notice and dissatisfaction; and (3) Professor Simonson does not quantify the extent of degradation (what artists would missing, how many, etc.), meaning respondents cannot "relate the degree of missing information or missing value, which would then result in a more reliable answer," 8/26/20 Tr. 4096:15-19 (Hanssens); *see also id.* 4092:11-4093:8, 4094:22-4096:8, 4096:20-4097:4, 4109:2-5 (Hanssens).

Even if one puts this fundamental flaw aside, Professor Simonson's answer ranges are so wide and unequal that they are incurably biased and unreliable, and Professor Willig's use of the

range midpoints is empirically unsound. *See* 8/26/20 4096:20-23 (Hanssens); 8/27/20 Tr. 4289:18-20, 4316:14-4317:24 (Simonson); Willig WRT ¶ 56; *id.* app. J ¶ 16); 8/10/20 Tr. 978:16-19 (Willig). Professor Simonson also did not pretest Q225, meaning he had no way of knowing if respondents understood it or could answer it accurately. 8/27/20 4293:20-23 (Simonson).

937. Disputed in part. There is no dispute that the data presented is accurately reported. However, the Services reiterate that Professor Willig's [redacted]% lost listening figure is unreliable for the reasons explained above. And, for those same reasons, it is certainly not an *underestimate* of the amount of lost listening that would occur in response to a label blackout.

938. Disputed. *See supra* ¶ 931 (and the references cross-cited therein).

939. Disputed. Pandora has never "attempted to walk back" the Pandora survey, but instead has held steadfast to its "purpose, findings, and implications": its use by Professor Shapiro to determine *diversion ratios* for the lost listening measured by the LSEs and *not a measure of lost listening itself*. *See supra* ¶ 931. It is SoundExchange (and Professor Willig) who misuse the survey for a purpose for which it was never intended. SoundExchange's attempt to lift a single introductory sentence from Professor Hanssens' written testimony and suggest it essentially overrides what Professor Hanssens *actually did* in the survey he was describing in his testimony—not to mention his and Professor Shapiro's trial testimony providing further detail and explanation of the proper use of the survey—is mere wordplay that should be flatly rejected. *See supra* ¶ 931.

940. Disputed. Pandora and Sirius XM's treatment of the Hanssens Surveys and the LSEs as measuring two distinct listening metrics is not a disingenuous "*post hoc* theory" as SoundExchange suggests—it is the only economically sound interpretation and the only one they

have ever offered in this proceeding. SoundExchange's conclusory assertion here that the LSEs do not provide any scientifically valid information is meritless and has been addressed at length above. *See supra* ¶¶ 852, 854-56, 857-64, 866-70, 872-88, and 890-912.

4. Professor Shapiro's Application of the LSE Data Was Conservative and Reasonable

i. The LSEs Results Disprove Professor Willig's Must-Have Assumption Because They Show No Significant Reduction in Users' Listening

941. Not disputed.

942. Disputed. The Services are not claiming that there would not be *any* degradation of Pandora's ad-supported radio tier if it lost the catalog of a major record label. Rather, the LSEs prove that any such degradation would not cause a loss of listening to the extent that it would force Pandora to shut down. 9/1/20 Tr. 4900:16-4901:9 (Reiley); Reiley CWDT ¶¶ 11, 37. This evidence flatly refutes Professor Willig's unfounded assumption that the major record labels are "must-haves" for noninteractive services. *See* SXM-PAN PFFCL ¶ 64; Joint PFFCL ¶¶ 201-216. The testimony SoundExchange cites is merely vague speculation from two economists, neither of whom are qualified as experts in the music industry or digital music services, much less the "psychology" of those consumers. *See* Zauberman WRT ¶ 50; 8/5/20 Tr. 579:8-17 (Willig). But the LSEs results show what they show.

943. Disputed. The Services do not contend that Pandora users would be satisfied with "any" collection of sound recordings and reject this strawman argument from SoundExchange's counsel. The LSE results prove that listeners are sufficiently satisfied with Pandora's personalization and customization features (which use only a small portion of recordings available on its service) such that even if Pandora lost access to one major record company's catalog, it would not have a drastic effect on listening hours on Pandora's ad-supported radio tier

to the point that Pandora would be forces to shut down its service. Reiley CWDT ¶¶ 11, 37; Reiley WRT ¶¶ 12-14; 9/1/20 Tr. 4906:18-4907:11 (Reiley). Pandora's best-in-class personalization and customization features allow it to deliver music that customers will enjoy even in the absence of the catalog of any particular label. Phillips WDT ¶¶ 6-8; Westergren WDT (*Web IV*) ¶ 16, 24-27. The claim by SoundExchange's witnesses that Pandora's playlist algorithm masks the effects of label suppression underscores that Pandora's personalization and customization features would mitigate the effects of label suppression on users' listening hours. Tucker CWRT ¶¶ 28-32.

944. Disputed. The "industry data" cited by SoundExchange utterly fails to undermine the results of the LSEs and the conclusions Professor Shapiro draws from them. *See* PAN/SXM PFFCL ¶¶ 89-80. The portion of the 2018 Music Consumer Study cited by Professor Zauberman clearly related to on-demand listening, not ad-supported radio listening. *See* Zauberman WRT ¶ 51 ("[redacted]). And for the reasons discussed above and in SXM-PAN PFFCL, the [redacted] has nothing to do with the loss of one record company's catalog. *See infra* ¶ 878; SXM-PAN PFFCL ¶¶ 89-80; 8/18/20 Tr. 2395:20-2396:2, 2397:2-17 (Tucker) ([redacted]; *id.* 2395:13-19; 2398:12-25; 2399:18-24 ([redacted]).

945. Disputed in part. The Services do not dispute that after three months, the point estimate for the [redacted] treatment group showed a slight, statistically insignificant increase in

listening. *See* Reiley CWDT ¶ 22 & fig.2; 9/1/20 Tr. 4973:3-10 (Reiley). As Dr. Reiley testified, given the confidence intervals used in the LSEs, this just means that the three-month results for the [redacted] treatment group—like the other treatment groups—is not statistically significant from zero. *See* Reiley CWDT ¶ 22 & fig.2. After six-months, the point estimate for [redacted] showed a slight decrease in listening. *See* Reiley WRT ¶¶ 12-13 & fig.1. SoundExchange is incorrect about the six-month results for the [redacted] treatment group: those results show a negative point estimate for total listening hours ([redacted]), with a slightly positive point estimate ([redacted]) for the number of monthly active users. Reiley WRT ¶¶ 12-13 & fig.1.

946. Disputed in part. *See infra* ¶ 945. Dr. Reiley's testimony that he was "trying to be as skeptical as possible of [his] own results" demonstrates the scientific rigor applied to the implementation of the LSEs and the conclusions drawn from them. 9/1/20 Tr. 4974:15-:4975:4 (Reiley). As explained above, the three-month results for the [redacted] treatment group show that the loss of listening is not statistically significant from zero. *See* Reiley CWDT ¶ 22 & fig.2. Nevertheless, because [redacted] had a negative point estimate for listening hours after three months, Professor Shapiro used the three-month [redacted] loss rate from the LSEs for his opportunity cost calculation for [redacted] to arrive at an even more conservative opportunity result. *See* 8/19/20 Tr. 2699:3-25 (Shapiro); Shapiro SCWDT at 22, 27; tbl. 4. at 28; Services' Joint PFFCL ¶ 136.

947. Disputed in part. The Services do not dispute that Professor Hanssens asked respondents to his survey whether they would listen more, less or the same amount in the hypothetical degradation scenario (P20/X20)—and terminated from the survey those respondents who said "more." Hanssens CWDT ¶¶ 39-41, 61. However, as explained above, nothing about the LSE results are "nonsensical." *See supra* ¶¶ 931, 945-946. The results for the [redacted]

treatment group are consistent with all of the other LSE treatment groups: it demonstrates a very slight, gradual change in listening hours that is not statistically significant from zero. *See* Reiley CWDT ¶ 22 & fig.2; Reiley WRT ¶¶ 12-13 & fig.1.

948. Disputed. SoundExchange's argument about what Pandora listeners could or could not do with Pandora's customization and personalization tools and how finely they could tune their stations to avoid newly-released music is mere speculation from counsel not supported by any witness testimony. Because Pandora's ad-supported radio tier is not an interactive service, for Pandora users to "thumb down" a particular newly released track, they necessarily have to hear it first, and that "thumb down" would only affect that particular track, not other new releases. *See* Phillips WDT ¶¶ 6-8. However, the customized nature of the listening experience on Pandora does demonstrate why it could operate without a particular record label. *See id.*; Reiley CWDT ¶ 36; *supra* ¶ 943.

949. Disputed in part. As explained above in the responses above, Professor Shapiro did not use a positive point estimate for his opportunity cost calculation for [redacted]. *See supra* ¶¶ 945-46. The three-month positive point value for the listening hours metric for [redacted], which was not statistically significant from zero (and had turned slightly negative after six-month results), does not mean that Pandora would *gain* audience at the expense of its competitors and the label would lose royalty income on competing distributors. *Compare* Reiley CWDT ¶ 22 & fig.2, Reiley WRT ¶¶ 12-13 & fig.1 *with* Willig WRT ¶ 28.

950. Disputed in part. The Services dispute that Professor Shapiro disregarded the [redacted] data but do not dispute that Professor Shapiro use the three-month [redacted] point estimate in his opportunity cost calculation for [redacted]. *See* 8/19/20 Tr. 2699:3-25 (Shapiro); Shapiro SCWDT at 22, 27; tbl. 4. at 28.

ii. Professor Shapiro's Adjustments to the LSE Results were Conservative and Reasonable

951. Disputed. For the reasons discussed in the following responses, the Services dispute SoundExchange's critiques of Professor Shapiro's conservative adjustment to the LSE results.

952. Disputed in part. The Services do not dispute that Professor Shapiro used the [redacted] point estimate in his opportunity cost calculations for [redacted] and [redacted], reasonably scaling the [redacted] to account for [redacted] and [redacted] relative market shares. *See* Shapiro SCWDT at 19, tbl.1 & 20, 22-23, 25-26. For the reasons explained above, the Services dispute that the LSE result for [redacted] was "absurd." *See supra* ¶¶ 945-46.

953. Disputed. Professor Shapiro's approach to adjusting the LSE results for [redacted] was based on the conservative assumption that, based on the LSE's confidence intervals, there might have in fact been a reduction of listening in the [redacted] treatment group. Professor Shapiro took the negative point estimate from [redacted]—a comparable major label—and then adjusted it upward to the top end of the confidence interval to allow for the possibility of competitive effects and increases in impact of suppression over time. 8/19/20 Tr. 2699:3-25 (Shapiro); Shapiro SCWDT at 22, 27; tbl. 4. at 28. Using one Major as a proxy for the others in this type of analysis is both reasonable and an accepted practice in CRB proceedings. *Web IV*, 81 Fed. Reg. at 26369. (Indeed, in *SDARS III*, SoundExchange did not present testimony from *either* Sony or Warner—only Universal—comparable to what Ms. Adadevoh and Mr. Piibe have presented here, only from UMG's Mr. Harrison.) Notwithstanding SoundExchange's quibbling about the precision of Professor Shapiro's estimates, the utter lack of any meaningful reduction in listening hour for *any* of the LSE treatment groups decimates Professor Willig's must-have assumption. *See* Reiley CWDT ¶ 22 & Figure 2; Reiley WRT ¶¶ 12-13 & Figure 1; 8/19/20 Tr. 2711:8-2712:1

(Shapiro).

954. Disputed. Professor Willig offers mere speculation (and also new testimony not included in his WRT) that listening on Pandora is somehow correlated to the presence or absence of "hit" music. *See* 8/6/20 Tr. 610:4-611:8. There is no evidence of this. Professor Willig relies on an extremely narrow, one-year measure of "hits"–not disclosed or entered on the record—for his comparison. *See* 8/6/20 Tr. 610:4-611:8 (Willig). Professor Willig's speculative assumption overlooks the personalized (vs. hits-driven) nature of users' listening experience on Pandora, which SoundExchange elsewhere claims would obfuscate the suppression of a major label's catalog. *See infra* ¶ 943; Tucker CWRT ¶¶ 28-32. Professor Willig's theory is disproven in any event by the fact that the [redacted] listening loss—for all its purported "hits"—was *lower* than the smaller and less hit-dominant [redacted]. *See* Reiley CWDT ¶ 22 & Figure 2; Reiley WRT ¶¶ 12-13 & Figure 1.

955. Disputed in part. Professor Shapiro never claimed that there was a difference in terms of "secrecy" as between different points within the confidence interval—that is a non sequitur. As SoundExchange well knows, Professor Shapiro used the top end of the confidence interval in his calculations as a conservative adjustment to allow for the possibility the listening impact could be greater (as SoundExchange argues) if in a real-world blackout there were communications from competitors. *See* Shapiro SCWDT at 21, 28-29; 8/19/20 Tr. 2701:19-2703:9 (Shapiro); PAN-SXM PFFCL ¶ 138; Tr. 2417:23-2419:19 (Tucker). It is not disputed that all users in the LSEs were treated equally in terms of receiving no such communications. *See* Shapiro SCWDT at 21, 28-29.

956. Not disputed.

957. Disputed. As Dr. Reiley testified, he had the benefit of having been involved in Pandora's ad-load experiments, some of the few long-term experiments performed at a service like Pandora. Reiley CWDT ¶¶ 27-28; 9/1/20 Tr. 4915:20-4916:5 (Reiley). Based on Dr. Reiley's experience observing a near linear decline in listening hours over approximately the first year of the ad-load experiments, he testified that the effects of the LSEs observed after six months could double in the long run. CWDT ¶ 28. Accordingly, Professor Shapiro's doubling of the LSE results to account for potential longer-term effects is both a reasonable and conservative estimate. 8/19/20 Tr. 2701:3-13 (Shapiro).

958. Disputed. *See infra* ¶ 957.

959. Disputed. *See infra* ¶ 957. Neither Dr. Reiley nor Professor Shapiro claim that ad-load and label suppression effects are perfectly correlated. However, the ad-load experiments provide the best comparable evidence on long-term experimental treatment effects on users' listening, and SoundExchange has presented no evidence to the contrary. *See* 9/1/20 Tr. 4907:20-4909:1 (Reiley).

960. Disputed. *See infra* ¶¶ 957-958.

961. Disputed. Professor Reiley testified that the results of the LSEs were entirely consistent with the linearly extrapolated results of Dr. McBride's Steering Experiments, notwithstanding the LSE's somewhat wider confidence intervals. 9/1/20 Tr. 4925:2-25, 4990:7-13 (Reiley); PAN-SXM PFFCL ¶ 83. SoundExchange has presented no evidence that the LSE results cannot be extrapolated to [redacted]% suppression, other than Professor Tucker's testimony about an academic article about a study involving free chocolate, from which she infers that "people *can* behave differently at the extremes of a distribution." Tucker CWRT ¶ 71 (emphasis added); 8/18/20 Tr. 2425:2-2426:14 (Tucker). For the reasons discussed in Pandora's PFFCL,

Professor Tucker's mere conjecture about how users might behave at the extremes of a distribution based on an inapposite study about behavior when the price of goods moves from inexpensive to free is unavailing. *See* PAN-SXM PFFCL ¶ 95.

962. Disputed. *See infra* ¶¶ 951-961.

B. Professor Shapiro Correctly Calculates Royalty Rates Earned by Blacked-Out Record Companies

963. Disputed in part. Although SoundExchange accurately describes Professor Shapiro's "formulation of per-play opportunity cost" as "L x R," the preceding section demonstrates that there were no "substantial errors in L" as SoundExchange argues, *see supra* ¶¶ 852-962, and this section rebuts SoundExchange's assertion that there was a "critical flaw in Professor Shapiro's calculation of R," the average royalty earned by record companies for diverted plays, *see infra* ¶¶ 964-982.

1. Professor Shapiro Reasonably Estimates Per-Play Royalties Earned from Diverted Listening, and His Model is Robust to Reasonable Changes in Assumptions

964. Disputed. Professor Shapiro did not "fail to account" for the full amount of royalties that record companies would earn from new subscriptions in the event of a blackout. On the contrary, he used the best available real-world data to estimate *per-play* royalties from the spins associated with those new subscriptions. *See* SXM-PAN PFFCL ¶ 144. Although Professor Willig and SoundExchange prefer to use *per-subscriber* royalties to calculate opportunity cost, the problem with this approach is that *there is no record evidence* directly measuring the number of new subscriptions that would arise from a label blackout on an ad-supported noninteractive service. As Professor Shapiro explained at the hearing, the Hanssens and Zauberman surveys simply cannot give us that information, for two reasons: (1) the surveys *do not* ask respondents what they would do in response to a label blackout; and (2) ignoring that

fact, as Professor Willig did, leads to preposterous results that cannot be squared with how listeners use subscription services in real life. 8/26/20 Tr. 3935:21-3938:2 (Shapiro).

As to the first point, SoundExchange asks the Judges to "[c]onsider the simple example of a Pandora Free listener who purchases a new subscription to a paid on-demand service because the content of a record company . . . was no longer available on Pandora Free." SX PFFCL ¶ 965. SoundExchange argues that [redacted]% of respondents to the Hanssens survey would purchase a new on-demand subscription in response to such a label blackout, *id.* ¶ 966, but that is not at all what the survey tells us. As SoundExchange's own experts conceded, consumers of webcasting services generally do not know what music or which artists are associated with particular labels. Simonson WRT ¶ 28; 8/6/20 Tr. 789: 9-17 (Willig); Zauberman WRT ¶ 36; *see also* 8/18/20 Tr. 2668:8-2669:23 (Shapiro) ("[I]f you asked people how much would you reduce your listening to Pandora if it didn't have Warner Music, it's not going to work because people don't really know what the Warner catalogue is like. And so you can't meaningfully run a survey with that."); 8/19/20 Tr. 2716:23-2717:21 (Shapiro). Instead, the Hanssens survey relied on a hypothetical in which all respondents were *told* that their favorite artist was missing from the service and then asked them what they would do; thus, the *assumption* that all respondents would notice a degradation in the service, be affected by it (because they noticed their favorite artist was missing), and care enough about it to possibly change their behavior was "built in" to the questions in an attempt to figure out where those disaffected users would go. 8/19/20 Tr. 2717:22-2718:5 (Shapiro); *see also* Hanssens CWDT ¶¶ 33-34. But there is no reason to assume that in a real-world blackout, every Pandora user would notice the blackout, understand what it entailed, experience a loss of their favorite artists (or top hits), or care at all; indeed, the LSEs resoundingly disproved that assumption, and Professor Hanssens roundly

rejected it. 8/18/20 Tr. 2668:8-2669:23 (Shapiro); 8/19/20 Tr. 2716:23-2717:21 (Shapiro); 8/26/20 Tr. 4092:11-4093:8, 4096:15-4097:4, 4101:5-17, 4109:2-5, 4154:2-9, 4156:6-13 (Hanssens); 8/27/20 Tr. 4315:16-22 (Simonson). Thus, the results of the Hanssens survey, which intentionally capture the narrow subset of users who actually notice and are affected by the blackout (and reports percentages only of such users), simply cannot be generalized to the entire Pandora user base; and it therefore is plainly wrong to assume that in the event of a label blackout that causes only some modest reduction in listening across Pandora and not a full shutdown (as Professor Willig assumes), that [redacted]% of *all* Pandora users would divert away from Pandora to a new on-demand subscription. *See* 8/26/20 Tr. 3936:12-23 (Shapiro); 8/20/20 Tr. 3150:18-3151:16, 3231:3-11 (Shapiro); *see also supra* ¶ 931.

As to the second point, Professor Willig's own results confirm the absurdity of his attempt to generalize the Hanssens survey responses across the entire Pandora user base. If [redacted]% of Pandora users (*i.e.*, more than *ten million* people) diverted to new on-demand subscriptions, each would need to use those services for an average of *only 2.6 plays per month* (down from the current average of 800 plays per month) to generate the number of performances diverted to paid on-demand listening. *See* 8/19/20 Tr. 2772:21-2773:23 (Shapiro); 8/10/20 Tr. 1011:5-1012:6 (Willig); TX 4113; Willig WRT Appx. J ¶ 10. The same is true of listeners who divert to a new Sirius XM satellite subscription: Professor Willig's "corrections" suggest that they would listen, on average, to only *one* song per month—behavior that Professor Willig himself admitted "is not really credible or believable." 8/10/20 Tr. 1015:24-1016:18.

965-66. **Disputed**. *See supra* ¶ 964.

967. **Disputed in part**. While SoundExchange correctly summarizes Professor Shapiro's method of calculating the average per-play royalty generated by new subscriptions to

on-demand streaming services, the suggestion that Professor Shapiro instead could or should have used the *per-subscriber* royalty that record companies would earn "in reality" from "each Pandora *user* who bought a new subscription" is wrong. As discussed above, there is no record evidence of the total number of Pandora users who would buy a new subscription in response to a label blackout, and Professor Willig's misuse of the Hanssens and Zauberman surveys for this purpose leads to absurd results, as Professor Willig himself admitted. *See supra* ¶ 964.

968. Disputed in part. *See supra* ¶ 967.

969. Disputed in part. Because on-demand subscription services generally pay royalties "[redacted]," SoundExchange is correct that record company opportunity costs depend in part on "[redacted]" due to a label blackout on a noninteractive webcasting service. SX PFFCL ¶ 969 (quoting 8/20/20 Tr. 3156:8-18 (Shapiro)). But there is no record evidence that directly measures how many new subscriptions would be purchased due to a label blackout, and Professor Willig's misuse of the Hanssens and Zauberman surveys for that purpose leads to absurd results. *See supra* ¶¶ 931, 964. Professor Shapiro instead used empirical measurements of lost listening hours from the Label Suppression Experiments, and "[redacted]" for the subscription services—an approach he explained was "[redacted]." 8/20/20 Tr. 3156:24-3157:2 (Shapiro); *see also* SXM-PAN PFFCL ¶¶ 135, 141-46.

970. Disputed in part. *See supra* ¶ 969.

971. Disputed. SoundExchange's selective quotations of Professor Shapiro in this paragraph ignore his clear testimony that, as discussed above, the Hanssens survey does not and cannot measure the number of Pandora users who would buy a new on-demand subscription in response to a label blackout. 8/26/20 Tr. 3936:12-14 (Shapiro) ("This is not a question about a

label blackout. It's not."); *see also supra* ¶¶ 931, 964. Professor Hanssens likewise testified that his percentages describe only the small subset of Pandora users who would actually be affected by the degradation in the sense that they *noticed* it and were *dissatisfied* as a result—*not* simply *any* Pandora user subject to a blackout. 8/26/20 Tr. 4093:5-8; 4101:5-17; 4154:2-9; 4156:6-13; *see also supra* ¶ 964. In short, as Professor Shapiro explained, the survey's usefulness begins and ends with measuring diversion *ratios*: *i.e.*, among users who *do* change their listening habits in response to a blackout, how much of *their* diverted listening goes toward new on-demand subscriptions, and how much goes to other forms of entertainment. 8/19/20 Tr. 2716:23-2717:21 (Shapiro); 8/26/20 Tr. 3935:21-3938:2 (Shapiro). Professor Willig's misuse of the Hanssens survey as if it measured the percentage of *all* Pandora users who would purchase new on-demand subscriptions in response to a blackout leads him to an absurd conclusion: millions of Pandora users would purportedly buy such subscriptions and almost never use them. *See supra* ¶ 964.

972. Disputed. *See supra* ¶ 971.

973. Disputed. SoundExchange's selective quotations of Dr. Leonard ignore the fact that the Hauser survey (like the Hanssens survey) did *not* ask respondents what they would do in response to a label blackout. The Hauser survey asked respondents which alternatives to simulcasting they would consider *if simulcasts were no longer available*—not if one label's repertoire were blacked out from the simulcast. NAB PFFCL ¶ 114; Hauser WDT ¶¶ 101-02, App. E, Q4 & Q5.

974. Disputed. Professor Shapiro did not "translat[e] lost subscriptions" into lost royalties per play because, as noted, no direct measurement of lost subscriptions was available to translate. *See supra* ¶¶ 964, 971. Instead, Professor Shapiro took the empirical data that *was* available—a record company's lost *plays* on other forms of listening as a result of licensing

Pandora's free service—and then used the effective royalty per play to calculate opportunity cost per play. *See* SXM-PAN PFFCL ¶¶ 127-49. Although calculating the average royalty per play did require an assumption about the number of plays per new subscriber per month on on-demand subscription services (*see* SX PFFCL ¶ 974), Professor Shapiro's assumption was entirely reasonable: he used real-world data showing that *current* on-demand subscribers listen on average to about 800 plays per month, and he assumed the same would be true of Pandora listeners who choose to purchase on-demand subscriptions. *See* 8/19/20 Tr. 2766:18-2767:10 (Shapiro); *see also* SXM-PAN PFFCL ¶¶ 168-69.

Even if that assumption were wrong—and there is no evidence to suggest that it is—Professor Shapiro showed that his model was robust to reasonable changes in assumptions, and his calculation of reasonable statutory rates would not be greatly affected by such changes. As Professor Shapiro demonstrated at the hearing, even if one assumed that new on-demand subscribers in a blackout situation listened to only *half* as many monthly plays as the typical subscriber—thus doubling the number of new subscriptions required to accommodate the plays diverted to on-demand listening and the effective per-play royalty earned from those plays—it would lead to only a very small increase in opportunity cost, because new on-demand subscriptions only account for [redacted]% of all diverted listening, and thus play a relatively minor role in the weighted average. SXM-PAN PFFCL ¶ 170; 8/19/20 Tr. 2768:24-2772:18 (Shapiro). Specifically, assuming 400 plays per subscriber per month would bump Warner's opportunity cost only from $[redacted] to $[redacted]. Assuming, even more conservatively, only *200* plays per subscriber per month on the diverted on-demand subscriptions—a number less than the [redacted] monthly plays the average user enjoys on Pandora—Warner's opportunity cost would bump up to only $[redacted]. SXM-PAN PFFCL ¶ 170; 8/19/20 Tr. 2770:13-2771:3 (Shapiro). To reach

opportunity costs anywhere near the range calculated by Professor Willig requires making truly absurd assumptions about the use of new subscriptions—a few songs per month at most. 8/19/20 Tr. 2772:21-2773:23 (Shapiro. As noted above, Professor Willig admitted those assumptions are not credible. 8/10/20 Tr. 1015:24-1016:18, *see generally supra* ¶ 964.

975. Disputed in part. Although Professor Shapiro's assumption that new on-demand subscribers would listen to 800 plays per month was not based on any study of Pandora users in particular, there is no dispute that current on-demand subscribers do listen to approximately 800 plays per month on average. *See* 8/10/20 Tr. 1012:22-24, 1015:5-8 (Willig). And, as noted above, cutting that assumed number of plays in half, or even by 75%, has only a small impact on the opportunity costs Professor Shapiro calculates. *See supra* ¶ 974.

976. Disputed in part. Although the pure "arithmetic" in this paragraph is roughly correct, *see* 8/20/20 Tr. 3149:20-21 (Shapiro), the Hanssens survey does not "fatally undermine[]" (SX PFFCL ¶ 976) Professor Shapiro's assumption that new subscribers to on-demand services would listen to as many plays per month as current subscribers (about 800). As Professors Shapiro and Hanssens both testified, the Hanssens survey was *not* designed to ascertain the total amount of new listening that on-demand services would enjoy in a label blackout of a noninteractive service. *See supra* ¶¶ 964, 971; 8/20/20 Tr. 3230:24-3231:11 (Shapiro). Only by deliberately misinterpreting the survey in that fashion can SoundExchange make the "math work[]" out to [redacted] plays per new on-demand subscriber per month (SX PFFCL ¶ 976), which is "less than one tenth" of the 800 plays that we know are "actually going on in the real world." 8/20/20 Tr. 3230:24-3232:12 (Shapiro). There is no dispute, however, that, as stated in SX PFFCL ¶ 976, Pandora users listen to an average of about [redacted] plays per month *on Pandora*. If Pandora users who diverted their listening to new on-demand subscriptions listened

to only *that* number of plays per month on demand (as opposed to 800 as Professor Shapiro assumes), the effect on Professor Shapiro's opportunity-cost calculation would be quite small. *See supra* ¶ 974.

977. Disputed in part. *See supra* ¶ 976.

978. Disputed in part. There is no dispute that when "a user already has" a subscription to a streaming service, "additional listening" to those existing subscriptions "does not generate additional revenue for the subscription services or for record companies." SX PFFCL ¶ 978 (quoting Shapiro). In other words, the "record company compensation for diversion to existing subscriptions . . . is zero." *Id.* That is true regardless of whether the compensation is calculated on a per-subscriber or per-play basis: zero is zero. Thus there is nothing "inconsistent" about Professor Shapiro's decision to calculate royalties from new subscriptions on a per-play basis.

979. Disputed. SoundExchange's concluding summary of its arguments in the foregoing section is wrong for all the reasons discussed in paragraphs 964-978 above. There is neither any "outright error" nor any "understatement" in Professor Shapiro's computation of opportunity cost. *See supra* ¶¶ 964-978.

2. Professor Shapiro's Treatment of Royalties Earned from the Other Noninteractive Distributor Is Conservative

980. Disputed. Here, SoundExchange criticizes Professor Shapiro's model because he solves for the ad-supported and subscription rates separately, whereas Professor Willig's model solves them simultaneously by treating the ad-supported and subscription rates as "endogenous variables." SX PFFCL ¶¶ 980-82. But this feature of Professor's model does not "artificially depress[] record companies' opportunity costs," as SoundExchange claims. *Id.* ¶ 980. On the contrary, Professor Shapiro demonstrated that his own choice was conservative: had he solved

simultaneously as Professor Willig prefers, his model would have produced lower rates. That is so because including the alternate form of webcasting (either subscription or ad-supported) in his calculation of *R* (average royalty) for diverted performances would have dragged *down* the average royalty that the record company receives, thereby decreasing the opportunity cost as well. *See* 8/19/20 Tr. 2749:17-2750:4 (Shapiro). The same is true for Dr. Leonard. 8/24/20 Tr. 3415:15-3416:4 (Leonard).

981-82. **Disputed**. *See supra* ¶ 980.

C. Professor Willig Did Not "Correct" Professor Shapiro's Opportunity Cost Estimates; He Inflated Them

983. **Disputed**. Professor Shapiro demonstrated that his opportunity-cost analysis for ad-supported noninteractive services is not "flawed" as Professor Willig contends; indeed, Professor Willig's purported "corrections" merely swap in his *own* unreliable inputs to inflate the results. *See infra* ¶¶ 984-89.

1. The Survey Evidence Cannot Determine Overall Diversion to Subscription Services

984. **Disputed**. For the reasons already detailed above, neither the Hanssens Survey nor the Modified Hanssens Survey can be used to determine the total percentage of ad-supported noninteractive streaming users who would divert their time to another form of listening (including subscription services) in the event of a label blackout. *See supra* ¶¶ 931, 964, 971. The usefulness of those surveys begins and ends with determining diversion *ratios*—not diversion "rates" as SoundExchange contends. *See id.* ¶¶ 931, 971.

985. **Disputed**. Professor Willig's misuse of the survey results to attempt to measure overall diversion rates to subscription services—purportedly leading to a [redacted] increase in per-play opportunity cost—is not a "correction" of Professor Shapiro's model. *See supra* ¶ 984.

986. **Disputed**. Professor Willig's misuse of the survey results to attempt to measure

overall diversion rates to subscription services leads to *wildly inflated* opportunity costs, not "corrected" ones. *See supra* ¶¶ 931, 984.

2. Survey-Based Results Cannot Replace the LSEs

987. Disputed. For the reasons already detailed above, neither the Hanssens Survey nor the Modified Hanssens Survey can be used to determine the total amount of ad-supported noninteractive listening time that would be lost in the event of a label blackout. *See supra* ¶¶ 931, 964, 971. Professor Willig's misuse of survey results for this purpose (while running away from the LSE results that *do* measure lost listening) therefore does not "correct[]" Professor Shapiro's opportunity cost estimates.

988. Disputed. Professor Willig's misuse of the survey results to attempt to measure the overall loss of ad-supported noninteractive listening time should not be credited. *See supra* ¶ 987.

989. Disputed in part. Professor Willig's misuse of the survey results to attempt to measure the overall loss of ad-supported noninteractive listening time leads to *wildly inflated* opportunity costs, not corrected ones. *See supra* ¶ 987. As to SoundExchange's additional contention that Professor Willig makes a "smaller correction" by updating Professor Shapiro's royalty data for CDs, vinyl, and downloads, there is no dispute that Professor Willig's data is more recent. However, the effect of the update on overall opportunity cost is negligible: even if per-play royalty rates on newly purchased CDs, vinyl, and downloads [redacted], *see* Willig WRT ¶ 52, those modes of listening account for less than [redacted]% of plays diverted from subscription webcasting, and less than [redacted]% of plays diverted from ad-supported webcasting, *see* Shapiro SCWDT at 23 tbl.2, 30 tbl.5.

D. Sirius XM's Webcasting Service is an Appropriate Proxy for the Subscription Noninteractive Webcasting Market

990. Disputed in part. Professor Shapiro did rely on a survey of users of Sirius XM's internet streaming service to analyze diversion ratios in the subscription noninteractive market. That was a sound choice, not a "defect," for the reasons discussed in paragraph 993 below.

991-92. Not disputed.

993. Disputed in part. There is no dispute that the Hanssens and Zauberman surveys found the diversion ratios stated, and that Sirius XM webcasting users were more likely to divert to Sirius XM satellite radio than to any other single source of music. But those facts do not render "unreliable" Professor Shapiro's use of Sirius XM's webcasting service as a proxy for subscription noninteractive webcasting services. Indeed, SoundExchange fails to cite testimony from *any* witness criticizing Professor Shapiro's choice. That is because Sirius XM's webcasting service *is* a reasonable proxy: it is the largest subscription noninteractive webcasting service, 8/20/20 Tr. 3230:4-6 (Shapiro), and one of the largest commercial webcasters overall, 8/13/20 Tr. 1998:10-18 (Orszag). Though SoundExchange notes that users of Sirius XM's webcasting service prefer Sirius XM's bundle of music and non-music content, other subscription webcasters similarly offer a "bundle of non-music offerings (sports and the like) to attract paying subscribers," Shapiro SCWDT at 10. In fact, Professor Shapiro testified he was unaware of *any* subscription statutory webcasting services that are music-only. 8/20/20 Tr. 3230:7-11.

994. Disputed. SoundExchange now argues that Professor Shapiro "should have used Pandora Plus" instead of Sirius XM's webcasting service to analyze diversion ratios in the subscription noninteractive market. But SoundExchange fails to cite any witness testimony criticizing Professor Shapiro on that basis. Moreover, as Professors Shapiro and Willig both testified, Pandora Plus is *not* a statutory service and offers listeners a variety of interactive

features that statutory services do not, including replays, unlimited skips, and cached offline listening. Shapiro SCWDT at 8 n.4; 8/6/20 Tr. 868:20-23 (Willig). Professor Willig did not undertake any independent analysis of those additional features when using Pandora Plus to analyze diversion ratios in his own model. 8/6/20 Tr. 868:24-869:14 (Willig).

995. Disputed in part. There is no dispute that Professor Shapiro considers Pandora Plus less appropriate than Sirius XM's webcasting service as a proxy for analyzing consumer diversion from subscription statutory webcasting, due to the non-statutory interactive features that listeners enjoy on Pandora Plus. Also no dispute that Pandora Plus royalty rates are negotiated in the shadow of the statutory rate. But, as previously discussed, SoundExchange is wrong to argue that the interactive features of Pandora Plus have "[redacted]." *See supra* ¶¶ 146-55 Joint PFFCL ¶¶ 166-70. Furthermore, the fact that [redacted], SX PFFCL ¶ 995, does not inform its usefulness as a proxy in this proceeding.

E. Professor Shapiro's Analysis Accurately Depicts Pandora's Willingness to Pay

996. Not disputed.

997. Disputed. The Services do not dispute that, using Professor Shapiro's historical financial results for 2018 and definition of fixed costs, Pandora would not be profitable if Pandora paid the royalty obligations specified by Professor Shapiro's model. But the Services dispute that this fact makes Professor Shapiro's analysis inaccurate: Pandora [redacted]. Ryan WRT ¶ 45.

998. Disputed. *See supra* ¶ 997; *infra* ¶¶ 999-1018.

1. Professor Shapiro Correctly Assessed Pandora's Willingness to Pay Based on Historical Data

999. Disputed. *See supra* ¶ 658; *see also infra* ¶¶ 1000-05.

1000. Disputed in part. The Services do not dispute that Professor Shapiro did not use Pandora's projections for the 2021-2025 time period to estimate marginal profit rates for the coming rate period. However, the Services dispute that Professor Shapiro "depressed Pandora's willingness to pay by using only historical financial results from 2018." SX PFFCL ¶ 1000. Using forecasts rather than historical data will typically always increase the willingness to pay, however, other aspects of the market will also differ in the 2021-2025 rate period relative to historic rates. It is inappropriate to cherry-pick one change that produces higher rates in rate models while ignoring other changes that would produce lower rates, as Professor Willig has done. Shapiro WRT at 45 n.141; 8/19/20 Tr. 2731:21-2732:20 (Shapiro). For example, the single largest component of opportunity cost is from subscription interactive streaming, *see* Willig CWDT ¶ 37, and a lower opportunity cost would lower the rate produced by the bargaining models used in this proceeding. As noted by SoundExchange's own experts, the rates paid by subscription interactive services have been declining (albeit not as a result of any price competition in that market). *See supra* ¶ 493.

1001. Disputed. As discussed in paragraph 659 above, the Merger Proxy statement projections were based on "upside" assumptions [redacted] Pandora's expected profitability (pre-pandemic) was expected to [redacted], with a [redacted]. Joint PFFCL ¶ 318. The gross margin percentage was actually [redacted]. *Id.* Current financial data indicates that the most important metric through which to evaluate Pandora's financial health, monthly active users, [redacted], and

even the least optimistic earlier projections [redacted]. *Id.* ¶ 319. Moreover, [redacted]. *Id.* ¶ 321.

1002. Not disputed.

1003. Disputed in part. The Services do not dispute the accuracy of the statements attributed to Sirius XM CEO James Meyer and CFO David Frear. However, as discussed *supra* ¶ 1001, the Services dispute that there is an "expectation of future profitability."

1004. Disputed. As discussed above, *supra* ¶ 659, the Merger Proxy statement projections were meant to provide a "more optimistic" view of Pandora's financial health driven by "upside" assumptions of audience and hours growth to determine what potential investors might stand to gain in an acquisition or merger. SXM-PAN PFFCL ¶ 31; Joint PFFCL ¶ 283. The LRS presents a "more recent and more balanced picture of Pandora's financial condition" and reflects [redacted] SXM-PAN PFFCL ¶ 32.

1005. Disputed. As discussed *supra* ¶¶ 672, 675, 677-678 and *infra* ¶ 1008, Professor Willig's computations using the forecasts in the LRS are incorrect given Professor Willig's treatment of product development costs and non-music revenues. Utilizing the financial projections in the backup materials, and by properly allocating product development costs and excluding non-music revenues, the variable profit rate per play for Pandora's ad-supported service is [redacted] and the variable profit rate per play for Pandora's subscription service is

[redacted]. *See* Shapiro WRT figs. 6 & 7 at 50-51. These figures are closer to Professor Shapiro's calculations of variable profit rate per play based on the 2018 historical data, which were [redacted] for Pandora's ad-supported service and [redacted] for Pandora's subscription service, Shapiro WRT at 75, than they are to Professor Willig's calculations, which were [redacted] for Pandora's ad-supported service and [redacted] for Pandora's subscription service. *See* Willig WRT at 138.

2. Professor Shapiro's Allocations of Pandora's Variable Costs Are Correct

1006. Disputed. *See infra* ¶¶ 1007-1018.

1007. Not disputed.

1008. Disputed. Professor Shapiro estimated, based on in-depth conversations with Mr. Ryan, Pandora's Vice President of Financial Planning and Analysis, that half of the product development costs varied with the number of performances on Pandora's ad-supported service, resulting in a figure of approximately [redacted]. 8/19/20 Tr. at 2802:13-2803:10 (Shapiro). Professor Willig then incorrectly assigned approximately [redacted] of that amount to the ad-supported service and distributed the rest among the other services based on revenue. *Id.* 2803:11-2804:1 (Shapiro). This is incorrect because the variable costs being discussed "were by definition variable with respect to plays on Pandora's free service[,] [s]o all of them are attributable to Pandora's free service because that's how they are defined." *Id.* Professor Willig has made an obvious error here as a result of his failure to understand Pandora's financials as well as Professor Shapiro, who had the benefit of in-depth conversations with Mr. Ryan, does.

1009. Not Disputed.

1010-11. Disputed. *See supra* ¶ 1008.

1012. Disputed in part. Pandora does not dispute that SoundExchange has selectively

quoted from Pandora financial documents. However, Pandora disputes that there is any continuing product development work on Pandora Plus or Pandora Premium. In fact, Mr. Ryan's testimony regarding the close to [redacted] in product development expenses previously expended by Pandora to create Pandora Premium did not indicate that any future product development expenses are likely to be incurred. 8/31/20 Tr. 4724:3-14 (Ryan).

1013. Disputed in part. Pandora does not dispute that there are costs to playing non-music content, but as Mr. Ryan testified, such costs are *de minimis*. 8/31/20 Tr. 4732:8-4733:3.

1014-16. Not disputed.

1017. Disputed. *See supra* ¶ 1008.

1018. Disputed in part. Pandora does not dispute that Mr. Ryan testified that a reduction in usage on Pandora's free tier would lead to a variable cost savings on Pandora Free, including a reduction in product development costs. 8/31/20 Tr. 4671:3-13 (Ryan). Pandora also does not dispute that Mr. Ryan testified that, in order to isolate the profitability of Pandora Free, one would need to remove the [redacted] associated with non-music content. 8/31/20 Tr. 4678:14-21, 4681:24-4682:5, 4732:8-4733:3 (Ryan). However, as discussed *supra* ¶ 1008, it is Professor Willig who erred in allocating the variable costs.

F. Professor Shapiro's Nash-In-Nash Bargaining Model Is Specified Appropriately and Relies on Well-Supported Inputs

1019. Disputed in part. There is no dispute that Professor Shapiro uses a Nash-in-Nash bargaining model that is a "good tool" and has "currency in the economic literature." Indeed, contrary to SoundExchange's argument, Professor Shapiro's Nash-in-Nash model is a better fit for this proceeding than Professor Willig's Shapley model. *See infra* ¶¶ 1023-43. Also, as already discussed, Professor Shapiro's opportunity cost and willingness-to-pay calculations are not "erroneous," and are far more reliable than Professor Willig's own deeply flawed

calculations. *See supra* ¶¶ 852-1018; Joint PFFCL ¶¶ 230-75, 276-86.

1020. Disputed. *See infra* ¶¶ 1044-55.

1021. Disputed in part. There is no dispute that Professor Shapiro's "primary testimony is based on his Nash-in-Nash model," and that Professor Shapiro was "only offering the Myerson analysis to rebut the testimony from Professor Willig on the Shapley value." SX PFFCL ¶¶ 1021-22 (quoting 8/6/20 Tr. 765:9-25 (Pandora's counsel)). But Professor Shapiro could not have been clearer that, in contrast to Professor Willig's Shapley value model, *both* his affirmative Nash-in-Nash model *and* his Myerson analysis on rebuttal account for negative contracting externalities:

> [W]e have two models that are on the table . . . that account for negative contracting externalities. One is Nash-in-Nash and the other is Myerson, which I'll remind you, Myerson is equivalent to the recursive Nash-in-Nash. . . . Either way, either one of those models accounting for negative externalities leads to much lower rates than the Shapley model. So the problem with the Shapley model is inherent in this situation and leads to higher rates. And it's not an issue of the timing of how you model the negotiations because *either Nash-in-Nash or recursive Nash-in-Nash, equals Myerson, give lower rates and account for the contracting externalities.*

8/26/20 Tr. 3908:16-3909:5 (Shapiro, responding to question from Judge Strickler) (emphasis added).

SoundExchange's baseless suggestion that Professor Shapiro somehow "abandoned" his Nash-in-Nash model, SX PFFCL ¶ 1021, should be rejected out of hand. It comes from SoundExchange's confused misreading of a single line of his testimony, which SoundExchange parses incorrectly, *see id.* (citing 8/26/20 Tr. 3938:16-19). There, consistent with the much longer quotation above, Professor Shapiro was explaining that "you have to use" either Myerson or Nash-in-Nash, but cannot use Shapley, to account for negative contracting externalities. 8/26/20 Tr. 3938:16-19. Correctly parsed, his full testimony reads:

> If you drop the must-have assumption[,] and using [1] the Myerson, which you have to use instead of Shapley or [2] Nash-in-Nash, you don't get 29 or 30. You get 12 or 14 or 15. That's the zone you're going to be in.

Id. 3938:15-19. His reference to Figure 11 of his written rebuttal testimony, *id.* 3938:11-12, reinforces the point: if you drop the must-have assumption, then *either* Myerson *or* Nash-in-Nash produces far lower rates than Shapley, because Myerson and Nash-in-Nash *both* account for negative contracting externalities whereas Shapley does not. *See* Shapiro WRT at 62-63.

1022. Disputed in part. There is no dispute that the Judges rejected SoundExchange's improper attempt to introduce new quantitative analysis of Myerson values by Professor Willig at the hearing. *See* 8/6/20 Tr. 768:2-8. But the Services did not "create[] an incomplete and one-sided record on the Myerson issue." SX PFFCL ¶ 1022. On the contrary, Professor Shapiro properly offered his Myerson analysis to rebut Professor Willig's Shapley analysis. 8/6/20 Tr. 765:21-24 (Pandora's counsel) ("[I]f Professor Willig had never testified about Shapley Value on his direct, Professor Shapiro would not have testified about Myerson Value on rebuttal."); *see also supra* ¶ 1021. That Professor Willig proffered an infirm analysis that fails to account for negative contracting externalities and was exposed for doing so by Professor Shapiro hardly creates an incomplete record.

1. The Nash-in-Nash Bargaining Model is Inferior to the Shapley Value Model For Purposes of This Proceeding

1023-24. Not disputed.

1025. Disputed in part. The Services do not dispute that there are different ways of extending the Nash Bargaining Solution to multi-party negotiations. But the Shapley Value model is not the "standard" way of extending the Nash Bargaining Solution. As Professor Shapiro explained, Shapley Value is a cooperative game theory model, which does not capture the outcome of the relevant bilateral negotiations in this proceeding between one record

company and one statutory webcaster. *See* Joint PFFCL ¶ 220; Shapiro WRT at 59; 8/19/20 Tr. 2817:4- 2818:10 (Shapiro). In "non-cooperative game theory," Nash-in-Nash equilibrium "is the dominant way of handling" a problem involving multiple bilateral negotiations in which parties simultaneously compete. 8/18/20 Tr. 2655:3-20 (Shapiro); SXM-PAN PFFCL ¶ 158.

1026-27. Not disputed.

1028. Disputed. The order of arrival of the parties does not bear on the Nash-in-Nash framework, which involves simultaneous bilateral negotiations by the parties. 8/21/20 Tr. 3191:8-18 (Shapiro). Accordingly, while the Nash-in-Nash solution assumes that each bargaining pair will reach a deal and then solves for the extra value contributed by any one record company and the service, it does not consider only incremental value of a record company that is the last to arrive to the negotiation. *See id.*

1029. Not disputed.

1030. Disputed in part. In a situation where the three major labels are must-haves for a noninteractive service but the indie labels are not, Shapley Value and Nash-in-Nash models will produce different results. Joint PFFCL ¶¶ 187-190; Shapiro WRT at 63; 8/19/20 Tr. 2821:21-2822:19 (Shapiro). Additionally, the assumption that any of the three major record companies is a must-have for noninteractive services (1) is incorrect, (2) hardwires the effect of complementary oligopoly power into the analysis, and (3) generates rates well above those that would be found in a market with effective competition. *See* Joint PFFCL ¶¶ 201-216.

1031. Not disputed.

1032. Disputed in part. The Services do not dispute that bilateral negotiations between a distributor and a record label will result in a lower royalty rate where the record label is not a "must-have" for the distributor than a situation where the record label was a must-have. Shapiro

SCWDT at 16, 18; 8/24/20 Tr. 3443:4-3444:15 (Leonard). However, in the scenario described in Paragraph 1033, the Nash-in-Nash model will result in a royalty rate for A that reflects effective competition, not a "low royalty." *See* Joint PFFCL ¶ 190.

1033. Disputed in part. The Services do not dispute that the results of a Shapley Value analysis are not contingent upon the order of arrival of the parties to a negotiation. However, the Shapley Value model is inappropriate for calculating royalty rates in this context for several reasons, including its failure to account for negative contracting externalities. *See* Services' Joint PFFCL ¶¶ 224-229; Shapiro WRT at 61-62. Accordingly, the results of Professor Willig's Shapley Value analysis are artificially high. *See* Joint PFFCL ¶¶ 224-29; Shapiro WRT at 61-62. For the reasons explained by Professor Shapiro and in the Services' Joint PFFCL, the Nash-in-Nash framework is superior to the Shapley Value model in this proceeding. *See* Services' Joint PFFCL ¶¶ 224-229; Shapiro WRT at 61-62. Professor Shapiro's Myerson Value analysis, which yields similar results to his Nash-in-Nash model, corroborates that conclusion. Joint PFFCL ¶ 229; 8/19/20 Tr. 2750:6-2754:13 (Shapiro).

1034. Disputed. The Shapley Value model does not reflect effective competition for several reasons. As explained above, it is a cooperative (rather than competitive) game theory model, which does not capture the outcome of the relevant bilateral negotiations and does not account for negative contracting externalities. *See infra* ¶¶ 1025, 1033.

1035. Disputed in part. Professor Willig never explained what he meant by the vague statement that the Nash-in-Nash model may yield a stable equilibrium when applied to a scenario in which a noninteractive distributor requires the content of two major record companies to sustain operations. *See* Willig WRT ¶¶ 11, 67, 70. The Nash-in-Nash model is perfectly suitable for modeling an assumption that two major labels are must-haves for noninteractive distributors.

8/21/20 Tr. 3191:8-18 (Shapiro). The model is not dependent on the number of labels that are must-haves because each record label assumes that the others will reach a deal. *Id.* at 3191:8-25. Professor Shapiro explained that in a situation where a record label believes one or more other record labels will not reach a deal, the recursive Nash-in-Nash analysis should be applied. 8/20/20 Tr. 3189:6-3190:21 (Shapiro). Professor Shapiro's testified that his recursive Nash-in-Nash model corresponds to the Myerson Value. 8/19/20 Tr. 2750:6-2754:13 (Shapiro).

1036. Disputed. As explained above, in the Nash-in-Nash framework, all bilateral negotiations occur simultaneously, such that the order of arrival of the parties is irrelevant. *See infra* ¶ 1028; 8/21/20 Tr. 3191:8-18 (Shapiro). Furthermore, Professor Shapiro's Nash-in-Nash model considers the threats of the record companies to withhold their sound recordings as a negotiation tactic. 8/21/20 Tr. 3185:11-3187:20. The Nash-in-Nash analysis solves for the outcome of all of these negotiations that is internally consistent. *Id.* at 3189:5-20 (Shapiro).

1037. Disputed. In the hypothetical presented in Paragraph 1037, by threatening to go dark, record company A would not "dramatically" alter D's fallback position in negotiations with B and C. Furthermore, this situation could only arise in a situation where two, but not all three, major labels were must-haves for a distributor. Moreover, Professor Shapiro testified that the recursive Nash-in-Nash model accounts for this scenario because in that framework, each record label assumes that one or more of its competitors will fail to reach a deal with the distributor. 8/19/20 Tr. 2819:2-15 (Shapiro).

1038. Disputed. The Services dispute that, in the hypothetical presented, one major label threatening a blackout would significantly drive up the royalty rate paid to each major record company. Professor Shapiro's recursive Nash-in-Nash model, which accounts for this precise scenario, demonstrates that the royalty rates would not be significantly more than under

the Nash-in-Nash model (and would equal the Myerson Value, which takes into account negative contracting externalities). 8/19/20 Tr. 2750:6-2754:13, 2819:2-15 (Shapiro).

1039. Disputed. This hypothetical has a faulty premise. Because the Nash-in-Nash framework contemplates simultaneous bilateral negotiations, the order of arrival to the negotiation is irrelevant. *See infra* ¶ 1028; 8/20/20 Tr. 3191:8-18, 3189:5-20. (Shapiro).

1040. Disputed. As explained above, the Nash-in-Nash model is not dependent on the number of labels that are must-haves because in the Nash-in-Nash framework, each record label assumes that the others will reach a deal. 8/21/20 Tr. 3191:8-25 (Shapiro). Furthermore, Professor Shapiro's recursive Nash-in-Nash analysis accounts for a situation in which two major labels are "must-haves" and at least one label assumes that one or more other labels will not reach a deal with the distributor. 8/19/20 Tr. 2819:2-15 (Shapiro). And, as explained in the Services' initial filings, both the results of the LSEs and the fact that [redacted] refute Professor Willig's assumption that all major labels are must-haves for noninteractive services. Sirius XM/Pandora PFFCL ¶¶ 64-85; Services' Joint PFFCL ¶ 192; Peterson AWRT ¶¶ 97-98; 9/1/20 Tr. 4878:5-4879:18 ([redacted]).

1041. Disputed. *See supra* ¶¶ 1033-34.

1042. Disputed in part. The Services do not dispute that Professor Shapiro cited the articles discussed in Paragraph 1042. However, the Services dispute Professor Willig's contention that modifying the "fixity in any bilateral negotiation of the view of what the other negotiations are doing" will result in the Shapley Value. *See* 8/10/20 Tr. 967:2-9 (Willig). As Professor Shapiro testified, the only way that a Nash-in-Nash solution would devolve into a Shapley Value is if one assumes away all negative contracting externalities—an assumption that is plainly inappropriate here. Shapiro WRT at 62. Myerson Value accounts for these negative

contracting externalities. *Id.* As Professor Shapiro testified, his Myerson Value results are consistent with his recursive Nash-in-Nash results. 8/19/20 Tr. 2750:6-2754:13 (Shapiro); Joint PFFCL ¶ 229.

1043. Disputed. Professor Willig's sensitivity test of his Shapley Value in which two of the major labels are must-haves and the LSEs apply to the other major label, which he refers to as "Scenario 1," still includes Professor Willig's other unfounded assumptions that inflate his opportunity-cost inputs for the record labels. *See* 8/19/20 Tr. 2776:18-2777:8 (Shapiro). And, as explained above, Scenario 1 also reflects all of the other problems inherent with the Shapley Value model that lead to inflated results. *See infra* ¶¶ 1033-34.

2. Professor Shapiro's Nash-In-Nash Model Fails to Correctly Model Competition and So Depresses the Lower Bound of the Model

1044. Disputed. Professor Shapiro's Nash-in-Nash bargaining model is an excellent fit to model effective competition under the willing buyer/willing seller standard, for the reasons discussed below and in Pandora and Sirius XM's initial proposed findings. *See infra* ¶¶ 1045-52; SXM-PAN PFFCL ¶¶ 126, 155-66.

1045. Disputed in part. No dispute that Professor Shapiro specifies two separate Nash-in-Nash bargaining models, one for ad-supported noninteractive webcasters and one for subscription noninteractive webcasters. Also no dispute that in Professor Shapiro's ad-supported model, the webcaster negotiates separately with ten different record companies, with each record company anticipating that the webcaster has reached or will reach agreement with the others. But contrary to SoundExchange's argument, those specifications do not reflect any lack of "symmetry" in the model except superficially. As Professor Shapiro testified, including ten record labels in the model allows him to capture all three Majors and several independent labels (if not the hundreds that actually exist in the market). 8/19/20 Tr. 2743:8-15. More importantly,

after testing the model, Professor Shapiro found that changing the number of independent labels does not materially change the results. *Id.* 2743:16-2744:9. Furthermore, as explained below, Professor Shapiro's inclusion of only one webcaster in each model is conservative. *See infra* ¶ 1047.

1046. Disputed in part. No dispute that Professor Shapiro's model reflects competition among record companies. SoundExchange's observation that, in the real world, SME would not compete with its subsidiary The Orchard (and Universal would not compete with its subsidiary INGrooves) is beside the point: as noted above, Professor Shapiro could have added or subtracted independent labels from his model, and the results would not be materially different. *See supra* ¶ 1045.

1047. Disputed in part. Regardless of whether Professor Shapiro's choice to include only one webcaster in the model theoretically suppresses competition among distributors, that choice was conservative. Professor Shapiro demonstrated that including multiple services would have produced similar or *lower* rates than focusing on a single service. *See* 8/19/20 Tr. 2747:19-2748:9 (Shapiro); Shapiro SCWDT at 74-75. The reason that including multiple services would produce *lower* rates is that diversion of listening from one noninteractive service to another is less valuable to record companies (on average) than diversion to other forms of listening. *See* 8/19/20 Tr. 2749:17-2750:4 (Shapiro) (explaining that the average royalty for webcasting is lower than for other forms of listening). Thus, by focusing on a single noninteractive service and assuming that any diversion goes to other, more valuable forms of listening, Professor Shapiro used a conservative approach that favored the record companies.

1048. Disputed. Professor Shapiro's inclusion of only one webcaster in his model was conservative for the reasons noted above. *See supra* ¶ 1047. SoundExchange admits that the

only scenario in which using a single webcaster would *not* be conservative would be where the record company's "power ratio" is *greater* than one (1). SX PFFCL ¶ 1048; Willig WRT ¶ 62 n.117. But the LSEs (both before and after Professor Shapiro's adjustments) show that each major's power ratio is significantly *less* than one. *See* Shapiro SCWDT at 72-82; SXM-PAN PFFCL ¶¶ 77, 82. SoundExchange urges the Judges to disregard the LSEs as "flawed," but SoundExchange's critiques of the experiments lacks merit. *See supra* ¶¶ 852-962. Moreover, as detailed above, Professor Willig's attempt to calculate higher power ratios based on survey evidence is completely unreliable; neither the Hanssens surveys nor the modified versions run by Professor Simonson can be used for that purpose. *See supra* ¶¶ 735, 742-43, 964, 971.

1049. Disputed. Professor Shapiro's design for the model is conservative, *see supra* ¶¶ 1045-48, and his assumptions are reasonable, *see infra* ¶¶ 1050-52.

1050. Disputed. SoundExchange criticizes Professor Shapiro's model (in particular his specification of the noninteractive webcaster's "fallback value") because "Professor Shapiro incorrectly assumes that no record company is a 'must have'" for a noninteractive webcaster. But the record evidence overwhelmingly demonstrates that Professor Shapiro is correct. Not only do the Label Suppression Experiments reliably show that no record company is even close to a must-have for Pandora, *see* Joint PFFCL ¶¶ 195-98; SXM-PAN PFFCL ¶¶ 64-85, but also other compelling evidence points in the same direction: for instance, [redacted]. Joint PFFCL ¶¶ 192-94. Moreover, as the Services showed in their initial proposed findings, SoundExchange's scattershot evidence purportedly in favor of Professor Willig's "must have" assumption relates principally to on-demand streaming and simply does not hold up. *Id.* ¶¶ 199-216.

1051. Disputed in part. There is no dispute that a record company's fallback value depends on the amount of diversion to other forms of listening and the amount of royalties generated by the diversion. But Professor Shapiro's analysis does not "artificially depress[]" that value. First, for the reasons already discussed, the LSEs reliably measure lost plays and thus the total amount of diversion. SXM-PAN PFFCL ¶¶ 64-85; *see also supra* ¶¶ 852-962.[36] Second, SoundExchange ignores that, as an *alternative* to the LSEs, Professor Shapiro also calculated lost listenership on the assumption that if a webcaster lost access to a major record company's repertoire, it would experience diminished listening proportional to the record company's overall market share, *i.e.*, a loss of [redacted] Shapiro SCWDT App. F. at 76. This assumption—what Professor Shapiro identified as a "power ratio" of 100% or 1—is the same assumption Professor Willig made for the independent label in his own bargaining model. Shapiro WRT at 65. In Professor Shapiro's view, as an alternative to the LSEs, using a 100% power ratio would be far more reasonable than adopting Professor Willig's must-have assumption—an assumption which, for the reasons discussed in the Services' initial proposed findings, is totally unsupported by the record and flies in the face of the effective competition requirement. *See* Shapiro WRT at 64-66 & Fig. 14 (applying 100% power ratios); Joint PFFCL ¶¶ 185-98; 8/19/20 Tr. 2785:9-2788:23 (Shapiro).

1052. Disputed in part. There is no dispute that Professor Shapiro's model assumes that the record company's retention ratio—the proportion of diverted plays that are sound recordings owned by the blacked-out label—is equal to that company's share of all plays. But

[36] Professor Shapiro conservatively assumed that *all* of the webcaster's lost plays from the blackout would divert to other forms of listening, when in fact listeners who decrease their use of webcasting may choose to spend their time in other ways entirely (which would generate no royalties for the record company). *See* Shapiro SCWDT at 22 (noting that Professor Shapiro "somewhat *overestimate[s]* opportunity cost because "only a portion of the listening hours lost by statutory webcasters can be expected to migrate to other forms of listening.").

contrary to SoundExchange's argument, Professor Shapiro offers ample support for this assumption: [redacted] *See* 8/19/20 Tr. 2780:24-2781:17 (Shapiro); Reiley WRT ¶ 18 n.5. This evidence suggests that [redacted] just as Professor Shapiro assumed. 8/19/20 Tr. 2781:14-17 (Shapiro).

Even if a label's retention ratio turned out to be somewhat higher than its natural performance share, a reasonable upward adjustment to Professor Shapiro's retention ratios would not significantly alter the resulting opportunity cost. *See* 8/19/20 Tr. 2780:5-23 (Shapiro). But Professor Willig's model unreasonably assumed that the blacked-out label would earn 90% or even 100% of all diverted plays. 8/10/20 Tr. 1033:16-1034:1 (Willig); 8/19/20 Tr. 2778:22-2779:22 (Shapiro). As Professor Shapiro explained, such near-perfect retention by a label is impossible given that listeners often have no ability to choose particular songs for some of the alternative sources (*e.g.*, for plays diverted to other noninteractive services) and generally do not know which artists are associated with which labels. *See, e.g.*, 8/19/20 Tr. 2779:2-12 (Shapiro).

3. Professor Shapiro's Model Collapses When His Extreme Assumptions Are Removed

1053. Disputed. As detailed throughout this Section VIII of the Reply, Professor Shapiro demonstrated that his assumptions were reasonable and his inputs were sound.

1054. Disputed. Professor Willig's so-called "sensitivity tests" of Professor Shapiro's model were nothing of the sort. As Professor Shapiro testified, all of these "sensitivity" scenarios in fact relied on Professor Willig's *own* estimates of opportunity costs that were

significantly inflated—so it should come as no surprise that the royalty outputs increased too. *See* 8/19/20 Tr. 2777:12-18 (Shapiro); SXM-PAN PFFCL ¶¶ 174-80. Moreover, whereas a proper "sensitivity" analysis would entail making small changes to the inputs, one at time, to see how a model responds, *see* 8/19/20 Tr. 2775:8-18 (Shapiro), Professor Willig instead made *large* changes to Professor Shapiro's inputs, and then he *combined* those large changes. *See* Willig WRT ¶ 10; 8/19/20 Tr. 2775:8-2776:10 (Shapiro). As Professor Shapiro put it at the hearing:

> [I]f you make large changes to the inputs, you're going to get changes to the outputs. That doesn't prove [my] model is sensitive. [Professor Willig] uses the term 'house of cards' in his written rebuttal. That's nonsense. It shows [my] model is not brain-dead. That inputs matter.

8/19/20 Tr. 2776:2-7 (Shapiro). In other words, Professor Shapiro's model is robust, not overly sensitive; the only way Professor Willig managed to "dramatically increase" the royalty outputs, SX PFFCL ¶ 1054, was to swap in numerous flawed inputs from his own model and make large and unreasonable changes to Professor Shapiro's assumptions. SXM-PAN PFFCL ¶¶ 174-80.

1055. Disputed. *See supra* ¶ 1054.

G. Professor Shapiro's Proposed Statutory Rate is Supported by Marketplace Dynamics

1056. Disputed in part. More accurately stated, Professor Shapiro concludes that the *current* evidence, based on *current* benchmark evidence, reveals that the appropriate statutory rate for 2021-2025 is below the current statutory rate.

1057. Disputed. There are good reasons unrelated to the [redacted] that noninteractive services have not [redacted]. First, record companies—[redacted]—[redacted]. *See* 8/31/20 Tr. 4555:16-4556:7 ([redacted]) (noting that [redacted]

[redacted]

[redacted]

[redacted]"). Second, because simulcasters' content decisions are dictated by their over-the-air broadcasts (which can play any sound recording without payment), they are not in a practical position to black out a label. *See infra* ¶ 1060. Third, noninteractive streamers (the vast majority of the statutory streamers) also offer interactive service tiers that require [redacted]. They are therefore often not well-positioned to [redacted]—at least not if they expect to receive the rights to interactive functionality indisputably necessary to offer their interactive tiers. *See infra* ¶¶ 1058-59.

1058. Disputed in part. *See supra* ¶ 1057. Pandora Plus and Premium offer interactive functionality [redacted]. Even on its free tier, Pandora offers interactive features [redacted]. Given the [redacted], Pandora was subject in those negotiations to [redacted]. It is implausible to suggest that, notwithstanding Pandora's need for [redacted], it reasonably could have [redacted] as part of the same negotiation. Even *less* plausible is that [redacted]. That suggestion, which undergirds SoundExchange's argument here, is fanciful at best.

1059. Disputed. SoundExchange weakly suggests that Pandora has not "offered evidence" that the [redacted]—as if such a sentiment would have needed to be explicitly

memorialized in writing. But there is simply no logical reason for such a [redacted] to be in the agreements unless the [redacted]. Surely, Pandora would not volunteer to [redacted], particularly when [redacted]. *See generally* Phillips WDT ¶ 24; Shapiro SCWDT at 11-12. In short, the [redacted] in Pandora's agreements with [redacted] are themselves evidence of their market power.

1060. Disputed. SoundExchange next suggests that if [redacted] had that sort of market power, they would have insisted on [redacted] with [redacted] as well, but did not. That too is misguided. First, an [redacted] is not the *sine qua non* of complementary oligopoly power. There are many other ways for [redacted] to exert their market power; thus, the [redacted] does not signify a *lack* of market power. Second, [redacted], unlike Pandora, does not offer any interactive features on its free tier, and thus did not [redacted] for its [redacted]. Third, given that iHeart's noninteractive transmissions include many simulcasts dictated by the content of over-the-air broadcasts, iHeart is not in a practical position [redacted].

1061. Disputed. The absence of [redacted] in the [redacted] and [redacted] *interactive* service agreements is not relevant to the point of this section—[redacted] have interfered with the ability of *non*interactive services to use [redacted] to [redacted]. Moreover, as noted above, there are many ways for [redacted].

IX. SIMULCASTERS SHOULD PAY A DIFFERENT, LOWER RATE THAN OTHER COMMERCIAL WEBCASTERS; NAB'S BENCHMARK ANALYSIS SHOULD BE ACCEPTED[37]

A. There Is Ample Basis in the Record for Distinguishing Between Simulcasters and Other Webcasters

1. NAB Presented Substantial Evidence that Simulcasting Differs From Other Forms of Webcasting in Ways that Would Cause Willing Buyers and Sellers To Agree to a Lower Royalty Rate

1062. Disputed in part. NAB has presented substantial evidence in this proceeding "demonstrating . . . that simulcasting differs from other forms of commercial webcasting," and also "differs in ways that would cause willing buyers and willing sellers to agree to a lower royalty rate in the hypothetical market." *See Web IV*, 81 Fed. Reg. at 26320. This includes benchmark, survey, economic, and qualitative evidence addressing the differences between simulcasts and services like Pandora. *See* NAB PFFCL ¶¶ 20-173. And it is evidence materially unanswered by SoundExchange. *See id*. ¶¶ 174-206.

1063. Disputed in part. In past proceedings, on different records, the Judges have declined to set a differentiated rate for simulcasts. *See* NAB PFFCL ¶ 20. But each proceeding must be assessed on the basis of the record evidence *in that proceeding*, and not on evidence and evidentiary findings in prior proceedings. *See* NAB PFFCL ¶ 21; 17 U.S.C. § 803(c)(3); *see also Johnson v. CRB*, 969 F.3d 363, 381-83 (D.C. Cir. 2020). That said, although this case is to be assessed with fresh eyes and a neutral application of the statutory standard, the *Webcasting IV* analytical framework is useful as a guide. NAB thus sought to demonstrate that simulcast streams have (1) "unique characteristics that distinguish them from other webcast streams" and that (2) those differences "would cause willing buyers and willing sellers to agree to a lower royalty rate in the hypothetical market." *Web IV*, 81 Fed. Reg. at 26320, 26323.

[37] Section IX is submitted only on behalf of NAB.

With respect to the first prong, NAB supplied qualitative evidence similar to that offered in *Web IV*, which the Judges there found "ably demonstrated a distinction between simulcasting and other webcasting." *Id*. at 26321. The fundamentally new evidence NAB brought to this proceeding addresses key evidentiary gaps identified in *Web IV* with respect to the second prong. *Id*. at 26320-23. That evidence includes: (1) marketplace benchmarks that support its differentiated rate proposal, *see id*. at 26320; (2) evidence that simulcasting is materially less interactive or substitutional of record labels' other revenue streams than other webcasting services, *see id.* at 26322; (3) evidence that the promotional value of simulcasting should be viewed no differently than the unquestionable promotional value of terrestrial radio, on a listener-by-listener basis, and that licensors view terrestrial radio as more promotional than other forms of commercial webcasting, *see id*. at 26322-23; and (4) evidence that a per-play rate did not automatically address the economic differences between simulcast and custom radio products, including the value of non-music content in simulcast transmissions, *see id*. at 26321.

This new, substantial evidence is detailed in NAB's PFFCL. *See* NAB PFFCL ¶¶ 20-173. And it is telling that SoundExchange does not address it. SoundExchange's primary argument against NAB's case is that this is *Web IV* redux—but that is because *SoundExchange* has done nothing new here. The evidence *in this proceeding* demonstrates that NAB has more than met its burden of demonstrating that simulcasts differ from other noninteractive services in economically meaningful ways that, taken together, require a lower per-play rate under the governing statute. *See* 17 U.S.C. § 114(f)(1)(B).

2. Simulcasters Are Not Meaningful Economic Substitutes for Custom Radio Under the Governing Statutory Framework

1064. Disputed in part. NAB does not dispute that *Web IV* declined to adopt a differentiated rate for simulcasters. NAB does reject SoundExchange's transparent efforts to

pretend the record here is identical to that before the Judges in *Web IV*. *See supra* ¶¶ 1062-63.

1065. Disputed in part. In the cited paragraph, Dr. Leonard opines that:

> economic differences among services—including differences on the user side, the advertiser side, or the label side (e.g., differences in services' promotional effects)—can result in different royalty rates for different services even if these services are substitutes. Only if two services are very close substitutes do other economic considerations potentially become irrelevant. In that case, the diversion ratios between the two services would be near 1 and (absent substantial differences in promotional benefits) the net opportunity cost framework . . . suggests that the royalties on the two services should be approximately the same.

Leonard CWDT ¶ 56. That is not the same as opining that lower statutory royalty rates are appropriate for "poorly monetized services."

1066. Disputed in part. Mr. Orszag testified that, under the FTC and DOJ Horizontal Merger Guidelines, "significantly lower diversion ratios (than 100 percent or one) are indicative of economically relevant substitution." Orszag WRT ¶ 15 & n.93. However, the Merger Guideline examples Mr. Orszag points to concern diversion ratios of 1:3 or 33%. *See id.*; *see also* Examples 5 & 19, Horizontal Merger Guidelines. That is far higher than what the Hauser survey results show: *i.e.*, that only 6.8% of respondents would switch to a custom radio service if simulcast were unavailable. Hauser WDT App. R. This suggests an extremely low degree of substitution between simulcast and other ad-supported noninteractive services. *See* 8/24/20 Tr. 3402:18-3403:18, 3406:21-3407:25 (Leonard); Leonard CWDT ¶¶ 57-59. Rather, simulcast and custom radio are "very different services that appeal to different people in different settings." 8/24/20 Tr. 3407:21-23 (Leonard); *see also* NAB PFFCL ¶¶ 119-20.

1067. Disputed. SoundExchange points to language in FCC comments filed by NAB and others indicating that radio broadcasters generally compete with other audio and video streaming and satellite services for consumer attention. *See* SX PFFCL ¶¶ 1067-68 (citing TXs 5472, 5353). But the fact that radio, and thereby simulcast, competes with other media

services—even other statutory services in this proceeding—for listeners is not meaningful in and of itself. "The statutory license for webcasters applies solely to noninteractive services," as narrowly defined in section 114(d)(2). *See SoundExchange*, 904 F.3d at 47. Thus, *by definition*, all webcasters *necessarily* "compete" with one another, to at least some degree, as audio streaming services that perform music. *See, e.g.*, 9/9/20 Tr. 5996:7-24 (Pittman) (explaining "there's only 24 hours in a day" and "any other use of people's time is a . . . competitor to . . . radio" in some sense); 8/27/20 Tr. 4475:7-4476:14 (Newberry); 8/24/20 Tr. 3591:16-3592:15 (Leonard). Ending the inquiry there would effectively write out of the governing statutory framework the requirement that different types of noninteractive webcasters receive different rates and terms, and invalidate all prior differentiated rates and terms set by the Judges.

Section 114 requires, in determining whether a *differentiated rate* is appropriate, that the Judges do more than simply consider whether different types of webcasters are, broadly speaking, different buffet options vying for a consumer's attention. Rather, the Judges must examine *economic differences between the types of webcasters*, such as "the quantity and nature of the use of sound recordings" and "the degree to which use of the service may substitute for or may promote the purchase of phonorecords by consumers." 17 U.S.C. § 114(f)(1)(B). NAB has presented substantial evidence precisely on those economic differences, demonstrating that neither listeners nor licensors view custom radio or on demand streaming as a close competitive substitutes for simulcast. *See* NAB PFFCL ¶¶ 20-173. SoundExchange's response—which boils down to "but they are all sources of music!"—cannot possibly satisfy the statutory mandate.

1068. Disputed in part. For the reasons set forth in ¶ 1067, the simple claim that simulcast is one of many sources of music for listeners is of no utility to this proceeding, where the Judges are given the sophisticated task of examining economic differences between types of

webcasters. 17 U.S.C. § 114(f)(1)(B); *see also supra* ¶ 1067. Further, it bears noting that the FCC comment language SoundExchange quotes refers to competition between broadcast radio and a number of difference services, including "*on-demand or interactive audio*, non-interactive digital audio or internet radio, and satellite radio." SX PFFCL ¶ 1068 (quoting TX 5353 at 8) (emphasis added). While SoundExchange contends, in responding to NAB's case, that such general statements about competition for listenership suggest that there is no basis for distinguishing between simulcasters and other webcasters, the statute itself recognizes and establishes an interactive/non-interactive dichotomy. SoundExchange seeks to leverage this fact elsewhere in its affirmative case by arguing that [redacted] *See e.g.*, SX PFFCL ¶¶ 297-404. But, if one were to take the argument SoundExchange has made in responding to NAB's case to its logical conclusion, it would mean that the relevant product market for interactive services should include simulcasters, custom radio services, and any other music (or non-music) sources that compete in any respect with on-demand platforms for audience. That would gut its arguments about [redacted] SoundExchange cannot have it both ways. This proceeding is not and cannot be as shallow as SoundExchange opportunistically suggests. Generic competition in the "another option for music" sense has no real place in the statutory analysis, and cannot defeat NAB's differentiated rate proposal.

1069. Disputed in part. The SEC filings that SoundExchange cites in this paragraph acknowledge the uncontroversial fact that broadcasters compete with a plethora of media services for consumers' attention, including products not even at issue in this proceeding, such as on-demand video services, broadcast television, and video games. As discussed above, *see*

supra ¶¶ 1067-68, evidence that simulcast competes with other sources of media for listeners is not alone determinative of whether or not a differentiated royalty rate is appropriate.

1070. Disputed in part. For the same reasons described above, iHeart and NAB documents acknowledging that broadcasters compete, in a general sense, with streaming services for listeners have little bearing on the relevant inquiry before the Judges. *See supra* ¶¶ 1067-69. SoundExchange's constant refrain on this issue—rather than, for example, even *trying* to rebut NAB's benchmark agreements and survey evidence, NAB PFFCL § III.A; *id.* ¶¶ 117-20, which confirm that both licensees and licensors view simulcast and custom radio as distinct products—shows how little it truly has on simulcast.

1071. **Disputed in part.** *See supra* ¶¶ 1067-70.

1072. Disputed in part. *See supra* ¶¶ 1067-70. Pandora's forward-looking "inten[t]" to grow its ad-supported product "at the expense of broadcast radio," SX PFFCL ¶ 1072, and "expectation" that its investment in digital devices like smart speakers and wearables "*will* help Pandora take market share from broadcast radio," *id*. ¶ 1076 (emphasis added), should be accorded little weight. The Judges must consider the record presently before them. That record shows that consumer diversion from simulcasts to ad-supported noninteractive services like Pandora is relatively low: only 6.8% of respondents in the Hauser Survey indicated they would switch to an ad-supported noninteractive service like Pandora—"a pretty small number in the grand scheme of things." 8/24/20 Tr. 3402:18-3403:18 (Leonard); Hauser WDT App. R. In addition, TX 4001, which SoundExchange cites to in support of its claim that Pandora has broadcast radio in its competitive aim, actually outlines a number of characteristics unique to terrestrial radio/simulcast that *distinguish* it from other ad-supported non-interactive services. *See* 8/24/20 Tr. 3583:21-3584:11 (Leonard) (discussing TX 4001 at 7).

1073. Disputed in part. *See supra* ¶¶ 1067-70.

1074. Disputed in part. *See supra* ¶¶ 1067-70. In addition, as Leonard Wheeler testified, radio broadcasters view other local broadcasters as their primary competition. Simulcasting is necessary in order to defend their market share against competition [redacted]." 9/1/20 Tr. 5066:11-5067:2 (testifying regarding Pandora: "[redacted].").

1075-76. Disputed in part. *See supra* ¶¶ 1067-70, 1072.

1077. Disputed in part. *See supra* ¶¶ 1067-70, 1074. As Mr. Wheeler clarified on the stand, the primary concern motivating his decision to offer simulcasting to his consumers is that [redacted]. *See* 9/1/20 Tr. 5066:11-5067:2; *supra* ¶ 1074.

1078-80. Disputed in part. *See supra* ¶¶ 1067-70, 1072.

3. Marketplace Agreements with Indie Labels Support NAB's Argument that Simulcasters Should Pay Different and Lower Rates

1081. Disputed in part. SoundExchange's characterization of Dr. Leonard's testimony about the differentiated rates reflected in the iHeart-Indie benchmarks is incomplete. Dr. Leonard described his full analysis of those benchmarks and underlying play data in his written and live testimony. *See* NAB PFFCL ¶¶ 42-51. While it is correct that the iHeart-Indie benchmarks include a [redacted], Dr. Leonard's testimony, unrebutted by SoundExchange, shows that a proper analysis of the iHeart-Indie benchmarks yields a range of effective per-play rates of [redacted]

[redacted]. *See id.* ¶ 51 (citing Leonard CWDT App. A1; 8/24/20 Tr. 3354:9-3355:3, 3370:1-20).

1082. Disputed. Dr. Leonard testified that he saw no evidence suggesting that the iHeart-Indie benchmarks were not representative of transactions that one would expect in an effectively competitive market. *See id.* ¶¶ 61, 63 (citing Leonard CWDT ¶ 72; 8/24/20 Tr. 3376:9-24, 3382:18-3383:7). And, on cross examination, Mr. Orszag conceded that he was not challenging the percentage of performances covered by Dr. Leonard's benchmarks as "[redacted]." *Id.* ¶ 62 (citing 8/13/20 Tr. 1864:9-14 ("[redacted] . . . .")). Indeed, the Judges in *Web IV* based their determination of rates for ad-supported services on the Merlin-Pandora and Warner-iHeart agreements, neither of which represented anything approaching a majority of performances for the licensee. *See Web IV*, 81 Fed. Reg. at 26370-71, 26375-88. Far from proving the opposite of Dr. Leonard's point, the existence of the iHeart-Indie benchmarks in the face of the existing obstacles to direct licensing provides powerful evidence in support of NAB's argument that simulcasters should pay lower per-play rates than other webcasters. *See* NAB PFFCL ¶¶ 55-60. Those obstacles include the transaction costs associated with entering into direct licenses, *see* 8/24/20 Tr. 3477:8-16, 3477:24-3475:14 (Leonard), and the interplay of direct licenses with these rate proceedings, *see* NAB PFFCL ¶¶ 57-60 (citing 8/24/20 Tr. 3374:23-3376:8, 3526:25-3527:16 (Leonard)). Indeed, when those institutional currents against direct licensing are considered in tandem with SoundExchange's campaign against direct licenses during and after the *Web IV* proceedings, *see id.* ¶ 55 (citing TX 2182 at 7-8; TX 2213 at 2), the fact that the iHeart-Indie benchmarks exist at all is evidence of strong marketplace incentives to agree to lower rates with simulcasters, while defaulting to the statutory rates for everyone else. *See, e.g.*, Piibe WDT ¶ 58 ("[redacted]

[redacted].”); *see also* NAB PFFCL ¶ 41. This is echoed in the rate terms of the iHeart-Indie benchmarks, which include a [redacted]. *See* NAB PFFCL ¶ 40 (citing TX 2013 at 8 § 4); *see also* TX 2013 at 4-5 § 1(y) (defining “[redacted]”).

1083. Disputed. Dr. Leonard explained why the royalty allocation methodology he applied to calculate effective per-play rates for simulcast and custom radio under the iHeart-Indie benchmarks was proper and, in fact, conservative in SoundExchange’s favor. *See* Leonard CWDT ¶¶ 8, 67-71, Apps. A1-3; 8/24/20 Tr. 3354:9-3355:3, 3368:25-3371:5; *see also* NAB PFFCL ¶¶ 44, 48, 50-51, 86. His methodology was supported by testimony from iHeart’s Tres Williams, who described in detail the parties’ view of the economics underpinning the iHeart-Indie benchmarks as reflecting a core bargain: the prospect of increased consideration for inclusion on iHeart playlists in exchange for significantly discounted webcasting royalty payments. *See* NAB PFFCL ¶¶ 38, 46, 77-78 (citing 8/31/20 Tr. 4538:3-4539:8 (“special relationship” established under the direct licenses resulted in labels being “put into the consideration set” for more spins), 4594:1-14 (same), 4542:14-4543:1 (“the labels are looking for. . . a different kind of advantage over labels that might not have direct licenses with us. . .”), 4550:23-4551:24 (“[redacted].”); Williams CWDT ¶ 23). SoundExchange called no witnesses to establish the contrary view that it now offers without a single record citation—*i.e.*, that “to more accurately approximate how a record company would view the royalty rates, Dr. Leonard should have allocated [redacted] when doing his

effective royalty rate calculations." Nor did SoundExchange produce a single negotiation document from a single record label that could support its speculative (and incorrect) theory of "how a record company would view the royalty rates" under the iHeart-Indie benchmarks. *See id.* ¶ 85 (contrasting SoundExchange's lack of evidence with 8/31/20 Tr. 4550:23-4551:24 (Williams) and Williams CWDT ¶ 17). Nor did any of the *eight* other economists in this proceeding ever challenge Dr. Leonard's allocation methodology as "inaccurate." *See* 8/25/20 Tr. 3615:22-3616:6 (Leonard). This was even after Dr. Leonard explained in detail why SoundExchange counsel's bald assertion about "how a record company would view the royalty rates" "[redacted]" from an economic perspective. *See* NAB PFFCL ¶¶ 83-85 (citing 8/24/20 Tr. 3459:15-3460:6, 3464:3-9, 3468:9-18, 3470:18-3471:2; 8/25/20 Tr. 3616:7-3617:21). Mr. Williams's testimony and Dr. Leonard's analysis stands unrebutted.

1084. Not disputed.

1085. Disputed. As discussed *supra* in ¶ 1083, SoundExchange failed to meet its burden of producing a single witness or document rebutting NAB's testimony or otherwise supporting its (economically incorrect) theory of how licensors apparently compartmentalize the iHeart-Indie benchmarks. *See Web IV*, 81 Fed Reg. at 26384, 26387 (noting that "when a party fails to provide such important, competent and probative factual or expert evidence," "the Judges cannot arbitrarily adjust or ignore that otherwise proper and reasonable benchmark"). SoundExchange's belated effort to recast the agreements as somehow reflecting a supra-statutory rate for simulcasts (by allocating [redacted] to simulcast while ignoring the custom radio component of the agreement altogether) remains bereft of any record support, and has been expressly refuted. *See supra* ¶ 1083. Nor is it "logical," as SoundExchange again advances without even an Orszag citation in support. *See* NAB PFFCL ¶¶ 83-85. In all events,

even if the Judges chose not to credit Dr. Leonard's unrebutted royalty allocation methodology, the iHeart-Indie benchmarks evidence a willingness to charge NAB's largest simulcaster a substantially reduced rate ([redacted]) in exchange for enhanced consideration on iHeart playlists. *See* Leonard CWDT App. A1; NAB PFFCL ¶¶ 38, 46, 77-78. In *Web IV*, the Judges declined to rely on the iHeart-indie agreements as benchmarks due to a lack of evidence that would allow for the allocation performed by NAB here. *See Web IV*, 81 Fed. Reg. at 26320-21. SoundExchange's counsel-only, last-minute assertions about what is "logical"—without any evidence or support—should meet a similar fate.

1086. Disputed. Contrary to SoundExchange's position, the royalty rates for terrestrial and simulcast are *not* connected in the direct licenses. *See* NAB PFFCL ¶¶ 78 & n.23, 85 (citing 8/31/20 Tr. 4551:7-19 (Williams); Williams CWDT ¶ 23). Those royalty terms are calculated as separate percentages of completely distinct revenue bases. *See, e.g.*, TX 2013 at 8 §§ 4(a)(i)-(ii) ("[redacted]" and "[redacted]"). This is no different than the custom radio royalty term, which is calculated based on a third revenue base and percentage—"[redacted]"—albeit subject to a per-play minimum. *See, e.g.*, *id.* at 8 § 4(a)(iv).[38] The separate royalty terms in the iHeart-Indie benchmarks are, in turn, all subject to completely separate proration terms, which is the principal reason it is possible to have different play shares on terrestrial and simulcast. *See, e.g.*, *id.* at 8 § 4(a)(i)-(iv) ("[redacted] and "[redacted]

[38] There is even a fourth royalty term, for "[redacted], thereby invalidating SoundExchange's theory that the lack of a per-play minimum somehow establishes a tie between otherwise distinct royalty terms. *See, e.g.*, TX 2013 at 8 § 4(a)(iii).

[redacted]"); *see also id.* at 2 §§ 1(i)-(j) (defining same).[39] Williams' testimony linking over-the-air-broadcasts and simulcasts together concerned the separate issue of how the negotiating parties view iHeart's radio and simulcasts as a single, bundled *product*, in contrast with iHeart's standalone custom radio product, and how the iHeart-Indie benchmarks operated to "[redacted]." *See* 8/31/20 Tr. 4609:2-4611:9;[40] Williams CWDT ¶ 14; *see also* NAB PFFCL ¶ 83 (citing 8/24/20 Tr. 3459:15-3460:6, 3464:3-9, 3468:9-18; Leonard CWDT ¶ 68 n.92). Once again, SoundExchange counsel's view that "the rates naturally be viewed as going together in the effective royalty rate calculations" runs headlong into the actual record, including Dr. Leonard's unrebutted expert testimony regarding the proper allocation methodology to determine effective per-play rates under the iHeart-Indie benchmarks.

1087. Disputed in part. While Dr. Leonard agreed that, in SoundExchange's hypothetical world where a record label ignored altogether the economic implications of the custom radio license terms of the iHeart-Indie benchmarks and instead looked only at the "[redacted]," he was clear that "[redacted]." *See* 8/24/20 Tr. 3468:9-18. And as discussed *supra* in ¶¶ 1083-86, SoundExchange brought zero direct and zero rebuttal evidence

[39] The terrestrial royalty percentage is based on the number of plays on iHeart stations compared to total plays by those stations, irrespective of the size of the audience, *see, e.g.*, *id.* at 2, 6 §§ 1(i), (ii), whereas the simulcast royalty percentage is based on the number of plays longer than [redacted], on a listener-by-listener basis, *see, e.g.*, *id.* at 2-3 §§ 1(j), (o).

[40] SoundExchange misleadingly omits reference to Williams's immediately-preceding testimony, expressly refuting its position. *See* 8/31/20 Tr. 4609:2-4610:11. And SoundExchange offered no record label witness testimony to rebut Williams on this point.

that any licensor under the iHeart-Indie benchmarks actually views the world this way.

1088. Disputed in part. Putting aside NAB's unrebutted testimony refuting SoundExchange's allocation theory, the lay-analysis performed by SoundExchange counsel, Mr. Handzo, during cross-examination suffers from several glaring mathematical flaws. *See* NAB PFFCL ¶¶ 80-81. As Dr. Leonard testified, SoundExchange's calculation [redacted]. 8/25/20 Tr. 3615:5-21. Exhibit 2178 does not include the iHeart play data Dr. Leonard relied on and provided to SoundExchange in discovery that are required for this calculation. *Id.* So the rates calculated by SoundExchange are necessarily overstated by some unknown amount, even under SoundExchange's contorted view of the iHeart-Indie benchmarks. *See* NAB PFFCL ¶ 81; *see also* Leonard CWDT Apps. A1-A3 (demonstrating the effect of adjusting for [redacted]).[41] In fact, the effective per-play rates calculated by Mr. Handzo under his litigation-driven royalty allocation methodology are contrary to the unrebutted evidence, which shows that "[redacted]." 8/24/20 Tr. 3381:11-16 (Leonard). Specifically, under Dr. Leonard's most conservative assessment, the average per-play rate across all relevant plays was [redacted]. *See* Leonard CWDT ¶ 71, App. A1. To arrive at the artificially high simulcast rates that it does, SoundExchange's unsponsored allocation methodology results in an isolated rate for custom radio that is "a lot lower" than both the statutory rate *and* the SoundExchange-calculated simulcast rate. *See* NAB PFFCL ¶ 84 (citing 8/25/20 Tr. 3616:7-22); *see also* Leonard CWDT App. A1 (showing that

[41] SoundExchange's claim that, under its methodology, the effective rate for custom radio plays was [redacted] is demonstrably overstated for the same reason. *See* Leonard CWDT App. A2 (showing $[redacted]), App. A1 (showing $[redacted].

number to be $[redacted]). But there is simply no evidence to support a finding that the iHeart-Indie benchmarks were designed to give iHeart an almost 50% custom-radio discount in exchange for inflated simulcast rates. *See* NAB PFFCL ¶ 84; *see also supra* ¶¶ 1083, 1085-86. All of the evidence suggests that SoundExchange's view is upside down. *See* NAB PFFCL ¶¶ 33-51 (iHeart-Indie benchmarks), 96-100 (PRO benchmarks setting higher rates for custom radio than for simulcast), 151 (discussing [redacted] testimony that [redacted]). One need look no further than the text of the iHeart benchmarks themselves, which expressly tie iHeart's custom radio payments to the statutory "[redacted]" in place at the time, while establishing a fundamentally different royalty structure for simulcasts. *See* TX 2013 at 4, 8 §§ 1, 4(a)(ii), (iv); *see also* 8/25/20 Tr. 3616:23-3617:12 (Leonard) ("the structure of this is such that you would expect the simulcast rate to be a bit lower under most circumstances and . . . given that they have very different structures and the custom has the minimums in here, it just would be a miracle if it [even] turned out to be the same rate").

1089. Disputed. For the reasons explained above, SoundExchange's belated, unsponsored, incomplete, and flawed lay analysis of the iHeart-Indie benchmarks should be rejected. *See supra* ¶¶ 1083-88. Had SoundExchange actually believed in its proposed methodology, it would have had its experts sponsor it in rebuttal. It also could have called fact witnesses to attempt to establish that any party to the iHeart-Indie benchmarks held SoundExchange's hypothetical, and economically nonsensical, worldview. But SoundExchange did neither, and the testimony of Dr. Leonard and Tres Williams stands untouched.

4. Marketplace Agreements with Performance Rights Organizations Conclusively Support NAB's Argument for a Differentiated Rate

1090. Disputed. SoundExchange states that, "[a]part from the iHeart/Indie Agreements

discussed above, the only evidence Dr. Leonard cites in support of his claim that simulcasting should get lower rates than custom radio is agreements with musical work performance rights organizations ('PROs') ASCAP, BMI, and SESAC." This is categorically false. Dr. Leonard also cited (1) corroborating evidence regarding Pandora's royalty structure since *Web IV* and PROs' subsequent negotiating positions regarding simulcasts and custom radio, *see* NAB PFFCL ¶¶ 87-89, 93-100, 105-07, (2) survey evidence demonstrating that simulcasts do not meaningfully substitute for custom radio streams, *see, e.g.*, *id.* ¶¶ 117-20, (3) an opportunity cost analysis confirming the relatively low opportunity cost associated with simulcasts, *see, e.g.*, *id.* ¶¶ 127-33, (4) and qualitative evidence of differences in interactivity, *see, e.g.*, *id.* ¶¶ 147-53, promotional value, *see, e.g.*, *id.* ¶¶ 154, 160, 162-64, and the nature of simulcast programming, *see, e.g.*, *id.* ¶¶ 165-73. This mountain of evidence—unrebutted by SoundExchange—compels a differentiated rate for simulcasts under the governing legal standard. To be clear, NAB's marketplace evidence of the material difference in the prevailing rates charged to custom radio services and simulcasters by licensors of the vast majority of publishing rights required by webcasters is sufficient on its own to require a differentiated rate for those types of services. NAB PFFCL ¶¶ 101-07. SoundExchange admits that "PROs have licenses with broadcasters that cover simulcasting and broadcasting at the same rate, and sometimes have separate licenses for custom webcasting at a different and generally higher rate." SX PFFCL ¶ 1090. This is right—except not "sometimes." The undisputed evidence is that *all* licensors of public performance rights in musical compositions, save one small exception (GMR), have licensed Pandora—which SoundExchange's own experts use as a proxy for all webcasters, let alone custom radio services—at significantly higher rates. *See* NAB PFFCL ¶¶ 93-100, 110-11 (citing TXs 2029, 2042, 2146, 2177, 2181, 5043).

1091. Disputed. SoundExchange is right that "[t]he fact that the PROs license broadcast and simulcast at the same rate is not surprising," that the PRO licenses for simulcasters "require that [redacted]," and that, among other reasons, "'it stands to reason that radio broadcasters would pay the PROs the same percentage of revenue for their simulcast transmission as they do for their broadcast transmission (because it contains the same mix of music and non-music content).'" But these facts are *highly* informative, highlighting how music licensors view simulcasts and terrestrial broadcasts as economically indistinguishable. *See* NAB PFFCL ¶ 164.

1092. Disputed. Likewise, it is absolutely informative to the task at hand that "custom webcasting is generally licensed separately and at a higher rate." This highlights the economic differences between custom webcasts and simulcasts in the eyes of willing sellers of complementary public performance rights in musical compositions. *See* NAB PFFCL ¶¶ 87-89 & n.25. Further, SoundExchange's made-up assertion that "[t]his is explained by the fact that licensees necessarily pay the PROs on a percentage of revenue basis" is flat wrong. *See id.* The unrebutted record evidence shows that, since *Web IV*, Pandora has paid the PROs a percentage of its *sound recording royalties*—not a percentage of its revenues. *See id.* ¶ 93 (citing TXs 2177 at 11; 2042 at 15; 5043 at 19, 45, 61). It also shows that at least ASCAP has taken the position that [redacted]. *See id.* ¶¶ 99-100 (citing 8/31/20 Tr. 4577:14-4578:6, 4578:24-4579:5 (Williams); Williams CWDT ¶ 36; TX 2031* at 1). Finally, while one would expect simulcasters to pay a lower percentage of revenue due to the lower intensity of music use by radio broadcasters, the record evidence overwhelmingly establishes that the difference in music intensity between custom webcasting and simulcasts is nowhere near sufficient to explain the stark difference in rates paid by

simulcasters and custom radio services to the PROs. *See id.* ¶ 89 (citing 8/24/20 Tr. 3395:3-12 (Leonard); Leonard CWDT ¶¶ 84, 88). Indeed, the effective rates paid by Pandora and simulcasters under the PRO benchmarks prove that Mr. Orszag's ratio equivalency theory does not hold between those two categories of products; they must receive different rates under the governing statute. *See id.* ¶¶ 106-07 (citing 8/24/20 Tr. 3442:7-3443:3 (Leonard)).

1093. Disputed. The 2015 BMI rate court determination cited by SoundExchange was superseded by the Pandora licenses relied upon by Dr. Leonard and therefore cannot possibly undermine Dr. Leonard's analysis of Pandora's more-recent (post *Web IV*) PRO agreements. *See* NAB PFFCL ¶¶ 93-94 (citing TX 2177 at 10 (noting that Pandora entered an agreement with BMI in late 2015 that "supersed[ed] the last year of the term of the prior BMI agreement" and that Pandora "agreed to withdraw [its] appeal of the May 2015 order in the BMI rate court proceeding")). The unrebutted evidence concerning Pandora's PRO payments since *Web IV* unequivocally confirms Dr. Leonard's analysis. *See id.* ¶¶ 94-95 (citing TX 2042 at 22; 8/24/20 Tr. 3394:6-3395:2 (Leonard); Leonard CWDT ¶¶ 82, 88).

1094. Disputed. Dr. Leonard testified at length why, as discussed in the prior paragraphs, the PRO benchmarks illustrate that a per-play rate structure alone cannot fully account for the economic differences between simulcasts and custom webcasts. *See, e.g.*, NAB PFFCL ¶¶ 31, 88-89 (citing 8/24/20 Tr. 3389:10-3391:24, 3395:3-12; Leonard CWDT ¶¶ 84-88); 8/24/20 Tr. 3540:18-21; *see also* NAB PFFCL ¶ 111. SoundExchange's entire rebuttal here rides on Mr. Orszag's incorrect assumption that Pandora's post-*Web IV* PRO rates remained the same as those that expired in 2015. *See* NAB PFFCL ¶¶ 108-10. And it falls on Mr. Orszag's admission during cross examination that the lynchpin of his criticism "[redacted] and concession that he [redacted] since *Web*

IV. 8/13/20 Tr. 1797:24-1798:5, 1800:25-1801:11.

1095. Not disputed.

1096. Disputed. As discussed *supra* in ¶ 1090, Dr. Leonard based his analysis on the substantial evidentiary record presented by NAB. With respect to the PRO benchmarks, Dr. Leonard did not, as SoundExchange argues, "rest[] on just one PRO agreement (between Pandora and ASCAP) covering custom webcasting." He expressly testified that "Pandora pays 20% of its sound recording royalties to *the PROs collectively* as royalties for performances of musical compositions on its ad-supported custom radio service." Leonard CWDT ¶ 82 & n.106 (emphasis added) (citing TX 5043 at 6). Similarly, Pandora's 10-K for 2015 states:

> In November and December 2015, we entered into **licenses with several music publishing companies, ASCAP and BMI** that grant us the rights to publicly perform musical compositions under their control during the period from January 1, 2016 through December 31, 2018. The majority of the **licenses** are structured so that **each publisher or PRO** receives a pro rata share of 20% of the royalties paid by us for sound recordings, with the pro rata share paid to **each publisher or PRO** being determined based on our usage of its works.

TX 2177 at 11 (emphasis added). And a late 2018 Pandora internal royalty analysis confirms that [redacted]. 8/24/20 Tr. 3393:7-3395:12 (Leonard) (discussing TX 2042 at 15). While Dr. Leonard used ASCAP to perform an apples-to-apples comparison to a specific simulcasting license covering comparable rights to demonstrate the substantial difference in rates charged, *see* Leonard CWDT ¶ 88; 8/24/20 Tr. 3389:10-3391:24 (Leonard), NAB's PRO benchmark evidence includes multiple licenses covering the vast majority of complementary music publishing rights for Pandora's ad-supported service, not to mention licenses covering thousands of commercial radio stations' simulcast transmissions. *See* Leonard CWDT ¶ 83.

1097. Disputed. After having its experts rely on Pandora as a proxy for all

noninteractive webcasters, Joint PFFCL ¶ 276; Willig CWDT ¶¶ 49-50; *id.* App. D ¶¶ 2-3, SoundExchange now argues that "there is substantial reason to doubt" that Pandora's PRO agreements (which SoundExchange again mischaracterizes as a single agreement) "reflect[] a broader marketplace reality." There is no credible dispute that Pandora alone represents the vast bulk of custom webcasting activity in the marketplace. Willig CWDT ¶ 49. Further, the evidence is that ASCAP (which like BMI is bound to license similarly situated licensees on similar terms) has insisted that its consent decree requires it to license iHeart's custom radio product on identical terms. *See supra* ¶ 1092. SoundExchange has not produced evidence of a single custom radio service paying final rates to PROs different to those paid by Pandora since *Web IV*.

1098. Disputed. Dr. Leonard reasonably relied on Pandora's SEC filings and internal royalty analyses to accurately reflect Pandora's music publishing royalty terms. In fact, Pandora's internal royalty analysis produced in discovery confirmed Dr. Leonard's calculations based on Pandora's SEC filings. Contrary to undermining confidence in Dr. Leonard's calculations, the evidence corroborates those calculations as conservative to SoundExchange.

1099. Disputed. "Potential" evidence is not evidence. SoundExchange, as the party seeking to rebut the black-and-white evidence of Pandora's royalty terms for music publishing rights on its ad-supported service, bore the burden of producing evidence of any "potential tradeoffs on other terms" in Pandora's PRO agreements. *See Web IV*, 81 Fed Reg. at 26384, 26387 (noting that "when a party fails to provide such important, competent and probative factual or expert evidence," "the Judges cannot arbitrarily adjust or ignore that otherwise proper and reasonable benchmark"). It did not. And the actual evidence refutes SoundExchange's argument. SoundExchange continues to fundamentally misapprehend the publishing side of the

market, by comparing Pandora's payments for musical composition public performance rights alone on its interactive tier to its payments for public performance rights on its non-interactive tier. The problem with this, highlighted during Dr. Leonard's testimony, is that this analysis ignores altogether the mechanical royalties that Pandora pays for just its interactive service, which are tied to Pandora's performance royalties. 8/25/20 Tr. 3618:8-3620:4 (Leonard); *see* 37 C.F.R. § 385.21(b)(2). Sure enough, Pandora's internal royalty analysis sets forth the all-in royalty rates from the *Phonorecords III* determination in its description of Pandora's subscription, interactive tier. *Compare* TX 2042 at 15, *with Phono III*, 84 Fed. Reg. at 1918. That same analysis shows that Pandora's publishing payments for that tier exceed its publishing payments for the ad-supported tier as a percentage of revenue. NAB PFFCL ¶ 107; TX 2042 at 22; 8/25/20 Tr. 3620:5-3622:4 (Leonard).[42]

1100. Disputed. SoundExchange could not muster a single witness or document supporting its counsel-conjured allocation methodology for the iHeart-Indie benchmarks or its outdated understanding of the marketplace for complementary music publishing rights. Against NAB's unrebutted and substantial marketplace evidence, SoundExchange cannot credibly argue against a lower per-play rate for simulcasters. *See Web IV*, 81 Fed Reg. at 26384-85, 26387.

5. Dr. Leonard Showed that Simulcasters Differ Economically from Other Webcasters such that a Lower Royalty Rate Is Appropriate

1101. Not disputed.

1102. Disputed in part. NAB is not seeking a rate that guarantees profitability. To the contrary, Dr. Leonard discussed simulcast advertising as part of a larger discussion about the

[42] Pandora's payment of publishing rates consistent with the statutory mechanical rates for its interactive service actually further suggests the absence of any "potential tradeoffs on other terms." It also does further damage to Orszag's ratio equivalency theory, demonstrating that there is no ratio equivalency even between Pandora's subscription and ad-supported tiers. NAB PFFCL ¶ 107.

many ways that simulcast differs economically from custom radio. *See* Leonard CWDT ¶¶ 36-59. This is not an "ability to pay" argument. Rather, it gets to the heart of section 114, which requires that the rates and terms determined "shall distinguish among the different types of services then in operation . . . ." 17 U.S.C. § 114(f)(1)(B). Per that mandate, "distinct segments of webcasters . . . receive their own rates and terms." *SoundExchange*, 904 F.3d at 47; *see* NAB PFFCL ¶¶ 17-19. In a willing buyer/willing seller negotiation, economic differences among licensees can result in different negotiated royalty rates. Leonard CWDT ¶ 54; *see also* 8/18/20 Tr. 2438:25-2441:3 (Tucker). This includes differences in how services are viewed by advertisers. *See* Leonard CWDT ¶¶ 54-56. And that is exactly what Dr. Leonard discusses.

1103. Disputed. Mr. Orszag misses the point. As detailed above, simulcasters' ability to attract advertisers is part of Dr. Leonard's larger discussion of economic differences among licensees that compels a lower rate for simulcast than for custom radio. *See supra* ¶ 1102.

1104. Disputed in part. SoundExchange is correct that simulcasting is an add-on service that would not exist without the underlying broadcast, and that radio and simulcast should be viewed as a bundled product. It is wrong, however, to conclude that this does not support Dr. Leonard's conclusion regarding willingness to pay for ads as an economic differentiator between simulcast and custom radio. Simulcast listeners are typically played the same ads as over-the-air listeners. This is one way in which simulcasters are economically different from custom radio: custom radio can target ads to particular listeners based on listener-specific information. "Thus, the advertiser's greater ability to target on custom radio is tied to its greater degree of interactivity," Leonard CWDT ¶ 51, which in, turn, makes simulcast economically different from custom radio, s*ee* NAB PFFCL ¶¶ 8-9, 23-24 & n.10, 147-53.

1105. Disputed. Again, SoundExchange misses the point of Dr. Leonard's analysis. Dr.

Leonard is not making an "ability to pay" argument—to which Mr. Orszag's discussion of cost savings is targeted. *See supra* ¶¶ 1102-03.

1106. Disputed in part. SoundExchange is correct that radio broadcasters do not pay sound recording royalties for their over-the-air broadcasts, because there is no general public performance right for sound recordings. *See* § 114(a). But SoundExchange is wrong to suggest that this is a reason to provide relatively higher rates to radio broadcasters. Congress has made the policy decision not to extend public performance rights to sound recordings, and it would be entirely inappropriate for the Judges to "correct" for that policy decision by imposing supracompetitive royalties on simulcasters. If anything, the fact that Congress has declined repeatedly to adopt a tax on terrestrial performances, while establishing payola laws that inhibit payments in the other direction, reflects a conclusion that radio programming is highly promotional of sound recordings.

1107. Disputed. Mr. Wheeler testified that he intentionally does not promote his stations' simulcast streams in an attempt to manage his payments to SoundExchange. As a result, what he *currently* pays to SoundExchange is not "exorbitant" relative to his company's total expenses. *See* 9/1/20 Tr. 5027:10-18; Wheeler WDT ¶¶ 27-29. He made very clear, however, that "[redacted]." 9/1/20 Tr. 5042:9-14 (Wheeler). Mr. Wheeler's testimony regarding whether certain expenses are "livable" was about the harm to the *overall profitability* of his business if more of his currently low simulcast audience migrates to streaming. Paying 2% of all of his stations' operating expenses to SoundExchange was, in theory, livable only "if you were freezing our audience consumption of the stream." *Id*. at 5031:21-24; *see also*, *id*. at 5031:3-17. By

SoundExchange's own admission, such an "ability to pay" argument should carry no weight. *See* SX PFFCL ¶ 1102.

1108. Disputed. SoundExchange admits it was not able to disaggregate sound recording royalties from PRO royalties. It also compares these royalties to *all* costs—not just simulcast costs. Indeed, the fact that radio stations pay relatively *more* for non-music inputs—such as on-air personality costs—underscores NAB's point that non-music content supplies outsized value to simulcasters. *See, e.g.*, Leonard CWDT ¶¶ 47-50; NAB PFFCL ¶¶ 165-73; Gille WDT ¶ 10 (stating that, in addition to other expenses, Midwest stations "hire local journalists to cover local events and report on local government actions in every market we serve . . ." which "is expensive."); *see also id*. ¶ 16 (on-air talent accounts for a significant portion of station expenses).

1109. Disputed. SoundExchange's citation to a single, mid-sized station group for the half-hearted proposition that simulcasting "[redacted]" twists the very data upon which Mr. Orszag bases this assessment. That data were not specific to simulcast expenses. Rather, Mr. Orszag calculates the percentage by which SoundExchange fees offset all Midwest digital revenues. *See* TXs 5198-5200 (including revenues from all of Midwest's digital assets, such as webpages for each of its 82 stations, and the revenues associated with various digital promotions and marketing efforts). Claiming that simulcast is "profitable" because music royalties account for what Mr. Orszag considers a small percentage of these overall digital revenues, again, is just a repackaged "ability to pay" argument that ignores the significant testimony to the contrary, including from the very station group in question. *See* Gille WDT ¶¶ 22-28 ("streaming has not been a profitable activity for Midwest"); *see also supra* ¶ 1108.

1110. Disputed. Dr. Leonard discussed at length the inability of the average simulcaster

to monetize its stream and attract advertisers separate from the over-the-air broadcast. *See* Leonard CWDT ¶¶ 51-53. Testimony from simulcasters supports this—each stated "advertisers with OTA ads that play through to the simulcast expect to get the simulcast listeners essentially for free," as part of the general broadcast audience. *Id*. at ¶ 53; *see also* Wheeler WDT ¶¶ 32-35; Gille WDT ¶¶ 23-27; Newberry WDT ¶ 26. Mr. Orszag's speculation about what "may be possible" does nothing to change this analysis.

1111. Disputed in part. The inability of the average simulcaster to attract advertisers unique to the stream, or to target ads to simulcast listeners, is one of the many ways in which simulcasters are economically different from other webcasters, warranting a lower rate. *See* Leonard CWDT ¶¶ 51-53; *see also supra* ¶ 1102. The ability to target ads to users or substitute ads on the stream is not a technology that the average simulcaster can employ. Many simulcasters have tried and failed to better targets ads to simulcast listeners, rendering their simulcasts and over-the-air streams identical down to the ads played. *See, e.g.*, Wheeler WDT ¶¶ 32-35; TX 2035* (Subway insertion order); Gille WDT ¶¶ 23-27; Newberry WDT ¶ 26.

1112. Disputed in part. SoundExchange is correct that many webcasters report their over-the-air and simulcast audiences combined (Nielsen "Total Line Reporting"). They do this to attract advertisers by showing how many listeners they reach in total, regardless of the mode of transmission. *See* Gille WDT ¶ 25. This is why it makes no sense to treat simulcast and over-the-air broadcasts as somehow distinct for purposes of assessing the promotional value of radio—if advertisers do not distinguish in that manner, why would *record labels*?

Mr. Orszag's conclusion regarding revenue per listener, however, ignores that Total Line Reporting is not available to those who engage in ad substitution, as well as the imprecision in measuring simulcast audiences. *See* Leonard CWDT ¶¶ 52-53. In short, if a station attempts to

better target ads to its listeners and monetize its stream, then it gives up Total Line Reporting. Gille WDT ¶ 25. This means it has fewer listeners to report to advertisers in the first instance, making it even harder to attract them for the stream. *See id.*; *see also* Leonard CWDT ¶ 52; Wheeler WDT ¶ 35; *see also* 9/1/20 Tr. 5057:17-5058:6 (Wheeler).

1113. Disputed. Dr. Tucker's proclamation that simulcast is "not inherently unprofitable" was debunked at trial. She admitted that her analysis of iHeart's financials was flawed. On direct examination, she presented to the Judges information that reflected all of iHeart's digital assets, not just simulcasting. 8/18/20 Tr. 2433:4-3434:4 (Tucker). This included iHeart's on-demand product and podcasting, among other businesses. *Id*. at 2434:5-2435:1. The information that she presented admittedly did not show that *simulcasting* was on the rise. *Id*. at 2434:14-2435:1. Dr. Tucker also admitted that her analysis relied on financial projections, rather than actuals. *Id*. at 2435:2-8. When forced to confront the actual financials cited in her report, Dr. Tucker clarified that her assessment of whether simulcast is profitable consisted of "analyz[ing] economic trends . . . which influence iHeart's performance," plus iHeart's actual financials "as evidence of . . . the financial health of iHeart in the way which reflects these trends." *Id*. at 2435:19-2436:1. But she acknowledged that iHeart's overall finances remained relatively static since 2016, and revenues in fact decreased between 2016 and 2017. *Id*. at 2436: 2-14 (referring to Tucker WDT App. 14). iHeart filed for bankruptcy the next year, and only emerged in 2019. *Id*. at 2436:15-19. To that same tune, Dr. Tucker's conclusion regarding simulcasters' abilities to advertise on the stream ignores significant testimony to the contrary from simulcasters. *See supra* ¶ 1111.

1114. Disputed in part. SoundExchange misconstrues NAB's argument about simulcasters' relative lack of profitability. Rather than making an "ability to pay" argument, Dr.

Leonard is highlighting the many ways in which simulcast and custom radio are economically different in ways that would contribute to a lower effectively competitive rate for simulcasters. *See supra* ¶¶ 1102-03, 1105. Telling simulcasters to pay higher rates or walk away, as SoundExchange would have it, ignores the mandate of section 114. *See supra* ¶ 1102.

6. The Evidence Demonstrates that Music Is Less Valuable to Simulcasters than to Custom Radio Services

1115. Disputed. SoundExchange deliberately mischaracterizes NAB's arguments regarding the value of non-music content to simulcasters. NAB is not arguing that "the mere fact that simulcasters . . . offer non-music content" justifies a differentiated per-play rate. Rather, NAB has presented new evidence that the mix of music and non-music content on simulcast makes it less substitutional for other record company revenue streams and that the value of music content to simulcasters is less, on a minute-for-minute basis, than for music-only services. *See* NAB PFFCL ¶¶ 23-31, 106, 165-173; *see also id.* Section III; 8/24/20 Tr. 3427:3-8, 3428:15-3433:2; 3442:7-3443:3, 3539:16-3540:21 (Leonard). This evidence establishes that a per-play rate does not adequately address the economic differences between simulcast and custom radio products. *Id.*

1116. Disputed in part. While SoundExchange is correct that the Judges declined to set a lower per-play rate for simulcasters in *Web IV*, *see* 81 Fed. Reg. at 26321, it ignores the evidentiary record in this proceeding that fills the key evidentiary gaps identified by the Judges in that proceeding. Specifically, Dr. Leonard identified empirical evidence showing that the per-minute value of music content is lower for simulcasters than for other webcasters: the iHeart-Indie benchmarks; the PRO benchmarks; the Hauser Survey results; and evidence that radio stations receive the most ad revenue during parts of the day where they play the least music. *See* NAB PFFCL § III; *see also* 8/24/20 Tr. 3427:3-8, 3428:15-3433:2, 3442:7-3443:3,

3539:16-3540:21 (Leonard); Leonard CWDT ¶¶ 38-50, 57-59, 88, Apps. C2-C18.

i. Survey Evidence Supports Dr. Leonard's Opinions

1116. **Disputed in part.** While SoundExchange is correct that the Judges declined to set a lower per-play rate for simulcasters in *Web IV*, *see* 81 Fed. Reg. at 26321, it ignores the evidentiary record in this proceeding that fills the key evidentiary gaps identified by the Judges in that proceeding. Specifically, Dr. Leonard pointed to empirical evidence showing that the per-minute value of music content is lower for simulcasters than for other webcasters: the iHeart-Indie benchmarks; the PRO benchmarks; the Hauser Survey results; and evidence that radio stations receive the most ad revenue during parts of the day where they play the least music. *See* NAB PFFCL § III; *see also* 8/24/20 Tr. 3427:3-8, 3428:15-3433:2, 3442:7-3443:3, 3539:16-3540:21 (Leonard); Leonard CWDT ¶¶ 38-50, 57-59, 88, Apps. C2-C18.

i. Survey Evidence Supports Dr. Leonard's Opinions

1117. Disputed. Dr. Leonard's testimony relied not just on his interviews with radio broadcasters, but also on the witness testimony submitted in this proceeding, documents produced by the broadcasters, and the Hauser survey results. Leonard CWDT ¶¶ 38-50, 57-59, Apps. C2-C18. The Hauser survey is the only reliable consumer survey in this proceeding addressing simulcasts, and the results support Dr. Leonard's conclusion that music is less valuable for simulcast than it is for custom radio, both in an absolute sense and on a per-play basis. *See* NAB PFFCL § III.C (citing, *inter alia*, Leonard CWDT ¶¶ 38-46; 8/24/20 Tr. 3427:3-8, 3431:16-3433:2 (Leonard); Hauser WDT Table 2, App. P; 8/27/20 Tr. 4363:5-22 (Hauser)). SoundExchange presented no evidence that undermines Dr. Leonard's analysis.

1118. Disputed in part. However you slice the data, the Hauser survey results show that simulcast listeners place a high value on the non-music content available on simulcasts, such

as "news, weather and traffic," talk, and sports. Hauser WDT Table 2, App. P; 8/27/20 Tr. 4363:5-22 (Hauser); 8/24/20 Tr. 3431:20-3432:2 (Leonard).[43] These survey results, coupled with the relatively low diversion ratios, or substitution of simulcast for royalty-bearing music alternatives from the Hauser survey, suggest that the non-music content has value beyond the minutes spent not playing music. 8/24/20 Tr. 3431:16-3433:2 (Leonard); Leonard CWDT ¶¶ 41-46. For example, only 6.8% of Hauser Survey respondents indicated that they would switch to an ad-supported noninteractive service like Pandora if simulcasts were unavailable, only 1.8% percent said that they would purchase new CDs or digital media, and just 1.4% said they would purchase a new paid subscription to on-demand services. Hauser WDT App. R.

1119. Disputed in part. While SoundExchange is correct that 82.4% of Hauser survey respondents indicated that they listened to music and 55.3% reported listening to "news, weather, and traffic," there are other categories of non-music content to which respondents reported listening that SoundExchange fails to acknowledge. *See* Hauser WDT ¶ 97, Table 1, App. O. For example, 49.5% reported listening to talk (*e.g.* live DJ commentary, politics, personal finance), 36.3% to sports, 17.8% to comedy, 6.8% to religious non-music content (*e.g.* preaching, education), and 6.4% to kids and family non-music content (*e.g.* educational programs). *Id.* On average, respondents indicated they listened to 2.6 types of content on simulcasts in the prior three days. *Id.*

1120. Disputed in part. Given that most simulcast listeners reported listening to a mix of music and non-music content, it is no surprise that they value both types of content. *See* Hauser WDT Tables 1 & 2, Apps. O & P. What matters here is that the non-music content has

[43] Dr. Leonard focused on respondents who listened to both music and non-music content, Leonard CWDT ¶ 48, but explained that the full set of survey results was presented in Professor Hauser's written testimony, 8/24/20 Tr. at 3611:10-16; *see also* Hauser WDT Table 2, App. P.

outsized importance on a minute-by-minute basis, which means that a per-play rate necessarily under-adjusts for the value of non-music content on simulcast. *See* NAB's PFFCL ¶¶ 24-28, 106, 165-173; Leonard CWDT ¶¶ 38-50, 57-59, Apps. C2-C18.

ii. Simulcasters' Use of Non-Music Content Proves They Value Music Less than Other Webcasters on a Play-for-Play Basis

1121. Not disputed.

1122. Disputed. SoundExchange's attempt to undermine Dr. Leonard by pointing out that broadcasters derive most of their revenue from music-formatted stations, not talk stations, misses the point. Dr. Leonard's entire analysis was of music-formatted stations and the value of non-music content to *those* stations. 8/24/20 Tr. 3431:6-19 (Leonard).

1123. Not disputed.

1124. Disputed in part. NAB does not dispute that it is technically *possible* for broadcasters like Wheeler to program relatively more non-music content and relatively less music content. But the hypothetical that SoundExchange posed to Mr. Wheeler on this topic fails to take into account the full scope of decisions and costs that go into adjusting the mix of music and non-music content on an over-the-air broadcasts, and SoundExchange purposefully curtailed Mr. Wheeler's attempt to explain this. 9/1/20 Tr. 5065:17-5066:4. What is relevant here is the value that simulcast listeners put on the non-music content on music format radio stations, and the way the broadcasters use this non-music content to compete with each other and differentiate themselves. *See* 8/24/20 Tr. 3427:3-8, 3428:15-3433:2 (Leonard); Leonard CWDT ¶¶ 38-47; NAB PFFCL ¶¶ 165-73. It is immaterial that Mr. Wheeler could technically simulcast less music, but has chosen not to do so (for reasons SoundExchange did not seek to explore, or permit him to explain).

1125. Disputed in part. As discussed below, Dr. Leonard's analysis of the ad-spot

prices during parts of the day where the radio stations play the least music is neither flawed in conception nor execution, as SoundExchange claims. *See* Leonard CWDT ¶¶ 38-46, Apps. C2-C18; 8/24/20 Tr. 3428:15-3431:19 (Leonard); NAB's PFFCL ¶¶ 168-173.

1126. Disputed. SoundExchange claims that Dr. Leonard failed to consider the most obvious reason why certain parts of the day are associated with higher ad prices and revenues: the audience size. But that gets matters exactly backwards. *See* NAB PFFCL ¶ 170. As Dr. Leonard explained at the hearing, what is noteworthy is that when the audience is biggest, competition is steepest, and the most is at stake, that is when broadcasters choose to differentiate themselves through non-music content, rather than playing another song. 8/24/20 Tr. 3429:25-3431:19. "And that shows you how valuable that non-music content is." *Id*. at 3430:20-21; *see also* Leonard CWDT ¶¶ 38-46. Dr. Leonard's interviews with broadcasters [redacted]. 8/24/20 Tr. at 3429:21-24; Leonard CWDT ¶ 40. It is the non-music content, not the music, that is the driver of radio stations' listenership and the means for radio stations to differentiate themselves from competing stations. 8/24/20 Tr. 3427:3-8, 3428:15-25 (Leonard); Leonard CWDT ¶¶ 38-46.

1127. Disputed. For the same reasons that it is irrelevant whether broadcasters derive more revenues from music-formatted stations than talk stations, it is also immaterial that broadcasters allegedly charge higher advertising spot rates for music-formatted stations. Dr. Leonard's entire analysis was of music-formatted stations and the value of non-music content to those stations. 8/24/20 Tr. 3431:6-19 (Leonard).

1128. Disputed. As SoundExchange concedes, "terrestrial station dayparts with higher ad spot prices or higher ad revenues *generally* have the fewest recordings played per hour." The

fact that there are alleged outliers where this is not the case does not undermine Dr. Leonard's analysis. *See* Leonard CWDT ¶ 40.

1129. Disputed. SoundExchange also attempts to rely on Travis Ploeger's speculation about the importance of music to Midwest's and Wheeler's marketing of their music-formatted stations. First, Ploeger's non-expert testimony about other parties' businesses should be disregarded. As SoundExchange's director of license management, Mr. Ploeger is in no way qualified to opine on this subject. His lay opinion testimony based primarily on a handful of random screenshots of broadcasters' websites should carry no weight. *See* Ploeger WRT ¶ 80; SX PFFCL ¶ 1129 (citing TXs 5246*, 5247*, 5248*).[44] Second, it is uncontroversial and irrelevant to Dr. Leonard's analysis that radio broadcasters market the music aired on their *music*-formatted radio stations to listeners.

1130. Disputed. SoundExchange also attempts to extrapolate from screenshots of Wheeler's simulcast players for five stations. *See* TX 5359 (sic 5259). The screenshots were not the subject of any substantive testimony. 9/1/20 Tr. 5072:20-23 (Wheeler). Indeed, had SoundExchange taken the time to ask about the screenshots, Mr. Wheeler could have explained that the simulcast players include information about the songs played because simulcasters are required to supply this information under the statute (*see* 17 U.S.C. § 114(d)(2)(A)(iii)), and that while the simulcast players prominently display the music playing or recently played, they are generally accessed through the Wheeler station websites, which highlight the on-air personalities, local news, and local events. *Compare* TX 5359, *with* TX 5248 (http://www.949starcountry.com/).

[44] SoundExchange fails to note that Trial Exhibits 5246*, 5247*, 5248* were only admitted subject to the Services' pending objections, on which the Judges have not yet ruled. 9/9/20 Tr. at 5781:22-5782:4; *see also* Dkt. No. 22720 (Joint Exhibit List).

iii. Simulcast Is Less Substitutional Because It Is Less Interactive

1131. Disputed. SoundExchange concedes that royalty rates should be tied to how substitutional a service is for sales of phonorecords, or the extent to which it might interfere with other sources of revenue related to sound recordings. *See* 9/3/20 Tr. 5690:14-5692:13 (Harrison); 8/12/20 Tr. 1505:3-1506:6 (Orszag); *see also* NAB PFFCL ¶¶ 147-49. But then SoundExchange ignores swaths of evidence demonstrating that simulcast is the least interactive form of webcasting—and therefore the least likely to substitute for sales of phonorecords or interfere with other sources of revenue from more-interactive services. Leonard CWDT ¶ 32; 8/24/20 Tr. 3453:21-3454:6 (Leonard). In fact, SoundExchange's expert witness, Dr. Tucker, acknowledged that simulcast is only personalized to the extent a user can select a specific broadcast radio station simulcast. 8/18/20 Tr. 2430:22-2432:9 (Tucker); *see also* 8/13/20 Tr. 1819:18-25 (Orszag); 8/27/20 Tr. 4232:2-19 (Zauberman). She further conceded that improvements in machine learning and other personalization technologies have no relevance to simulcasts. 8/18/20 Tr. 2431:5-16, 2432:10-15 (Tucker). And [redacted] agreed that "[redacted]." 9/3/20 Tr. 5692:19-5693:14; *see also* TX 2091* at 21 (iHeart deck); 8/27/20 Tr. 4321:7-4322:10 (Simonson); NAB PFFCL ¶¶ 147-53.

1132. Disputed in part. SoundExchange is correct that the *Web IV* Judges, "on the record before them," found that NAB had not demonstrated that simulcast was less interactive than other webcasters in a way that would lead to lower rates in the marketplace. *Web IV*, 81 Fed. Reg. at 26322. NAB has established *in this case* with new evidence that simulcast is less interactive than other webcasters, such that it is entitled to a lower royalty rate. *See* NAB PFFCL

¶¶ 147-53. Moreover, NAB has provided empirical data in the form of (A) benchmarks establishing lower effective per-play rates for simulcasters than for custom radio and (B) survey evidence diversion ratios establishing that simulcasts are poor substitutes for both interactive streaming/purchasing activity and for custom radio streams. *See* NAB PFFCL ¶ 153, §§ III.A-B.

1133. Disputed. SoundExchange's assertion that "the user experience is not materially different" on simulcast and custom radio flies in the face of all of the evidence in this case, on both sides. *See supra* ¶ 1131. To support this remarkable assertion, SoundExchange cobbles together two isolated statements—one from Mr. Orszag and one from Dr. Leonard—into a misleading insinuation that the two somehow agree that simulcast is interactive because a listener can select the type of station he or she wants to listen to, rendering it akin to a seed station on custom radio. This is false. The paragraph of Dr. Leonard's WDT from which SoundExchange quotes definitively states that "[s]imulcast offers listeners the *least* degree of interactivity among non-subscription noninteractive services. In terms of content, simulcast services typically offer exactly what is played on the terrestrial radio station." Leonard CWDT ¶ 49 (emphasis added). He then compares that to custom radio, stating:

> Because the musical content on the simulcast (as a definitional matter) is predetermined by the station's choice of content for the terrestrial broadcast, a simulcast listener is unable to influence the songs played. **In contrast**, on custom radio, although a user cannot choose the exact songs that are played, **the user can influence custom radio's choice of songs by, e.g., suggesting a genre**. Similarly, custom radio and other non-subscription non-interactive streaming services also allow users to pause and skip songs.

Id. (emphasis added). SoundExchange's own experts, Dr. Tucker, Mr. Zauberman, and Mr. Simonson, as well as UMG's Mr. Harrison similarly acknowledged this. *See supra* ¶ 1131.

1134. Disputed. Mr. Orszag failed to account for simulcasting in his benchmarking analysis. Rather, without any justification, he applies a single set of adjustments to the same subscription, interactive benchmarks to calculate a per-play rate for all ad-supported

noninteractive services. *See, e.g.*, Orszag WDT ¶¶ 8-12; *see also* NAB PFFCL ¶ 176. Yet SoundExchange claims against the weight of evidence that record labels would have no basis to price discriminate in favor of simulcasters as compared to other webcasters, and relies on Mr. Orszag for this assertion. Mr. Orszag's convergence theories fail as a general matter, and certainly have no applicability to simulcast. *See supra* ¶ 78, 8/24/20 Tr. 3438:6-3439:8 (Leonard); Leonard CWRT ¶¶ 7, 40-43, 49; *see* NAB PFFCL ¶¶ 144-50, 178; Joint PFFCL ¶¶ 30, 33, 105-08. His ratio equivalency theories likewise fail. Mr. Orszag never even attempted to analyze the elasticities for simulcast and subscription interactive services. *See* NAB PFFCL ¶¶ 181-83, *supra* ¶¶ 78, 100-01, 159. He simply has no basis to conclude as SoundExchange suggests, and certainly not in the face of significant evidence to the contrary presented by NAB.

iv. Evidence Regarding Local Issues, Community Programming, and On-Air Personalities Is Relevant to Setting a Royalty Rate

1135. Disputed in part. SoundExchange is incorrect to assume that the Judges must reach the same conclusion here as they did in *Web IV* when it comes to simulcasts. The *Web IV* Judges found that the qualitative evidence that NAB supplied "ably demonstrated a distinction between simulcasting and other webcasting" and called on NAB to provide evidence about why "that distinction supports differential royalty rates for simulcasters." *Web IV*, 81 Fed. Reg. at 26321. NAB has filled that evidentiary gap in this proceeding. *See* NAB PFFCL ¶¶ 42-51, 23 & n.9; *see also supra* ¶ 505.

1136. Disputed. *See supra* ¶¶ 505, 1135; *see also* NAB PFFCL ¶¶ 22-28.

1137. Not disputed.

1138. Disputed. *See, e.g.*, *supra* ¶¶ 505, 1063, 1135; *see also* NAB PFFCL ¶¶ 6, 22-28, 147-53. The evidence *in this proceeding* demonstrates that NAB has more than met its burden of demonstrating that simulcasts differ from other noninteractive services in economically

meaningful ways that, taken together require a lower per-play rate under the governing statute.

1139. Disputed in part. [redacted]. *See* 9/1/20 Tr. 5008:2-7 (Wheeler). The same is true of iHeart stations that air Ryan Seacrest's morning show. When asked if the show's content was the same regardless of where it aired, Mr. Pittman in fact stated: "It obviously has some elements of the local community in it, weather, traffic, et cetera, so it is customized for the markets." 9/9/20 Tr. 6029:9-16 (Pittman). To suggest that somehow radio is not local, using misconstrued testimony, flies in the face of common sense and the vast evidence that NAB presented to the contrary. *See* NAB PFFCL § III.C.

1140. Disputed in part. SoundExchange again misstates hearing testimony. While Mr. Pittman acknowledged iHeart layoffs, which included some on-air personalities, he testified that every iHeart station still has a DJ shift: "So, the people were replaced by someone else." 9/9/20 Tr. 6006:7-15. Mr. Pittman also clarified that iHeart employs artificial intelligence to handle what would be "rote tasks" for humans to handle. The AI analyzes 3500 data inputs to sequence music. *Id*. at 6020:4-6021:8. "The artificial intelligence is trying to pick up the rote task part of the programmers or music directors or other people doing it and free them up to do what we consider smart work, stuff that humans can do." *Id*. at 6022:6-9. This includes tasks that "make the station exciting, making it more relatable to the community, coming up with great promotions, coaching and working with the on-air talent to make them better and more cohesive." *Id*. at 6021:24-6022:4 (Pittman). At no point did Mr. Pittman testify that iHeart's use of AI moves it closer to a pure-play streaming service.

7. Radio Is More Promotional than Other Noninteractive Webcasting Services and thus Holds Additional Value for Record Labels

1141. Disputed in part. SoundExchange misconstrues the Judges' holding concerning

NAB's evidence of promotional value in *Web IV*, as well as the evidence in the current record that NAB has presented concerning promotional value. The *Web IV* Judges found that the qualitative evidence that NAB supplied "ably demonstrated a distinction between simulcasting and other webcasting," but that NAB had not shown "that distinction supports differential royalty rates for simulcasters." *Web IV*, 81 Fed. Reg. at 26321. It was never a question of whether radio is promotional of sound recordings—it is, as the Judges repeatedly acknowledged. *See, e.g.*, *Web IV* at 26322. Rather, the question is whether radio and simulcast are *more promotional* of sound recordings than are other webcasters. *Id*. at 26322. NAB has definitively answered that question in this proceeding, and the answer is a resounding "yes." *See* NAB PFFCL ¶¶ 42-51, 23 & n.9, 154-164; *see also supra* ¶ 507.

SoundExchange's assertion that NAB's argument is "tautological" is incorrect—it is just *logical*. Again, there is no reason to believe that—on a listener-by-listener basis—the promotional impact of simultaneously played, identical programming is any different depending on whether the signal carrying those soundwaves at one point crossed over the internet or whether it crossed over the air. *See* 8/24/20 Tr. 3575:3-15 (Leonard). In fact, such a conclusion is so counterintuitive that it is incumbent on *SoundExchange* to prove such a disparity in promotional effect. It has not even attempted to do so. Instead, all the available evidence supports the conclusion that broadcast radio carries the same promotional impact regardless of the transmission medium by which consumers hear it. *See supra* ¶ 538; NAB PFFCL ¶¶ 162-64; *see also* NAB PFFCL ¶ 5 (noting that the statute requires the Judges to model the real world negotiation between labels and *radio broadcasters*, not labels and non-existent standalone simulcasters (citing 17 U.S.C. § 114(f)(1)(B)).

1142. Disputed in part. SoundExchange is correct that the *Web IV* Judges made these

observations based on the record in that case. It is incorrect, however, in suggesting that the Judges' ultimate findings on that different record should apply here. *See* NAB PFFCL ¶¶ 19-21, 23 & n.9, 42-51; *see* 17 U.S.C. § 803(c)(3); *see also Johnson v. Copyright Royalty Bd.*, 969 F.3d 363, 381-83 (D.C. Cir. 2020).

1143. Disputed in part. As discussed, the record in this case supports a differentiated rate for simulcast and custom radio. *See supra* ¶ 1142. SoundExchange misinterprets that record in suggesting that simulcasting somehow does not share radio's promotional power because it has a smaller audience. To the contrary, witnesses on both sides of the "v" testified that radio and simulcast are a bundled product, and that simulcast shares radio's promotional power on a listener-for-listener basis. *See supra* ¶ 538; *see also* NAB PFFCL ¶¶ 3, 164.

1144. Disputed in part. While Mr. Harrison testified to this effect in his *written testimony*, SoundExchange ignores his concessions regarding the full truth, during cross-examination. Mr. Harrison testified there that [redacted]. 9/3/20 Tr. 5734:6-5735:21. Warner's Mr. Sherwood [redacted]. 9/9/20 Tr. 5944:5-9; *see also* TX 2078 at 19; Leonard CWRT ¶¶ 97-101; NAB PFFCL ¶ 154. The majors' marketing spend figures further corroborate this. Radio is more promotional than other webcasting, and [redacted]. 8/24/20 Tr. 3435:20-3436:10 (Leonard); TX 2056 at 13. At the same time, the labels [redacted]." TX 2056 at 13; *see also* 9/9/20 Tr. 5976:11-5977:15 (Gauthier);

NAB PFFCL ¶ 159; *supra* ¶ 510.

1145. Disputed in part. SoundExchange misconstrues Mr. Poleman's testimony, which was that label executives consider radio incredibly promotional of sound recordings given its exceptional reach—a promotional power that simulcast shares, given that it merely *extends* that reach. 8/27/20 Tr. 4416:25-4417:21; *see also* 8/24/20 Tr. 3575:3-15 (Leonard).

1146. Disputed. This factual finding can be accepted only by turning a blind eye to the overwhelming evidence that radio (regardless of the mode of transmission) is more promotional than pure play webcasting. *See supra* ¶¶ 506, 541.

1147. Disputed in part. SoundExchange is correct that NAB points to emails from broadcasters to radio personnel thanking them for playing their artists, and acknowledging the tremendous lifts in popularity that their artists received as a result. But SoundExchange is mistaken in implying that these emails somehow stand alone in evidentiary record. To the contrary, Mr. Poleman gave detailed testimony about his experiences interacting with labels as iHeart's Chief of Programming, which spoke directly to the Judges' prior concerns that emails could simply express common courtesy. He also testified about iHeart's coveted On the Verge, AIP and DAIP programs and their promotional benefits. *See* NAB PFFCL ¶¶ 156-158; *see also supra* ¶¶ 512, 542. This notably is in addition to the 16 iHeart-Indie benchmarks that NAB offered, and the iHeart-PRO benchmarks, [redacted]—among significant other hearing testimony. *See supra* ¶¶ 505-07 (detailing the ways in which iHeart's benchmarks "bake-in" radio and simulcast's promotional power).

B. Direct Licenses Between iHeart and Independent Record Companies Are Ideal Benchmarks for Simulcasters

1148. Disputed. Although the initial round of iHeart-indie agreements were part of the

record in *Web IV*, the Judges noted that they did not have the necessary "additional data (*e.g.*, iHeart's net simulcasting revenues and the number of simulcast performances of recorded music)" to convert the [redacted] rate under those agreements into a per-play rate. *Web IV*, 81 Fed. Reg. at 26320. Based on that incomplete record, the Judges could not determine whether the iHeart-indie agreements provided adequate evidentiary support for NAB's proposed differentiated rate. *Id*. at 26320-26321. NAB has provided that evidence here. *See* NAB PFFCL ¶¶ 42-51.

1149. Disputed in part. As discussed above, NAB has provided the information necessary for the Judges to convert the [redacted] rate under the iHeart-Indie agreements into a per-play rate in this proceeding. *See* NAB PFFCL ¶¶ 42-51. Further, as discussed in greater detail below, SoundExchange's argument that the CRB's reasoning in *SDARS III* should be applied to exclude the iHeart-Indie benchmarks as unrepresentative should be rejected. *See infra* ¶ 1154; *see also* NAB PFFCL ¶¶ 52-63. As an initial matter, once labels with complementary oligopoly power are excluded from the analysis, [redacted] *See* Leonard CWDT ¶ 72; 8/24/20 Tr. 3374:9-17 (Leonard); NAB PFFCL ¶ 61. But, in addition, the argument is the height of hypocrisy: SoundExchange actively dissuaded its member labels from entering into direct deals after *Web IV*. It cannot now exploit the dearth of direct deals that it advocated by demanding that the Judges ignore the only willing buyer, willing seller agreements offered by any participant that are between statutory services and sound recording companies for the exact rights at issue under the section 114/112 license. *See infra* ¶ 1154.

1150. Disputed in part. SoundExchange baldly contends that there "is no evidence that the [iHeart-indie] agreements are representative." But it is SoundExchange that has failed to

produce evidence suggesting otherwise, leaving the iHeart-indie agreements are the *only* willing-buyer, willing-seller agreements offered by any participant that are between statutory services and sound recording companies for the exact rights at issue under the section 114/112 license. NAB PFFCL ¶ 33 (citing 8/24/20 Tr. 3375:25-3376:8 (Leonard); *id*. at 3355:11-24; Leonard CWDT ¶ 65). For all the reasons discussed in greater detail below, SoundExchange's argument that the CRB's reasoning in *SDARS III* should be applied to exclude the iHeart-Indie benchmarks should be rejected. *See infra* ¶ 1154; *see also* NAB PFFCL ¶¶ 52-63.

1151. Disputed in part. *See infra* ¶¶ 1159, 1187-1203.

1152. Disputed in part. The iHeart-Indie agreements are not comparable to the Sirius XM direct licenses in *SDARS III* that the Judges found were not "sufficiently probative of the relevant market to accept them as a meaningful benchmark." *SDARS III*, 83 Fed. Reg. at 65249. Unlike the *SDARS III* direct licenses, the iHeart-Indie deals [redacted] *Id*. To the contrary, as iHeart's Tres Williams explained, [redacted]. *See* NAB PFFCL ¶¶ 38-39, 76-78; 8/31/20 Tr. 4538:3-4539:8; 4542:14-4543:1. [redacted]. *Id*. at 4538:16-4539:8; *see also id*. at 4542:14-4543:1, 4594:1-14. This, as he put it, provided direct deal partners with [redacted] 8/31/20 Tr. 4542:14-4543:1; *see also* 8/24/20 Tr. 3490:13-3491:1 (Leonard). Moreover, as discussed more fully below,

iHeart was committed to and incentivized to steer, though its direct deals did not contain explicit contractual provision requiring it to do so. *See infra* ¶¶ 1171, 1173-85.

1153. Disputed in part. There are two problems with SoundExchange's argument that Dr. Leonard's benchmark-derived rate of $0.0008 per simulcast performance is inappropriate because it is lower than the opportunity cost calculated by Dr. Leonard. *See* NAB PFFCL ¶ 135. First, the opportunity cost analysis shows a *range* of $0.00070 to $0.00101 per performance, at a 95% confidence interval; the benchmark-derived rate is well above the lower bound of that range. Second, the labels' *actual* opportunity cost is likely at or below the lowest end of that range, because his analysis conservatively does not account for the promotional effect of simulcast and applied a conservatively low steering adjustment. *See* 8/24/20 Tr. 3410:14-24, 3414:14-3415:10; *see also* Leonard CWDT ¶ 113; 8/20/20 Tr. 3246:8-19 (Shapiro).

1. The iHeart/Indie Agreements Are Representative

1154. Disputed in part. SoundExchange contends that the agreements Dr. Leonard offers as benchmarks are not sufficiently representative of the market. The argument should be rejected for a number of reasons. *See* NAB PFFCL ¶¶ 52-63. As an initial matter, although SoundExchange is correct that the agreements Dr. Leonard analyzed cover [redacted]% of iHeart's total simulcast performances, and [redacted]% of its total webcast performances from September 2013 through May 2019,[45] Dr. Leonard explained that a more informative coverage percentage excludes from its denominator performances of recordings from the major labels. Leonard CWDT ¶ 72. Indeed, given that the major labels control such large catalogs, they are most likely to [redacted]

[45] Including all indie deals—which include the same terms—in the performance share calculations increases the coverage percentage to [redacted]% for simulcast, [redacted]% for custom, and [redacted]% for all webcasting performances. Leonard CWDT ¶ 72, App. A4.

[redacted]. *See* 8/24/20 Tr. 3375:3-19 (Leonard) ("[redacted]."). Moreover, a major, by dint of the size of their catalog, could exercise complementary oligopoly power, particularly in the specific context of licensing simulcasts that by definition have to carry the same recordings transmitted over the air. Leonard CWDT ¶ 72; *see also* NAB PFFCL ¶¶ 3-4. Excluding simulcast performances of the major record labels' catalogs increases the coverage percentage to [redacted]%, and to [redacted]% when all indie deals are included. Leonard CWDT ¶ 72 & n.100; 8/24/20 Tr. 3374:9-17 (Leonard); *cf.* 8/13/20 Tr. 1860:11-1864:22, 2074:13-2076:11 (Orszag) ([redacted]); *Web IV*, 81 Fed. Reg. at 26370-71 (Merlin-Pandora agreement sufficiently representative).

SoundExchange points in this paragraph to the Judges' determination in *SDARS III* that the direct licenses offered by Sirius XM in that proceeding were not sufficiently representative, and asks that the Judges make the same finding here. But SoundExchange should not be permitted to continue to exploit limitations in the factual record that it, itself, contributed to by expressly campaigning to limit direct deals in the marketplace following *Web IV*. Indeed, after *Web IV*, SoundExchange discouraged its member labels from executing agreements with noninteractive services that might possibly serve as a benchmark in any CRB proceeding. SoundExchange's "SoundByte" newsletter warned:

> Direct deals could provide a precedent during the SDARS III royalty rate proceeding and undermine recording artists and record labels by establishing artificially low royalty rates. That is exactly what happened in the Web IV royalty rate proceeding. . . . . So while "marketplace" deals could benefit the satellite radio service and certain rights owners, they could have an additional impact on <u>all</u> recording artists and record labels as part of the rate case.

TX 2182 at 7-8; *see also* TX 2113 at 2 (in *yet another* SoundByte newsletter, warning that "Labels should . . . keep in mind that any direct deals might be used against artists and record companies as evidence in the upcoming SDARS III rate proceedings as has occurred in the past two satellite rate proceedings."); *see also* 8/24/20 Tr. 3477:24-3478:14 (Leonard) (testifying that the record indicated that [redacted]); *id*. at 3480:8-19 (same); *id*. at 3374:18-22 (same); 8/31/20 Tr. 4621:14-4622:3 (Williams) (testifying that, in his "[redacted]); *see also* NAB PFFCL ¶ 55.

Finally, SoundExchange fails to acknowledge that, under questioning on the stand, Orszag abandoned his "coverage" percentage critique, admitting that he was *not* challenging the percentage of performances covered by Dr. Leonard's benchmarks as [redacted] 8/13/20 Tr. 1864:9-14 (JUDGE STRICKLER: "[redacted]"); *see also id*. at 1862:25-1863:1 ("[redacted]"). Rather, he pivoted to claim that the iHeart-Indie deals are not sufficiently representative of rates major labels would agree to because indies "[redacted]." *Id*. at 1863:1-4. But neither Mr. Orszag nor SoundExchange's fact witnesses offered any evidence that the music licensed by indies is qualitatively or [redacted] from major labels such that indie label agreements would not be representative of the terms that majors would agree to in an effectively competitive

market, or that indie repertoires are so distinguishable from major labels' repertoires that it would be inappropriate to apply indie benchmarks market-wide. *See* 8/24/20 Tr. 3376:9-24 (Leonard); *see also id*. at 3382:18-3383:7; *infra* ¶ 1556.

1155. Disputed. SoundExchange argues that [redacted]. That argument is not supported by the record. *See* NAB PFFCL ¶¶ 57-59. Mr. Williams testified, without contradiction, that [redacted].[46] 08/31/20 Tr. 4571:1-25. Given the parties' [redacted] and that [redacted], it was appropriately included as a renewal indie in his benchmarking analysis.

1156. Disputed. Dr. Leonard testified that in reviewing the evidence and written testimony in this proceeding, he [redacted] 8/24/20 Tr. 3376:9-17. Nor had SoundExchange or its experts made that argument. *See id.* at 3376:9-18 (Leonard). Dr. Leonard explained that although majors have a "[redacted] *See id.* at 3376:9-22; *see also id*. at 3382:18-3383:7. In fact, Mr. Orszag admitted that artists frequently move between major and indie labels—citing

[46] Mr. Williams did not submit rebuttal testimony in this proceeding because SoundExchange's written direct case did not address iHeart's direct licenses in any way.

Taylor Swift as an example. 8/11/20 Tr. 1286:14-19; *see also* 8/13/20 Tr. 1856:5-12 (Orszag); *see also* 9/9/20 Tr. 5971:6-22 (Gauthier); Gauthier WDT ¶ 6; NAB PFFCL ¶ 63.

1157. Disputed in part. SoundExchange's argument that the iHeart-Indie deals do not represent a meaningful *number* of labels is also unavailing. As an initial matter, the [redacted]. 8/31/20 Tr. 4551:25-4553:20 (Williams). iHeart's Mr. Williams [redacted]. *Id*. at 4553:14-20. [redacted] *Id*. [redacted]. *Id*. at 4553:21-4554:6; *see also* NAB PFFCL ¶ 54.

The record provides numerous explanations for why a label might decline to negotiate a direct license with iHeart that have nothing to do with the acceptability of a deal's rate terms—primary among them the fact that, following *Web IV*, SoundExchange actively discouraged labels from executing agreements with noninteractive services that might possibly serve as a benchmark in any CRB proceeding. *See supra* ¶ 1154 (citing "SoundByte" newsletters, TX 2182 at 7-8; TX 2113 at 2); *see also* NAB PFFCL ¶¶ 52-63 (same). Moreover, Dr. Leonard testified that, even as a general matter, it is difficult to negotiate direct licenses under the overhang of the statutory rate. *See* 8/24/20 Tr. 3374:23-3376:8. He noted that the major labels, which are the most sophisticated and have the most at stake in the proceeding, would be particularly attuned to the potential use of direct deals with noninteractive services as

benchmarks. *Id*. at 3374:23-3376:8; 3526:25-3527:16; *see also* NAB PFFCL ¶ 60.[47]

1158. Disputed in part. *See supra* ¶ 1157.

1159. Disputed. Mr. Orszag bases his conclusion that indie labels had "unique motivations" and "varied benefits" under the iHeart deals (Orszag WRT ¶ 67) on just *two* interviews—with labels counsel selected for him. 8/13/20 Tr. 1838:4-1842:1 (admitting that he did not independently select or understand the chain of communications leading to the interviews). In addition, with respect to the claim that [redacted]. 8/11/20 Tr. 1418:25-1419:4; 8/13/20 Tr. 1850:6-1851:19; Orszag WRT ¶ 67; 8/24/20 Tr. 3383:8-16 (Leonard); *see also* Leonard CWDT App. A5 (listing iHeart-Indie renewals). And Orszag provided no evidence that [redacted] was a motivating factor in any of the iHeart-Indie benchmarks *actually relied on by Dr. Leonard.* This is not appropriate expert analysis, and rather than supporting SoundExchange, conclusively demonstrates the opposite. It comes nowhere near the standard established by the Judges requiring SoundExchange to produce evidence allowing for the quantification of such consideration. *See Web IV*, 81 Fed Reg. at 26384, 26387.

1160. Disputed. SoundExchange's assertion that "there is no evidence to support the Services' accusation that SoundExchange has been pressuring labels not to enter direct licenses" is flat wrong. SoundExchange says that its 2015 "SoundByte" newsletter—which warned its member labels that direct licenses might serve as evidence of marketplace rates in future CRB proceedings—would not have discouraged labels from entering into direct deals since it contains

[47] Dr. Leonard also explained that a label might deem the transaction costs of negotiating a direct deal to be too high to justify the effort. 8/24/20 Tr. 3477:8-16; *id*. at 3477:24-3475:14.

qualifying language acknowledging that labels retain discretion to decide "whether to enter into a direct license." But that isn't credible—particularly since SoundExchange deliberately followed that up with a *second* "SoundByte" warning in 2016, described in detail above. *See supra* ¶ 1154 (discussing TX 2182). An organization like SoundExchange does not issue such directives without full knowledge of their effects—especially when those effects (chilling direct deals) is *exactly* what SoundExchange needs for purposes of its arguments before this panel (which it has now made in consecutive proceedings). Not a single SoundExchange witness ever testified otherwise. But Mr. Williams did—stating that in his "[redacted]. 8/31/20 Tr. 4621:14-4622:3.

1161. Disputed. *See supra* ¶¶ 1154, 1157.

2. Dr. Leonard Applied a Neutral Renewal Criterion To Exclude Agreements that Failed the Willing Buyer / Willing Seller Test

1162. Disputed in part. For all the reasons described below, Mr. Orszag's criticisms of the methods by which Dr. Leonard selected his benchmarks are unfounded. *See infra* ¶¶ 1163-69.

1163. Disputed in part. Dr. Leonard expressly considered each of the three broadcaster agreements SoundExchange identifies in this paragraph—namely, the deals between Beasley-Big Machine, Entercom-Big Machine, and iHeart-Warner—and excluded them from his analysis. Leonard CWDT ¶¶ 63, 92. The Beasley and Entercom agreements [redacted]. *See* TXs 2070, 2071. And the iHeart-Warner agreement [redacted]. Williams CWDT ¶¶ 28-29; TX 2028 (Warner Extension Letter); *see also* 8/24/20 Tr. 3525:6-22 (Leonard). As such, Dr. Leonard concluded that none of these agreements reflected

rates a willing-buyer or seller would agree to on an ongoing basis.

1164. Not disputed.

1165. Disputed in part. The record does not prove that the Cox, Entercom, and iHeart [redacted] are explained exclusively by the shadow of the statutory rate. *See infra* ¶ 1166.

1166. Disputed. SoundExchange claims that the "facts in this case now confirm" the "shadow of the rate" theory it advanced in *Web IV*. Specifically, it points to the fact that Entercom and Cox previously entered into agreements that resulted in [redacted], but after *Web IV*, [redacted]. But SoundExchange cannot be sure that the existing statutory rate, not some other concern, motivated the [redacted]. SoundExchange has offered no evidence of the negotiating parties' mindset at the time they entered the deal. The fact that the agreements resulted in [redacted] the statutory rate [redacted]. It would have been economically irrational for them [redacted].[48]

1167. Disputed in part. Dr. Leonard's exclusion of the Beasley-Big Machine deal from his benchmark analysis is appropriate because, in contrast to the other [redacted] deals SoundExchange points to, and which Dr. Leonard included, there is record evidence that [redacted]. *See* Ex. 2070 ¶ 3.

1168. Disputed in part. With respect to the iHeart-Warner direct deal, [redacted]

[48] SoundExchange also ignores that its argument cuts both ways, as several of the independent labels declined to renew their agreements with iHeart after *Web IV* set effective rates above those they received under their agreements. 8/24/20 3661:3-15 (Leonard).

[redacted]. Williams WDT ¶ 29. The effective rates iHeart paid under the deal were [redacted]. *See id.* ¶¶ 28-29. [redacted]. *Id.* ¶ 29. As such, with respect to the Warner [redacted]. Leonard CWDT ¶ 92; *see also* 8/24/20 Tr. 3525:6-22 (Leonard). SoundExchange's argument in opposition simply amounts to a demand that the Judges ignore ex poste evidence—though it offers no legal justification for that position. SoundExchange does not dispute that the Warner deal was "[redacted]," and or that iHeart [redacted].[49]

1169. Disputed. *See supra* ¶¶ 1163-69.

3. iHeart Meaningfully Steered, and Promised to Steer

1170. Disputed in part. *See supra* ¶ 1152.

i. iHeart Was Committed to Steering and Had Strong Incentives To Do So

1171. Disputed in part. There is nothing in the relevant statutes or the prior CRB determinations that suggests a benchmark is only probative of the relevant market if it contains explicit steering provisions, or promises a particular level of increased market share. *See, e.g.*, 17 U.S.C. § 114(f)(1)(B)(ii) ("[T]he copyright Royalty Judges . . . may consider the rates and terms for comparable types of audio transmission services and comparable circumstances under voluntary license agreements."). As Mr. Williams explained, [redacted]

[49] Moreover, if SoundExchange actually believed the Warner agreement was a valid benchmark, it would have introduced it into evidence. That it did not suggests that the effective rates under the agreement come nowhere near supporting SoundExchange's proposal in this proceeding.

[redacted] 8/31/20 Tr. 4551:7-19 (Williams); *see also* Williams CWDT ¶ 23 (same); 8/24/20 Tr. 3492:25-3494:23 (Leonard) (same); NAB PFFCL ¶ 78. The structure and bargained-for exchange—reduced effective per-play rates for increased spins of indie sound recordings—incentivized iHeart to promote additional plays of its direct deals partners without the need for an explicit promise to steer. *Id.* The contractual provision that SoundExchange focuses on is not an anti-steering provision, but rather a description of how iHeart [redacted]. *See, e.g.*, Ex. 2013 at 20 § 18; 8/24/20 Tr. 3492:25-3493:14 (Leonard). This provision, however, [redacted]. 8/31/20 Tr. 4551:7-19 (Williams); *see also* 8/24/20 Tr. 3492:25-3494:5 (Leonard). Indeed, the fact that indie labels not only agreed to these deals, but agreed to renew them, [redacted] makes these benchmarks more powerful, not less.

1172. Not disputed.

1173. Disputed. SoundExchange's claim that iHeart "had little incentive to" steer on its broadcast/simulcast transmissions is directly contradicted by the testimony of iHeart's Mr. Williams and Dr. Leonard. The main point of the direct deals in Mr. Williams's view was to "[redacted]." 8/31/20 Tr. 4551:7-19 (Williams). [redacted] *Id.*; *see supra* ¶ 1170. There is no record evidence suggesting that increasing plays of direct deal partner sound recordings on iHeart's terrestrial broadcasts and simulcasts would somehow "degrade the broadcast," as SoundExchange claims. To the contrary, because radio stations play

relatively few songs compared to other webcasters, any particular sound recording is not significantly important for the viability of the broadcast radio product, NAB PFFCL ¶ 167 (citing Leonard CWDT ¶ 45); indeed, competition is so fierce that Congress has established laws restricting labels' ability to pay radio stations to play their songs, 47 U.S.C. § 317. Moreover, SoundExchange has offered no evidence that the music licensed by indies is qualitatively or "fundamentally different" from major labels' such that including more indie sound recordings in the consideration set would degrade the broadcast. *See* NAB PFFCL ¶ 63 (citing 8/24/20 Tr. 3376:9-24, 3382:18-3383:7 (Leonard); 8/11/20 Tr. 1286:14-19 (Orszag); 8/13/20 Tr. 1856:5-12 (Orszag); 9/9/20 Tr. 5971:6-22 (Gauthier); Gauthier WDT ¶ 6).

1174. Disputed in part. SoundExchange misinterprets Mr. Williams's testimony about the connection between song substitution on simulcast and ratings. It is not the case that increasing plays of directly licensed indie sound recordings leads to fewer listeners and therefore advertisers. Rather, as Midwest's Andrew Gille explained, substitution on simulcast negatively impacts broadcasters' Nielsen ratings because "Nielsen's ratings model is structured in a way that does not credit or properly track streaming listeners. Put differently, radio stations that choose to engage in ad substitution give up what we call 'Total Line Reporting' a method by which Nielsen combines the in-market simulcast listenership with the station's over-the-air ratings." Gille WDT ¶ 25; *see also* 8/24/20 Tr. 3436:11-16 (Leonard). This is what Mr. Williams was referring to when he explained that, for a time, [redacted] 8/31/20 Tr. 4596:11-21. Moreover, even if the imprecision of Nielsen's rating model was a reason to avoid song substitution on its simulcasts, SoundExchange misses the forest for the trees. [redacted]

[redacted] Much more important are iHeart's strong incentives to maintain its [redacted]. 8/30/20 Tr. 4538:16-4539:8 (Williams).[50]

1175. Disputed. SoundExchange first argues that "saving money on simulcast royalties by choosing sound recordings based on price would still require altering broadcast content as well as the simulcast content, resulting in a less optimal content mix for the broadcast transmissions." SoundExchange cites no record evidence to support that proposition; the cited paragraph of Dr. Leonard's testimony does not say anything like that. *See* Leonard CWDT ¶ 36. As explained above, altering both the broadcast and simulcast content does not "result in a less optimal content mix." *See supra* ¶ 1173. Alternatively, SoundExchange contends that "if one views the terrestrial broadcast royalty contained in the direct licenses as separate and distinct from the simulcast royalty, the direct licenses actually create a disincentive to steer in favor of direct-licensed indies on the broadcast/simulcast service." This "disincentive" theory was not offered by any of SoundExchange's economists based on analysis of the iHeart agreements. Instead, it was offered for the first time in this case by SoundExchange's counsel in the course of cross-examining Dr. Leonard. And far from agreeing with that theory, both Dr. Leonard and Mr. Williams refuted it. *See supra* ¶ 1173.

1176. Disputed. Dr. Leonard explained that *theoretically* if a broadcaster looked at the terrestrial royalty as totally separate from the simulcast royalty it is *possible* there would be a

[50] Under NAB's proposal, "music switched out on the stream would not qualify as a 'simulcast'" and would receive a higher rate. Leonard CWDT ¶ 49. To the extent only true simulcasts get the lower rate under NAB's proposal, iHeart ensures that the transmissions at the lower rate get the full benefit of inclusion on the over-the-air radio broadcast.

"small" disincentive to steer, but made clear this is not the "reality"; to the contrary, there is no "evidence that there has been an incentive to steer away on the terrestrial broadcast." 8/24/20 Tr. 3461:2-20; *see also infra* ¶ 1175.

ii. Indie Direct Deal Partners Renewed because of Steering Benefits on iHeart's Radio Playlists

1177. Disputed in part. As of January 2017, iHeart [redacted]. *See* NAB PFFCL ¶ 39 n.15 (citing TX 5463 at 10). But the more salient point is that, *notwithstanding this limitation*, indies chose to renew their agreements; indeed, all of the renewal indies did so well [redacted]. *See* Leonard CWDT App. A5. That fact demonstrates that it is iHeart's true simulcasting activity—the mirror of its over-the-air broadcast—that is driving the labels' willingness to accept effective per-play rates far below the statutory rate from iHeart, providing further support for a differentiated rate proposal. *See* 8/31/20 Tr. 4593:19-4594:14 (Williams); 8/24/20 Tr. 3495:4-3499:10 (Leonard); *see also id*. at 3499:22-3500:3. SoundExchange emphasizes how iHeart [redacted]" 8/31/20 Tr. 4594:9-14. That the indies did not inquire about steering on custom radio during negotiations is further evidence that steering on custom was not a driving force behind their agreements. *Cf.* NAB PFFCL ¶ 39.

1178. Disputed in part. As SoundExchange acknowledges, the programming team does not report to Mr. Williams, who is the Executive Vice President of Business Affairs. It is therefore no surprise (and not probative of anything) that Mr. Williams did not know "their exact . . . review process" for confirming that iHeart was in fact achieving cost savings by engaging in steering. 8/31/20 Tr. 4539:14-4540:3. He did know, however, that his team would provide "a

list to the programmers so that they knew which labels were directly licensed and they could make their programming decisions in part based on that" and that direct deal labels were able to reach out directly to programmers. *Id.* at 4538:12-25, 4540:13-18. Moreover, the fact that Mr. Williams and his team were working on improving this process for identifying direct deal sound recordings does not show that iHeart wasn't committed to steering or incentivized to do so. *See* TX 5494. To the contrary, this is proof that [redacted]. *Id.*; *see also* NAB PFFCL ¶ 39 (citing TXs 2047*, 2048*, 2086*, 5489; Leonard CWRT ¶ 50 & n.94; 8/24/20 Tr. 3489:18-3490:7 (Leonard)).

1179. Not disputed.

1180. Disputed in part. As Dr. Leonard explained at trial, while he did not calculate a market share change from [redacted], which is necessarily "going to have an effect." 8/24/20 Tr. 3517:8-15.

iii. iHeart Engaged in Steering on Its Simulcasts

1181. Disputed in part. While SoundExchange accurately describes iHeart's [redacted] and cites to one document that referred to [redacted], it once again fails to acknowledge that, as Mr. Williams put it, this is just "[redacted]." 8/31/20 Tr. 4604:3-14; *see supra* ¶¶ 1170-73. Moreover, iHeart's [redacted]. *Id.* at 4595:15:-4596:4 (Williams); TX 5273 at 8-9.

1182. Disputed in part. SoundExchange focuses on limited audience during the overnight hours but, as discussed above, [redacted]

[redacted] *See supra* ¶¶ 1170-73, 1181.

1183. Disputed in part. When asked about [redacted], Mr. Williams said he does not "[redacted]" but made clear that he nonetheless knows iHeart "[redacted]." 8/31/20 Tr. 4599:5-10 (emphasis added). As discussed above, SoundExchange is intentionally taking too narrow a view of [redacted]. *See supra* ¶¶ 1170-73, 1181. But this is secondary to iHeart's increased consideration of direct-licensed works for its broadcasts and true simulcasts. *See supra* ¶ 1152.

1184. Not disputed.

iv. Dr. Leonard Relied on Evidence that Indies Were Motivated To Enter into Direct Licenses by the Potential for Steering

1185. Disputed. Dr. Leonard was not "tentative," as SoundExchange suggests, in his opinion that the indies were motivated to enter into direct licenses in part because of the [redacted]. Rather, as is entirely appropriate for an expert witness, he explained that he reviewed evidence that the indies were "[redacted]." 8/24/20 Tr. 3489:23-3490:7; *see also* Leonard CWRT ¶ 50 & n.94. His opinion was based on documents produced by the parties to the direct deals, which is a normal and reliable basis for forming an expert opinion. *See* Fed. R. Evid. 703. The observation that Dr. Leonard did not "speak with Mr. Williams at iHeart" is particularly baffling, given that he had and relied on Mr. Williams' sworn written direct testimony in this matter. *See* Leonard CWDT ¶¶ 64, 71, 75, 82, 85, 86, 89, 92, App. A5 (citations to Williams WDT).

1186. Disputed. *See supra* ¶ 1185.

4. SoundExchange Presented No Evidence Quantifying So-Called Non-Rate Benefits Received by the Indies

1187. Disputed. Dr. Leonard attributed the difference between the statutory rate and the rates under the iHeart-indie direct licenses to *both* steering *and* the promotional benefits associated with simulcasting. Leonard CWDT ¶ 75; 8/24/20 Tr. 3490:13-3491:1 (Leonard).

1188. Disputed. The effective per play rate SoundExchange has calculated of [redacted] is not significantly higher than the 2016 statutory rate of $.0017 for ad-supported services. *See Web IV*, 81 Fed. Reg. at 26409. In addition, as described above, *see supra* ¶ 1088, the unsponsored analyses supplied by SoundExchange counsel post-hearing do not reflect the true effective per-play rates under the deal because they [redacted]. *See* 8/25/20 Tr. 3615:5-21 (Leonard). Dr. Leonard's analysis shows that the average effective per-play rates for the renewal indies, of which Big Machine is the largest, is [redacted], well below the rate in SoundExchange's inaccurate analysis. *See supra* ¶ 1085.

1189. Disputed. SoundExchange's contention that the renewal indies did not receive any meaningful amount of steering is incorrect. *See supra* ¶¶ 1170-84; NAB PFFCL ¶¶ 76-78. In addition, all the "benefits" Orszag identified were either shown to be insignificant or are fully accounted for in Dr. Leonard's analysis. *See infra* ¶¶ 1190-1202; *see also* NAB PFFCL ¶¶ 64-75. In all events, SoundExchange made no attempt to quantify them.

1190. Disputed in part. As described in the paragraphs that follow, NAB disputes that the [redacted] for the indies entering into direct license arrangements with iHeart. *See infra* ¶ 1191-95.

1191. Disputed. Mr. Orszag's only support for his assertion that the terrestrial royalty [redacted] is a phone call he had with a [redacted] executive selected by SoundExchange's counsel. 8/13/20 Tr. 1846:2-12; Orszag WRT ¶ 65. He did not

cite or rely upon any negotiation documents between [redacted] and iHeart in support of this claim. *See* Orszag WRT ¶ 65. Orszag admitted that he performed no reciprocal analysis of the importance of the [redacted] and did not attempt to quantify its value one way or the other. 8/13/20 Tr. 1846:24-1847:6; *see also* 8/24/20 Tr. 3378:16-3379:23 (Leonard). Such an analysis would have revealed testimony from iHeart's Williams discussing how the [redacted]. *See* NAB PFFCL ¶ 47. Because the terrestrial royalty was something that both direct deal partners, like [redacted], and iHeart benefited from, it "[redacted]" in terms of value of the deals. 8/24/20 Tr. 3378:23-3379:3, 3518:15-3519:1 (Leonard). Further, to the extent Orszag's assertion on this point is given any weight, Dr. Leonard already conservatively addressed the terrestrial royalty benefit in his benchmarking analysis by [redacted] to the per-play rates for iHeart's webcasting activity. 8/24/20 Tr. 3378:21-3379:20 (Leonard); *see also* Leonard CWDT ¶ 68, App. A1. And SoundExchange has not attempted to show that whatever net incremental value the labels allegedly associated with the terrestrial royalty is not more than offset by Dr. Leonard's conservative calculations.

1192. Disputed. Mr. Orszag's factual allegation here is, once again, only supported by his discussion with a single label executive. *See supra* ¶ 1191. This is not expert analysis.

1193. Disputed in part. As described below, Mr. Orszag's over-indexing theory is not supported by the record. *See infra* ¶ 1195.

1194. Not disputed.

1195. Disputed. SoundExchange once again offers counsel-made calculations in an attempt to substantiate its over-indexing argument. Notably, these calculations were not endorsed by its own expert, Mr. Orszag. 8/13/20 Tr. 1848:7-19; 1849:7-14 (Orszag) (admitting

he did not independently calculate whether the labels actually received more in royalties). Indeed, similar to SoundExchange counsel's conjured theories described at *supra* ¶ 1088, these calculations are unreliable measures of effective royalty rates as they do not take into account [redacted] *See* 8/25/20 Tr. 3615:5-21 (Leonard). Dr. Leonard's analysis, in contrast, is actual evidence in this case, and accounts for these terms; as he testified, [redacted]—not even close. 8/24/20 Tr. 3381:11-16 (Leonard); *see also id.* 3380:22-3383:7; Leonard CWDT ¶ 68 & Apps. A1-A3.

1196. Disputed in part. This analysis assumes that the over-indexing phenomenon Mr. Orszag observed was not in any way attributable to steering by iHeart. Orszag WRT ¶ 66. This unsupported assumption is debunked by Mr. Williams's testimony that the labels that agreed to the indie benchmarks understood their status as direct licensees would give them "[redacted] 8/31/20 Tr. 4537:16-4539:8 (Williams); *see also id*. at 4542:14-4543:1, 4594:1-14.

1197. Disputed. Again, Mr. Orszag's conclusion that indie labels were motivated to enter into a direct license with iHeart by various unique benefits was improperly based on *two* interviews with labels counsel selected for him. 8/13/20 Tr. 1838:4-1842:25 (admitting that he did not independently select the interviews).

1198. Disputed. Mr. Orszag admitted during the hearing that any administrative fee savings, [redacted]. 8/13/20 Tr. 1851:20-1852:15; *see also* 8/24/20

Tr. 3384:2-9 (Leonard). It also does not account for additional administrative costs to the label. As Dr. Leonard testified, that amount [redacted][51] 8/24/20 Tr. 3384:2-9.

1199. Disputed in part. The lone illustration Orszag supplies of the supposed royalty split "benefit" comes from a conversation he had with a former [redacted] employee who was not at the company when the [redacted] deal was renewed. 8/11/20 Tr. 1422:15-1425:8; *see also* TX 2168. He further admitted that [redacted] is unique in that it focuses on "budget classical music," which sets it apart from other labels. 8/13/20 Tr. 1852:22-1854:13. Its incentives, therefore, are not representative of other licensors. Further, Dr. Leonard confirmed that [redacted]—so small that dropping [redacted] 8/24/20 Tr. 3384:10-22.

1200. Disputed in part. *See supra* ¶ 1199.

1201. Disputed in part. Orszag makes no attempt to analyze or establish the relative importance of this supposed "benefit," let alone quantify it.

1202. Disputed in part. *See supra* ¶¶ 1190-1202.

1203. Disputed. *See supra* ¶¶ 1190-1202.

5. Dr. Leonard's Benchmark Rates Are Corroborated by His Opportunity-Cost Calculation

1204. Disputed. *See supra* ¶ 1153; NAB PFFCL ¶ 135.

C. Dr. Leonard's Opportunity-Cost Analysis Is Sound

1205-06. Not disputed.

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[51] Mr. Orszag also ignored the fact that, under the direct deals, the indies would have to incur some administrative costs themselves. 8/24/20 Tr. 3383:17-3384:9 (Leonard); 8/13/20 Tr. 1852:16-21 (Orszag) (admitting he did not conduct an analysis of administrative costs for labels under direct deals). So it is not clear that avoiding the administrative fee is on net any benefit at all. 8/24/20 Tr. 3383:20-3384:1 (Leonard).

1207. Disputed. As Dr. Leonard explained, the purpose of the opportunity cost analysis is *not* to estimate rates that would prevail in the marketplace; rather, it is meant to serve as an independent check on his benchmarking analysis, which is the principal basis for his conclusions regarding NAB's proposal. 8/24/20 Tr. 3398:22-3399:4, 3413:23-3414:13; Leonard CWDT ¶ 99; *see* NAB PFFCL ¶¶ 127-145.

1. Dr. Leonard Relied on Professor Hauser's Reliable Survey Data

1208. Disputed in part. SoundExchange correctly states that Dr. Leonard relied on the diversion ratio results generated by the Hauser survey to calculate the label's opportunity cost. *See* Leonard CWDT ¶¶ 105-07. The Hauser diversion ratios, however, reflect more than "the proportion of simulcast listeners that would divert their listening to other forms of *music distribution*." *See supra* ¶ 1208 (emphasis added). The Hauser survey provides the diversion ratios from simulcast to all potential listening alternatives, including non-music options. *See* Leonard CWDT ¶¶ 105-07; Hauser WDT App. R. Providing such non-music options was critical because, as the Hauser survey demonstrated, simulcast listeners highly value the non-music content delivered by commercial radio. *See* Hauser WDT Table 2, App. P.

1209. Disputed. The Hauser survey is not fatally flawed. To the contrary, it is the only reliable consumer survey in the proceeding and the only one that specifically identified and studied the population of simulcast listeners. *See* 8/27/20 Tr. 4332:5-18 (Hauser); NAB PFFCL ¶¶ 117-120, 190-99; *see also* Joint PFFCL ¶¶ 287-302.

i. Overview

1210-11. Not disputed.

1212. Disputed in part. SoundExchange accurately described Q4 of the Hauser Survey but did not mention that the survey question also provided respondents information about the prices for each paid switching option. *See* Hauser WDT App. E, Q4.

1213. Disputed in part. SoundExchange accurately described Q5 of the Hauser Survey but did not mention that the survey question also provided respondents information about the prices for each paid switching option. *See* Hauser WDT App. E, Q5.

1214. Disputed. Professor Hauser's replacement options are not flawed and do not create any downward bias in the survey results. *See* NAB PFFCL ¶¶ 112-126.

ii. Professor Hauser's Hypothetical and Response Options Are Well-Designed

a. Clear Hypothetical Scenario

1215. Disputed in part. It is true that Professor Hauser's switching questions ask respondents what they would do in place of listening to simulcasts if they "were not available for the next five years." Hauser WDT App. E, Q4 & Q5. But as discussed below this scenario does not "contain numerous flaws." *See infra* ¶¶ 1216-1219; Hauser WDT ¶¶ 19-20, 25, 31-33.

1216. Disputed in part. SoundExchange is correct that Professor Hauser asked consumers to imagine simulcast was completely unavailable (rather than just the music content on simulcast), but incorrect that this biased his survey results. Hauser WDT App. E, Q4-Q5. Professor Hauser designed his switching questions this way because, as SoundExchange's own expert acknowledged, simulcast is exactly what's being played over the air and listeners hear a mix of both music and non-music content. 8/27/20 Tr. 4229:7-11, 4232:8-11 (Zauberman); *id.* at 4343:7-15 (Hauser). As a result, Professor Hauser found "[c]onsumers had a hard time imagining simulcast with just music taken away. You can imagine you're listening to what essentially is the same stream you would normally get over the terrestrial radio, and it would be hard to imagine, say, having music taken away when the DJs are talking about the music." *Id.* at 4339:16-4340:13; *see also id.* at 4366:21-4367:11, 4376:19-4377:8.

In addition, Dr. Leonard confirmed that the Hauser survey hypothetical did not create a

downward bias by conducting two alternative opportunity cost calculations. *See* Leonard CWDT ¶ 107 n.135, Apps. B4 & B5; *see also* 8/27/20 Tr. 4370:16-24, 4372:23-4373:2, 4403:24-4404:14 (Hauser). First, he used "diversion ratios . . . calculated by excluding respondents to the survey who did not select 'Music' as a type of content that they had listened to through simulcast over the last three days." Leonard CWDT ¶ 107 n.135. Second, he included "only those respondents to the survey who only selected 'Music' as a type of content that they had listened to through simulcast over the last three days." *Id.* The "results for these two additional scenarios are . . . consistent with the result based on all of the survey respondents." *Id.*

1217. Disputed in part. The Hauser survey respondents were not given a difficult forecasting task. Rather, they were simply asked to "think about the **most recent** time [they] listened to live AM/FM radio broadcasts **from commercial radio stations over the Internet**" and what they would do in place of listening to simulcasts "in similar situations." Hauser WDT App. E, Q5 (emphasis original). As Professor Hauser explained, he would have liked to ask "what would you have done in the last situation, but [respondents] found that a little bit uncomfortable because they would say I listened to AM/FM radio," so he instead asked about a "similar situation." 8/27/20 Tr. 4355:20-4356:10. "[T]his question was never meant to say they will do the same thing every single . . . time in that similar situation. And [respondents] didn't interpret it that way." *Id.* Rather, they understood that they should think about "something similar to their most recent experience." *Id.* at 4356:18-21. Moreover, Professor Hauser's hypothetical has a much more reasonable and limited time frame than Professor Zauberman's switching question, which has no time limit at all. *Compare* Hauser WDT App. E, Q5, *with* Zauberman WDT App. D, Q2. Indeed to the extent this critique has any force, it applies doubly to the surveys that SoundExchange relies on. Professor Zauberman asked respondents to assume

all free streaming radio services were no longer available *indefinitely*, requiring respondents to forecast over a much longer period of time. *Id.* The same is true of the Hanssens and Simonson surveys. *See* Hanssen WDT App. 6, P40; Simonson CWRT App. D, Question 240.

1218. Disputed. SoundExchange has not presented any evidence that respondents were confused by the five year time frame in Professor Hauser's switching questions. To the contrary, Professor Hauser's qualitative interviews and pretests both confirmed that respondents "understood the hypothetical and the task posed in the question." Hauser WDT App. G at 8; *see also* 8/27/20 Tr. 4355:1-4358:2, 4389:23-4391:4, 4397:13-19.

1219. Disputed. NAB does not dispute that survey hypotheticals should be designed so that respondents are not confused about the scenario they are asked to consider. As discussed, however, Professor Hauser's respondents were not confused. *See supra* ¶ 1218.

b. Professor Hauser's Response Options Accurately Reflect the Alternatives Respondents Would Consider and Were Easily Understood

1220. Disputed in part. NAB does not dispute SoundExchange's description of Professor Hauser's survey design, but rather the underlying opinions in the cited paragraphs of Professor Zauberman's written rebuttal testimony. *See* SX PFFCL ¶ 1220 (citing Zauberman WRT ¶¶ 66-67). That critique is based on a basic misunderstanding about Professor Hauser's survey design. Professor Hauser did not customize the response options in Q4, his consideration question, because that question "serves as a filter for the Q5 question"; respondents were only asked in *Q5* about options they said they would consider in Q4. Hauser WDT ¶¶ 52-53, 102; *see also* 8/27/20 Tr. 4337:13-4338:6 (Hauser). Zauberman did the exact same thing, albeit in a far more confusing and indirect way, by asking respondents to identify whether they listened to a particular kind of service within the last 30 days, and using those responses to "customize" later options. Zauberman WDT App. D, Q1 & Q2.

1221. Disputed. SoundExchange points to no evidence that respondents understood the survey as telling them that "they already own, have access to, or have purchased" services that they do not. To the contrary, as described in the next paragraph, Professor Hauser found that respondents understood the replacement options perfectly well. *See* Hauser WDT ¶¶ 52-53, 102; *see also* 8/27/20 Tr. 4337:13-4338:6 (Hauser).

1222. Disputed. Professor Hauser's pretest proved that respondents understood the options presented in the consideration question (Q4) and that they were free to select, "would consider," "would not consider," "don't know/unsure," or fill in their own substitute activity. Hauser WDT ¶ 52; *see also id.* App. G at 8. "After edits outlined in Appendix Table [G]-1, pretests [also] assured that respondents understood differences between choices about paid subscription services they 'already have' and paid subscription services they 'don't currently subscribe to.'" Hauser WDT App. G at 8. If, for example, a respondent *did not* already subscribe to a paid subscription, he/she could simply select "would not consider" or "don't know/unsure," for the option, "I would listen to on-demand music streaming service(s) through the paid subscription(s) I already have . . . ." *See* Hauser WDT App. E, Q4. If that respondent would consider switching to a new on-demand subscription, he/she could select: "I would purchase new paid subscription(s) to on-demand music streaming service(s) that I don't currently subscribe to . . . ." *Id.* Unlike Professor Zauberman's survey, which cannot distinguish between a respondent who did not have an existing paid subscription and a respondent who had an existing paid subscription but either did not *remember* using it in the past thirty days or *did not use it* in the past thirty days, Professor Hauser provided respondents a clear and easy way to indicate whether they would consider existing or new subscriptions. 8/27/20 Tr. 4235:18-24, 4237:12-4239:1 (Zauberman); Hauser WRT ¶¶ 6, 20-27; 8/24/20 Tr. 3444:23-3445:20

(Leonard); Leonard CWRT ¶ 18.

1223. Disputed in part. NAB does not dispute that "[f]ailing to provide options that would allow respondents to answer a question accurately is poor survey design methodology that leads to unreliable data," but it is the Zauberman survey, not the Hauser survey, that suffers from this problem. *See* Joint PFFCL ¶¶ 296-300.

1224. Disputed. Professor Hauser explained that he carefully crafted the switching options based on his experience from prior rate-setting proceedings in which his surveys were accepted (including *SDARS III,* where the survey had 19 switching options), research into the different ways respondents access different types of content, industry studies, and the feedback he received in the course of conducting qualitative interviews and pretests. 8/27/20 Tr. 4340:14-4344:7; Hauser WDT ¶¶ 19-20, 25, 31-33, App. G at 8. The pretests confirmed that respondents found the list of options to be comprehensive but not too numerous, and to reflect the full scope of options they would consider doing instead of listening to simulcasts. 8/27/20 Tr. 4340:25-4343:4 (Hauser); Hauser WDT App. G at 8. In addition, SoundExchange misleadingly suggests that respondents were "presented with a list of up to 22 options" in *Q5*—the switching question. As described above, respondents were asked to choose from among the options they said they would consider in Q4 and were presented with only the options selected in Q5. Hauser WDT ¶ 105, App. E, Q4 & Q5. On average, respondents indicated they would consider 12.6 alternatives, and no respondent selected all 22 options. *See* SX PFFCL ¶ 1224; Hauser WDT ¶¶ 103-105.

1225. Disputed. As discussed above, during the pretests, respondents did not think the Hauser survey gave "too many options." *See supra* ¶ 1224; 8/27/20 Tr. 4340:14-4344:7. Notably, none of SoundExchange's experts conducted their own pretests or qualitative

interviews with consumers to determine whether actual respondents thought there were too many options. Instead, the entire critique is founded on the unsupported suppositions of Professor Zauberman. *See* Zauberman WRT ¶ 70. Moreover, Hauser's survey was purposefully designed to *avoid* "choice overload": one of the benefits of using a "consider then choose" design is that it "avoids any potential respondent fatigue because the filter limits the number of alternatives to only relevant options when respondents are asked to select a single substitute for" simulcasts. Hauser WDT ¶¶ 53, 101-02, App. E, Q4 & Q5; Hauser WRT ¶¶ 55-58.

1226. Disputed. The replacement options in Professor Hauser's switching questions do not create a bias toward non-royalty-bearing options. As explained above, Professor Hauser crafted the switching options based on prior experience, research, and his pretests and qualitative interviews, which confirmed that respondents found the list to reflect the full scope of options they would consider doing instead of listening to simulcasts. *See supra* ¶ 1224.

1227. Disputed in part. As explained above, NAB disputes that Hauser's Q4 has "a confusingly long list of response options." *See supra* ¶¶ 1224, 1226. In addition, while SoundExchange is correct that Professor Hauser did not include a separate option for Sirius XM over the internet, that is because that option was subsumed under the broader category of paid "not-on-demand" music streaming options. *See* Hauser WDT App. E, Q4. If respondents did not understand that option to include Sirius XM over the internet, they could have also written in that response for Q4 but not a single respondent did so. *See* TX 5398 (Hauser survey raw data). SoundExchange cannot credibly critique Professor Hauser for providing too many specific response options and yet also claim that he should have provided even more. This is particularly true given that, according to Sirius XM's own experts, very few respondents subscribe to the standalone Sirius XM Internet package (most people who have a SiriusXM Internet subscription

have it bundled with the satellite subscription). 8/20/20 Tr. 3158:10-16, 3212:14-17 (Shapiro).

1228. Disputed in part. The fact that a number of the replacement options did not generate additional royalties for record labels is not itself an independent critique of the survey, unless SoundExchange can prove that number somehow systematically biased the survey. SoundExchange claims "NAB's own witness" testified to this proposed fact without citing to a NAB witness's written or live testimony.

1229. Not disputed.

1230. Disputed. SoundExchange has pointed to no data to suggest that Professor Hauser's switching options are "noisy" or "disproportionately biased towards" non-royalty-bearing options. *See supra* ¶¶ 1224, 1226. SoundExchange's entire critique is, again, based entirely on the unsupported assertions of its experts, without any quantitative analysis (*e.g.*, in the form of analysis of the data) or qualitative evidence (*e.g.*, in the form of interviews or pretests with actual consumers) to back it up. Indeed, Professor Hauser engaged in quantitative analysis of his results, and found that they were "directionally similar"—though, importantly, not identical—to Professor Zauberman's. Hauser WRT ¶¶ 59-66, Table 2. For example, after rescaling the results to account for the differences in the response options and response format, 10.5% of Hauser respondents would divert to paid-on demand streaming services, as compared to 10.1% of Zauberman respondents. *Id.* Table 2. The surveys would not be directionally similar in this respect if the Hauser survey biased respondents towards non-royalty-bearing options.

1231. Disputed. *See supra* ¶¶ 1224, 1226. SoundExchange again provides no quantitative analysis or qualitative evidence to support its proposition that there were "order effects" in Professor Hauser's survey, relying instead on the wholly unsupported assertions of

their experts. *See* SX PFFCL ¶ 1231 (citing Zauberman WRT ¶ 71).

1232. Disputed. First, SoundExchange has not previously argued that Professor Hauser "emphasizes the cost of paid services by presenting prices in multiple forms" and can cite to no written or live expert testimony to support that critique. Even if SoundExchange had properly preserved this argument, Professor Hauser's annual and monthly descriptions of the cost of paid services do not privilege "free options over higher-royalty bearing paid options." As Professor Hauser explained, he "provided examples of the potential price for each subscription so that respondents would be aware of the cost of choosing that option as a potential substitute" and he "provided both monthly and annualized example prices so respondents could more easily consider the cost of each option over the five-year period during which Internet simulcasts of terrestrial commercial radio were not available as posed hypothetically in the survey." Hauser WDT ¶ 33; *see also* 8/24/20 Tr. 3423:22-3424:22 (Leonard) (describing the importance of providing prices and getting respondents "thinking about their budget constraint"). SoundExchange also claims that the "term 'free' is much less salient," because Hauser describes free services as one that "have ads and that I do not need to pay for" instead of as "free." *See* Zauberman WRT ¶ 71; Hauser WDT App. E, Q4 & Q5. That critique is a particularly confusing one for SoundExchange to make, because it would render the survey *conservative*, biasing respondents against the "free" alternatives. By emphasizing the cost of the "free" options—that you have to listen to ads—the survey would push respondents away from the non-royalty-bearing options, not towards them. *SDARS III*, 83 Fed. Reg. at 65234 ("[T]he power of a 'free' alternative is well-understood. *See* . . . D. Ariely, *Predictably Irrational* at 51-52 (2009).

1233. Disputed in part. SoundExchange further contends, without any support, that "by explicitly mentioning AM/FM radio in every question in the main questionnaire . . . Professor

Hauser makes the free (and non-royalty-bearing) options of AM/FM radio particularly salient." But Professor Hauser *was specifically studying* how simulcast listeners would behave if "AM/FM radio broadcasts from commercial radio stations over the Internet" were not available and so, unsurprisingly, needed to mention that in his questions. *See* Hauser WDT ¶ 6; 8/27/20 Tr. 4332:5-18 (Hauser). Indeed, Professor Hauser "[a]dded 'in place of AM/FM radio broadcasts from commercial radio stations of the Internet'" after some respondents during pretests explained that they "could not remember that the question asked what they would consider doing in pace of live AM/FM broadcasts . . . as they reviewed the list of options." Hauser WDT App. G at 4.

In addition, Professor Hauser "tested explicitly for demand artifacts" in his pretest debriefs and detected none—"[r]espondents did not find the questions to be leading and respondents were not able to guess that any particular result was desired by the survey designer," or "the purpose or sponsor of the survey." Hauser WDT ¶ 48. In contrast, SoundExchange points to nothing but its experts' unsupported suppositions. *See* SX PFFCL ¶ 1233 (citing Zauberman WRT ¶¶ 13, 71).

1234. Disputed. As discussed above, Professor Hauser carefully crafted and pretested the number and type of response options he provided in his consideration question. *See supra* ¶¶ 1224, 1226. He did not "bury" music options, as SoundExchange claims, but rather offered options that reflect what consumers would consider doing instead of listening to simulcasts—a service which contains a mix of music and non-music content. *Id.* Moreover, the percentage of respondents to the Hauser survey selecting non-music options is not radically different from the respondents to the Zauberman survey selecting non-music options. Hauser WRT ¶ 63, Table 2. The difference can be explained by the fact that the Hauser survey is studying a product—

simulcast—that has concededly significant nonmusic content. Hauser WRT ¶¶ 39, 65.

1235. Disputed. SoundExchange also contends that Professor Hauser's response options are unclear and ambiguous because they mix different types of content within a single response option. For all the reasons discussed above, there is no evidence that respondents were confused by Professor Hauser's response options. *See supra* ¶¶ 1224, 1226.

c. Professor Hauser's Instructions and Questions Did Not Create Bias or Order Effects

1236. Disputed. In addition to criticizing the switching question response options, SoundExchange also claims that Hauser's Q2 and Q3, which asked respondents about the types of content they listen to on simulcast and how they value that content, "prime respondents to choose non-music options." More specifically, SoundExchange claims that by making music just one of eight response options in Q2 Professor Hauser's questions "push respondents" in the direction of non-music options. *See* SX PFFCL ¶¶ 1237-1239. Once again, this ignores the testimony offered at trial. During the proceeding, Professor Hauser explained that he "developed the categories" offered in Q2 and Q3 "in qualitative interviews and then pre-tested them, and we did document some of these categories were changed slightly, but basically this is the categories that consumers were comfortable with." 8/27/20 Tr. 4362:1-11. He further explained that he asked what content respondents listen to and how they value that content before asking the switching questions because that's the "natural flow of the survey, . . . we're finding out what they listened to before we ask[] that to which they switch." *Id.* at 4362:12-18. Finally, pretests confirmed that there were no order effects. *Id.* at 4362:19-4363:4 (Hauser).

1237. Disputed in part. NAB does not dispute that Professor Hauser gave respondents seven different types of content options in addition to allowing respondents to write-in "other content" types or select "don't know/unsure." Hauser WDT App. E, Q2. As discussed above, ,

NAB disputes that this aspect of Hauser's survey design is problematic. *See supra* ¶ 1236. The options reflect the types of content respondents indicated they listen to during the pretest.

1238. Disputed in part. NAB disagrees with SoundExchange's critiques of Q2 and Q3. *See supra* ¶ 1236.

1239. Disputed. SoundExchange further claims that Hauser provided respondents "with a wide range of irrelevant options" and in doing so "prime[d] respondents to think about more than music listening," which made it less likely respondents would "choose music options" in the subsequent switching questions. First, Professor Hauser's survey results make clear that non-music options are not "irrelevant." To the contrary, respondents reported listening to 2.6 types of content on simulcast on average, with high percentages listening to non-music content in addition to music. *See* Hauser WDT ¶ 97, Table 1, App. O; *supra* ¶ 19; NAB PFFCL ¶¶ 171, 195. Second, Professor Hauser's pretests demonstrate that there were no order effects from putting Q2 and Q3 before the switching questions. 8/27/20 Tr. 4362:19-4363:4 (Hauser). Professor Simonson even testified at his deposition (before attempting to change his testimony at trial) that he had no empirical evidence that could measure the size of any bias due to those demand artifacts. 8/27/20 Tr. 4322:14-4324:4 (Simonson).

1240. Disputed. Finally, SoundExchange claims that providing other content as a substitute for music services misrepresents people's real-world experience, in which other content does not generally satisfy a desire for music. But this ignores that the Hauser study was specifically about *simulcasts*, which include a mix of music and non-music content. *See supra* ¶ 1216. As a result, this mix of content accurately reflects simulcast listeners "real-world experience" and the experience they would need to replace if simulcasts were unavailable. *Id.*

iii. Professor Hauser's Two-Stage Decision-Making Process Reflects Consumer Behavior and Mitigates "Cheap Talk"

1241. Disputed. SoundExchange next claims that it was improper for Professor Hauser to use a two-stage "consider then choose" survey design. As discussed in both the Joint PFFCL and NAB's PFFCL, however, this design mirrors common consumer behavior and also had the significant benefit of mitigating the cheap talk problems that plague the other surveys. *See* NAB PFFCL ¶¶ 114-15, 121; Joint PFFCL ¶¶ 291-94; *see also* 8/27/20 Tr. 4338:7-4339:15, 4345:15-4346:2, 4346:25-4348:11 (Hauser); Hauser WDT ¶ 102 & n.111; Hauser WRT ¶¶ 55-58; 8/24/20 Tr. 3421:15-3423:21, 3446:5-3448:7 (Leonard); Leonard CWRT ¶¶ 19-21 & n.37.

1242. Disputed in part. SoundExchange accurately describes Professor Hauser's "consider then choose" design, but, as described above and below, NAB disputes that this structure is "inappropriate." *See supra* ¶¶ 1241, 1243.

1243. Disputed. SoundExchange asserts that the "consider then choose" heuristic applies only to high-risk, high-expense situations like buying a car. *See* 8/27/20 Tr. 4299:24-4301:8 (Simonson). That claim is directly contradicted by reputable, well-established principles in consumer research that consumers use this decision-making process for tasks as low-risk as purchasing deodorant. *See* 8/27/20 Tr. 4338:7-4339:15 (Hauser); Hauser WDT ¶ 102 (citing supporting literature, *i.e.*: Hauser, John R., "Consideration-set Heuristics," Journal of Business Research, 67, 8, 2014, pp. 1688-1699 at 1688); Hauser WRT ¶¶ 55-58; NAB PFFCL ¶¶ 114, 121.

1244. Disputed. SoundExchange inexplicably ignores Professor Hauser's written and trial testimony entirely, arguing that Hauser has provided "*no* basis for limiting Q5 respondents to one replacement option for the next five years." To the contrary, he provided several valid bases. First, the "consider then choose" one design mitigates cheap talk problems. *See supra* ¶ 1241; NAB PFFCL ¶¶ 114-115, 121; Joint PFFCL ¶¶ 291-294. Second, Professor Hauser

explained clearly that his "choose one" design accounts for the fact that listeners might replace simulcast with more than one alternative by using a sampling frame: the survey was "fielded over ten days, invitations were released at different times of the day to ensure representative by day of week. . . . And then respondents were asked to tell us what they would do" in a "similar situation to the most recent time." 8/27/20 Tr. at 4352:2-4353:4, 4356:22-4357:13; Hauser WDT ¶¶ 35-37, 105. This achieves a random draw in time from the distribution of all instances of listening to simulcast. *Id.*; *see also* NAB PFFCL ¶¶ 123-125.

Professor Simonson is therefore incorrect that the Hauser switching question required respondents to "limit themselves to only one alternative" for five years. *See* NAB PFFCL ¶ 125. Because respondents were primed to think of "situations similar to" the "most recent time" they listened to simulcast, their responses reflect what they would do in a similar circumstance, not what they would do "repetitively each day over the next five years." 8/27/20 Tr. 4356:22-4358:2 (Hauser); *see also id.* at 4389:23-4391:4, 4397:13-19. It is a "misreading of [the] question" to characterize it as asking about the "one thing" respondents "would do over the five years." *Id.* at 4397:13-4398:22. And, most importantly, this is not how consumers read it. *Id.*; Hauser WDT App. G at 8. SoundExchange could have come forward with its own quantitative analysis or evidence that actual respondent consumers read the question in a different way. It did not.

1245. Disputed. SoundExchange further claims that "there is no reason to think that the options available to consumers in five years will be the same as the options available today" and so it is unrealistic for Hauser survey respondents to "choose only one option [] based on what is available today." Without any record evidence whatsoever about expected future changes in the music industry, it should hardly be controversial that Professor Hauser focused on the music service alternatives available today. Indeed, SoundExchange's own survey experts did the exact

same thing. Moreover, Professor Zauberman put *no* time limitation on his hypothetical—asking respondents to assume they "could no longer listen to music with **a FREE streaming radio** service(s)." Zauberman WDT App. D, Q2. And it is also a misreading of Professor Hauser's switching question to characterize it as asking about the "one thing" respondents "would do over the five years." 8/27/20 Tr. at 4397:13-4398:22 (Hauser); *supra* ¶ 1244.

1246. Disputed in part. SoundExchange is inappropriately attempting to cabin the "consider then choose" heuristic to a narrow set of circumstances, even though it is well-established that consumers use this decision making process for everything from picking a deodorant to buying a car. *See* 8/27/20 Tr. 4338:7-4339:15 (Hauser); Hauser WDT ¶ 102 & n.111 (citing supporting literature); Hauser WRT ¶¶ 55 58; NAB PFFCL ¶¶ 114, 121; *supra* ¶ 1243.

1247. Disputed. Professor Hauser discussed and cited academic literature that supports both his use of a "consider then choose" framework and also his "choose one" sampling frame. *See supra* ¶ 1246.; *see also* 8/27/20 Tr. 4344:25-4346:2 (Hauser). SoundExchange's notation that Professor Hauser cited and testified about "research not in evidence" is a red herring; there is nothing inappropriate about him doing so.

1248. Disputed in part. As SoundExchange notes, Professor Hauser recognizes that it is not uncommon for individuals to have subscriptions to multiple services. Hauser WDT ¶ 85; 8/27/20 Tr. 4352:2-5. His sampling frame, as described above, accounts for this by achieving a random draw in time from the distribution of all instances of listening to simulcast. *See supra* ¶ 1244; NAB PFFCL ¶¶ 123-125; 8/27/20 Tr. at 4352:6-4353:4, 4356:22-4357:13; Hauser WDT ¶¶ 35-37, 105. The survey results "as a whole" are, therefore, "an unbiased estimator of the activities respondents would do in place of listening to" simulcasts, even though each

respondents only selected one switching option. Hauser WDT ¶ 36.

1249. Disputed. As discussed in the Joint PFFCL, a comparison of the results of the Zauberman switching question (where respondents indicated what services they *would switch to*) to the results of the Hauser survey consideration question (where respondents indicated what services they would *consider switching* to) does not reveal an "artificial restraint" or inaccuracy in Hauser's survey. *See* Joint PFFCL ¶ 293. To the contrary, it reveals the cheap talk problems with Professor Zauberman's survey. *Id.*

SoundExchange misleadingly compares the average number of options selected in the Zauberman and Hauser surveys, rather than comparing the proportion of options respondents selected in each. This is a meaningless comparison given that the two surveys had a different total number of switching options. The Hauser survey respondents on average selected 12.6 out of 23 response options (54.8%) in the consideration question, compared with 3.85 out of 7 response options (55.0%) in the Zauberman survey. 8/27/20 Tr. 4350:9-25 (Hauser); Hauser WRT ¶ 63 Table 2 & n.126; TX 5026 (Zauberman Survey Data). This striking similarity between the two data sets is powerful evidence that the results of Zauberman's switching question do not provide reliable evidence of the services that respondents would *actually* switch to, because respondents are not forced to weigh the costs associated with switching. 8/27/20 Tr. at 4350:9-25 (Hauser); *see also* Leonard CWRT ¶ 19. The same is true of Professor Hanssens' and Professor Simonson's surveys, which similarly suffer from cheap talk problems. 8/27/20 Tr. 4351:1-4352:1 (Hauser).

1250. Disputed in part. Professor Hauser's respondents are consumers who reported listening to simulcast in the prior three days and SoundExchange is correct that Hauser focused respondents on the past three days in Q1-Q3. Hauser WDT App. E, Q1-Q3. The switching

questions, however, asked respondents to think of "situations similar to" the "most recent time" they listened to simulcast (which, by definition, would have occurred within the last three days). For all the reasons discussed above, this was an effective way of achieving an unbiased estimate of switching behavior. *See supra* ¶¶ 1217, 1244-1245.

1251. Disputed in part. As discussed above, Hauser's hypothetical in Q4 and Q5 focused respondents on "something similar to their most recent [simulcast listening] experience" and asked respondents what they would listen to if simulcast were unavailable for the next five years. 8/27/20 Tr. 4356:18-21 (Hauser). *See supra* ¶¶ 1217, 1244-1245, 1250.

1252. Disputed. SoundExchange incorrectly claims that Professor Hauser's sampling method was wrong because there are perpetually dominant and non-dominant options. Professor Hauser explained, however, that there is no market dominant option among music streaming services. 8/27/20 Tr. 4354:2-9. Indeed, it is notable that Professor Zauberman pointed to *video streaming services* when describing this supposed issue with Professor Hauser's survey, but did not identify any "market dominant" music streaming service. But even if there were a dominant option, this "is not a valid criticism of this type of sampling." 8/27/20 Tr. 4354:2-25 (Hauser); Hauser WDT ¶ 37. If some respondents would listen to terrestrial radio for 60% of their time, but on-demand for the remaining 40%, and listening is reasonably randomly distributed, respondents would pick terrestrial radio 60% of the time and on-demand 40% of the time when asked about the most recent time they listened. *Id.*; *see also* NAB PFFCL ¶ 124.

1253. Disputed in part. Professor Hauser's survey is designed to and successfully achieves a random draw in time from the distribution of all instances of listening to simulcast. *See supra* ¶¶ 1244, 1248; NAB PFFCL ¶¶ 123-125; 8/27/20 Tr. at 4352:6-4353:4, 4356:22-4357:13 (Hauser); Hauser WDT ¶¶ 35-37, 105. SoundExchange has not cited any

concrete evidence or, as Judge Strickler pointed out, any literature that undermines this aspect of Hauser's survey design. 8/27/20 Tr. 4213:3-4214:6 (Zauberman) (admitting that he did not cite to authority in sampling literature). Nor has SoundExchange pointed to any evidence demonstrating that there is a dominant option among music streaming services that would have skewed Professor Hauser's results. *See* 8/27/20 Tr. at 4353:16-4354:9 (Hauser).

1254. Disputed. *See supra* ¶ 1253.

1255. Disputed. Professor Hauser achieved a random draw in time from the distribution of all instances of listening to simulcast. *See supra* ¶¶ 1244, 1248; NAB PFFCL ¶¶ 123-125. While it is true that if he had allowed respondents to select two choices, it is possible they could have selected both broadcast AM/FM radio and a new on-demand subscription, as Professor Willig suggests, that would have been a "different sampling frame." 8/27/20 Tr. 4391:25-4392:13 (Hauser). And as Professor Hauser explained, "it's almost like pick your poison" because the sampling frame Professor Willig suggests "is really subject to a cheap talk issue" and would "upwardly bias everything quite a bit." *Id.* at 4392:3-8. "Nothing's perfect" but Professor Hauser's survey design "gets . . . an unbiased over the population estimate" with minimal cheap talk, which is a "big issue" in this sort of consumer survey. *Id.* at 4392:9-13; *see also id.* 4392:14-25; *see also id.* at 4238:13-15 (Zauberman) (explaining that survey design is "a tradeoff").

1256. Disputed. The Hanssens survey does not support Professor Willig's conclusion, but rather demonstrates the exact cheap talk issues that Professor Hauser avoided through his survey design. 8/27/20 Tr. 4351:1-4352:1 (Hauser).

1257. Disputed. *See supra* ¶¶ 1255-56.

1258. Disputed in part. It is true, of course, that Professor Hauser did not *need* to

design his survey with a "consider then choose" structure, but it is incorrect that it "serves *only* to bias the subsequent answers," as discussed at length above. *See supra* ¶¶ 1241-56.

1259. Disputed in part. Professor Hauser appropriately raised the concept of "cheap talk" for the first time at trial as sur-rebuttal to SoundExchange's critiques of his "consider then choose" model, and SoundExchange did not object to this testimony. *See, e.g.*, 8/27/20 Tr. 4344:25-4346:2 (Hauser). Moreover, this same concept was raised by Dr. Leonard in his written rebuttal testimony (and live at trial), and he cited academic literature in support. Leonard CWRT ¶ 20 ("The academic literature recognizes that the hypothetical nature of the 'payment' in this type of survey can lead respondents to overstate their true willingness to pay, as they do not actually have to make the payment that they say they would make."); *id.* at ¶ 20 n.37 (citing F. Voelckner, "An Empirical Comparison of Methods for Measuring Consumers' Willingness to Pay," Marketing Letters, 2006 and J. Murphy, et al., "A Meta-analysis of Hypothetical Bias in Stated Preference Valuation," Environmental and Resource Economics, 2005); 8/24/20 Tr. 3421:15-3423:21 (Leonard). While Professor Hauser may have misspoken at trial when he suggested that *his* written testimony included citations regarding cheap talk, both the literature cited in *Dr. Leonard's* written testimony, and Professor Hauser's trial demonstrative support his position. *See* Leonard CWRT ¶ 20 n.37; Hauser Trial Dem. at 10 (citing Klaus M. Miller et al., *How Should Consumers' Willingness to Pay Be Measured? An Empirical Comparison of State-of-the-Art Approaches*, 48 J. Marketing Research at 172, 182 (February 2011)).

1260. Disputed in part. As SoundExchange acknowledges in a footnote, the Miller article that Professor Hauser mentioned during the trial shows that respondents who are not incentive-aligned choose more offered options and are less price sensitive. This is just another way of describing cheap talk and SoundExchange is wrong that it does not relate to Professor

Hauser's cheap talk argument. 8/27/20 Tr. 4349:6-10 (Hauser) (discussing Klaus M. Miller et al., *How Should Consumers' Willingness to Pay Be Measured? An Empirical Comparison of State-of-the-Art Approaches*, 48 J. Marketing Research at 172, 182 (February 2011)).

1261. Disputed. Though Professor Hauser was the last survey expert to testify, SoundExchange's complaints about unfairness are misplaced. Dr. Leonard had already testified in writing and during the proceeding about the related concept of "hypothetical bias" in connection with the Hauser survey. *See* Leonard CWRT ¶¶ 19-20; 8/24/20 Tr. 3421:15-3423:21, 3447:6-3448:7 (Leonard). And Professor Hauser made very similar points during his deposition—putting SoundExchange on notice of the testimony he intended to give. Moreover, Professor Hauser was permitted to testify about the cheap talk problems without objection from SoundExchange—and any objection would have been ill-founded in any event given that Professor Hauser was engaged in permissible surrebuttal.

iv. Professor Hauser's Time Estimation Question Generates Reliable Data

1262. Disputed in part. Professor Hauser asked respondents to estimate how many total hours they spent listening to simulcast in the prior three days at the outset of his survey. Hauser WDT App. E, Q1. The question is not, however, poorly designed and it did not bias the key questions that follow it. *See* 8/27/20 Tr. 4360:14-4361:21 (Hauser).

1263. Not disputed.

1264. Disputed. SoundExchange argues that the Hauser time estimation question does not reflect reality because Hauser's respondents listened to more hours of simulcasts than respondents to the Infinite Dial 2019 and Share of Ear surveys. But this critique is based on an "apples-to-oranges mistake." Hauser WDT ¶¶ 22, 88-92; 8/27/20 Tr. 4360:14-4361:21 (Hauser). Hauser's survey was focused on simulcast listeners, whereas the Infinite Dial and Share of Ear

targeted listeners to *all* online audio. 8/27/20 Tr. 4361:5-7 (Hauser). SoundExchange's comparison, moreover, does not take into account respondents to the Hauser survey who reported listening to *zero* hours of simulcasts. As Hauser explained, "if you put those zeros in, that zero listening, my study lines up pretty well with the [I]nfinite [D]ial." *Id*. at 4361:12-14.

1265. Disputed in part. The fact that Professor Hauser focused on people who had listened to simulcasts in the prior three days does not make his survey population "biased." Rather, this survey parameter insured that he successfully sampled the target population he set out to study: simulcast listeners. *See* Hauser WDT ¶ 22. Moreover, in using Professor Hauser's time estimation results, Dr. Leonard took "into account that the survey respondents (who had, by definition, listened to simulcast in the last three days) likely are heavier users of simulcast than the average user who listens to simulcast within a month," and tested his results to demonstrate that there was no bias. Leonard CWDT ¶ 107 n.134; 8/24/20 Tr. 3418:15-21, 3582:3-10 (Leonard); *see also* NAB PFFCL ¶ 142.

1266. Disputed. Professor Hauser did not base his decision to ask about the prior three days *solely* on his pretest results, as SoundExchange suggests. Rather, this survey design was based on prior experience designing surveys, academic literature on accurate recall, *and* his survey pretest. Hauser WRT ¶¶ 24-26 (citing literature regarding accurate recall); Hauser WDT ¶ 28 (discussing pretest results); 8/27/20 Tr. 4359:25-4360:9 (Hauser). Moreover, SoundExchange is not correct that qualitative interviews and pretests are used *only* to assure that survey language is not confusing. As Professor Hauser describes in his written testimony, pretests also help ensure that "the respondents' answers accurately reflected respondents' beliefs and/or behavior." Hauser WDT ¶ 62. He "probed respondents in both the qualitative interviews . . . and the pretests . . . to determine that respondents could recall their listening over three days.

The interviews helped determine that longer periods—for example, seven days—would likely be too long for respondents to remember listening accurately." Hauser WDT ¶ 28.

1267. Disputed in part. As discussed above, SoundExchange has presented no empirical evidence that the time-estimation question was challenging, or that it impacted the later questions. *See supra* ¶¶ 1262, 1264; Zauberman WRT ¶ 78 (vaguely opining that this question "has *the potential* to influence responses to all subsequent questions") (emphasis added). To the contrary, Professor Hauser's pretests "assured that respondents were able to approximate their listening time over the prior three days." Hauser WDT App. G at 7; *supra* ¶ 1266.

1268. Disputed in part. Professor Hauser did not ask respondents to estimate their future listening time, but this was by no means a "key omission." This was not a part of Professor Hauser's assignment and Dr. Leonard did not rely on future listening time estimates to conduct his economic analysis in this proceedings. Dr. Leonard only used the Hauser time estimation results to confirm that the average number of plays per month for a simulcast user is approximately 441. *See* NAB PFFCL ¶¶ 139-142; 8/24/20 Tr. 3418:15-21, 3582:3-10; Leonard CWDT ¶ 107 n.134. This calculation required data on actual listening time, not estimates of how much respondents would listen to alternatives in the hypothetical world without simulcasts.

1269. Disputed. *See supra* ¶¶ 1262, 1264-1268.

2. Dr. Leonard's Royalty Calculations Were Appropriate and Dr. Willig's Criticisms Do Not Undercut His Opportunity-Cost Analysis

1270. Disputed in part. Dr. Leonard's opportunity cost calculations did require estimates of the royalties that record companies would earn from alternative sources. But, as Dr. Leonard explained at length, those estimates were based on sound assumptions and reliable data. Leonard CWDT ¶ 107, App. B6-B10; 8/24/20 Tr. 3413:23-3421:9.

i. Dr. Leonard Based His Estimate of the Average Plays Per Month for Simulcast Listeners on a Figure that Dr. Willig

Himself Used Here and in *SDARS III*

1271. Not disputed.

1272. Disputed in part. Dr. Leonard started with the "601 plays per month used by Robert Willig in the *SDARS III* matter for satellite, *ad-supported interactive, ad-supported non-interactive, and ad-supported video services*." Leonard CWDT App. B1 at 2 (emphasis added).

1273. Disputed. Dr. Leonard made the same assumption that Professor Willig did in *SDARS III* and in this case, that listeners to ad-supported noninteractive services (like ad-supported Pandora) would average the same number of plays per month as listeners to satellite radio services. Leonard CWDT App. B1; 8/24/20 Tr. 3417:5-14 (Leonard). In any event, Dr. Leonard's assumption was confirmed by the Hauser survey, even after adjusting for the possibility that respondents were heavier users of simulcast than the average user who listens to simulcasts during a given month. *Id.* at 3418:15-21, 3582:3-10; Leonard CWDT ¶ 107 n.134.

1274-75. Disputed in part. SoundExchange here reveals its deep confusion about Dr. Leonard's computation. It appears to believe that Dr. Leonard was drawing equivalency between Sirius XM satellite listeners and *simulcast listeners*. That is not correct. Dr. Leonard was in fact assuming—*just like Professor Willig did in SDARS III and this case*—that Sirius XM satellite listeners and listeners to ad-supported non-interactive services like Pandora listened to the same 601 plays per month. Leonard CWDT App. B1 at 2. That figure was then adjusted based on the 11-to-15 ratio discussed above (*supra* ¶ 1272-74), which SoundExchange nowhere attempts to question. *See* Leonard CWDT App. B1 at 2.

1276. Disputed. Again, SoundExchange reveals a basic misunderstanding of Dr. Leonard's calculation, and the degree to which it is based on assumptions that Professor Willig himself made. *See supra* ¶¶ 1272-74; *see also* NAB PFFCL ¶ 140.

1277. Disputed in part. Dr. Leonard used the estimates of listening by simulcast

listeners from the Hauser Survey to confirm his calculations. 8/24/20 Tr. 3418:15-21, 3582:3-10; Leonard CWDT ¶ 107 & n.134. SoundExchange's complaint that the specific calculations "do not appear . . . anywhere in his testimony" provides no independent basis for rejecting Dr. Leonard's testimony; SoundExchange had ample opportunity to seek discovery and depose and cross-examine Dr. Leonard. As for the critique that the Hauser survey respondents were heavier users of simulcast, Dr. Leonard explained that he accounted for that fact. Leonard CWDT n.134

1278. Disputed. SoundExchange's critique that Dr. Leonard's backup data undermine his estimate of the average number of simulcast plays per month is based on Professor Willig's misunderstanding of the relevant data. *See generally* NAB PFFCL ¶ 143. Professor Willig's critique relies on Appendix D of Dr. Leonard's WDT, which reports [redacted] for a number of individual radio stations, using it to compare the relative proportion of simulcast to over-the-air broadcasts. Leonard CWDT App. D; *see also* Leonard CWDT ¶ 53. But Dr. Leonard expressly noted [redacted] explaining that "[redacted]." Leonard CWDT ¶ 52. Leonard accordingly used that data in a limited and caveated way, to "provid[e] an *indication* of the simulcast listening hours as compared to the OTA total listening hours for iHeart stations." *Id.* (emphasis added). Leonard elaborated at trial the manner in which Professor Willig was misinterpreting the Triton data. 8/24/20 Tr. 3418:22-3420:6. Among other things, the Triton data measures listening to *a single station*, so it would not track a single simulcast listener's listening across multiple stations. Dr. Leonard did not find this data useful because he was interested in the total amount of simulcast listening across all stations. *Id.* at 3419:24-3420:6. In addition, it is undisputed that this data measures the IP addresses rather than individual users. *Id.* at 3419:7-20. Thus "any time you have someone who

is listening to a simulcast on their phone at one point and then listening to it on their PC at another point in time, . . . Dr. Willig has counted them as two users when, in fact, they are just one user using two different IP addresses." *Id.*

1279. Disputed. Again, SoundExchange's critique is founded on misinterpretation of the relevant data. Central to the calculation Professor Willig conducts is a report produced by [redacted] that reports listenership figures from TuneIn. Ex. 5179. As Dr. Leonard explained with respect to the iHeart data, this data is from one set of stations—[redacted]—and would underestimate the number of plays per user if the users listen to multiple stations or listened on multiple devices with different IP addresses. 8/24/20 Tr. 3418:22-3420:6; *see also supra* ¶ 1278.

1280. Disputed. Dr. Willig's claim that the average number of plays per month for Pandora Free users would have led to a materially different result is misplaced. To begin with, *Professor Willig himself* did not use that data in estimating the number of plays per month that listeners to ad-supported noninteractive services who would have switched to satellite radio services had; instead Professor Willig used the same 601 plays per month that Dr. Leonard used. 8/24/20 Tr. 3417:5-14 (Leonard); *supra* ¶1272. Professor Willig did the same in *SDARS III*. *See supra* ¶ 1272; Leonard CWDT App. D.

In any event, at trial, Dr. Leonard dismantled Dr. Willig's reasoning. *Id.* at 3420:7-3421:9. In particular, Dr. Leonard observed that "Dr. Willig never calculated this number, and never said what it was." *Id.* at 3420:24-25. When Dr. Leonard did those calculations using the Pandora Free data that Professor Willig pointed to, he found a "reasonably modest" increase in the opportunity cost—"going from .00097 to .00129"—*before* applying the steering adjustment. *Id.* at 3420:20-3421:6. Moreover, when Dr. Leonard included listenership data for "paid

Pandora," the result was "something actually about back where [he] started." *Id.* at 3421:6-9.

ii. Dr. Leonard Assumes that the Current Statutory Royalty Rates Apply

1281. Disputed in part. As Dr. Leonard explained at trial, using the existing statutory rate instead of the rates NAB has proposed is conservative in SoundExchange's favor. *Id*. at 3415:15-3416:4. If Dr. Leonard had instead used NAB's (or any other service's) proposed rate for custom radio in his analysis, then his opportunity cost for simulcast would be even lower. *Id.*

iii. Dr. Leonard Did Not Ignore the Statutory Royalty Rate Structure for Subscription Services

1282. Disputed. SoundExchange is simply wrong that Dr. Leonard "assumes record companies would earn zero royalties on simulcast plays that divert to existing subscriptions on paid noninteractive services." As the cited testimony makes clear, Dr. Leonard's corrected testimony uses per-play rates for diversions to existing subscription noninteractive streaming services. *See* Leonard CWDT, App. B1. It appears that SoundExchange failed to appreciate that Dr. Leonard corrected his testimony on exactly this point. *See* Dkt. No. 21114 (3/10/20 Order).

1283. Disputed. Again, SoundExchange is simply mistaken to state that Dr. Leonard ignored the statutory royalty rate structure for subscription services. *See supra* ¶ 1282.

iv. Dr. Leonard Does Not Understate Royalties for Physical Products and Downloads

1284. Disputed. Professor Willig asserts that Dr. Leonard underestimated the per play royalty rate on physical music purchases and digital downloads by [redacted]. Dr. Leonard provided detailed analysis underlying his estimates, which were based on estimates that Professor Willig used in *SDARS III*. Leonard CWDT, App. B8. There is no reason to think that Professor Leonard's estimates are less reliable that Professor Willig's. In any event, SoundExchange tellingly does not calculate the impact of that supposed underestimation on the

actual opportunity cost. Given that the reported diversion ratio to physical music purchases and digital downloads is only 1.8%, the effect of this supposed "computational flaw" on the bottom line opportunity cost would be infinitesimal—[redacted]. Leonard CWDT, App. B1.[52]

v. Dr. Leonard's Royalty Rates for Ad-Supported On-Demand Services Are Not Substantially Different than the Rates Calculated by Professor Shapiro

1285. Disputed in part. Similar to the above, the various estimates calculated by Dr. Leonard and Dr. Shapiro are not substantially different, and do not make a material difference to their respective opportunity cost analysis. Swapping in Dr. Shapiro's slightly higher per play figure for ad-supported Spotify leads to a change in the bottom line opportunity cost of only [redacted]. Leonard CWDT, App. B1.[53] Doing the same with respect to ad-supported video services like YouTube changes the bottom line opportunity cost by only [redacted]. *Id.*[54] Thus, all told, the three supposed flaws that SoundExchange identifies in this and the previous paragraph would have increased the opportunity cost before adjustment for effective competition from [redacted]—still within the 95% confidence interval that Dr. Leonard reported. Leonard CWDT ¶ 115. Thus, SoundExchange's fly-specking critiques do not undermine the force of the opportunity cost analysis, which continues to confirm Dr. Leonard's benchmarking analysis. *See generally* Leonard CWDT ¶ 116 (describing sensitivity analyses).

D. Dr. Leonard's Opportunity Cost Is a Useful Check on His Benchmarking Analysis

1286. Disputed. SoundExchange's claim that Dr. Leonard should have used a bargaining model misunderstands the purpose of the opportunity cost analysis. As Dr. Leonard

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[52] [redacted] x 1.8% = [redacted]; [redacted] x 1.8% = [redacted].

[53] [redacted] x 5.0% = [redacted]; [redacted] x 5.0% = [redacted].

[54] [redacted] x 4.6% = [redacted]; [redacted] x 4.6% = [redacted].

explained, the purpose was *not* to use survey evidence to estimate rates that would prevail in the marketplace, but to serve as an independent check on his benchmarking analysis, which is the principal basis for his conclusions regarding NAB's proposal. *See* NAB PFFCL ¶¶ 127, 129, 134-35, 145; 8/24/20 Tr. 3413:23-3414:13, 3565:1-16 (Leonard); *see also* Leonard CWDT ¶ 99.

1287. Disputed. Dr. Leonard noted that obviously there are simulcasters that are paying the current statutory rate, but that "of course . . . if we have a price fixing conspiracy and they get together and charge higher prices, nobody is putting guns to anyone's head there either, but, you know, the price is too high." 8/24/20 Tr. 3563:12-16. SoundExchange further claims that Dr. Leonard should have run a bargaining model given that certain simulcasters pay the statutory rate, which is above the opportunity cost he calculated. Dr. Leonard explained at trial, however, that his approach was "superior" to a modeling approach like that used by Professor Willig because it used benchmarks that "were the outcome of a negotiation," and did not depend on "a model like the ones . . . Dr. Willig built that have a lot of assumptions in them and which, you know, really can affect the outcome of the model." 8/24/20 Tr. 3565:1-16.

E. Dr. Leonard's Adjustment for Complementary Oligopoly Power Is Necessary

1288. Not disputed.

1289. Disputed. Dr. Leonard's opportunity cost analysis assumed that, in the hypothetical "no license" scenario, broadcasters would stop offering simulcasts altogether. 8/24/20 Tr. 3399:5-3400:16 (Leonard). This scenario, by definition, is one in which the label is a "must have" because Dr. Leonard assumed that "there is no simulcast if you don't have a license from the particular label you're talking about." *Id*. at 3400:9-16; *see also* Leonard CWDT ¶ 101. Contrary to SoundExchange's claim, Dr. Leonard could not eliminate the complementary oligopoly power built into his opportunity cost model simply by running it through a Shapley

Value bargaining model. Indeed, the complementary oligopoly power problem inherent in Professor Willig's Shapley model is not self-correcting, as SoundExchange contends. As Professor Shapiro put it—in what he described as "a fundamental point and maybe the single most important point" he made during the economic rebuttal phase—"Shapley Value in the context here absolutely does not eliminate concerns about monopoly power or complementary oligopoly power. It does not do it." 8/26/20 Tr. 3922:3-8. Professor Shapiro explained at length why Professor Willig's claim that changing the order of arrival solves for market power is "nonsense" (and how Professor Willig's Shapley model generates rates that are not only well above an effectively competitive rate but even above the monopoly rate). *Id.* at 3921:21-3929:14; *see also* 8/24/20 Tr. 3443:4-3444:15 (Leonard) (noting that the Shapley values would go down if the three must-have labels in Willig's model were combined into a monopoly).

1290. Disputed in part. Professor Willig claims that Dr. Leonard "advances artificially low royalty rates set at a floor equal to his flawed estimate of record company opportunity cost," rather than using a bargaining model to estimate rates that would prevail in the marketplace. Willig CWRT ¶¶ 15, 100. As Dr. Leonard explained, however, the purpose of the opportunity cost analysis is *not* to estimate rates that would prevail in the marketplace; rather, it is meant to serve as an independent check on his benchmarking analysis, which is the principal basis for his conclusions regarding NAB's proposal. 8/24/20 Tr. 3413:23-3414:13; *see supra* ¶ 1286.

1291. Disputed. The complementary oligopoly power built into Dr. Leonard's opportunity cost model cannot be resolved by Willig's glib "fork in the road" analogy. *See* Willig WRT ¶ 118. During the hearing, Dr. Leonard explained that the "fork in the road" theory would not address complementary oligopoly power associated with the "no license" assumption in his model. Rather, this theory relates to the question of whether the royalty rates for *other*

services to which a consumer might divert must be adjusted to account for complementary oligopoly power—not whether a model that assumes that the major labels are "must haves" for the *service at issue* needs to be adjusted downward to reflect effective competition. *See* 8/24/20 Tr. 3411:2-3413:9; *see also id.* at 3408:19-3410:5 (explaining that an opportunity cost analysis like the one performed by Professor Willig separately "builds in complementary oligopoly power" and "[s]o . . . if we want to build in steering to reflect effective competition, so the number we get out of it is consistent with effective competition, then we really do need to make some kind of adjustment to the number that we get out."). *See* Joint PFFCL ¶ 184; NAB PFFCL ¶ 136 & n. 34.

X. ABILITY TO PAY IS NOT PART OF THE APPLICABLE GOVERNING STANDARD, NOR HAS SOUNDEXCHANGE PROVEN THAT NONINTERACTIVE WEBCASTERS ARE "WELL POSITIONED TO PAY HIGHER RATES"

A. Ability to Pay Is Not the Standard

1292. Not disputed. One is left to wonder why Professor Tucker and SoundExchange spent nearly 100 pages on testimony addressing Pandora and iHeart's alleged ability to pay higher royalties given their acknowledgment here that ability to pay is not relevant to setting rates under the willing buyer/willing seller standard. Indeed, the Judges have rejected ability-to-pay arguments in prior proceedings. *See Web IV*, 81 Fed. Reg. at 26318 ("The *Web III* Judges rejected the Live365 attempt to base rates on a service's ability to pay. Instead the Judges derived the commercial webcasting rate in *Web III* from a review of market benchmarks . . . ."); *see also Web II*, 72 Fed. Reg. at 24088 n.8 (rejecting the ability to pay argument as it "would involve the Copyright Royalty Judges in making a policy decision rather than applying the willing buyer/willing seller standard of the Copyright Act"); Joint PFFCL ¶ 304.

1293. Not disputed.

1294. Disputed in part. The Services agree that "ability to pay" is not the governing standard of this proceeding. *See supra* ¶ 1292. The rate standard is the "willing buyer/willing seller" standard. *See* Joint PFFCL § I. Dr. Tucker merely examined Pandora's and iHeart's ability to pay, which analysis she conceded was "not part of" and "completely separate" from the requisite willing buyer/willing seller standard. 8/17/20 Tr. at 2139:9-15, 2341:19-25, 2342:25-2343:9. Professor Tucker's testimony is by her own admission irrelevant to the mandate of this proceeding—merely "useful color for noneconomists." *Id*. at 2345:8-19; *see also* SX PFFCL ¶ 1113; Joint PFFCL ¶ 305. To the extent the Judges consider her testimony opining on the Services' ability to pay, however, they must also consider whether her assertions are borne out by the Services' financial data (they are not). *See* Joint PFFCL § II.E.iii and iv; *see also infra* ¶¶ 1328-39. The Services' financial data should be considered only insofar as a given service may not be willing to pay for a license when the cost of the license exceeds the value it contributes to the service's commercial success, which will necessarily vary depending on which particular service is modeled or analyzed. *See supra* ¶ 58.

B. SoundExchange Ignores the Unique Business Model Employed by Radio Broadcasters

1. Mr. Wheeler Consistently Testified That he Worries About SoundExchange Fees if His Currently Small Simulcasting Audience Grows

1295. Not disputed.

1296. Disputed. *See supra* ¶ 1107.

1297. Disputed in part. SoundExchange is correct that its fees are not the largest expense for WVBE. But SoundExchange is wrong to claim that its royalties therefore are "anything but exorbitant." But as Mr. Wheeler testified at the hearing, his concern is about what will happen to his SoundExchange fees if *more* of his audience migrates to Wheeler's

simulcasts—the listenership of which is currently quite low. *See* 9/1/20 Tr. 5027:10-18, 5042:9-14; Wheeler WDT ¶¶ 27-29; *see also* 8/27/20 Tr. 4455:17-4457:1 (Newberry) (expressing concern for SoundExchange fees given that radio is "generally a fixed-cost business" and comparing continuous streaming to leaving the water in a house running all day).

In any event, SoundExchange's critique gets things backwards, by comparing a partial years' worth of its fees for a single station (*see* 9/1/20 Tr. 5002:10-14 (Wheeler)) to the many other non-music expenses that the station faces. Radio and simulcast are not wall-to-wall music services like other webcasters. They serve the local community and distinguish themselves from other local stations via their non-music content, like on-air personalities, news, weather, traffic. Even setting aside the fixed costs, radio broadcasters have many substantial expenses that relate to delivery of non-music content. They also have marketing expenses, like the promotional vehicles that SoundExchange details. These are necessary expenses for running a radio business. *Id*. at 5004:3-5005:8; *see also* Wheeler WDT ¶¶ 16-19 (detailing the community events and charities that Wheeler stations support). The fact that those non-music expenses may exceed music royalties does not make those royalties any less exorbitant, on a listener-by-listener basis.

1298. Disputed in part. SoundExchange is correct that some of WSLC's yearly expenses are higher than its SoundExchange fees. Again, however, doing so in an attempt to make SoundExchange's expenses look comparatively "liveable," and as an expense that Wheeler is able to pay, ignores both the radio and simulcast business model, and the legal standard applicable to this case. *See supra* ¶ 1297.

1299. Disputed. Mr. Wheeler's WDT and hearing testimony detail the many ways in which simulcasting has proved unprofitable for Wheeler stations; his testimony is not based on a single example. *See, e.g.*, Wheeler WDT ¶¶ 15, 23-35.

1300. Disputed. At trial, SoundExchange asked Mr. Wheeler to respond to an unrealistic and tautological hypothetical: whether ad rates would increase [redacted] 9/1/20 Tr. 5065:2-16; *see also* SX PFFCL ¶ 1300. Of course ad-rates would increase as audience increases, especially under Nielsen's Total Line Reporting, which treats over-the-air and simulcast listeners as one and the same. *See supra* ¶ 1112.[55] The more realistic scenario, which SoundExchange fails to address, is the one that Mr. Wheeler and other simulcasters are actually concerned about: what happens if more of their existing over-the-air audience *migrates* to simulcast. *See supra* ¶¶ 1107, 1297.

1301. Disputed. Mr. Wheeler made clear at the hearing that any prior deposition response indicating that he compares [redacted] of simulcasting royalties against free terrestrial royalties [redacted] 9/1/20 Tr. 5036:8-18, and [redacted] *id*. at 5033:15-18. Rather, his answer is [redacted] . . . ." *Id.* 5036:10-18.

2. Mr. Newberry Accurately Testified About his Experiences with SoundExchange Royalties

1302. Disputed in part. SoundExchange is correct that Mr. Newberry has decades of radio experience, and that he considers SoundExchange fees to be the largest expense that broadcasters face in connection with their streams. SoundExchange is incorrect to claim that this testimony is implausible. SoundExchange compares a single Commonwealth station's

[55] To the extent SoundExchange is trying to suggest that Wheeler could charge *separately* for simulcast advertising, that is incorrect. Advertisers in most instances simply will not pay to run ads independent to the simulcast. *See* Leonard CWDT Section IV.C-D; *see also* Wheeler WDT ¶¶ 32-35; Gille WDT ¶¶ 23-27; Newberry WDT ¶ 26; *supra* ¶ 1110. That claim also ignores the benefits that stations get from taking advantage of Nielsen's Total Line Reporting—a feature that they give up if they engage in ad substitution on their streams. *See supra* ¶ 1112.

SoundExchange fees to an *industry-wide* per-station average *for all station revenue*. Again, this is an apples-to-oranges comparison that attempts to blend streaming fees with OTA revenues earned by non-Commonwealth stations. In so doing, SoundExchange yet again ignores radio's distinct business model as compared to wall-to-wall music services. *See supra* ¶ 1297. It further ignores Mr. Newberry's testimony that he views SoundExchange fees "with trepidation to a large degree with anxiety about what those costs might be." 8/27/20 Tr. 4455:17-23. As Mr. Newberry put it:

> Broadcasting is generally a fixed cost business. . . . [B]roadcasters are used to a service that the listener does not see as a measured service. You walk out of your house, you don't leave the water running because you know there's a meter on . . . but people leave their radio station on all day. And that's not how the over-the-air signals work, but that's how these rates work. And so it causes broadcasters to be concerned about the increasing cost of that, the measured cost.

Id. at 4455:22-4456:11.

3. Mr. Ryan's Testimony that Pandora Is Not Well-Positioned to Pay Higher SoundExchange Royalties Refutes Professor Tucker's Theory

1303. Not disputed.

1304. Disputed in part. It is true that Mr. Ryan's model of how Pandora's EBITDA would change in the event SoundExchange's rates were adopted did not factor in business or operational changes Pandora might make in response to a rate increase—he freely acknowledged his model kept "other things equal" and looked solely at how a rate increase would affect the profitability in Pandora's current projections. 8/31/20 Tr. 4725:15-1726:8 (Ryan). Of course Professor Tucker did even *less* in offering her pie-in-the-sky assertions about Pandora's supposed ability to weather such increases, performing no analysis whatsoever of how a rate increase [redacted] would impact Pandora's finances, notwithstanding offering dozens of pages of testimony suggesting Pandora was "well positioned" to pay higher

royalties, and adding at the trial the suggestion that ability to pay would not be a "constraint" on Pandora's willingness to pay for music. More important, there is no empirical basis to believe, as SoundExchange appears to suggest, that Pandora has at its disposal some untapped well of "business and operational" changes it could make that would offset negative effects of a massive royalty increase; one would presume that if Pandora had such tools at its disposal, its forecasts would already include them, not be holding them in reserve. Relatedly, Mr. Ryan's basic model also did not account for additional *losses* associated with increasing sound recording royalties, such as increased *publishing* royalties. *See* TX 2177 at 11 (Pandora's 2016 10-K explaining that "[t]he majority of [publishing] licenses are structured so that each publisher or PRO receives a pro rata share of *20% of the royalties paid by us for sound recordings*") (emphasis added); *accord* 8/13/20 Tr. 1805:20-1806:8 (Orszag).

SoundExchange also cherry-picks and misrepresents Mr. Ryan's testimony regarding the likelihood of Pandora increasing its conversion efforts in response to a royalty rate increase. *See* 8/31/20 Tr. 4726:2-8. Pandora Premium users, as Professor Tucker testified, are *already* more profitable for Pandora than free users, so even at *current* rates Pandora has an incentive to convert them; once again, one would assume—and Mr. Ryan confirmed—that if Pandora had some magic formula for converting more users to subscribers, it would have used it by now. *See id.* 4726:24-4727:18 (explaining that a royalty rate increase "would change the—unit economics between Free and Premium" but that there are costs associated with doing so, and diminishing returns, so "it may not mean that we're actually more effective or—or we would be more incentivized to convert people because *we're already. . . pretty much doing everything we can*." (emphasis added). In any event, the testimony of Mr. Ryan, whose knowledge of Pandora's finances is indisputably far greater than Professor Tucker's, certainly deserves more weight than

hers when considering the impacts of an increase in sound recording royalties of over $[redacted]. *See* Joint PFFCL ¶¶ 310-317; Ryan WRT ¶ 52.

C. The Services' Financial Positions and Record Company Investments Are Part of the Governing Standard, Neither of Which Are Akin to Artists' Financial Positions (Which Are Irrelevant)

1305. Disputed. The Services are the "buyer" in the willing buyer/willing seller analysis. The artists, by contrast, are *not* the seller – the record companies are. The plight of artist witnesses is simply not analogous in any way to the financial health of the statutory services, as the services' willingness to pay (which is in part informed by their finances) is indisputably part of the relevant statutory standard. SoundExchange does not even try to assert—nor could it—that the financial challenges faced by artists play *any* role whatsoever in the willing buyer/willing seller analysis.

1306. Not disputed. However, as explained *supra* ¶ 1305, Ms. Gauthier's testimony is irrelevant to this proceeding**.**

1307. Not disputed. However, as explained *supra* ¶ 1305, Mr. Hair's testimony is irrelevant to this proceeding.

1308. Not disputed. However, the investments and risks undertaken by record companies are already implicit in the willing buyer/willing seller analysis as part of the holistic package of costs and benefits that licensing sound recordings entails.

1309. Not disputed. However, the benefits of licensing particular record labels or artists already implicitly form part of the willing buyer/willing seller analysis and do not require separate consideration. No differently, artists and record companies benefit from royalties paid by statutory services and suffer no financial consequences if a particular service is not commercially successful.

D. Professor Tucker Does Not Quantity the Trends She Discusses or Use Them to Justify a Rate Increase

1310. Disputed. As is explained in greater detail in the Joint PFFCL§ II.E.ii, even assuming that Professor Tucker's analysis was relevant to the statutory standard (it is not by SoundExchange's own admission), her testimony should be afforded no weight due to her failure to quantify any of the trends she discusses or elucidate how they specifically impact the profitability of any given statutory webcaster (and Pandora and iHeart—the focus of her testimony— in particular). *See* 8/17/20 Tr. 2192:15-2193:15, 2356:10-13, 2356:18-25, 2358:2-8, 2358:13-16, 2359:13-17, 2432:10-2432:17; 8/18/20 Tr. 2479:1-16, 2480:14 (Tucker). Similarly, she offers no analysis of the "unit economics" of Pandora, iHeart, or any other statutory webcaster, nor does she actually argue that any of the trends she discusses, individually or collectively, actually justifies a rate increase. 8/17/20 Tr. 2347:25-2348:6 (Tucker).

1. The Purported Increasing Adoption of Smart Devices Does Not Militate in Favor of Higher Royalty Rates

1311. Not Disputed. However, Professor Tucker fails to explain why the supposed rise of smart devices has any bearing on the willing buyer/willing seller rate-setting standard, and does not quantify the impact of the rise of smart devices on any statutory webcaster's profitability. *See supra* ¶ 1310; Joint PFFCL§ II.E.ii.

1312-13. Not Disputed. However, *see supra* ¶¶ 1310-11; Joint PFFCL§ II.E.ii.

2. Professor Tucker Has Not Quantified the Value of "Ongoing Technological Innovation and Reduced Costs" to the Statutory Services

1314. Not disputed. However, *see supra* ¶ 1310, explaining that Professor Tucker has not quantified any of the general trends she discusses. *See also* Joint PFFCL § II.E.ii.

i. Trend 1: Increasing Ability to Focus on User-Level Economics, Due to Reduced Data Storage Costs and Improvements in Tracking Capabilities

1315. Not disputed. However, as explained *supra* ¶ 1310, Professor Tucker has offered no quantitative analysis of the alleged improving unit economics for any statutory webcaster, despite her repeated embrace of it as "the best measure of a streaming service's performance." 8/17/20 Tr. 2135:23-2136:2 (Tucker); *see also* Joint PFFCL§ II.E.ii.

1316. Not disputed. However, Professor Tucker's statement that "technological innovations… have dramatically decreased the time, effort, money, and other costs associated with data storage and data analytics" finds no support in Pandora's or iHeart's finances. *See infra* ¶ 1317; Joint PFFCL § II.E.ii.

1317. Disputed in part. While the Services do not necessarily dispute that the costs of cloud computing have declined as a general matter, Professor Tucker has not demonstrated that Pandora specifically has enjoyed increased profitability or cost savings from diminishing data storage or processing costs. 8/17/20 Tr. 2356:10-13, 2356: 18-25, 2358:2-8, 2358: 13-16 (Tucker). Furthermore, while SoundExchange accurately quotes Mr. Ryan's testimony that cloud computing "[redacted]," it conveniently omits Mr. Ryan's related testimony that "[redacted]." 8/31/20 Tr. 4722:16-4723:8. Ryan WRT ¶ 55 (explaining that Pandora's combined on-premises and cloud infrastructure costs [redacted] to a forecast of [redacted]; *see also* Joint PFFCL § II.E.ii.

1318. Disputed in part. While the Services do not necessarily dispute that data analytics capabilities have grown since *Web IV*, Professor Tucker offers no empirical analysis

demonstrating the effect this purported growth has had on the profitability of any or all specific statutory webcasters. *See* Joint PFFCL § II.E.ii.

ii. Trend 2: Improvements in Machine Learning

1319. Disputed in part. While the Services do not necessarily dispute the utility of machine learning, Professor Tucker does not show that Pandora specifically has benefitted from improvements in machine learning. For example, Pandora's Music Genome Project—the heart of its recommendation engine—remains an enormously labor-intensive exercise. Phillips WDT ¶ 8; Westergren WDT (*Web IV*) ¶¶ 20, 24-28. Similarly, Professor Tucker conceded during the hearing that while other digital companies, including on-demand services, may rely on such improvements, simulcast programming (and therefore iHeart) does not. 8/18/20 Tr. 2432:10-2432:17 (admitting that machine learning does not apply to programming content on simulcast but may apply when servicing advertisements). *See also* Joint PFFCL § II.E.ii.

1320. Disputed in part. That Pandora "has taken advantage" of attempts to offer more personalized services is uncontested; personalization is and always has been the hallmark of its service. *See* SXM-PAN PFFCL ¶ 9. That Pandora values personalization, however, does not prove that it has enjoyed increased profitability as a result of a supposed increased ability to personalize due to advancements in machine learning and prediction. True to form, Professor Tucker has offered no evidence of that. *See* Joint PFFCL § II.E.ii; *see also supra* ¶ 1319.

iii. Trend 3: Advances in Targeted and Programmatic Advertising

1321. Not disputed. However, the contention that that there have been developments in digital advertising is meaningless without any empirical support tying it to the profitability of any statutory webcaster, of which Professor Tucker provides none. *See* Joint PFFCL§ II.E.ii.

1322. Disputed. Professor Tucker's broad claim that programmatic advertising "reduces the need for expensive salesforces that would otherwise be needed to sell inventory to

potential advertisers" lacks any empirical support. Tucker WDT ¶ 50. At trial, she admitted that she has not analyzed the actual costs to Pandora or iHeart of making the change to programmatic advertising. *See* 8/17/20 Tr. 2359:13-17 (admitting that she has "not looked at the cost of bringing in this data revolution" in advertising, or tied any of Pandora's revenues to it); *id.* at 2192:15-2193:15 (discussing surface-level points regarding iHeart's attempts to "revolutionize" its ad business without tying it to specific revenue figures for advertising performance). SoundExchange's attempt to trace Pandora's increase of targeting segments available to advertisers due to its investment in AdsWizz is particularly dubious given Professor Tucker's direct, affirmative trial admission indicating that she could not do so: ("Q: Right. But you have not tied any specific increase in Pandora's advertising RPMs, for example, to this change that you identify in—in how many targeting segments are available to advertisers, correct? A: No, I haven't. You know, I didn't—I haven't got the precise what you might call CPM's data or something which would allow me to do that."). 8/17/20 Tr. 2359:24-2360:6: *see also* Joint PFFCL§ II.E.ii.

1323. Disputed in part. While the Services do not challenge Professor Tucker's explanation of self-service platforms, she again does not describe or quantify Pandora or iHeart's utilization of such platforms. In addition, at trial she admitted that she was unaware "of any non-commercial webcasters that have self-service advertising platforms" or of any noncommercial simulcasters "that offer personalized or interactive channels" or premium services at all. 8/18/20 Tr. 2479:1-16, 2480:14; *see also* Joint PFFCL § II.E.ii.

3. Statutory Webcasting's Role in Firms' Larger Digital Ecosystems Is Immaterial

1324. Not disputed.

1325. Not disputed. However, at trial, Professor Tucker clarified that Pandora's

acquisition by Sirius XM and its effects on Pandora, such as improved cross-selling opportunities, do not justify a higher statutory rate, rendering her argument regarding the benefits of integration in a broader music ecosystem meaningless for rate-setting. 8/17/20 Tr. 2347:11-2348:6. Logically, the same would also be true of Google and NAB.

1326. Disputed in part. While the Services do not dispute that Pandora and iHeart are increasingly integrating their services into a broader ecosystem of offerings, they contest the notion (of which Tucker conceded she had no evidence) that current royalty rates are standing in the way of converting ad-supported users to the more profitable upper tiers of service. *See* 8/17/20 Tr. 2354:4-17 (Tucker). To the contrary, Professor Tucker has explained that Pandora's per-subscriber profit on its subscription tiers is nearly three times its per-user profit on its free tier, Tucker WDT ¶ 105, that Pandora *has* proven successful at converting free users to paid subscribers, and that its ability to do so has helped to grow subscriptions on Pandora Plus and Premium (and revenues earned therefrom). *See* SXM-PAN PFFCL ¶ 248; Joint PFFCL ¶ 323; Tucker WDT ¶¶ 104, 106; 8/17/20 Tr. 2350:20-23 (Tucker) (acknowledging that Pandora Free serves as a funnel to Pandora Premium); 8/17/20 Tr. 2349:13-2350:1, 2352:20-2353:11 (Tucker) (conceding that Pandora has incentives to upsell given the greater profitability of its premium tier).[56] In addition, Professor Tucker's assertion simply has no application to the thousands of simulcasters that do not operate subscription services. *See* Tucker WDT ¶¶ 104, 106; 8/17/20 Tr. 2353:5-11, 2355:19, 2335:19; 8/24/20 Tr. 3403:21-3406:18 (Leonard); 8/27/20 Tr. 4458:23-4459:14 (Newberry); Wheeler CWDT ¶¶ 29-30. Last, SoundExchange has misconstrued Mr. Ryan's testimony as to whether Pandora would be more likely to attempt to convert more users to Premium in the event of a royalty increase. *See supra* ¶ 1304.

[56] Importantly, the record label witnesses have also testified that they [redacted]. *See, e.g.*, 9/3/20 Tr. 5662:10-24 (Harrison).

E. Professor Tucker Does Not Show That Commercial Webcasters Are Well Positioned to Pay Higher Statutory Rates Than They Currently Are Paying; Nor Does She Suggest that They Should Pay Higher Rates As a Result

1327. Disputed in part. While the Services do not contest that Pandora and iHeart make up a large percentage of total noninteractive webcasting, Professor Tucker admitted at trial that she did not perform a quantitative analysis of any sort to compare Pandora's monetization levels, 8/18/20 Tr. 2454:18-2455, or iHeart's monetization levels, *id.* 2455:20-2456:21 with those of any other statutory webcaster. Moreover, she indicated that some portion of the economic factors discussed in her testimony were specific to Pandora and iHeart and had no applicability to other webcasters. *Id.* 2456:22-2457:6. They therefore cannot simply be used as a proxy for all statutory webcasters.

1. Professor Tucker's Claim That Pandora Is Well Positioned to Pay Higher Royalty Rates for 2021-2025 Is Unsupported and Contradicted by Mr. Ryan, and She Does Not Believe It Justifies a Rate Increase

1328. Disputed. Sirius XM and Pandora contest Professor Tucker's analysis for the multitude of reasons set forth in the Services Joint PFFCL § II.E.iii, including that Professor Tucker overestimates the magnitude and stability of Pandora's [redacted] *See* Ryan WRT ¶¶ 45-50; 8/31/20 Tr. 4721:13-4722:9, 4740:15-4741:8, 4744:23-4475:15 (Ryan). Moreover, Professor Tucker testified that *she did not believe that Pandora's* [redacted] *actually justifies a higher royalty rate*. 8/17/20 Tr. 2346:12-15.

1329. Disputed in part. Sirius XM and Pandora do not dispute that Sirius XM acquired Pandora or that Sirius XM has repurchased equity from its stockholders. But any resulting

financial benefit to Pandora is irrelevant to rate-setting. Indeed, at trial Professor Tucker clarified that acquisition by Sirius XM and its effects on Pandora, such as improved cross-selling opportunities, *do not justify a higher statutory rate*. 8/17/20 Tr. 2347:11-2348:6.

1330. Disputed in part. *See supra* ¶ 1329. While Sirius XM and Pandora agree that their merger "was motivated by and will facilitate cross-promotion opportunities," Professor Tucker nonetheless admitted that she did not believe that such opportunities *justify* a higher statutory rate. 8/17/20 Tr. 2347:11-2348:6. The effects of the merger are irrelevant.

1331. Disputed in part. While Sirius XM and Pandora do not contest that its public filings have been accurately quoted by Professor Tucker, for reasons explained more fully in SXM-PAN PFFCL ¶¶ 31-32 and in Mr. Ryan's written and oral testimony, these public filings (Scenario 2 in particular) were intended by design to present an optimistic view of Pandora's financial projections in order that potential investors understand the potential benefits of an acquisition under the best of circumstances. Ryan WRT ¶¶ 33-34. The nature of these projections was stated quite clearly in the documents themselves. *See, e.g.*, TX 5045 at 66. But Pandora's Long Rage Scenario—which is both more recent and more realistic—[redacted]. Ryan WRT ¶¶ 40-41. And, as Mr. Ryan testified at the hearing, current financial data [redacted]. 8/31/20 Tr. 4721:13-4722:9, 4740:15-4741:8, 4744:23-4475:15 (Ryan). Rather than rely on Professor Tucker's interpretation of financial documents, of which she has no personal knowledge, the Judges should instead credit the testimony of Mr. Ryan who is undeniably in a

better position to understand the true picture of Pandora's financial health, [redacted] than Professor Tucker suggests.

1332. Disputed in part. While it is true that Pandora has improved its advertising abilities since *Web IV*, as is detailed in SXM-PAN PFFCL § II.A.iii, it has not completely overhauled prior practices as Professor Tucker appears to suggest. It has honed prior strategies and incorporated new technologies—however, as Mr. Ryan explained, "Professor Tucker's assumption that technological advancements in ad sales would, on its own, allow Pandora to sell more ads is a gross oversimplification. Pandora has developed the most sophisticated advertising platform in the music streaming business. . . . Our problem at the end of the day is primarily one of *supply*. . . . No amount of technical advancement in programmatic ad delivery is going to fix *that* problem." Ryan WRT ¶ 57.

1333. Disputed in part. Sirius XM and Pandora do not dispute that Professor Tucker has quoted accurately from Pandora's public financial filings. However, for the reasons discussed in paragraph 1331 above, these financial projections and Professor Tucker's analysis thereof should not be credited in light of Mr. Ryan's testimony.

1334. Disputed in part. The cited exhibits and testimony are quoted accurately. However, as Mr. Ryan testified, [redacted]), which SoundExchange apparently believes to be the lynchpin of Professor Tucker's case, [redacted]. 8/31/20 Tr. 4721:13-4722:9 (Ryan).

2. SoundExchange's Focus on iHeartMedia's Finances Falls Flat

1335. Disputed in part. SoundExchange cites Professor Tucker for the proposition that iHeart is well-positioned to pay higher rates than those set in *Web IV*. In so doing, it ignores

both precedent and Professor Tucker's hearing testimony. The Judges have rejected ability-to-pay arguments in prior proceedings. *Web IV*, 81 Fed. Reg. at 26318 ("The *Web III* Judges rejected the Live365 attempt to base rates on a service's ability to pay. Instead the Judges derived the commercial webcasting rate in *Web III* from a review of market benchmarks . . . ."); *see also Web II*, 72 Fed. Reg. at 24088 n.8 (rejecting the ability to pay argument as it "would involve the Copyright Royalty Judges in making a policy decision rather than applying the willing buyer/willing seller standard of the Copyright Act"); Joint PFFCL ¶ 304. By her own admission, Dr. Tucker merely examined Pandora's and iHeart's ability to pay, which she conceded was "not part of" and "completely separate" from the requisite willing buyer/willing seller standard. 8/17/20 Tr. at 2139:9-15, 2341:19-25, 2342:25-2343:9. Professor Tucker's testimony is admittedly wholly irrelevant to the mandate of this proceeding—merely "useful color for noneconomists." *Id*. at 2345:8-19; *see also* SX PFFCL ¶ 1113; Joint PFFCL ¶ 305.

1336. Disputed. Professor Tucker discusses at length the industry shift to programmatic advertising, which she claims eliminates costs and contributes to iHeart's alleged overall financial health. But she did not analyze the actual costs to iHeart of making the change to programmatic advertising and whether her broad statements are true. 8/17/20 Tr. 2192:15-2193:15 (discussing surface-level points regarding iHeart's attempts to "revolutionize" its ad business without tying it to specific revenue figures for advertising performance); *see also* Joint PFFCL ¶ 313. Even if she had, this analysis would be meaningless. By Dr. Tucker's own admission, iHeart's ability to pay does not implicate the statutory standard at issue in this proceeding. *See supra* ¶ 1335.

1337. Disputed in part. Again, SoundExchange's misguided focus on iHeart's alleged financial health ignores the relevant legal standard applicable to this proceeding. Ability to pay

is not the standard. *See supra* ¶¶ 1113, 1335. Even if it was, Dr. Tucker's analysis of iHeart's finances fell flat at the hearing. She acknowledged on cross-examination that, despite her focus on *projections* limited exclusively to the digital sector—which she also failed to vet, *see* 8/17/20 Tr. 2137:19-2138:22—iHeart's overall revenues have remained relatively static since 2016, and in fact decreased between 2016 and 2017. 8/18/20 Tr. 2436:2-14 (Tucker). She further acknowledged that iHeart emerged from bankruptcy as recently as 2019, and that she has no expertise in the financial analysis of companies emerging from bankruptcy. *Id*. at 2436: 13-2437:8 (Tucker); *see also supra* ¶ 1113; Joint PFFCL ¶ 325.

1338. Disputed. SoundExchange inappropriately flouts the Judges' ruling at the hearing sustaining NAB's objection and cites to iHeart bankruptcy filings that the Judges ruled were inadmissible on relevance grounds. SoundExchange's counsel attempted to introduce into evidence *the very document* that it now cites in support of this proposed finding. Rather than make obvious what it is doing, however, SoundExchange misleadingly covers its tracks by citing, not to its proposed exhibit, but to the case itself in the text of their brief. But that's what SoundExchange's proposed but rejected exhibit 5529 was—the very Southern District of Texas Bankruptcy court case to which SoundExchange now cites. 9/9/20 Tr. 6036:2-6037:23 (Pittman); *compare* citation in brief, *In re iHeartMedia, Inc*., No. 18-31274 (MI), ECF No. 606, at 3 (Bankr. S.D. Tex., filed May 8, 2018), *with* SoundExchange Proposed Exhibit 5529. SoundExchange's counsel made the very same argument that it now puts forth as a proposed finding of fact in an attempt to admit TX 5529. *Id*. at 6037:6-24 (Pittman) (Counsel arguing that "the document shows that iHeart requested that the bankruptcy court award—permit that it award 70 million dollars in incentive bonuses while it was in the middle of bankruptcy, which is actually more than iHeart paid out in royalties during that year" to which Judge Feder responded

"I will sustain—the relevance objection. Exhibit 5529 is refused.") NAB's objection was sustained. Neither the document, the substance of this proposed finding, nor iHeart's alleged ability to pay higher rates, are relevant to this proceeding. *Id.*; *see also supra* ¶ 1335.

1339. Disputed in Part. While iHeart emerged from bankruptcy in 2019, neither that, nor its alleged ability to pay higher royalties, is relevant to this proceeding. To that effect, objections concerning SoundExchange's attempt to introduce testimony and documents concerning iHeart's bankruptcy were sustained at the hearing; neither were admissible. *See* 9/9/20 Tr. 6036:2-6037:24 (Pittman) (sustaining relevance objection to Proposed Exhibit 5529); *see also supra* ¶ 1338. And Dr. Tucker's attempted testimony on this point at trial was unavailing. *See supra* ¶¶ 1113, 1337. Dr. Tucker based her analysis entirely on projections limited exclusively to the digital sector, and from industry analysts such as JP Morgan, Morgan Stanley and BWS Financial. Tucker WDT ¶¶ 148, 149. However, she made no effort to consider, as Judge Strickler put it, the "professional track record" of such projections, even in the best of times, let alone in a pandemic. 8/17/20 Tr. 2137:19-2138:22 (admitting this level of detail and diligence is not something she has "thought about . . . much"); *see* Joint PFFCL ¶ 325.

F. The Services In No Way Argue That "Under-Monetized Services Should Be Subsidized by Record Companies and Artists"

1340. Not disputed. However, as explained *supra* ¶ 58, the summary provided is incomplete and therefore misleading.

1341. Disputed in part. While the Services do not believe that an *artificially low* rate should be set in this proceeding, they believe that an *appropriately* low rate should be set in accordance with the willing buyer/willing seller standard. *See* Joint PFFCL § I and *supra* ¶¶ 58, 1305. Moreover, true to form, Professor Tucker has not actually identified what would be an "artificially low" rate in this proceeding. *See* 8/17/20 Tr. 2352: 12-2354:10 (Tucker). Professor

Tucker's argument (and SoundExchange's by extension) is therefore meaningless.

1342. Disputed in part. As SoundExchange admits, the evidence cited is only from "smaller services," which means that they are only *not* representative of statutory webcasters generally, but stands in stark contrast to Professor Tucker's undue reliance on Pandora and iHeart, the two largest statutory services. *See* SX PFFCL ¶ 1327. In addition, the suggestion that the Services are requesting a *subsidy* is gratuitously pejorative and not at all consonant with the rate proposals they proffer. Last, as both parties have explained to the hilt, the ability to pay a particular royalty rate because "SoundExchange royalties are only a small part of these services' expenses" is irrelevant to rate determination. *See* Joint PFFCL § II.E.i; *supra* ¶ 1292.

NONCOMMERCIAL WEBCASTERS; MINIMUM FEE; EPHEMERALS; TERMS

XI. NONCOMMERCIAL WEBCASTERS

1343. Disputed. SoundExchange incorrectly suggests in this and other paragraphs (*e.g.*, SX PFFCL ¶ 1492) that the buyer in the hypothetical market is a single service, the seller is a single record company, and the rate is what a single service "would pay" a single record company under the statutory license. Contrary to SoundExchange's claim, it has long been settled since the first webcasting rate-setting proceeding that "[b]ecause of the diversity among the buyers and the sellers," which gives rise to an expected "range of negotiated rates," the willing buyer/willing seller standard requires determination of 'the rates to which, absent special circumstances, most willing buyers and willing sellers would agree' in a competitive marketplace." *Web I*, 67 Fed. Reg. at 45244-45 (quoting *CARP Report* at 24-25) (emphasis added). The CARP described "the Section 114(f)(2) hypothetical marketplace as one where the buyers are DMCA-eligible (also referred to as 'DMCA-compliant') services, the sellers are record companies, and the product being sold consists of blanket licenses for each record company's repertory of sound recordings." *CARP Report* at 44. It found that "the most reliable benchmark rate would be established through

license agreements negotiated between these same parties for the [statutory] rights described." *Id.* The Register of Copyrights in *Web I* specifically "adopt[ed] the Panel's characterization of the relevant marketplace, recognizing that for purposes of this proceeding, the major record companies are represented by a single entity, the RIAA." *Web I*, 67 Fed. Reg. at 45245. The hypothetical marketplace is not limited to agreements involving only a singer service and a single record company.

1344. Disputed in part. While there are no agreements entered into by a noncommercial on-demand service (if any such services even exist) and a record company, any suggestion by SoundExchange that there are therefore no suitable "potential benchmarks specific to" noncommercial services at all is incorrect. SoundExchange, representing all major record companies as well as independent labels, entered into agreements covering noncommercial broadcasters – specifically broadcasters affiliated with National Public Radio ("NPR") and certain college-affiliated broadcasters – for precisely the rights and the license term at issue in this proceeding. *See* TX 3020 (agreement between SoundExchange and NPR and the Corporation for Public Broadcasting ("CPB") for 2021-2025); TX 3019 (agreement between SoundExchange and College Broadcasters, Inc. ("CBI") for 2021-2025). The entities negotiating these agreements are precisely the type of entities who negotiated past agreements that the Judges and their predecessors have relied on as benchmarks in past webcasting proceedings. For example, the *Web I* CARP chose as its key benchmark agreement one that the Recording Industry Association of America ("RIAA"), "a trade association representing record companies," including all of the majors and some independent labels, had negotiated with Yahoo! on behalf of the willing sellers it represented. *CARP Report*, at 4, 70, 74. "The Register accept[ed] the Panel's determination that the Yahoo! agreement … is a suitable benchmark for setting rates …." *Web I*, 67 Fed. Reg.

at 45252. Moreover, the Judges relied on as benchmarks: (a) an agreement between SoundExchange and CBI to set noncommercial rates in *Web III*; (b) agreements between SoundExchange and (i) NAB (a trade association representing broadcasters) and (ii) Sirius XM to set commercial rates in *Web III*; (which SoundExchange itself had proposed as benchmarks); and (c) an agreement between Pandora and Merlin (an entity representing independent record labels) to set certain commercial rates in *Web IV*. *See Web III Remand*, 79 Fed. Reg. at 23111, 23114 ("[T]he evidence permits these two [NAB and Sirius XM] agreements to serve as benchmarks in this proceeding."); *id.* at 23123 ("The CBI/SoundExchange Agreement … is persuasive evidence that SoundExchange's proposal satisfies the willing buyer/willing seller standard."); *Web IV*, 81 Fed. Reg. at 26370-71 ("Relatedly, the Judges find that the fact that Merlin negotiated collectively on behalf of its members does not diminish the value of Merlin as a party capable of entering into an agreement that is otherwise an appropriate benchmark.").

1345. Disputed. Contrary to SoundExchange's claim, there are very real differences to consumers between noncommercial and commercial webcasters. Noncommercial broadcasters' commitment to mission, reinforced by FCC license requirements, drives the decisions that they make, including decisions regarding the content that they transmit, and those decisions result in very different content offered by noncommercial versus commercial broadcasters. 8/31/20 Tr. 4764:5-24 (Burkhiser) ("[T]here's a big difference in motivation and just the programming content based on the two different drivers, profit or mission."); Steinberg AWDT ¶¶ 19, 49, 52; Cordes CWDT ¶¶ 26, 29. Those differences are found not only in the programming offered by the respective types of broadcasters but also in the pervasive advertisements that are found in commercial broadcast programming but absent from noncommercial programming. 8/26/20 Tr. 3997:9-22 (Steinberg) (noncommercial broadcasters "agree that they will not sell any advertising

and the program must be educational and non-commercial in nature"); Burkhiser WDT ¶¶ 14, 42, 48, 51, 53; Steinberg AWDT ¶¶ 16, 18, 19; Cordes CWDT ¶¶ 20, 26, 28; 47 C.F.R. § 73.503(d).

With respect to noncommercial versus commercial Christian programming in particular, Mr. Orszag – the sole witness on whom SoundExchange relied to claim that listeners do not differentiate – admitted that he does not even listen to religious programming. 8/13/20 Tr. 1971:3-13 (Orszag). Ms. Burkhiser, by contrast, has worked at both commercial and noncommercial radio stations over a period of at least 17 years and is the witness who, by far, is the most qualified to testify regarding the character and nature of noncommercial Christian programming versus commercial Christian programming. Burkhiser WDT ¶ 2. She testified that she is "very familiar with both commercial and non-commercial Christian broadcasting" and that those two types of programming are "very different." 8/31/20 Tr. 4764:2-24 (Burkhiser) (emphasis added). She further testified that listeners "to Christian music and … radio stations can tell the difference between commercial and non-commercial pretty easily" and that they "hear kind of a whole profit-infused flare in the commercial stations, not only in the advertising … like gambling ads that … you would think you wouldn't hear on a religious station, but even the way that the DJs speak." *Id.*; Burkhiser WDT ¶ 42; NRBNMLC PFFCL ¶¶ 57-72.

Further, the premise of SoundExchange's claim – *i.e.*, if consumers don't differentiate between noncommercial and commercial simulcast programming, then noncommercial and commercial broadcasters would occupy the same market segment and negotiate the same rates with record companies – is wrong. To the contrary, "[e]ven if the webcasters play identical songs in an identical context, whether they are commercial or non-commercial, as long as there is different willingness to pay, there's a different market segment, and we would naturally expect different prices in each segment." 8/26/20 Tr. 4002:19-24, 4080:11-16 (Steinberg); Steinberg

AWDT ¶ 44 ("Willing sellers often negotiate different prices with different willing buyers even when there is no product differentiation."); NRBNMLC PFFCL ¶¶ 98, 217.

Contrary to SoundExchange's assertion, there is empirical evidence showing that record companies would agree to different rates with larger noncommercial webcasters – namely, SoundExchange's repeated agreements with NPR. *See*, *e.g.*, TX 3020, TX 3021. Conversely, there is no empirical evidence to support SoundExchange's claim given the lack of agreements between record labels and noncommercial services in the unregulated market that incorporate the same rates as those charged to commercial services. Orszag WDT ¶ 184. There also is a strong basis in economic theory for such differentiation. NRBNMLC PFFCL ¶¶ 44-110; Cordes CWDT ¶¶ 21-24; 8/20/20 Tr. 3256:1-3, 3266:1-3267:17, 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:5-10 (Burkhiser); Steinberg AWDT ¶¶ 19-22, 40, 44-45 & n.19; 8/26/20 Tr. 4001:10-22, 4002:1-5, 9-14, 19-24, 4080:11-16 (Steinberg).

1346. Disputed. Contrary to SoundExchange's assertion, there has not "long been acceptance of the current royalty rate structure for noncommercial webcasters" – there has never been noncommercial buyer acceptance of a structure incorporating above-threshold commercial-level per-performance fees. *See* NRBNMLC PFFCL ¶¶ 18-31. Rather, in every proceeding in which the NRBNMLC participated, it never proposed such a structure. *Web I*, 67 Fed. Reg. at 45258-59 (observing that "the Panel accepted RIAA's proposal to set the rate for noncommercial broadcasters at one-third the rate established for commercial broadcasters" but that noncommercial non-CPB broadcasters sought "to set aside the CARP report" (emphasis added)); *Web II*, 72 Fed. Reg. at 24090 (observing that the NRBNMLC had proposed flat annual fees); *Web III Remand*, 79 Fed. Reg. at 23102 ("Most participants negotiated agreements relating to rates and terms prior to the [*Web III*] hearing."); *Web IV*, 81 Fed. Reg. at 26391 (observing that

the NRBNMLC had proposed tiered and capped flat fees). Instead, until *Web IV*, the noncommercial rates set by the Judges and their predecessors were superseded by lower rates that the NRBNMLC, NPR, and CBI agreed to with SoundExchange following passage of the Small Webcaster Settlement Act of 2002 ("SWSA") and the Webcaster Settlement Acts of 2008 and 2009 ("2008 WSA" and "2009 WSA"). Small Webcaster Settlement Act of 2002, Pub. L. No. 107-321, 116 Stat. 2780 (2002); 2008 WSA, Pub. L. No. 110-435, 122 Stat. 4974 (2008); 2009 WSA, Pub. L. No. 111-36, 123 Stat. 1926 (2009); *Notification of Agreement Under the Small Webcaster Settlement Act of 2002*, 68 Fed. Reg. 35008 (June 11, 2003) ("*Noncommercial SWSA Agreement*"); *Notification of Agreements Under the Webcaster Settlement Act of 2008*, 74 Fed. Reg. 9293 (Mar. 3, 2009) ("*2008 WSA Agreements*"); *Notification of Agreements Under the Webcaster Settlement Act of 2009*, 74 Fed. Reg. 40614 (Aug. 12, 2009) ("*2009 WSA Agreements*"). Congress' enactment of legislation to foster alternative settlements following the adoption in *Web II* of starkly increasing rates for both commercial and above-threshold noncommercial services was in direct response to the outcry by webcasters regarding those rates. H.R. Rep. No. 111-139, 2 (2009) ("The new [*Web II*] rates were not well received in the small webcasting business community. Some Members of Congress voiced concern as well.").

1347. Disputed. Contrary to SoundExchange's claim, a rate structure that charges noncommercial broadcasters and other services commercial-level per-performance rates above a specified listenership threshold does not make sense. While there is no dispute about maintaining a threshold, ratcheting up the rate to commercial levels above a modest listenership threshold harshly disincentivizes the very noncommercial broadcasters who are most effective in fulfilling their educational, religious, and charitable missions from continuing to achieve those missions, which is their very reason for existence. 26 U.S.C. § 501(c)(3). Noncommercial broadcasters and

other services make business decisions based on marginal, not average, rates. 8/17/20 Tr. 2206:23-2207:9 (Tucker); *id.* at 2207:13-2208:4; 8/31/20 Tr. 4774:6-16 (Burkhiser). When those broadcasters are confronted with commercial-level marginal rates after reaching only 218 average listeners, they are incentivized to, and do, engage in mission-disrupting activities that limit listenership to their educational or religious programming that has the greatest mission impact on those listeners. *Id.* at 4761:7-17 (Family Radio has reduced by 1/3 the time that a listener may listen to its programming before automatic termination of the session); Burkhiser WDT ¶ 38; *id.* ¶ 39 (Family Radio is adding a choral channel to divert listeners from channels with above-threshold listenership to control streaming costs).

Moreover, it is not "reasonable to expect" that noncommercial broadcasters with above-threshold listenership compete with commercial services at a greater rate than do smaller noncommercial services, as noncommercial broadcasters' mission focus, differentiated programming, inability to sell ads, and nondistribution constraint all persist regardless of those broadcasters' listenership. "There's no particular economic reason to believe" "that as they grow in size, … their attributes will converge to those of commercial broadcasters." 8/20/20 Tr. 3271:18-3272:2, 14-15 (Cordes); *id.* at 3272:13-15, 3273:25-3274:25; Cordes CWDT ¶¶ 26, 31-32; 8/31/20 Tr. 4773:9-14 (Burkhiser); Steinberg AWDT ¶¶ 24, 58; 8/26/20 Tr. 4002:25-4003:16 (Steinberg); Burkhiser WDT ¶¶ 41, 65; NRBNMLC PFFCL ¶¶ 82-90. "[A]s long as they, in fact, remain a non-commercial broadcaster, they are subject to the non-distribution constraint, so there's no economic reward … as an organization gets larger to compete." 8/20/20 Tr. 3272:22-3273:24 (Cordes).

1348. Disputed. The current noncommercial rate structure is not "time-tested." There never has been any buy-in to that structure by entities required to pay above-threshold per-

performance rates at commercial levels, and noncommercial services have never been required to pay those above-market prices until the current license term. *See supra* ¶ 1347; NRBNMLC PFFCL ¶¶ 18-31; *Web I*, 67 Fed. Reg. at 45258-59; *Web II*, 72 Fed. Reg. at 24090; *Web III Remand*, 79 Fed. Reg. at 23102; *Web IV*, 81 Fed. Reg. at 26391. Moreover, adoption of the NRBNMLC's proposed rates would simply eliminate the triple surcharge that larger non-NPR noncommercial broadcasters have been required to pay and restore the pre-*Web IV* rate equivalence that existed between NPR-affiliated and non-NPR-affiliated noncommercial broadcasters. NRBNMLC PFFCL ¶¶ 28-38, 151-163; *infra* ¶ 1510. *Compare* The NRBNMLC's Amended Proposed Rates and Terms Ex. A (July 31, 2020) ("NRBNMLC Rate Proposal") *with* TX 3020. The Judges should adopt the NRBNMLC's proposal and reject SoundExchange's proposed rates. NRBNMLC PFFCL ¶¶ 119-265; Steinberg AWDT ¶ 34; Steinberg CWRT ¶¶ 3-10; 8/26/20 Tr. 4023:3-15, 4024:8-10, 4029:11-21 (Steinberg).

A. The Judges Should Reject SoundExchange's Proposed Rates for Noncommercial Webcasters

1. SoundExchange's Proposed Rates Reflect No Noncommercial Buy-In

i. *Web II*

1349. Disputed in part. While there is no dispute that the current noncommercial rate structure was first adopted in a <u>rate-setting proceeding</u> in *Web II*, a similar threshold structure but with much lower above-threshold per-performance rates had been agreed to by SoundExchange and various noncommercial representatives, including the NRBNMLC's predecessor, under the SWSA for 1998-2002, which was subsequently extended through 2005. *See Noncommercial SWSA Agreement*, 68 Fed. Reg. at 35010; Pub. L. No. 108-419, 118 Stat. 2341, 2370 (2004). In *Web II*, witnesses on behalf of numerous noncommercial representatives, including not only the

NRBNMLC but NPR and CBI as well, provided evidence of the types of differentiating characteristics identified by the Judges. *Web II*, 72 Fed. Reg. at 24085, 24098.

1350. Not disputed.

1351. Disputed in part. While the quoted statement was made in *Web II*, SoundExchange omits that the only evidence cited by the Judges to support it related to NPR stations. Specifically, the Judges cited to paragraph 1122 of SoundExchange's Proposed Findings of Fact and paragraph 284 of its Reply Proposed Findings of Fact. *Web II*, 72 Fed. Reg. at 24098 (citing Proposed Findings of Fact of SoundExchange, Inc., Docket No. 2005-1 CRB DTRA, ¶ 1122 (Dec. 12, 2006) ("SX *Web II* PFF") and Reply Findings of Fact of SoundExchange, Inc., Docket No. 2005-1 CRB DTRA, ¶ 284 (Dec. 15, 2006) ("SX *Web II* Reply PFF")). Paragraph 1122 of the *SX Web II* PFF cited evidence pertaining exclusively to two NPR stations. SX *Web II* PFF ¶ 1122, *available at* https://app.crb.gov/case/viewDocument/10443. Similarly, paragraph 284 of the *SX Web II* Reply PFF cites evidence pertaining to a single NPR station – WAMU. SX *Web II* Reply PFF ¶ 284, *available at* https://app.crb.gov/case/viewDocument/10415. NPR stations have always paid under separate and lower rates than those set by the Judges. *Web II*, 72 Fed. Reg. at 24097 ("Certainly, there is a significant history of Noncommercial Webcasters such as NPR and the copyright owners reaching agreement on rates that were substantially lower than the applicable commercial rates over the corresponding period. See, for example, the 2001 NPR–SoundExchange agreement which covered streaming from 1998 to 2004 (SERV–D–X 157)."); *2008 WSA Agreements*, 74 Fed. Reg. at 9294-99 (2005-2010); *2009 WSA Agreements*, 74 Fed. Reg. at 40620-24 (2011-2015); TX 3021 (2016-2020); TX 3020 (2021-2025).

1352. Disputed in part. While the quoted statement was made in *Web II* based on the record in that case, the statement does not apply in this case, which has a robust record

establishing that growth in listenership to noncommercial broadcasters does not lead to a greater rate of convergence, competition, or cannibalization. 8/20/20 Tr. 3271:18-3272:2, 13-15, 3272:22-3274:25 (Cordes); Cordes CWDT ¶¶ 26, 31-32; 8/31/20 Tr. 4773:9-14 (Burkhiser); Steinberg AWDT ¶¶ 24, 58; 8/26/20 Tr. 4002:25-4003:16 (Steinberg); Burkhiser WDT ¶¶ 41, 65; NRBNMLC PFFCL ¶¶ 82-90.

1353. Disputed in part. While the quoted statements were made in *Web II*, SoundExchange omits helpful context. The second statement reads in full: "Members of this noncommercial submarket, <u>by definition</u>, are not serious competitors with Commercial Webcasters." *Web II*, 72 Fed. Reg. at 24100 (emphasis added). While commercial-level rates were set for above-threshold performances, there was no meeting of the minds of the buyers on those marginal rates. *Id.*

1354. Disputed. The threshold was not based on the 2001 NPR agreement but on a 2004 NPR station survey that postdated the 2001 agreement by several years. *Id.* at 24099. The NPR agreement rejected for use by the Judges "provided for a lump sum amount to cover the entire 74-month term of the contract with no amount specified for different years, and there is nothing in the contract or the record to indicate the parties' expectations as to levels of streaming or the proper attribution of payments for any given year or how additional stations beyond the 410 covered by the agreement were to be handled." *Id.* at 24098. Those amorphous traits differ sharply from more recent NPR agreements, which break out the license fee into annual payments, provide evidence regarding the underlying structure that drove the license fee, and set a clear annual Music ATH cap. TX 3020 at 7-8; TX 3021 at 9-10; *see also* TX 3022. Moreover, the NPR agreement was finalized in 2001 – many years before *Web II* – and set rates for 1998-2004, not the *Web II* term of 2006-2010. *Web II*, 72 Fed. Reg. at 24098. Here, by contrast, the most

recent NPR agreement relied upon by Professor Steinberg was reached just last year and set rates for the same term at issue here. TX 3020 at 4-5, 7. The current record also includes evidence showing how the NPR flat fee was valued on a per-station basis, which was not available with respect to the 2001 agreement. *See* TX 3022. Thus, none of the reasons for rejecting the 2001 agreement apply to the most recent NPR agreements.

ii. *Web III*

1355. Not disputed with respect to the student-run stations to which the settlement pertained. For clarity, noncommercial stations represented by CBI are notoriously small and would have had no reason to negotiate a lower above-threshold rate. In 2018, when one would expect that listenership would have grown significantly since the 2009-2010 *Web III* timeframe, fully 558 out of 572 noncommercial educational webcasters paying under the CBI settlement rates – 98% – "elected the reporting waiver option" and thus webcast fewer than 80,000 monthly ATH. Ploeger WRT ¶ 15; 37 C.F.R. § 380.22(d)(1). In other words, almost all of these webcasters even as of 2018 did not have listenership levels that were even half of the 159,140 monthly ATH threshold. The above-threshold rate simply was economically meaningless to this group. Cordes CWDT ¶ 36; Steinberg AWDT ¶ 32.

1356. Disputed. Rates for noncommercial services webcasting more than 15,914 monthly ATH were uncontested in *Web III*, so it is not surprising that SoundExchange's seller-side proposal was adopted. There was almost no noncommercial participation in that case, as the larger noncommercial services had reached agreements under the 2009 WSA covering the *Web III* license term that charged rates lower than the above-threshold commercial-level per-performance rates that had been set in *Web II*. *Web III Remand*, 79 Fed. Reg. at 23102 ("Most participants negotiated agreements relating to rates and terms prior to the [*Web III*] hearing."); *2009 WSA Agreements*, 74 Fed. Reg. at 40620-28; NRBNMLC PFFCL ¶ 26. The sole non-settling

noncommercial representative who did participate represented a station group with listenership even smaller than CBI stations' already small listenership and "requested rates and terms only for certain noncommercial webcasters (defined by it as 'small' and 'very small')" that webcast no more than 15,914 monthly ATH – one-tenth of the 159,140 monthly ATH threshold. *Digital Performance Right in Sound Recordings and Ephemeral Recordings: Final Rule and Order*, 76 Fed. Reg. 13026, 13038-39 (Mar. 9, 2011) ("*Web III*"), *vacated and remanded*, 684 F.3d 1332 (D.C. Cir. 2012). Thus, the above-threshold rate had no economic significance to this group.

iii. *Web IV*

1357. Disputed. Unlike the noncommercial rates previously adopted by the Judges, the SoundExchange-CBI *Web IV* agreement did not charge commercial-level per-performance rates for above-threshold webcasting. Rather, webcasters who exceeded the 159,140 monthly ATH threshold in a month became ineligible to pay under those rates for the remainder of that calendar years and instead were required to pay the not-yet-set *Web IV* noncommercial rates adopted by the Judges. TX 3000 at 8.

1358. Disputed in part. While the quoted statement was made in *Web II*, SoundExchange omits that the Music ATH cap in the NPR agreement over the five-year term also increased in addition to the fee increase. *Compare 2009 WSA Agreements*, 74 Fed. Reg. at 40622, *with* TX 3021 at 9. Moreover, SoundExchange estimated that NPR [redacted]. TX 3041 "Web V" line 39.

1359-1360. Not disputed.

1361. Disputed in part. While the quoted statements were made based on the record in *Web IV*, the record in *Web V* demonstrates that noncommercial services occupy a different market segment from commercial services and would negotiate lower above-threshold rates. Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr.

4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110.

1362. Disputed in part. While the quoted statement was made based on the record in *Web IV*, the very different record in *Web V* reflects ample expert economic testimony refuting the application of commercial-level rates to above-threshold performances by noncommercial services. Steinberg AWDT Parts III.C-D, IV.D; *id.* ¶ 27 ("[P]aying commercial fees beyond the threshold is entirely unwarranted."); *id.* ¶¶ 15, 58; Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); NRBNMLC PFFCL ¶¶ 44-110.

1363. Disputed in part. While the quoted statements were made based on the *Web IV* record, the statements do not apply to the very different *Web V* record and the NRBNMLC's rate proposal, which, unlike the *Web IV* proposal, closely mirrors the NPR rates and terms. Like the 2021-2025 NPR agreement, one of the NRBNMLC's proposed alternatives includes a flat fee. *Compare* NRBNMLC Rate Proposal Ex. A at 11 *with* TX 3020 at 7. Moreover, TX 3022 enables the NPR agreement to be expressed as a per-station threshold structure, which is the structure of the NRBNMLC's other proposed alternative. NRBNLC Rate Proposal Ex. A at 1-9.

Any criticism based on an alleged greater "range of formats" among NPR stations also is misplaced based on the *Web V* record. The evidence shows that NPR stations focus on three formats in particular (adult alternative, classical, and jazz). TX 3035; 9/9/20 Tr. 5841:16-19 (Ploeger). Conversely, SoundExchange witnesses acknowledged that there is a range for formats among noncommercial webcasters generally (Ploeger WRT ¶ 44; 9/9/20 Tr. 5797:20-5798:9 (Ploeger)) and noncommercial religious broadcasters specifically (8/13/20 Tr. 1971:14-1972:6

(Orszag)). Moreover, there already is a noncommercial broadcaster paying above-market commercial-level fees for above-threshold performances in one of the identical genres ([redacted]) played heavily by NPR stations. Ploeger WRT ¶ 46 n.38 & App. E; NRBNMLC PFFCL ¶¶ 171-175.

The criticism based on an alleged lower music intensity on NPR stations versus non-NPR noncommercial stations also is misplaced based on the *Web V* record, which, unlike the *Web IV* record, reveals that SoundExchange estimated the recordings per Music ATH played by NPR stations at the very [redacted]. TX 3022; TX 3041; *see also* NRBNMLC PFFCL ¶¶ 165-170.

The statements regarding advance payment and the "reduced risk of nonpayment" do not apply at all to one of the NRBNMLC's proposed alternatives. NRBNMLC Rate Proposal Ex. A at 11-12. In short, none of the alleged differences that enabled dismissal of the NPR agreement in *Web IV* apply to the very different *Web V* record and very different NRBNMLC rate proposal.

iv. *Web V*

1364. Disputed. Like the SoundExchange-CBI *Web IV* agreement, the analogous *Web V* agreement did not charge commercial-level per-performance rates for above-threshold webcasting. Rather, those webcasters who exceeded the 159,140 monthly ATH threshold in a month became ineligible to pay under those rates for the remainder of that calendar year and instead were required to pay the not-yet-set *Web IV* noncommercial rates adopted by the Judges. TX 3019 at 7-8. Thus, the *Web V* SoundExchange-CBI agreement provides no support for charging commercial-level rates for above-threshold performances.

1365. Not disputed.

2. The Vast Majority of Noncommercial Webcasters Have Usage Under

159,140 ATH per Month and Pay Only the Minimum Fee

1366. Not disputed (other than the necessarily subjective characterization that reaching only 218 average listeners is "a lot of usage").

1367. Disputed in part. While the Services do not dispute that, when viewed by entity, most noncommercial webcasters pay only the minimum fee, when viewed by dollars, the overwhelming majority of noncommercial royalties paid in 2018 – over [redacted]% – were above-market commercial-level rates for above-threshold performances. Ploeger WRT App. A ¶ 33 & App. E ([redacted]); TX 5068.

1368. Disputed in part. While the cited number is undisputed, that statistic does not reveal the proportion of noncommercial royalties that were paid in usage fees under the various rate structures in place at the time. *Web IV*, 81 Fed. Reg. at 26393.

1369. Disputed in part. When viewed by dollars, the overwhelming majority of noncommercial royalties paid in 2018 – over [redacted]% – were above-market commercial-level rates applied to above-threshold performances by noncommercial webcasters. Ploeger WRT App. A ¶ 33 & App. E ([redacted]); TX 5068.

1370. Disputed. Professor Steinberg stated that two "companies," not two stations, accounted for most reporting in 2018. 8/26/20 Tr. 4027:4-10 (Steinberg). In 2018, those companies represented not two but [redacted] stations. Ploeger WRT App. E; TX 5068. Moreover, the supracompetitive royalty burden imposed on these two companies is significant – the above-threshold per-performance fees that they were required to pay in 2018 totaled $[redacted] – [redacted]% – of all royalties paid by noncommercial licensees other than those subject to separate agreements. Ploeger WRT App. A ¶ 33 & App. E. Their total license fees of $[redacted] accounted for nearly [redacted] of all such royalties. *Id.*

1371. Disputed in part. While the arithmetic is not disputed, that "discount" is irrelevant, as noncommercial webcasters such as NPR stations and noncommercial religious stations are in a different market segment from commercial webcasters and have lower willingness to pay. Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110. The correct comparison is to royalties paid by larger non-NPR noncommercial broadcasters in relation to NPR broadcasters, where those non-NPR broadcasters pay about a threefold or fourfold surcharge. *Id.* ¶¶ 35-38. Moreover, Mr. Orszag acknowledged that under the metrics of the 2016-2020 NPR agreement ($560,000 for 285,132,065 Music ATH), NPR stations (assuming 12 sound recordings per hour) would pay about 90-91% less than commercial webcasters with those metrics. 8/13/20 Tr. 2047:20-2050:13 (Orszag); Ploeger WRT ¶ 40.

Further, Mr. Orszag's assumptions are counterfactual. SoundExchange made no showing that most, or even some, non-NPR noncommercial services webcast at the metrics assumed by Mr. Orszag. To the contrary, [redacted] noncommercial stations or channels webcast at levels that are less than half the ATH threshold, and most appear to be broadcasters, who have far lower music intensity than the music-only service that Mr. Orszag assumed. TX 3038. Mr. Orszag's 99.1% discount calculated in line 1 of Table 12 would be 30% lower – 69.6% – if 12 sound recordings per hour were assumed instead. 8/13/20 Tr. 2042:23-2047:10 (Orszag).

3. Economic and Empirical Evidence Shows that Record Companies Would Offer Larger Noncommercial Webcasters Lower Rates than the Current Structure Reflects

1372. Disputed in part. While the Services do not dispute the cited numbers, these twenty entities in 2018 accounted for [redacted] of the just over 900 noncommercial stations or

channels, and above-threshold usage fees paid by these entities accounted for over [redacted]% of the overall noncommercial fees paid. Ploeger WRT App. A ¶ 33 & App. E.[57]

1373. Not disputed. For additional context, [redacted] of these twenty services paid over $[redacted] in above-threshold usage fees in 2018. *Id.* App. E.

1374. Disputed. SoundExchange cited a statement made on a very different and much more limited record both five and fifteen years ago. On this record, there is substantial evidence showing that noncommercial willing buyers at all listenership levels occupy a different market segment than commercial webcasters and would negotiate lower fees above the ATH threshold than those that apply to commercial webcasters. Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110. Conditions conducive to seller price discrimination favoring noncommercial services exist in the webcasting market. NRBNMLC PFFCL ¶¶ 44-110; Cordes CWDT ¶¶ 21-24; 8/20/20 Tr. 3256:1-3, 3266:1-3267:17, 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:5-10 (Burkhiser); Steinberg AWDT ¶¶ 19-22, 40, 44-45 & n.19; 8/26/20 Tr. 4001:10-22, 4002:1-24, 4080:11-16 (Steinberg); NRBNMLC PFFCL ¶¶ 91-102. There already is empirical evidence – namely, the NPR agreements – that record companies have willingly granted above-threshold noncommercial webcasters lower prices than those under the current threshold structure. TX 3020; TX 3021.

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[57] In response to an inquiry by the NRBNMLC, counsel for SoundExchange recently informed the NRBNMLC that TX 5068 (titled "[redacted]" and used by the NRBNMLC for certain calculations in its initial proposed findings) reported an out-of-date channel count for [redacted] of [redacted] channels instead of [redacted]. Including the two later-added channels slightly increases the total channel count among above-threshold noncommercial webcasters from [redacted] to [redacted] (and increases the related minimum fees paid by these broadcasters by $[redacted] as compared with TX 5068 data).

There is no substantial evidence and no sound economic theory suggesting significant noncommercial cannibalization. Rather, "the cannibalization argument is unsupported by the record and unlikely to occur." Steinberg AWDT ¶ 25; *see also id.* ¶¶ 13-22, 42-53, 58; 8/26/20 Tr. 3997:9-22, 3999:3-10, 4006:17-21, 4007:19-22, 4008:9-23, 4009:17-25, 4010:1-18, 4011:15-4012:5, 10-11 (Steinberg); Cordes CWDT ¶ 16, 19, 26, 29; 47 C.F.R. § 73.503(a), (d); Burkhiser WDT ¶¶ 11-13, 29, 34; 8/31/20 Tr. 4752:2-10, 4752:20-4753:1, 4758:12-4759:2, 4763:12-13, 4764:5-24 (Burkhiser); 8/20/20 Tr. 3265:4-16, 3278:1-10 (Cordes); 8/13/20 Tr. 1990:1-11 (Orszag); 9/3/20 Tr. 5599:17-21 (Adadevoh); 9/3/20 Tr. 5740:14-25, 5741:1-11 (Harrison); 9/2/20 Tr. 5444:7-14 (J. Fowler); 9/2/20 Tr. 5394:25-5395:18, 5396:25-5397:3 (Piibe); Emert WDT (*Web IV*) ¶ 28; NRBNMLC PFFCL ¶¶ 201-247.

Finally, the term "deeper discount" is highly misleading both for the reasons stated in paragraph 1371 and because the rate structure offers no marginal fee reduction whatsoever for above-threshold performances. *Id.* ¶¶ 250-252.

i. Noncommercial Webcasters of All Sizes Constitute a Distinct Market Segment

1375. Disputed in part. While the quoted statements were made based on the records in *Web II* and *Web IV*, the very different record in *Web V* shows that noncommercial webcasters occupy a different market segment and have lower willingness to pay at all levels of listenership than do commercial webcasters, which economics dictates results in different and lower prices in these different segments. Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110. Market segmentation exists at all levels of listenership. 8/20/20 Tr. 3271:18-3272:2, 3272:13-15, 3272:22-3274:25 (Cordes); Cordes CWDT ¶¶ 26, 31-

32; 8/31/20 Tr. 4773:9-14 (Burkhiser); Burkhiser WDT ¶¶ 41, 65; Steinberg AWDT ¶¶ 24, 58; 8/26/20 Tr. 4002:25-4003:16 (Steinberg); NRBNMLC PFFCL ¶¶ 82-90.

While not necessary to result in lower noncommercial rates for performances at all levels of listenership, seller price discrimination favoring noncommercial webcasters is likely and already has occurred. *Id.* ¶¶ 44-110; Cordes CWDT ¶¶ 21-24; 8/20/20 Tr. 3256:1-3, 3266:1-3267:17, 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:5-10 (Burkhiser); Steinberg AWDT ¶¶ 19-22, 40, 44-45 & n.19; 8/26/20 Tr. 4001:10-22, 4002:1-24, 4080:11-16 (Steinberg); NRBNMLC PFFCL ¶¶ 91-102.

1376. Disputed. Whatever may be true about music-only services who play "the same music," it is not at all "self-evident" that a noncommercial broadcaster is likely to take away share from a commercial broadcaster even if those two broadcasters play the same genre of music. Witnesses on behalf of both commercial and noncommercial broadcasters alike emphasized the importance of their programming content <u>other</u> than music as a driver of their listenership. For example, Ms. Burkhiser testified that Family Radio's listener:

> feedback shows that a key reason why people tune in to Family Radio is that they appreciate and are inspired by the non-profit ministry-focused nature of our programming – such as the Bible teaching, biblically based hymns, and Christian perspective on the news and current issues – not so they can be entertained by the most popular songs as one might find on a commercial radio station.

Burkhiser WDT ¶ 64; *see also* Leonard WDT ¶ 40 ("Another example given by Cromwell is that there are three country music stations in Nashville that play essentially the same music but they still have nonoverlapping audiences—the reason is because their different non-music content attracts different listeners to each station." (emphasis added)); Newberry WDT ¶ 10 ("[I]t's the connection that radio stations forge with their audience through their non-music content and on-air talent that differentiates them from other music services. Those are the unique ingredients that make up the bulk of radio's programming and business models."); Wheeler WDT ¶ 43 ("[T]he

value proposition for radio is, in significant part, based on our non-music content."); Emert WDT (*Web IV*) ¶ 21; Cordes CWDT ¶ 16; TX 2002 at 4; TX 2104 at 2-4 (importance of DJs); NRBNMLC PFFCL ¶¶ 106-07; NAB PFFCL ¶¶ 146-173.

This nonmusic content is quite different on even commercial and noncommercial religious stations that play the same genre of music. Noncommercial broadcasters transmit noncommercial educational programming devoid of ads. 47 C.F.R. § 73.503(a), (d); Steinberg AWDT ¶¶ 18-20, 52; Cordes CWDT ¶¶ 18-20, 26, 29; Burkhiser WDT ¶¶ 13, 46-48, 54; 8/31/20 Tr. 4751:25-4752:12, 4763:6-14 (Burkhiser); 8/20/20 Tr. 3261:25-3262:11 (Cordes); 8/26/20 Tr. 3997:9-22 (Steinberg); Emert WDT (*Web IV*) ¶¶ 11, 36; NRBNMLC PFFCL ¶¶ 63-72. Commercial broadcasters air programming that has "a profit-oriented flavor," including in the on-air host content, is "infused with commercial profit-oriented messages and focuses on popular entertainment or other profit-making content rather than educational programs." 8/31/20 Tr. 4763:20-4764:24 (Burkhiser); Burkhiser WDT ¶ 53; *id.* ¶¶ 45, 52, Steinberg AWDT ¶ 19; 8/26/20 Tr. 3999:3-12 (Steinberg); NRBNMLC PFFCL ¶¶ 60-62. Even with respect to the music transmitted, "noncommercial broadcasters generally do not seek to enter areas "[i]f there's already someone who is doing what they believe in" because "[t]hey are looking for unserved markets with respect to their mission." 8/26/20 Tr. 4008:9-23 (Steinberg); *accord* Cordes CWDT ¶ 16. Thus:

> the mere fact that a particular sound recording might be heard on both a noncommercial broadcaster and Pandora or a commercial broadcast stream ignores the overall content and context of the programming in which the music occurs. It is this context that offers listeners quite different listening experiences and thereby removes the chance that they would be indifferent between the two listening experiences.

Id. ¶ 29. Finally, SoundExchange's reference to Professor Cordes omitted part of his response. He testified that while in the abstract, it's "not impossible" that a large noncommercial

broadcaster "might in some sense have the potential to compete" with a commercial entity, the noncommercial broadcaster is "offering a differentiated product," which would deter them from doing so. 8/20/20 Tr. 3276:19-3277:11 (Cordes).

1377. Disputed. The NRBNMLC's rate proposal would not license noncommercial broadcasters and other services "at virtually zero cost" but merely at the same price that willing record company sellers through SoundExchange already have agreed to accept from NPR-affiliated noncommercial broadcasters. *Compare* NRBNMLC Rate Proposal Ex. A at 11 *with* TX 3020 at 7-8. This real-world evidence is consistent with economic logic showing that even larger noncommercial broadcasters would negotiate lower rates for above-threshold performances than those charged to commercial entities. *See* Cordes CWDT ¶¶ 21-24; 8/20/20 Tr. 3256:1-3, 3266:1-3267:17, 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:5-10 (Burkhiser); Steinberg AWDT ¶¶ 19-22, 40, 44-45 & n.19; 8/26/20 Tr. 4001:10-22, 4002:1-24, 4080:11-16 (Steinberg). "[A]s long as there is different willingness to pay, there's a different market segment, and we would naturally expect different prices in each segment." *Id.* at 4002:19-24; NRBNMLC PFFCL ¶¶ 44-110.

1378. Disputed. UMG sits on SoundExchange's Board; it supported the NPR agreements that drive the NRBNMLC's rate proposal. Harrison WDT ¶ 80; Ploeger WRT App. A ¶ 5.

1379. Disputed. Contrary to SoundExchange's assertion, there are very real differences to listeners between noncommercial and commercial webcasters and numerous economic and empirical reasons why these different types of webcasters would negotiate different rates at all levels of listenership, as addressed in *supra* paragraph 1345. SoundExchange misleadingly attempts to self-define noncommercial versus commercial programming as just a single out-of-

context input to that programming while ignoring the many other types of content that differentiate that programming. *Supra* ¶ 1345.

Moreover, Mr. Orszag's attempt to equate the many advertisements aired on commercial programming with what he terms on-air "appeal[s] for money" that he alleges interrupt noncommercial programming profoundly misunderstands the effect of nonprofits' mission focus and the nondistribution constraint on how noncommercial broadcasters approach funding their operations. By definition, commercial entities seek to maximize profits and face pressure from their owners and shareholders to do so, which incentivizes them to maximize their listeners and run as many advertisements as will garner the highest profits. Steinberg AWDT ¶ 19. The owner of a commercial Christian station cited by SoundExchange (WXOK) makes this point explicitly, stating that "[t]he number of advertisements that can be broadcast by a station without jeopardizing listening levels and the resulting ratings is generally dictated in part by the format of a particular station and the local competitive environment." TX 3042 at 5.

By contrast, "nonprofits are mission- rather than profit-driven. With no shareholders demanding return on their investment, nonprofits are free to pursue their charitable and educational missions subject only to the need to remain solvent." Steinberg AWDT ¶ 15; Burkhiser WDT ¶ 53; 8/26/20. Nonprofits thus may "pursue charitable missions that are not rewarded in the marketplace" and that are "not particularly profitable." 8/26/20 Tr. 3996:2-3997:4 (Steinberg). "[E]ducational and religious messages are the favored activity, and <u>fundraising is a disfavored activity since it uses up on-air time that would otherwise be devoted to promoting the educational and religious mission</u>." Steinberg AWDT ¶ 19 n.5 (emphasis added). Noncommercial broadcasters therefore avoid fundraising except as necessary to continue to pursue their missions. *See* Emert (*Web IV*) ¶ 37 ("***NewLife FM*** … needs to know how much time

it will have to divert from its core activities to sharathons and other fundraising efforts to attempt to raise the money it needs to continue its outreach."); Burkhiser WDT ¶ 54 ("Family Radio itself does not even seek out or broadcast appreciable amounts of [corporate] sponsorships … .").

Mr. Orszag admitted that he had never analyzed "how frequently those – those fund-raising appeals might appear versus how frequently advertisements might appear on non-commercial programming" and presented no evidence that such appeals are remotely as frequent as are ads on commercial stations. 8/13/20 Tr. 1967:8-13 (Orszag). He also admitted that he is not an expert "on the types of programming played on non-commercial religious radio stations," did not "speak with any non-commercial radio broadcasters in forming the opinions in [his] direct or rebuttal testimony," and, indeed, does not typically even listen to religious programming. *Id.* at 1971:3-13, 1972:18-21, 1973:7-10. Professor Steinberg found Mr. Orszag's claims that "a willing seller would not agree to sell its product at a lower price" to a large noncommercial webcaster "striking because SoundExchange has just done that when it had signed with NPR, its licensing agreement." 8/26/20 Tr. 4023:2-13 (Steinberg).

1380. Disputed. The real world facts, consistent with sound economic principles discussed by experts who, unlike SoundExchange's experts, specialize in the economics of non-profits, show that the record companies repeatedly have agreed to accept lower rates from NPR-affiliated noncommercial broadcasters, which include broadcasters with large listenership. TX 3020; TX 3021; 8/26/20 Tr. 4023:2-15 (Steinberg); 8/20/20 Tr. 3271:18-3274:215 (Cordes).

a. Unlike Commercial Music Stations, Noncommercial Music Stations Do Not Use Music To Monetize Their Audience But To Advance Their Missions

1381. Disputed. The above-threshold entities overwhelmingly are radio broadcasters, where nonmusic content even on a music station is much more important than it is for music services and is an important programming differentiator, as discussed in *supra* paragraph 1376.

Moreover, noncommercial broadcasters, like Family Radio, frequently broadcast a mixed format of both music and talk/teaching programming and do not select music primarily to "appeal to their audiences" or entertain but to advance their missions. Steinberg AWDT ¶¶ 19, 49; 8/26/20 Tr. 3998:20-4000:2 (Steinberg); 8/20/20 Tr. 3262:12-3263:8 (Cordes); Burkhiser WDT ¶¶ 11, 14, 51; Emert WDT (*Web IV*) ¶¶ 9, 16; *supra* ¶ 1345.

Further, SoundExchange improperly cites an exhibit in this paragraph that is not in the record without even identifying it as such – TX 5271; 8/31/20 Tr. 4798:7-15. Even as a substantive matter, that exhibit does not support SoundExchange's claim regarding alleged competition. The exhibit is a study "conducted by a marketing and branding company that Family Radio [had] engage[d], but based on the results, "it was very clear that they weren't familiar with Christian or commercial or non-commercial broadcasting, … they were pretty secular in nature, and so [Family Radio] disengaged them" and "did not implement or adopt their recommendations." *Id.* at 4801:16-4802:3 (Burkhiser). As just one example of the company's tone-deafness regarding noncommercial Christian broadcasters, it identified [redacted] as relevant to Family Radio. TX 5271 at 17. [redacted] target audience of 18-34 year old females, however, is completely different from Family Radio's audience, which is [redacted]. *Compare* TX 5269 at 5 *with* TX [redacted]. SoundExchange also cites TX 5266, but Family Radio's then-Programming Director specifically states that Family Radio's "format is music <u>and talk</u>," and he [redacted], which can scarcely be described as the type of music that most music services are clamoring to play. TX 5266 (emphasis added).

1382. Disputed. Mr. Orszag profoundly misunderstands the effect of the mission objective and nondistribution constraint on how noncommercial broadcasters approach funding

their operations for the reasons discussed in *supra* paragraph 1379. Noncommercial broadcasters do not provide programming to "monetize an audience" but to fulfill their educational, charitable, and religious missions by inspiring and educating their audiences. Emert WDT (*Web IV*) ¶ 36 ("[W]e] provide a ministry to our listeners to enrich their lives and further our educational and spiritual missions, and any desire on our part to reach more listeners is driven by a desire to benefit them, not profit from them."). Moreover, noncommercial broadcasters do not need any donations from listeners to continue to operate so long as interested persons who share the nonprofit's mission objective support them at a level sufficient to keep them solvent. 8/13/20 Tr. 1967:14-16, 20-23 (Orszag) (agreeing that "at least some listeners to a non-commercial radio station probably don't donate" and admitting that he had not "performed an analysis of donations versus ears"); *id.* at 1968:22-1969:10 (observing that with respect to the NCAA, athletic output does not necessarily correlate with higher donations and that some evidence "shows that increases in successes on the field caused a reduction in giving in the academic side"). As Mr. Orszag acknowledged, "a lot of people who contribute to a non-commercial or nonprofit … are not doing it because of … the number of hours they are listening to it, but they think this is bettering society as a whole." *Id.* at 2053:22-2054:1. Money is simply a means to advance a socially desirable mission; it is not the end objective that it is for commercial entities. *See* Steinberg AWDT ¶ 15 (observing that "nonprofits are mission-, rather than profit-driven" and that the absence of any "financially motivated market for the control of nonprofit organizations" ensures that nonprofits are not forced "to compromise their mission in order to obtain higher profits"); 8/20/20 Tr. 3259:4-14 (Cordes). Fundraising is viewed as an undesirable mission-obstructing burden that noncommercial broadcasters shun to the extent possible. Steinberg AWDT ¶ 19 n.5. Nonprofits often make decisions that are antithetical to earning profits. Burkhiser WDT ¶ 48 ("We are so committed to entering into the right partnerships with other ministries that we do not charge our partners for air time

in our 90-signal network even though we are foregoing a significant source of income in doing so."); *id.* ¶ 54 ("Family Radio itself does not even seek out or broadcast appreciable amounts of such sponsorships …."). Finally, SoundExchange's reliance on unadmitted TX 5271 is improper and misplaced. *Supra* ¶ 1381.

1383. Disputed. For nonprofits, "fundraising is a disfavored activity since it uses up on-air time that would otherwise be devoted to promoting the educational and religious mission." Steinberg AWDT ¶ 19 n.5. For reasons described in paragraphs 1345 and 1379, the listener experience, including the nature and scope of so-called programming "interruptions," is very different. 8/31/20 Tr. 4764:2-24 (Burkhiser). Further, noncommercial broadcasters do not view their audience as a "monetization" source. Emert WDT (*Web IV*) ¶ 36; *supra* ¶ 1382.

1384. Disputed. SoundExchange's use of the word "popular" is subjective and misleading, as it depends on the audience. Professor Steinberg made clear that "[p]opular songs that bring in lots of listeners but do not advance the educational mission will not be selected; rather, songs need to have an impact on the types of listeners they seek to reach and only in that focused sense are "popular" with that specific population, which "often differs from that of the commercial station." Steinberg AWDT ¶ 19; 8/26/20 Tr. 4007:6-23, 4047:12-4048:9 (Steinberg). This leads to different programming decisions, and "the music would differ accordingly." *Id.* at 4048:3-9; Steinberg AWDT ¶ 19. This is "especially so because NCE webcasters are prohibited from monetizing listenership through advertising." *Id.* Further, there is no necessary proportional link between the number of listeners to a noncommercial broadcaster and the donations that the broadcaster receives. "[W]e do not have any reason to believe that donations are proportional to broadcast listenership," and "it is unclear whether donations increase at all in response to <u>webcast</u> listenership." *Id.* ¶ 20. Many donors' giving is not associated with listenership but with a desire to "better[] society as a whole." 8/13/20 Tr. 2053:22-2054:1 (Orszag). In the case of NCAA, Mr.

Orszag, in fact, studied whether collegiate athletic success led to higher donations to the schools and found that some research showed an inverse relationship between a college's athletic output and its donations. *Id.* at 1967:24-1969:10. Moreover, noncommercial broadcasters do not provide programming to an audience to monetize it. Emert WDT (*Web IV*) ¶ 36; *supra* ¶¶ 1381-1382.

b. Even Commercial and Noncommercial Radio Stations of the Same Musical Genre Provide Differentiated Programming

1385. Disputed. Mr. Orszag did not provide a single such example pertaining to noncommercial broadcasters, as he did not examine the overall programming of those broadcasters versus commercial services. 8/31/20 Tr. 4764:2-24 (Burkhiser); Steinberg AWDT ¶ 49; *supra* ¶¶ 1345, 1379.

1386. Disputed in part. EMF is a noncommercial broadcaster whose mission impact is substantial, but any implication in this paragraph that K-LOVE's programming is "not clearly differentiated" from commercial programming is unfounded and wrong. EMF broadcasts and simulcasts a "non-commercial, religious and educational format providing music, news, and religious educational programs and announcements" and, like all noncommercial broadcasters, has a nonprofit mission focus. TX 5473 at 2. SoundExchange has made no showing otherwise, as it presented no evidence comparing K-LOVE's overall programming content with that of any commercial Christian webcaster.

1387. Disputed. The word "hundreds" is inflated and misleading, as Mr. Ploeger only used that term to refer to licensees that may have played one song by one artist in "a group of eight top Christian artists of 2018." Ploeger WRT ¶ 23. Mr. Ploeger also testified that SoundExchange identified only "23 commercial broadcasters" with "at least one station … broadcasting in a Christian music format, as well as a couple of internet-only Christian

commercial webcasters." *Id.* That number is only 1.22% of the 2103 commercial licensees in 2018. *Id.* App. A ¶ 33. In any event, there are plenty of commercial licensees who play genres transmitted by NPR stations. TX 3035; 9/9/20 Tr. 5842:14-17 (Ploeger). Pandora alone, for example, offers some 27 classical stations (not counting listener generated stations), 30 jazz stations, and 41 alternative stations. *See* TX 3069; TX 3030; TX 4000.

1388. Disputed. SoundExchange never compared "programming," even between noncommercial and commercial Christian broadcasters. It only presented a deeply flawed study regarding sound recordings. Ploeger WRT ¶ 25. Moreover, SoundExchange improperly quoted a hearsay statement for its truth from an unadmitted Internet article quoted by a fact witness who does not even listen to Christian radio, is not an industry expert, and has no foundation to make that statement. Mr. Ploeger does not know the author of this article and never independently verified any of the statements in it. 9/9/20 Tr. 5837:15-5838:3 (Ploeger). The statement is the subject of a pending motion. *The Services' Motion Objecting to Portions of SoundExchange's Written Testimony*, Ex. A at 90 (July 10, 2020) ("Servs.' Test. MIL").

1389. Disputed. SoundExchange provided no evidence of when or why SomaFM purportedly switched to being a noncommercial webcaster or whether it paid special, lower rates when it purportedly was a commercial webcaster; licensee data shows that Soma FM has been a noncommercial webcaster since at least 2016. TX 3038.

1390. Disputed. Mr. Orszag made this assertion with respect to Prazor and never once mentioned SomaFM. SomaFM's listenership did not exceed the minimum fee. Ploeger WRT ¶ 46 n.38. Moreover, Prazor did not remotely approach the ATH threshold. TX 3038. Further, record companies through SoundExchange agreed to accept much lower license fees from NPR

stations even though those stations were a primary focus of SoundExchange's cannibalization argument when it was first made. *Web II*, 72 Fed. Reg. at 24098.

c. Flaws in SoundExchange's Claim that Commercial and Noncommercial Services Use Similar Christian Music

1391. Disputed and irrelevant. SoundExchange only considered a single genre within Christian music in asserting alleged overlap – Christian AC – so it has no basis for claiming overlap as to any other format. Ploeger WRT ¶¶ 25-26. Even within Christian AC, its review of licensee data only purported to compare artists – not specific recordings – at a cursory level. *Id.* ¶ 23. The playlist overlap study it also presented considered only 10 noncommercial and 10 commercial radio stations and was not shown to be representative of the broader universe of noncommercial or commercial Christian AC stations specifically or noncommercial licensees more generally. 8/13/20 Tr. 2025:5-2028:20 (Orszag).

1392. Disputed in part. While the Services do not dispute that Christian webcasters webcast Christian music, SoundExchange provided no definition of "popular" and no basis for assessing whether the Christian music that was transmitted was "popular." Ploeger WRT ¶ 18.

1393. Disputed. The "hundreds" of licensees allegedly playing at least one song by a Christian artist is inflated and misleading. *See supra* ¶ 1387. Moreover, SoundExchange's playlist review did not examine whether the same recordings were played by each type of service but only looked more generally at whether the same artists were played, and it did not measure frequency of play on the respective services. TX 3048; Ploeger WRT ¶ 23.

1394. Disputed. Radio Training Network does not monolithically broadcast JOY FM across its network but operates 16 different stations in various areas. TX 5068; TX 5241 at 2. TX 5230 concerns only a single such station – The JOY FM – Florida.

1395. Disputed. Family Radio transmits a hymns format, not contemporary Christian music. Burkhiser WDT ¶ 14; 8/31/20 Tr. 4752:13-17 (Burkhiser). Even a cursory review of TX 5231 and TX 5232 reveals as much. Out of the 50-page non-Christmas playlist including hundreds of songs and other non-music programming elements, Family Radio played only 6 recordings of the Christian artists mentioned by SoundExchange a total of 9 times. TX 5232. On the 54-page Christmas playlist, Family Radio played only 10 unique recordings by these artists, at least half of which were Christmas carols, and 9 unique recordings by the general audience artists, all of which were Christmas carols. TX 5231.

1396. Disputed. For multiple reasons, the study involving Mediabase data does not provide meaningful overlap evidence. *Infra* ¶¶ 1397-1400; NRBNMLC PFFCL ¶¶ 229-243. It is irrelevant and uninformative regarding listener behavior because it did not examine stations in the same area or stations' overall programming, nor did it "replicate the real world in behavior of consumers." 8/13/20 Tr. 2020:5-17, 2039:5-8, 2039:23-2040:10 (Orszag); Ploeger WRT App. C. It also looked at only 10 commercial and 10 noncommercial stations in a single format that were not shown to be representative of either all stations in that format or all noncommercial or commercial licensees overall. 8/13/20 Tr. 2025:5-2028:20 (Orszag). Moreover, the presenter of the study did not present in his testimony and was unable to describe at his deposition how the allegedly "random" draws were performed, and he admitted that the stations had to be redrawn because they were imbalanced but did not present in his testimony or know at his deposition how the redraw was performed. Ploeger WRT ¶ 25; 9/9/20 Tr. 5849:15-21, 5850:5-5851:8 (Ploeger). Nor did he know why the number 10 was chosen for each group or why a calendar quarter was chosen. *Id*. at 5847:21-5849:14.

1397. Disputed. The cited testimony only says that "a large amount" – not "the overwhelming majority" – of SoundExchange's noncommercial royalties is from contemporary Christian music. *Id.* at 5806:10-15. The study monitored only this format and overlooked the many other Christian formats, and Mr. Ploeger did not know who decided to look only at Christian AC or whether the designers considered looking at other formats. *Id.* at 5797:20-5798:9, 5847:2-20; 8/13/20 Tr. 2023:23-2024:2 (Orszag). Moreover, the larger royalties that SoundExchange receives from Christian music are due to the surcharge that religious stations have had to pay for the past few years vis-à-vis NPR stations. NRBNMLC PFFCL ¶¶ 32-38. If noncommercial rates were in parity with those charged to NPR stations, SoundExchange would receive more comparable royalties for each of classical, jazz, adult alternative, and Christian music stations. *Id.*; TX 3020; TX 3034; TX 3038; 37 C.F.R. § 380.10(a)(2).

1398. Disputed. The stations were not shown to be representative, and no information regarding the allegedly random nature of the draws was presented. *Supra* ¶ 1396; NRBNMLC PFFCL ¶¶ 229-243. Further, fully half of the commercial stations were owned by the same company, of which only a small fraction of stations broadcast in the Christian AC genre, so "varying ownership" is misleading. Ploeger WRT App. C; 9/9/20 Tr. 5851:9-14 (Ploeger); TX 3049. Not a single pair of stations operated in the same market such that the same listeners would be more likely to encounter any given pair of such stations. Ploeger WRT App. C.

1399-1400. Disputed. While the numbers are not in dispute, their asserted significance is. *Supra* ¶¶ 1396-1398; NRBNMLC PFFCL ¶¶ 229-243. The study did not assess the full programming content of each of the stations but instead misleadingly extracted only one element – recordings – in its overlap test and thus did not measure the actual listener experience, which would be necessary to assess the alleged substitutability or lack thereof of these stations'

programming. 8/13/20 Tr. 2039:5-8, 2039:23-2040:10 (Orszag); Cordes CWDT ¶ 29. Nor did it test frequency of overlap or whether the overlap occurred at the same or different times of day, week, or quarter. 8/13/20 Tr. 2032:5-2033:7 (Orszag). The test of artist overlap did not even measure the specific recordings that listeners actually heard, which may vary greatly in style and character within the same artist's repertory. Moreover, viewing 10-station groups collectively significantly inflates overlap numbers and distorts how listeners actually experience a radio station. *Id.* at 2030:11-2031:2. For example, if one compares the head-to-head overlap of commercial WDJC and noncommercial WLGH, only [redacted]% of WDJ's recordings and [redacted]% of its plays overlapped with those of WLGH. TX 3040 "WDJC" & "WLGH." Only [redacted]% of WLGH's recordings and [redacted]% of its plays overlapped with WDJC's. *Id.* Those numbers are far lower than the overlaps between the aggregate groups. *Id.*; SX PFFCL ¶¶ 1399-1400; *see also Supra* ¶¶ 1396-1398; NRBNMLC PFFCL ¶¶ 60-72, 229-243.

SoundExchange also presented no similar evidence of overlapping music played by NPR stations versus commercial webcasters even though the most common NPR formats also are found on commercial services. 9/9/20 Tr. 5806:16-19, 5842:14-17 (Ploeger); TX 3030, TX 3035; TX 3069. Thus, even if overlapping sound recordings alone provided useful evidence regarding potential listener diversion – which it does not – there is no evidence regarding any relative differences in alleged overlap between NPR and non-NPR broadcasters and other services and no basis for adjusting the NPR benchmark up or down based on that factor. *Web IV*, 81 Fed. Reg. at 26326; *accord Web II*, 72 Fed. Reg. at 24092, 24095; *SDARS III*, 83 Fed. Reg. at 65214.

At bottom, the overlap study merely amounts to a meaningless and somewhat tautological exercise that if one looks at enough stations in an amorphous bundle that are self-limited to the

same format, there will be overlapping recordings. That says nothing about alleged listener cannibalization.

1401. Disputed. While the numbers cited in this paragraph are not disputed, "contemporary Christian music stations in general" are not "broadly similar," and the playlist study does not support that statement. The stations used in the study were not shown to be representative of all commercial and noncommercial contemporary Christian music stations, and the study itself did not consider similarities or differences in the stations' programming overall, which cannot be measured by looking only at sound recordings out of context. 8/13/20 Tr. 2020:5-17, 2025:5-2028:20 (Orszag); 8/31/20 Tr. 4764:2-24 (Burkhiser); Burkhiser WDT ¶ 53; *supra* ¶¶ 1345, 1376. Further, station-to-station overlap numbers are much lower than aggregate numbers. *Compare*, *e.g.*, TX 3040 "WDJC" & "WLGH" *with* SX PFFCL ¶¶ 1399-1400; *see supra* ¶¶ 1396-1400; NRBNMLC PFFCL ¶¶ 60-72, 229-243.

1402. Disputed in part. While the numbers cited in this paragraph are not disputed, their relevance is. 8/13/20 Tr. 2020:5-17, 2025:5-2028:20 (Orszag); *supra* ¶¶ 1396-1401; NRBNMLC PFFCL ¶¶ 60-72, 229-243.

1403. Disputed. The 20 limited stations in a single format of Christian music, out of the "very large number" of noncommercial and commercial Christian stations operating in the U.S., say nothing about alleged overlap in other formats, and were not shown to be representative even of the Christian AC format that they broadcast. 8/13/20 Tr. 2025:5-2028:20 (Orszag). Further, no evidence shows any relative noncommercial-commercial overlap of Christian music versus music played on NPR stations. 9/9/20 Tr. 5806:16-19 (Ploeger). More fundamentally, musical overlap alone – particularly on stations in different geographic areas – does not translate to

listener differentiation or cannibalization. 8/26/20 Tr. 4009:17-4010:18 (Steinberg); Emert WDT (*Web IV*) ¶ 28; Newberry WDT ¶ 18; Cordes WDT ¶ 29; *supra* ¶¶ 1374, 1376.

d. Noncommercial Religious Broadcasters Do Not Compete with Commercial Religious Broadcasters

1404. Disputed. Merely because commercial Christian stations market a product with a Christian flavor does not mean that noncommercial stations compete with them. Cordes CWDT ¶ 32; 8/20/20 Tr. 3272:22-3274:25 (Cordes); Steinberg AWDT ¶ 24. Moreover, unlike noncommercial broadcasters, commercial Christian stations – including the very stations cited by SoundExchange – focus heavily on profit-maximization and how to monetize their audiences. KPWJ openly invites businesses to advertise "on Aggieland's hit Christian station," claiming that it will "amplify[] your business across the Brazos Valley," and includes ads for a weight loss company, restaurants, and a private school on its website. TX 3070 at 3; TX 3071 at 1; TX 5233 at 1, 3, 9.

WXOK similarly invites businesses to advertise with it, offering "[t]he coordinated advertising campaign that delivers results. Guaranteed." TX 3074 at 1. It is owned by Cumulus, which very much focuses on profit-maximization. "Substantially all of [its] revenues are from advertising," and it describes its business strategy as follows:

> We are focused on building [its] competitive position in the expanding audio landscape by achieving leadership positions in the markets in which we operate and leveraging those positions in conjunction with our network platform, national scale, and local advertiser relationships to build value for all of our stakeholders.

TX 3042 at 5, 91. It does so, *inter alia*, by "enhancing operating performance to drive cash flow generation" and "optimizing [its] asset portfolio." *Id.* at 5-6. It "offer[s] advertisers access to a broad portfolio of 428 owned and operated stations, operating in 87 markets and nearly 8,000 network affiliates with an aggregate monthly reach of over a quarter billion listeners" that "cover a wide variety of programming formats, geographic regions and audience demographics." *Id.* at

6; *see also id.* at 7, 22; TX 3072 at 1; TX 3073 at 1-2; NRBNMLC PFFCL ¶¶ 61-62. This heavy focus on profits creates a sharply different listener experience. *Supra* ¶ 1345.

1405. Disputed in part. While the statements are not in dispute, they do not present a full picture of the scope and focus of Salem's radio operations, which include only 12 contemporary Christian stations out of 100. TX 3049 at 1. Most broadcast talk programming. *Id.*

1406. Disputed in part. Whether some of the same artists are played on commercial and noncommercial Christian stations is irrelevant to the overall programming characteristics of these different groups of stations and says nothing about the extent to which the same or different recordings are played. *Supra* ¶ 1376. Moreover, as SoundExchange concedes, only three out of twelve of Salem's listed "core artists" were also identified as a "Top Artist" on EMF's website as of December 17, 2019. As of October 16, 2020, only one of Salem's twelve "core artists" – Chris Tomlin – was listed as a "Top Artist" on EMF's K-LOVE website, showing almost no "core" overlap even at the artist level. TX 5603 ¶ 160 & nn. 322-323 (citing http://www.klove.com/music/artists/). The Services are unable to verify or dispute whether all of Salem's "core artists" were also included on EMF's broad artist list as of December 17, 2019.

1407. Disputed in part. While the statements regarding the top 10 most played recordings are not in dispute, they are irrelevant in assessing similarities or differences in overall programming. *Supra* ¶ 1376. Even given the irrelevance of the Mediabase data, WFFH still played [redacted] recordings out of the [redacted] unique recordings on its playlist – over [redacted]% – that WMHK did not play in the entire calendar quarter. TX 3040 (Tabs [redacted]).

1408. Disputed. SoundExchange improperly cited to a hearsay study (TX 5261) and statements from an Internet article, neither of which has been admitted, without identifying them as such. 8/27/20 Tr. 4474:3-22. Servs.' Test. MIL at 9. SoundExchange claimed that TX 5261 is

a party-opponent admission, but it is a [redacted] document that SoundExchange is not using against [redacted] but rather against the NRBNMLC and thus not a party-opponent admission. Fed. R. Evid. 801(d)(2). The NRBNMLC was precluded at trial from presenting evidence that contradicted any inference of competition based on this inadmissible hearsay document discussed in SoundExchange's rebuttal testimony. 8/26/20 Tr. 4008:9-4009:15. It is highly improper for SoundExchange to rely on third-party hearsay for its truth, which the NRBNMLC cannot cross-examine, when the NRBNMLC was precluded from presenting evidence that came from EMF's radio broadcast head who had firsthand knowledge of the lack of competition.

Despite the unequal playing field, TX 5261, if anything, shows "clear evidence of" [redacted]. To begin with, that study [redacted] and says nothing about whether [redacted]; there is no evidence that EMF views WFSH as a competitor, that it operates this station to compete with WFSH, or that it even wants to compete with WFSH. There is, however, ample evidence that noncommercial entities do not view commercial Christian stations as competitors. 8/31/20 Tr. 4765:17-4766:1 (Burkhiser) (testifying that Family Radio does not "view itself as a competitor with commercial Christian stations" but "totally focus[es] on ministry" and views commercial Christian stations as "complementary, rather than any competition"); *id.* at 4804:2-11 ("I never have heard any kind of talk about competition with another Christian broadcaster, commercial or … otherwise."); Cordes WDT ¶ 32; 8/20/20 Tr. 3272:22-3274:25 (Cordes); Steinberg AWDT ¶ 24.

More to the point, [redacted]. Consistent with noncommercial entities' aim to achieve their mission in areas where that mission is not pursued by others, [redacted]

[redacted]. 8/26/20 Tr. 4008:9-23 (Steinberg); TX 5261 at 4, 121. Moreover, [redacted]. *Id.* at 46. Further, "[redacted]," whereas "[redacted]." *Id.* at 29, 43 (emphasis added). In other words, even among religious listeners, [redacted]. Among [redacted]. *Id.* at 19, 30, 43. Further, only [redacted]," which shows that [redacted]. *Id.* at 193. The study concluded that "[redacted]!" *Id.* at 8, 10, 103. In short, even the inadmissible [redacted] touted by SoundExchange shows a [redacted] between even a commercial and a noncommercial Christian station operating in the same format and the same geographic area.

1409. Disputed. Merely because a third party identified a Salem and a K-LOVE station operating in the broad genre of Christian music as "similar" does not suggest significant listener cannibalization between the two, as TX [redacted] shows. Indeed, iHeart also identifies a station that plays "gospel and inspirational" music as "similar" even though that music is not even in the same genre as contemporary Christian music. www.iHeart.com. SoundExchange cannot overcome the significant structural, operational, and programmatic differences between commercial and noncommercial services based on a single phrase on a third-party platform. Cordes CWDT ¶¶ 19, 26, 29; *supra* ¶ 1345; NRBNMLC PFFCL ¶¶ 57-72.

1410. Disputed. SoundExchange improperly cited unadmitted hearsay documents TX 5269 and TX 5271 without identifying them as such. 8/27/20 Tr. 4474:3-22; 8/31/20 Tr. 4798:7-15. TX 5269 was a study prepared by an outside engineering consultant of "his own volition" that was "not his area of expertise" and not "implemented by Family Radio." 8/31/20 Tr. 4799:3-4801:1 (Burkhiser). TX 5271 is a study by a company that was not "familiar with Christian or commercial or non-commercial broadcasting," "so [Family Radio] disengaged them" and "did not implement or adopt their recommendations." 8/31/20 Tr. 4801:16-4802:3 (Burkhiser).

Nor are the exhibits "evidence of competition between [redacted]." SoundExchange claims that TX 5269 [redacted], but the [redacted] does not even transmit music but "Christian Teaching & Talk." TX 3049. The [redacted]; the document nowhere discusses [redacted]. TX 5269 at 9. TX 5271 was a study conducted by a company disengaged by Family Radio precisely because it did not understand noncommercial versus commercial broadcasting, as it apparent from the face of the document. 8/31/20 Tr. 4801:16-4802:3 (Burkhiser). To illustrate, the document identified [redacted]. TX 5271 at 17; TX [redacted] at 1. That is far different from Family Radio's [redacted] audience. TX 5269 at 5.

1411. Disputed in part. While the Services do not dispute that nonprofit entities are not precluded from competing with commercial entities *per se*, such competition is highly unlikely regarding broadcasters. Professor Cordes testified as much in the very exchange that SoundExchange selectively quoted, stating that while it's "not impossible" that a large noncommercial broadcaster "might in some sense have the potential to compete" with a

commercial entity, the noncommercial broadcaster is "offering a differentiated product," which would deter them from doing so. 8/20/20 Tr. 3272:22-3274:25, 3276:19-3277:11 (Cordes); Cordes CWDT ¶¶ 27-32; Steinberg AWDT ¶¶ 19-22.

1412. Not disputed.

1413. Disputed. SoundExchange grossly mischaracterizes Professor Cordes' testimony and conflates two different concepts regarding the phrase "become more commercial." Nowhere did Professor Cordes suggest that tax exemption benefits incentivize nonprofits inherently to "become more commercial in nature." Rather, the incentive that he discussed was one that some non-profits may have to earn income from sources that have nothing to do with their primary mission – *i.e.*, unrelated business income. 8/24/20 Tr. 3322:17-3323:12 (Cordes). It was that unrelated business income – not the mission-oriented nonprofit itself, that Professor Cordes called "commercial in nature" in the quote that SoundExchange cited. *Id.* at 3307:12-20.

Professor Cordes also made clear that his article had no application to incentivizing a noncommercial webcaster to compete with a commercial webcaster, as that would not involve an "unrelated" activity but a wholesale substitution of one activity – commercial webcasting – for another activity – noncommercial webcasting – in a way that would fundamentally transform the nature of the nonprofit into a for-profit enterprise:

> there's nothing in the economic literature on nonprofits that has ever shown or discussed the possibility that that would cause a nonprofit to try to earn income directly from pursuing its primary mission-related activity. I believe – again, I am not a – I'm not a tax lawyer; I'm a tax economist – because exemption is being granted so that they can pursue their tax-exempt business. If, in fact, they are competing with a commercial broadcaster, they may, in fact, be moving away from what they've described as their tax-exempt mission, education, nourishing the faith, et cetera, et cetera.

Id. at 3327:6-18. He further testified that "competing with a commercial webcaster … runs flat against [a noncommercial webcaster's] mission" and is "highly unlikely," as that nonprofit

would have "decided really that essentially they want to change their business model, and … start competing" and would "no longer [be] a mission-oriented nonprofit when they do that." *Id.* at 3329:22-3330:13.

Even with respect to the actual premise of his article pertaining to an incentive to seek unrelated business income, Professor Cordes examined the Form 990s of the top five noncommercial broadcasters with the most usage "to test the extent to which they reported unrelated business income." *Id.* at 3330:16-21. He found that three of them had no such unrelated income at all, and the other two reported only "very small amounts relative to their overall revenue of unrelated business income." *Id.* at 3330:22-3331:7. He further stated that that was common for "most nonprofits that engage in unrelated business income." *Id.* at 3331:7-8. Indeed, these broadcasters had been paying much lower marginal rates above the threshold until only four years, ago, and there is no evidence that those lower rates caused any of them to attempt to operate a webcasting service that competed with commercial entities (which in any event would contravene their core non-profit mission and risk their tax-exempt status). 26 U.S.C. § 501(c)(3) (requiring tax-exempt non-profits to operate "exclusively" for, *inter alia*, charitable, educational, and religious purposes). In any event, that would not matter to the NRBNMLC's proposed rate unless it were shown that there was a relative difference in unrelated business activity between NPR and non-NPR broadcasters. *Web II*, 72 Fed. Reg. at 24095.

1414. Disputed. There is a strong economic and empirical basis for licensing above-threshold noncommercial broadcasters at rates significantly below the current noncommercial rates, as all major record labels agreed to do through SoundExchange for NPR-affiliated noncommercial broadcasters. TX 3020 at 7-8; TX 3022. This real-world evidence is consistent with economic logic showing that large noncommercial broadcasters would negotiate lower rates

for above-threshold performances than those charged to commercial entities. *See* Cordes CWDT ¶¶ 21-24; 8/20/20 Tr. 3256:1-3, 3266:1-3267:17, 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:5-10 (Burkhiser); Steinberg AWDT ¶¶ 19-22, 40, 44-45 & n.19; 8/26/20 Tr. 4001:10-22, 4002:1-24, 4080:11-16 (Steinberg). "[A]s long as there is different willingness to pay, there's a different market segment, and we would naturally expect different prices in each segment." *Id.* at 4002:19-24; NRBNMLC PFFCL ¶¶ 44-110.

e. In an Unregulated Market, Even Commercial and Noncommercial Services with Some Musical Overlap Would Pay Significantly Different Rates for Music

1415. Disputed. These assertions are based on the unsupported premises that the larger noncommercial broadcasters in this case "provide similar programming" to commercial webcasters. SoundExchange never considered all programming when it purported to test overlap but looked only at artists and a narrow subset of recordings. Ploeger WRT ¶¶ 23, 25. Above-threshold noncommercial services overwhelmingly are radio broadcasters, not music services, and the respective listener experiences to commercial and noncommercial radio broadcasters cannot be meaningfully compared by looking only at music in isolation. *Id.* App. E; *supra* ¶ 1376. There is plenty of evidence that their programming is different. Steinberg AWDT ¶ 49, 52; Cordes CWDT ¶ 26, 29; 8/20/20 Tr. 3276:19-3277:11 (Cordes); Burkhiser WDT ¶ 14, 42, 46-53; 8/31/20 Tr. 4764:2-24 (Burkhiser); *supra* ¶ 1345. Even if two radio stations simulcast similar overall programming, the listeners they seek to, and do, reach overwhelmingly are local, so there would be almost no chance of substantial listener overlap if they do not operate in the same area. Emert WDT (*Web IV*) ¶ 28; 8/31/20 Tr. 4758:7-4759:2 (Burkhiser); Newberry WDT ¶ 18; 8/26/20 Tr. 4010:1-5 (Steinberg). There is no likelihood or evidence of significant cannibalization. *Supra* ¶ 1374; Steinberg AWDT ¶¶ 13-22, 25, 42-53, 58; 8/26/20 Tr. 3997:9-22, 3999:3-10, 4006:17-21, 4007:19-22, 4008:9-23, 4009:17-25, 4010:1-18, 4011:15-4012:5, 10-11

(Steinberg); Cordes CWDT ¶¶ 16, 19, 26, 29; 47 C.F.R. § 73.503(a), (d); Burkhiser WDT ¶¶ 11-13, 29, 34; 8/31/20 Tr. 4752:2-10, 4752:20-4753:1, 4758:12-4759:2, 4763:12-13, 4764:5-24 (Burkhiser); 8/20/20 Tr. 3265:4-16, 3278:1-10 (Cordes); 8/13/20 Tr. 1990:1-11 (Orszag); 9/3/20 Tr. 5599:17-21 (Adadevoh); 9/3/20 Tr. 5740:14-25, 5741:1-11 (Harrison); 9/2/20 Tr. 5444:7-14 (J. Fowler); 9/2/20 Tr. 5394:25-5395:18, 5396:25-5397:3 (Piibe); Emert WDT (*Web IV*) ¶ 28; NRBNMLC PFFCL ¶¶ 201-247. Moreover, record companies already agreed to accept rates that are far below the current noncommercial rates from NPR-affiliated stations, which refutes SoundExchange's assertions. TX 3020 at 7-8; TX 5068; NRBNMLC PFFCL ¶¶ 32-38.

1416. Not disputed.

1417. Disputed. Listener diversion is not self-evident for noncommercial radio broadcasters. *Supra* ¶ 1376. If asserted noncommercial cannibalization were really the problem that SoundExchange claims, record companies would have studied it given the multitude of other studies in the record, but none of the majors were aware of any such study, nor was Mr. Orszag. 9/3/20 Tr. 5599:17-21 (Adadevoh); 9/3/20 Tr. 5740:14-5741:11 (Harrison); 9/2/20 Tr. 5394:25-5397:3 (Piibe); 9/2/20 Tr. 5444:7-14 (J. Fowler); 8/13/20 Tr. 1990:1-11 (Orszag); Steinberg AWDT ¶ 48; NRBNMLC PFFCL ¶¶ 219-223. It is at least as likely that noncommercial simulcasting enhances, rather than detracts from, label royalties. 8/26/20 Tr. 4011:6- 4013:1 (Steinberg). Moreover, record companies already agreed to give large NPR-affiliated noncommercial broadcasters much lower rates than the current noncommercial rates. TX 3020 at 7-8; NRBNMC ¶¶ 32-38. Finally, EMF is an extreme outlier among noncommercial broadcasters, and the unadmitted [redacted] improperly cited by SoundExchange shows that even when [redacted]

[redacted]. TX 5261 at 4, 8, 10, 19, 29-30, 43, 46, 103, 121; Ploeger WRT App. E; *supra* ¶ 1408; NRBNMLC PFFCL ¶ 217.

1418. Disputed. TX 3020-3022; Steinberg AWDT ¶30; 8/26/20 Tr. 4023:2-15, 4024:1-10, 4044:1-12 (Steinberg). While commercial rates are not relevant to noncommercial rates given the different market segments, the differential between such rates under the NRBNMLC's Alternative 1 does diminish as usage increases. NRBNMLC Rate Proposal at 10. Moreover, the threshold structure underlying the NPR agreement includes significantly lower rates for larger broadcasters than current noncommercial or commercial rates. TX 3020 at 7-9.

ii. Large Noncommercial Webcasters Benefit from Steep Discounts Despite Paying Commercial Rates for Usage Over 159,140 ATH per Month

1419. Disputed. Given the different market segments, the differential between noncommercial and commercial rates is not the relevant inquiry – setting rates that willing noncommercial buyers would negotiate with willing sellers is the Judges' mandate. 17 U.S.C. § 114(f)(1)(B). Professors Cordes and Steinberg concluded that the current rates are higher than those that would be negotiated under this standard. 8/20/20 Tr. 3257:25-3258:7 (Cordes); 8/26/20 Tr. 4028:21-25 (Steinberg); NRBNMLC PFFCL ¶¶ 250-252. Moreover, the professors discussed funding constraints as a factor driving noncommercial willingness to pay, not simply a "lack of resources" in the abstract. Steinberg AWDT ¶ 60 (noncommercial webcasters' willingness to pay is lower because funding sources are constrained and "incidence of royalty payments lies on the listener-donors and other supporters of the NCE's educational and charitable mission, rather than on shareholders"); *id.* ¶¶ 19-22, 39, Cordes CWDT ¶ 17 ("Such limited sources of financing likely would reduce a nonprofit buyer's willingness to accept higher prices for sound recording performance royalties than would commercial entities, who have more financing mechanisms available to them to fund their profit-making efforts.").

1420. Disputed in part. While the Services do not dispute the math, the assumptions that Mr. Orszag used to estimate a 99% "discount" are counterfactual, and "discount" is not the right term given the different market segments that noncommercial and commercial webcasters occupy. *Supra* ¶ 1371; Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110. The so-called "discount" using 12 sound recordings per hour is 69.6% – 30% lower. 8/13/20 Tr. 2042:23-2047:19 (Orszag). Under the NPR agreement metrics, it is 90-91%. *Id.* at 2047:20-2050:13; NRBNMLC PFFCL ¶¶ 250-252.

1421. Disputed in part. While the current structure yields <u>average</u> noncommercial rates that are lower than commercial rates, the <u>marginal</u> rates for above-threshold webcasting are the same as commercial rates. Marginal rates drive market behavior. 8/17/20 Tr. 2206:23-2207:9, 2207:13-2208:4 (Tucker); 8/31/20 Tr. 4774:6-16 (Burkhiser). Above-threshold noncommercial webcasters pay a significant surcharge vis-à-vis NPR stations. NRBNMLC PFFCL ¶¶ 32-38, 250-252.

1422. Disputed in part. While the Services do not dispute the numbers using the stated assumptions, the assumptions are counterfactual and the term "discount" a misnomer. Moreover, the above-threshold marginal rate, which drives decision-making, is the same as the commercial rate. 8/17/20 Tr. 2206:23-2207:9, 2207:13-2208:4 (Tucker); 8/31/20 Tr. 4774:6-16 (Burkhiser); *supra* ¶ 1371; NRBNMLC PFFCL ¶¶ 250-252.

1423. Disputed in part. While the Services do not dispute how SoundExchange's rate proposal would operate, they do dispute the term "discount" and the assumptions made to calculate the "discount." *Supra* ¶ 1371; Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18,

3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; 8/13/20 Tr. 2042:23-2050:13 (Orszag); NRBNMLC PFFCL ¶¶ 44-110, 250-252.

1424. Disputed in part. While the Services do not dispute the numbers, they dispute their relevance and the term "discount." Cordes CWDT ¶¶ 25-26, 32; 8/20/20 Tr. 3264:13-18, 3265:4-16, 3271:18-3274:25 (Cordes); 8/31/20 Tr. 4760:21-4761:6, 4773:9-14 (Burkhiser); Burkhiser WDT ¶ 37; 8/26/20 Tr. 3997:9-15, 4002:19-4003:16 (Steinberg); Steinberg AWDT ¶¶ 15, 19-22, 24, 27, 58; NRBNMLC PFFCL ¶¶ 44-110. Family Radio is in a different market segment and makes decisions based on the above-threshold marginal rate, which is equal to the commercial rate. 8/31/20 Tr. 4774:6-21 (Burkhiser). Any claim that these figures suggest that the rates reflect willing buyer/willing seller rates is misplaced. *Id.* at 4760:21-4761:6, 4773:9-14. Moreover, under Family Radio's current payments of $9,000-$10,000 per month, its alleged "discount" already has shrunk to 40-43%. *Id.* at 4759:3-11.[58] Conversely, Family Radio paid about 631%-659% more than what its fee would have been under the NPR agreement if the NPR metrics were translated into a per Music ATH fee.[59] *Id.*; TX 3021 at 9-10. That is a surcharge, not a discount. NRBNMLC PFFCL ¶¶ 250-252.

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[58] The commercial fee for the ATH threshold allotment for 2 stations is $82,498.18 (=159,140 ATH/month x 12 months * 12 performances/hour * $0.0018/performance * 2 stations). The fee for above-threshold performances is $108,000/year at $9,000/month and $120,000/year at $10,000/month. Family Radio's "discount" is 43% at the lower fee (1-(($108,000 + $1,000 min fee) / ($108,000 + $82,498.18))) and 40% at the higher fee (1-(($120,000 + $1,000 min fee) / ($120,000 + $82,498.18))).

[59] In 2020, the NPR agreement's metrics translate into an average fee of $0.00196 per Music ATH ($560,000 / 285,132,065 Music ATH). TX 3021 at 9-10. Using Ms. Burkhiser's estimate, Family Radio will webcast between approximately 8,819,360 to 9,374,916 ATH in 2020. (3,819,360 ATH (= 159,140 ATH/month * 12 months * 2 stations) plus either (a) (5,000,000 ATH (= $108,000 / $0.0018/performance / 12 performances/ATH) or (b) 5,555,556 million ATH (= $120,000 / $0.0018/performance / 12 performances/ATH). TX 3013-3014. Its price per ATH was thus between $0.01236/ATH ($109,000 / 8,819,360 ATH) and $0.01291 /ATH ($121,000 / 9,374,916

1425. Disputed. The "discount" would be far less under Family Radio's current metrics. *Supra* ¶ 1424. Further, the surcharge to Family Radio vis-à-vis NPR on an average per-ATH basis (without even accounting for the NPR agreement's more generous "Music ATH" definition) would increase to about 880%. 8/31/20 Tr. 4759:3-11 (Burkhiser); TX 3020 at 7-8.[60]

1426. Disputed in part. While the Services do not dispute the numbers, they dispute their relevance and the term "discount." *Supra* ¶ 1424. EMF also is paying a significant surcharge on an average per-ATH basis as compared with NPR stations, as calculations similar to those performed for Family Radio would show. Ploeger WRT App. E; TX 3021 at 9-10.

1427. Disputed in part. While the Services do not dispute the numbers, they dispute their relevance and the term "discount." *Supra* ¶ 1424. The surcharge that EMF would pay vis-a-vis NPR stations on an average per-ATH basis would increase in disparity under SoundExchange's proposed rates if calculations similar to those for Family Radio were performed. Ploeger WRT App. E; TX 3020.

iii. Large Noncommercial Webcasters Have a Willingness and Ability to Pay for High Usage of Sound Recordings that Is Less than that of Commercial Services

a. Large Noncommercial Broadcasters Operate on Narrow Margins and Fund Their Operations at Levels Far Less than Comparably Sized Commercial Entities

1428. Not disputed.

ATH). On an average per-ATH basis (before even accounting for the difference between "ATH" and "Music ATH"), it thus is paying 631% and 659% more than it would under the NPR agreement's metrics.

[60] In 2021, the NPR agreement's metrics translate into an average fee of $0.00222 per Music ATH ($800,000 / 360,000,000 Music ATH). TX 3020 at 7-8. Using estimated excess ATH of 5,277,778 (the average of the 2020 estimated range), Family Radio's average per-ATH fee under SoundExchange's proposal would be $0.01971 (= ($2,000 + (5,277,778 excess ATH * 12 performances/ATH * $0.0028/performance)) / (3,819,360 minimum fee ATH + 5,277,778 excess ATH)). On an average per-ATH basis (before even accounting for the difference between "ATH" and "Music ATH"), it thus would pay 880% more than it would under the NPR agreement's metrics.

1429. Disputed in part. While the numbers are not disputed, Professors Steinberg and Cordes considered numerous noncommercial financial documents in preparing their testimony, and there are plenty of noncommercial financial documents, including those related to NPR, CPB, and related stations, in the record. Steinberg AWDT at 37-38; Cordes CWDT at 43; *e.g.*, TX 3050-3053, 3056-3058, 3065, 3075, 5237-5241. Moreover, there has been no significant growth in the proportion of noncommercial licensees paying excess usage fees over the past five years. *Web IV*, 81 Fed. Reg. at 26393; Ploeger WRT App. A ¶ 33.

1430. Disputed. SoundExchange falsely characterizes why Family Radio sold many of its stations recently and even cut off a reference to Ms. Burkhiser's testimony mid-sentence (8/31/20 Tr. 4775:11-15) to avoid citing testimony inconsistent with its narrative. Ms. Burkhiser did not testify that Family Radio's station sales since 2015 were part of a grand strategy to move from broadcast to online. Rather, they were "difficult decisions to enable it to continue to offer its radio ministry to its listeners" that were made "to make up for recent financial shortfalls" due to "rising costs in recent years, not the least of which has been a sharp increase in the streaming royalties." Burkhiser WDT ¶¶ 20, 33-34. She testified that selling a station is "the last thing we want to do. But sometimes you have to do that in order to still be in ministry at all." 8/31/20 Tr. 4776:19-4777:4 (Burkhiser); *accord id.* at 4775:11-21; Burkhiser WDT ¶ 23 (sales were "difficult decisions … to continue to exist as a ministry at all"). "This action was quite painful because it materially hindered [Family Radio] from ministering to large segments of [its] listeners by significantly reducing broadcast coverage of [its] radio programming." *Id.* ¶ 34.

1431. Disputed. Merely because a nonprofit has a mission impacting lots of people does not preclude it from being a "bare-bones operation." EMF reported less than $50 million in "Financial Assets Available to Meet General Expenditures Over the Next Twelve Months –

enough to cover scarcely 4 ½ months of its 2018 operating expenses. TX 5238 at 6, 13. Moreover, EMF is primarily a radio broadcaster, not a webcaster, so the bulk of its operations relate to broadcasting. *Id.* at 10. Further, it is the mission objective and the nondistribution constraint of nonprofit entities that downwardly "affect nonprofit willingness-to-buy and thus affect the price in contracts between willing buyers and willing sellers," and these objectives and constraints persist at all nonprofit sizes. Steinberg AWDT ¶¶ 15, 24. In addition, NPR-affiliated stations receive very significant revenues, so the finances of noncommercial religious broadcasters are no basis for distinguishing the NPR agreement as a benchmark. For example:

- New York Public Radio received over $94.4 million in revenues in 2017 (TX 3075 at 1);
- Oregon Public Broadcasting received over $43.6 million in revenues in 2019 (TX 3056 at 1; TX 3035);
- Public Broadcasting of Colorado received nearly $25 million in revenues in 2019 (TX 3058 at 6);
- KUT Radio, which operates two stations, including an alternative rock station, received over $13.6 million in revenues in 2018 (TX 3057 at 5, 13; TX 3035); and
- WXPN, an alternative rock station covered by the NPR agreement, received nearly $10 million in revenues in 2019 (TX 3076 at 6, 10; TX 3035).

Given these broadcasters' affiliation with NPR/CPB, they also are backed by CPB and NPR funding. TX 3035. CPB received over half a billion dollars in revenues in both 2016 and 2017 (TX 3065 at 1), and NPR received over $283.5 million in revenues in 2019 (TX 3051 at 8).

1432. Disputed. The far more limited fundraising mechanisms available to noncommercial broadcasters result in those entities earning far less than commercial broadcasters of comparable size. Noncommercial broadcasters cannot sell advertisements but primarily rely on donations, which "are limited by free-rider problems and do not grow proportionally with listenership." Steinberg AWDT ¶¶ 51, 60; *id.* ¶¶ 17-18, 20; 8/26/20 Tr. 3997:23-3998:7 (Steinberg). This differential fundraising ability is borne out by broadcaster financials. iHeart

Media, which operates some 856 stations, reported over $6.3 billion in revenues on its 2018 10-K. 8/13/20 Tr. 1985:17-1986:18 (Orszag); TX 5521 at 7. EMF, which operates at least over 500 radio stations, reported 2018 revenues of $184,443,043. TX 5238 at 6; Ploeger WRT ¶ 22. iHeart thus earned some 34 times more than EMF (and EMF earned less than 3% of iHeart). 8/13/20 Tr. 1986:19-1987:1 (Orszag). Even after iHeart adopted fresh start accounting after it emerged from bankruptcy, its 2018 revenues were still reported at $3,611,323,000 – nearly 20 times more than EMF's. TX 5521 at 63. Similarly, Cumulus operates 428 stations and reported 2018 net revenues of $1,113,445,000, which were over six times more than EMF's (and EMF's revenues only 16% of those of Cumulus) even though Cumulus operates fewer stations. TX 3042 at 5, 64. Sirius XM/Pandora reported 2018 revenues of under $5.8 billion, which was "over 31 times higher than EMF's 2018 revenue." 8/13/20 Tr. 1987:2-15 (Orszag); TX 5046 at 25. There simply is no comparison between the revenue-generating ability of EMF (the largest noncommercial broadcaster by far) and commercial broadcasters.

1433-1434. Disputed in part and irrelevant. The numbers for the top 5 noncommercial webcasters are undisputed but irrelevant. Those webcasters each are primarily broadcasters, and Professor Tucker did not analyze their revenues and expenses related to simulcasting or attempt to compare their simulcast versus broadcast audience sizes. 8/18/20 Tr. 2484:20-22, 2485:1-5, 2485:17-2486:11, 2493:10-2494:17 (Tucker). In any event, a webcaster's ability to pay is not part of the willing buyer/willing seller inquiry. 8/17/20 Tr. 2342:20-2343:2 (Tucker). Further, marginal rates are material and already have led to changed behavior in limiting or redistributing listenership. Burkhiser WDT ¶¶ 38-39; 8/31/20 Tr. 4774:6-21 (Burkhiser).

b. Family Radio's Experience in Being Subjected to a Sharp Rate Increase Is Representative of Other Large Noncommercial Webcasters' Similar Experiences

1435. Not disputed.

1436. Disputed. Out of the 20 noncommercial webcasters paying above-threshold fees, Family Radio ranked [redacted] and was even discussed by Professor Tucker before she learned that Family Radio would produce a witness. Tucker WDT ¶ 166. Moreover, Family Radio is not the only [redacted] noncommercial webcaster to operate at a loss with respect to its webcasting. [redacted], the [redacted] noncommercial broadcaster, reported a loss of $4,942,237 in 2016 and a loss of $1,675,218 in 2017. TX [redacted] at 1; Ploeger WRT App. E. It reported an even larger deficit of $12,771,784 with respect to its 2017 program service expenses and revenues specifically related to broadcasting and webcasting. TX [redacted] at 2 (line 4c), 47. Moreover, while the [redacted] – the [redacted] noncommercial broadcaster – reported very modest surpluses in 2016 and 2017, it "[redacted]" in 2017 for its broadcasting and webcasting operations specifically in 2018. 8/18/20 Tr. 2491:17-2492:2 (Tucker); TX [redacted] at 2, 14. Further, Family Radio's donations have been stable for many years, while its costs have risen, "not the least of which has been a sharp increase in [its] streaming royalties" – the effect of that increase was a focus of her testimony, not financial hardship in the abstract. 8/31/20 Tr. 4757:12-4758, 4795:14-17 (Burkhiser); Burkhiser WDT ¶¶ 20, 32-41. That effect was suffered by all noncommercial services that previously had paid under a different rate structure, so Family Radio's experience is representative.

1437. Disputed. Family Radio's testimony focuses on the rates for above-threshold webcasting, and Family Radio (who ranked [redacted] out of 20 such webcasters) is representative of that group. Ploeger WRT App. E. SoundExchange, by contrast, focuses on EMF, whose listenership is at [redacted] even above-threshold payors and not representative of noncommercial webcasters overall. *Id.*

1438. Disputed in part. While noncommercial webcasters overall are diverse, Family Radio's testimony concerns the above-threshold fee, as to which it was the [redacted] payor out of 20 in 2018 and, like the overwhelming majority of this group, a religious FCC-licensed broadcaster. Ploeger WRT App. E. It is thus highly representative. Even Professor Tucker discussed Family Radio as one of five noncommercial broadcasters before she learned that Ms. Burkhiser was a witness. Tucker WDT ¶ 166. Below-threshold noncommercial webcasters are not confronted with excessive marginal rates but pay a zero marginal rate for their webcasting. 37 C.F.R. § 380.10(a)(2).

1439. Disputed. It is EMF that is the unrepresentative extreme outlier among above-threshold noncommercial religious broadcasters. The average above-threshold payment in 2018 of the 19 noncommercial webcasters excluding EMF was just over $[redacted]; Family Radio's payment was $[redacted] – far more representative than EMF. Ploeger WRT App. E.

1440. Disputed. Other above-threshold noncommercial webcasters also operated at a loss overall or had broadcasting program service expenses that exceeded their revenues. TX [redacted] at 1 (ninth-largest webcaster reported seven-figure losses in both 2016 and 2017); TX [redacted] at 2, 14 (third-largest webcaster reported seven-figure deficit in broadcast/webcast program service revenues in 2017). Moreover, EMF's 2018 "surplus" would cover only about five months of its 2018 expenses. TX 5238 at 6 ($54,458,316 surplus versus $129,984,727 expenses). It reported scarcely 4 ½ months' worth of "Financial Assets Available to Meet General Expenditures Over the Next Twelve Months." *Id.* at 6, 13. Comparably sized commercial broadcasters swamped EMF many times over in their earnings. TX 5521 at 7; 8/13/20 Tr. 1986:10-18 (Orszag) (iHeart Media (856 stations) reporting over $6.3 billion in revenues on its 2018 10-K); TX 3042 at 5, 64 (Cumulus (428 stations) reporting over $1 billion in 2018 net revenues).

1441. Disputed. The Services challenged the admissibility of this passage, as Professor Tucker's only support was inadmissible Internet articles that she cites for their truth. Servs.' Test. MIL at 9; 8/18/20 Tr. 2514:16-22 (Tucker). Professor Tucker did nothing to link the "current situation" to nearly a decade ago and only analyzed Family Radio data from 2017 forward. *Id.* at 2514:23-2515:20; 8/17/20 Tr. 2220:17-2221:4 (Tucker). Family Radio's donations have been stable for many years, while its costs have risen, "not the least of which has been a sharp increase in [its] streaming royalties." 8/31/20 Tr. 4757:12-4758, 4795:14-17 (Burkhiser); Burkhiser WDT ¶¶ 20, 32-41.

1442. Disputed. Professor Tucker's only support for the $100 million and "thousands" figures cited are inadmissible Internet articles that are improperly cited here for their truth. Tucker WRT ¶ 121 & n.256; 8/18/20 Tr. 2514:16-22 (Tucker). The Services challenged this paragraph, and that motion remains pending. Servs.' Test. MIL at 9. Family Radio's entire expenses for <u>all</u> of its operations in 2011 were less than half of that amount, and even its two-year overall expenses were well under $100 million. TX 5504 at 2. Its expenses included many line items that on their face had nothing to do with "a national advertising campaign," and its "Advertising and promotion expenses" in general did not even reach $700,000. *Id.* at 11.

1443. Disputed in part. While the Services do not dispute the numbers, Ms. Burkhiser also testified that she was unaware of the breakdown of billboard expenditures into various categories, including general messaging "about the stations and where to find the frequencies." 8/31/20 Tr. 4785:3-14 (Burkhiser).

1444. Disputed in part. While the Services do not dispute the numbers, there is no record basis for linking the referenced message to a drop in donations. Moreover, Ms. Burkhiser

testified that that messaging dated to nearly a decade ago; that is irrelevant to rate-setting for 2021-2025. 8/31/20 Tr. 4795:5-17 (Burkhiser).

1445. Not disputed.

1446. Disputed. Ms. Burkhiser's testimony focuses on above-threshold broadcasters. Family Radio is a religious FCC-licensed noncommercial broadcaster that relies heavily on donations, focuses on mission over profits, cannot run advertisements or distribute profits, includes significant non-music programming content, pays per-performance fees in the middle of the range of those fees, and experienced a sharp fee increase in 2016. Burkhiser WDT ¶¶ 9-11, 28-29, 43-44, 46-48, 54, 56; Ploeger WRT App. E. As such, it is highly representative of the other 18 above-threshold religious broadcasters.

1447. Disputed in part. Family Radio's numbers are not part of the willing buyer/willing seller inquiry. 8/17/20 Tr. 2342:20-2343:2 (Tucker). Moreover, "Family Radio's primary operation is broadcast," not simulcasting. 8/31/20 Tr. 4750:20-4752:9 (Burkhiser). Professor Tucker did not analyze or estimate any simulcast-specific numbers, so there is no basis for even assessing whether the fees are material to Family Radio's simulcasting operations. 8/18/20 Tr. 2484:20-22, 2485:1-2486:11, 2493:10-2494:17 (Tucker). Ms. Burkhiser testified that the above-threshold marginal rates are "killing us" and causing Family Radio to make mission-disruptive decisions. 8/31/20 Tr. 4760:3-20, 4772:24-4773:14, 4774:6-21 (Burkhiser).

1448. Disputed. Family Radio bears all of the key traits of other noncommercial above-threshold religious broadcasters and is highly representative of that group. *Supra* ¶¶ 1437-1439, 1446; Ploeger WRT App. E. Moreover, Professors Steinberg and Cordes both relied on multiple financial statements of noncommercial broadcasters in preparing their testimony, including

specifically one from Family Radio in Professor Steinberg's case. Steinberg AWDT at 38; Cordes CWDT at 43.

c. Commercial-Level Royalties on Excess Usage Are Far More Unpredictable To Finance and Mission-Disruptive than Are Flat Fees

1449. Disputed. This assertion mischaracterizes Professor Steinberg's testimony. His comment regarding "[s]table and predictable payment obligations" was made in discussing the predictability of a flat fee rate structure and the dilemma that noncommercial webcasters face when they approach the ATH threshold of either compromising their mission by limiting listenership or also compromising their mission by engaging in emergency fundraising drives, which also may alienate listeners. Steinberg AWDT ¶¶ 26, 56. With regard to the fee amount, he testified that noncommercial webcasters are in a different market segment from commercial webcasters and have lower willingness to pay and that they thus would negotiate lower rates with willing buyers than would commercial webcasters. *Id.* ¶¶ 19-22; 8/26/20 Tr. 4002:19-24 (Steinberg).

1450. Disputed. Those costs are not nearly as predictable or controllable as flat fees and require mission-compromising measures of limiting outreach to online listeners to control. Steinberg AWDT ¶ 26; 8/31/20 Tr. 4760:3-20 (Burkhiser); Burkhiser WDT ¶¶ 34-35.

1451. Not disputed.

1452. Disputed. Fees that increase directly with listenership are not nearly as predictable for budgeting purposes as flat fees (but are fees that the NRBNMLC has proposed so long as the different noncommercial market segment and reduced willingness to buy is sufficiently recognized in their marginal rate). Moreover, the measures described in this paragraph would require noncommercial webcasters to compromise their missions by limiting listener access or choosing recordings based not on how they would advance their mission but for economic

reasons. Steinberg AWDT ¶ 26; *id.* ¶ 19 ("NCE willingness to buy is based on choosing the song mix … that best advance[s] the educational and charitable mission of the station."); 8/31/20 Tr. 4760:3-20 (Burkhiser); *id.* at 4763:12-16 ("[W]e make all of our programming decisions based on … our mission. That motivates us."); Burkhiser WDT ¶¶ 34-35, 46-48; Cordes CWDT ¶ 28; 8/20/20 Tr. 3262:12-3263:8 (Cordes).

1453. Disputed. Professor Tucker is wrong. The conclusion that access management measures resulting from excessive marginal per-performance fees are harmful because they constrain a webcaster's ability to pursue its mission is an economics principle because it is a conclusion regarding a constrained optimization problem, which is the tool kit of economists. As Professor Steinberg testified:

> The basics, any economist, if you had to summarize their tool kit in two words, they would be optimization and constraints. Because the objectives of nonprofits are different, the constraints are different. All the predictions we would make about their behavior, what they are willing to pay for a license, all of those things are distinct from that of for-profits.

8/26/20 Tr. 3998:12-19 (Steinberg). The extent to which noncommercial webcasters are forced to take mission-compromising measures to manage their statutory royalty payments affects their willingness to buy and is economically relevant to the rate-setting inquiry here. *See* Steinberg AWDT ¶¶ 19, 26. Moreover, the marginal commercial-level rate is above "fair market value" in the market segment of nonprofits. *See* NRBNMLC PFFCL ¶¶ 44-110, 186-96.

iv. Nonprofit Discounts in Other Sectors Show that Seller Price Discrimination Favoring Nonprofits Is Common

1454. Disputed in part. The NRBNMLC's witnesses pointed to examples of market discounts merely as examples showing that sellers routinely engage in price discrimination favoring nonprofits, not to support a specific price differential. Steinberg AWDT ¶ 40; Cordes

CWDT ¶ 24; 8/20/20 Tr. 3268:19-3269:2 (Cordes); Burkhiser WDT ¶¶ 45, 59-61; 8/31/20 Tr. 4770:2-12 (Burkhiser).

1455. Not disputed.

1456. Disputed. The discounts relate to a broad range of products, including remodeling services, memberships, and a piano donation. Burkhiser WDT ¶¶ 59-61.

1457. Not disputed. The NRBNMLC's witnesses did not rely on general marketplace nonprofit discounts as a benchmark. Professor Steinberg relies on the NPR agreements, which are highly comparable benchmarks. 8/26/20 Tr. 4024:1-10 (Steinberg); TX 3020, 3021; Steinberg AWDT ¶¶ 30, 34; Steinberg CWRT ¶¶ 1, 3-10.

1458. Disputed. This characterization is misleading. The Slack discount for larger nonprofits is quite large – 85%. TX 3067 at 1. Moreover, it is not clear that noncommercial religious broadcasters would be excluded from this discount (which also excludes "private grant-making, independent, or operating foundations"). *Id.*

1459. Disputed in part. This claim is misleading. The two Microsoft products that Professor Tucker discussed were different, with the more robust product costing somewhat more. Microsoft's Office 365 Nonprofit E3 product for larger nonprofits costs $4.50 per user per month and offered features including unlimited cloud storage, a 100 gigabyte email inbox, a "Corporate video portal," and "Meeting [capability] broadcast on the Internet to up to 10,000 people," for example. TX 5235 at 6-7, 9; Tucker CWRT ¶ 128. Microsoft's Office 365 Business Premium product for smaller and mid-sized nonprofits costs $3 per user per month, but was less robust, offering only 1 terabyte of OneDrive storage, a 50 gigabyte email inbox, and no corporate video portal or Internet meeting capability. TX 3066 at 3-5; *see also* 8/18/20 Tr. 2500:7-20, 2504:13-18; 2504:21-2505:1; 2512:8-2513:7 (Tucker).

1460. Not disputed. For clarity, general nonprofit discounts are not relied on as a precise fee benchmark; they merely show that seller price discrimination favoring nonprofits is common. Steinberg AWDT ¶ 40; Cordes CWDT ¶ 24; 8/20/20 Tr. 3268:19-3269:2 (Cordes).

1461. Disputed in part. The discount for larger entities is still 85%. TX 3067 at 1.

1462-1463. Not disputed.

1464. Not disputed. For clarity, general nonprofit discounts are not relied on as a precise fee benchmark; they merely show that seller price discrimination favoring nonprofits is common. Steinberg AWDT ¶ 40; Cordes CWDT ¶ 24; 8/20/20 Tr. 3268:19-3269:2 (Cordes).

1465. Disputed in part. The smallest noncommercial webcasters receive no "discount" at all if their usage is below 277,778 performances per year. 37 C.F.R. § 380.10(a)-(b) (277,777.8 performances = $500 / $0.0018/performance). Given that 50% of commercial webcasters paid only the minimum fee in 2018 (and thus webcast below this level), the number of noncommercial entities at that level is likely substantial as well. Ploeger WRT ¶ 34. Moreover, the word "discount" is not meaningful given the different market segments, and the above-threshold marginal rate – which matters most when a noncommercial webcaster considers whether to reach additional listeners – is the same as the commercial rate. 8/31/20 Tr. 4774:6-16 (Burkhiser); Steinberg AWDT ¶ 26; NRBNMLC PFFCL ¶¶ 44-110, 250-252.

1466. Disputed. These discounts add up in the aggregate and matter. 8/31/20 Tr. 4770:2-12 (Burkhiser); Burkhiser WDT ¶¶ 59-61. Microsoft pricing would give Family Radio a "discount" of 77.5% (($20-$4.50)/$20*100), which is more than the [redacted]% "discount" in statutory fees that SoundExchange claimed it received in 2018 and far more than the modest 40-43% "discount" at current usage. Ploeger WRT ¶¶ 31, 35; 8/31/20 Tr. 4759:10-11 (Burkhiser).

B. The Judges Should Adopt the NRBNMLC's Rate Proposal

1467. Disputed. Unlike the NRBNMLC's *Web IV* proposal, which was not based on a benchmarking approach, its original *Web V* proposal was based on the pricing of the current CBI agreement. *Compare Web IV*, 81 Fed. Reg. at 26393-94 *with* NRBNMLC Rate Proposal.

1468. Disputed. The NRBNMLC's original proposal was economically sound. It was based on the CBI agreement, economic testimony that cannibalization from, and competition with, commercial webcasters do not pose significant threats even as a noncommercial webcaster's listenership grows, and the principle that the price that record companies agreed to accept for 159,140 monthly ATH therefore should be constant across usage, just like it is for other products. Cordes CWDT ¶¶ 25-26, 33-36; 8/20/20 Tr. 3264:13-18, 3265:4-10, 3271:18-3274:25 (Cordes); Steinberg AWDT ¶¶ 15, 24, 58; 8/26/20 Tr. 3997:9-15, 4002:25-4003:16 (Steinberg); Burkhiser WDT ¶¶ 37, 70; 8/31/20 Tr. 4760:24-4761:4, 4773:9-14 (Burkhiser).

1469. Not disputed. For clarity, if separate simulcast rates are set, the NRBNMLC proposes that noncommercial broadcasters pay 1/3 of commercial broadcaster rates for above-threshold webcasting. NRBNMLC Rate Proposal Ex. A at 9.

1470. Disputed in part. The NRBNMLC's Alternative 2 also proposes that webcasters not covered by the music ATH block would pay under Alternative 1. The proposed flat fee, Music ATH caps, and covered station count are proportional to those in the 2021-2025 NPR agreement. *Compare id.* at 11, 13 *with* TX 3020 at 7-9.

1471. Disputed. Professor Steinberg did provide evidence in support of the NRBNMLC's rate proposal in his written direct testimony. Steinberg AWDT ¶ 30 (testifying that NPR agreement "could be adjusted to serve as a starting point for developing Web V fee structures for noncommercial … webcasters"). He further explicitly testified that it would be a useful benchmark for setting a flat fee structure (as the NRBNMLC has proposed). *Id.* ¶ 34 ("If the

Judges determine that a lump sum similar to the NPR agreement is a reasonable fee structure for certain NCE webcasters (such as religious broadcasters), the NPR agreement provides a useful starting point for rate setting."). Despite requests from the NRBNMLC, SoundExchange did not produce a key document that "reflect[ed] its analysis of potential value" of the current NPR agreement until shortly before rebuttal testimony was due. Steinberg CWRT ¶ 1 (referring to TX 3022 as a "newly produced document from SX"); TX 2057 at 22. That valuation enabled Professor Steinberg to express the NPR agreement metrics as the threshold structure that the NPR agreement itself said was how the license fee was calculated, which he did in his rebuttal testimony. Steinberg CWRT ¶¶ 1, 3-10; TX 3021 at 9; TX 3020 at 8; TX 3022 "Estimations."

1. There Is a Sound Basis for the NRBNMLC's New Alternative 1

1472. Disputed. Both proposed modifications to the current rate structure are warranted. The first (reducing the above-threshold rate) is based on the NPR agreement, under which NPR stations pay about three times less than non-NPR noncommercial licensees paying the rates set in *Web IV*, as well as the NPR valuation document, which shows that the current NPR agreement was valued at precisely such a structure. TX 3020, 3021; Steinberg CWRT ¶¶ 3, 5-6; NRBNMLC PFFCL ¶¶ 136-148. The second (annualization of the cap) is consistent with the NPR agreement, which provides for annual payments, and is administratively more convenient. TX 3020 at 9; Steinberg AWDT ¶ 36; 8/26/20 Tr. 4040:6-21 (Steinberg); Cordes CWDT ¶ 37; NRBNMLC PFFCL ¶¶ 154-158.

i. The 1/3 Noncommercial Ratio in *Web I* Reflected No Buyer Buy-In But May Provide a Reasonable Starting Point for Above-Threshold Rates

1473. Disputed. Professor Steinberg could not advocate "against" a proposal that had not been made yet. He testified that while flat fees are preferable, if a threshold structure is adopted, above-threshold per-performance rates should be set "to levels significantly below commercial

rates." Steinberg AWDT ¶¶ 56, 59. He further testified that noncommercial buyers would negotiate above-threshold usage rates below those set for commercial webcasters and suggested that a 1/3 ratio was a "reasonable starting point" because it was a ratio offered by the RIAA in *Web I* but also observed that "the buyers rejected this proposal." *Id.* ¶ 61. His opinion subsequently was corroborated by the NPR valuation document, which showed that [redacted] the current NPR agreement. TX 3022 "Estimations"; Steinberg CWRT ¶¶ 3, 5-6.

1474. Disputed. Professor Steinberg did not abandon his prior testimony but explicitly stated in his rebuttal testimony that "[t]he points made in [his] previous testimony still apply" and that he simply "add[s] to the argument by showing that the fees" in the NPR agreement were derived from precisely the structure that he had previously discussed. *Id.* ¶ 1.

1475. Disputed. The "infirmities" of RIAA's approach included the CARP's explicit recognition that the 1/3 ratio was a seller offer and an upper bound on noncommercial rates in that case. *CARP Report* at 93 n.66 ("We assume that in a willing buyer/willing seller negotiation, the negotiated rate would be no higher than the rate 'offered' herein by RIAA." (emphasis added)). Indeed, the noncommercial buyers in that case had pointed to evidence suggesting a 90% discount, which the CARP rejected. *Id.* at 91-92. Given that the CARP viewed the 1/3 ratio as a ceiling on noncommercial rates and also had found that "[a]pplying the same commercial broadcaster rate to non-commercial entities affronts common sense," it was reasonable for Professor Steinberg to treat the 1/3 ratio merely as a starting point for above-threshold per-performance rates. *Id.* at 89; Steinberg AWDT ¶ 61.

1476. Disputed. The "upper bound" nature of the 1/3 ratio set in *Web I* without a threshold as well as the record companies' decision through SoundExchange to set a rate for NPR stations based on what those stations would pay under a threshold structure with above-threshold

fees equal to 1/3 of commercial broadcaster fees confirms that a 1/3 above-threshold ratio is reasonable. TX 3022 "Estimations"; TX 3021 at 9-10; Steinberg CWRT ¶¶ 3, 5-6; *CARP Report* at 93 n.66; *infra* ¶¶ 1477-1480.

1477. Disputed. The 1/3 ratio was viewed by the CARP as an upper bound on a linear rate without a threshold structure in *Web I*. *CARP Report* at 93 n.66. SoundExchange itself used the 1/3 ratio more recently to value the above-threshold "additional usage fees" component of the NPR agreement's license fee. TX 3022 "Estimations"; TX 2057 at 21-22; TX 3021 at 9.

1478. Disputed. The 1/3 ratio expresses a relative valuation between commercial and noncommercial entities, not a valuation of musical works rights. *CARP Report* at 92. RIAA proposed that that commercial-noncommercial ratio be used in a sound recording proceeding (although noncommercial buyers rejected it). *Id.* at 92-93 & n.66. It is a SoundExchange witness, not Professor Steinberg's citation to a 1/3 ratio, who attempted to use the value of musical works to support SoundExchange's rate proposal. Ploeger WRT App. A ¶ 53.

1479. Disputed. Noncommercial rates set in *Web I* and *Web IV* both were seller offers rejected by noncommercial buyers, so both were above the rates that would be negotiated by willing noncommercial buyers and sellers in an effectively competitive market, which needs to reflect buyer buy-in. Steinberg AWDT ¶¶ 19-22, 27, 42-53, 61, 64-65; 8/26/20 Tr. 4002:19-4003:16, 4028:21-25 (Steinberg); Cordes CWDT ¶¶ 25-32; 8/20/20 Tr. 3270:13-3274:25, 3277:14-3278:10 (Cordes); NRBNMLC PFFCL ¶¶ 44-110.

1480. Disputed in part. It is true that *Web I* had no threshold, but the 1/3 ratio was a seller offer rejected by noncommercial buyers, who instead negotiated a threshold structure with lower rates. *Noncommercial SWSA Agreement*, 68 Fed. Reg. at 35008-21. The *Web I* 1/3 ratio thus set above-market noncommercial rates. SoundExchange's more recent use of [redacted]

[redacted] confirms that Professor Steinberg's [redacted] was reasonable. TX [redacted]; Steinberg AWDT ¶ 61.

1481. Disputed. There is a strong basis for a threshold structure charging noncommercial rates of 1/3 the commercial rates only above the threshold. Professor Steinberg provided robust willing buyer/willing seller evidence from [redacted]. Steinberg CWRT ¶¶ 3, 5-6; TX [redacted] NPR was well-aware of [redacted] because that same 1/3 ratio for excess usage was incorporated directly into its nonprecedential agreement covering 2011-2015. *2009 WSA Agreements*, 74 Fed. Reg. at 40622 (charging rates equal to 1/3 of commercial broadcaster rates ($0.00057-$0.00083) for usage above Music ATH cap (assuming 12 performances/Music ATH)). There also is substantial economic evidence that noncommercial licensees have lower willingness to pay above-threshold usage rates than do commercial webcasters, and 1/3 is a reasonable proxy for those rates (confirmed by the NPR agreement). Steinberg AWDT ¶¶ 19-22, 27, 42-53, 61, 64-65; Cordes CWDT ¶¶ 25-32; 8/20/20 Tr. 3270:13-3274:25, 3277:14-3278:10 (Cordes); NRBNMLC PFFCL ¶¶ 44-110, 154-158. It is SoundExchange that provided no evidence that noncommercial buyers would negotiate above-threshold commercial-level rates – not a single agreement in the record with above-threshold buyers includes that structure. Moreover, both noncommercial buyers and sellers have proposed that the threshold component of the current structure continue (either on a monthly or annual basis), so there is no basis for charging all noncommercial webcasters linear rates from the first performance. NRBNMLC Rate Proposal Ex. A at 9; SoundExchange Rate Proposal at 3. In short, the straight 1/3 ratio set in *Web I* did not

reflect buyer acceptance, but the 1/3 ratio applied only as an above-threshold rate does. Steinberg AWDT ¶ 61; TX 3020-3022.

ii. The NPR Agreement Is an Excellent Benchmark Supporting the NRBNMLC's Alternative 1 Rates

1482. Not disputed. For clarity, Professor Steinberg's reliance on the NPR agreements is in addition to, not in lieu of, his other reasons for supporting that structure, including strong economic reasons why noncommercial buyers would negotiate above-threshold rates at a level much lower than commercial level rates. Steinberg AWDT ¶¶ 19-22, 27, 42-53, 61, 64-65; 8/26/20 Tr. 4002:19-4003:16 (Steinberg).

1483. Disputed. Professor Steinberg consistently embraced the NPR agreement as a useful benchmark from his direct testimony through the hearing. Steinberg AWDT ¶ 30, 34; Steinberg CWRT ¶¶ 1, 3-10; 8/26/20 Tr. 4023:2-4024:24, 4026:8-4041:13 (Steinberg). As more evidence became available, including the 2021-2025 NPR agreement and SoundExchange's NPR valuation document, he expanded his opinions to incorporate that evidence, as all experts do. TX 3020, 3022. Professor Steinberg also testified that the CBI agreement was another starting point, and he discussed it in his opinions regarding the minimum fee, as that agreement focuses on below-threshold use. Steinberg AWDT ¶ 30; Steinberg CWRT ¶ 16; 8/26/20 Tr. 4042:17-21 (Steinberg). Professor Steinberg "reviewed data from SoundExchange," found that "it does not appear that any CBI webcaster paid above-minimum royalties in" 2018-2029, "suspect[ed] that the consequences of exceeding the monthly cap were not thoroughly explored by either side," and concluded that the agreement "does not support application of commercial fees to noncommercial webcasters that exceed the monthly ATH threshold." Steinberg AWDT ¶¶ 9, 30-32.

1484. Not disputed.

1485. Not disputed. For clarity, the 2021-2025 SoundExchange-NPR agreement not only increased the payment but also the Music ATH allotment, such that the average per-Music ATH price remained relatively constant. *Compare* TX 3021 at 9-10 *with* TX 3020 at 7-9.

1486. Not disputed.

1487. Disputed. SoundExchange's own predecessor refuted this demonstrably false claim in *Web I*, asserting that benchmarks involving statutorily compliant webcasters "would serve as perfect benchmarks." *CARP Report* at 22; *see id*. at 38 ("RIAA argues that the best available evidence of the rate which willing buyers and willing sellers would agree to can be found in the 26 agreements it actually negotiated with licensees for the rights in question." (emphasis added)). RIAA was right – an agreement setting rates for the noninteractive statutory rights at issue here is precisely the type of agreement that Congress expressly invited the Judges to consider. *Mem. Op. on Novel Material Questions of Law*, Docket No. 14-CRB-0001-WR (2016-2020) (Web IV) 13 (Sept. 18, 2015) ("Direct agreements between sound recording owners and webcasters for uses covered by the section 112 and 114 licenses would appear to be [the very] type of evidence that … Congress had in mind.") ("*Web IV Mem. Op.*"); *Order Denying in Part SoundExchange's Mot. for Rehearing and Granting in Part Requested Revisions to Certain Regulatory Provisions*, Docket No. 14-CRB-0001-WR, at 12 n.l5 (Feb. 10, 2016) ("[V]oluntary noninteractive direct license agreements" in particular are a "category of benchmarks that Congress has explicitly identified as pertinent to the establishment of the statutory rate."); *CARP Report* at 44 (identifying buyers as "DMCA-compliant services").

SoundExchange itself relied on precisely such benchmarks in *Web III*. *Web III Remand*, 79 Fed. Reg. at 23106 (stating that "SoundExchange proposed that the section 114 royalty rates for noninteractive webcasting be established by applying two categories of benchmarks,"

including settlement "[a]greements between SoundExchange and: (a) The NAB; and (b) Sirius XM Satellite Radio …, both of which established per-performance royalty rates for the same noninteractive webcaster rights that are at issue in this proceeding"). It also relied on the CBI-SoundExchange settlement agreement to support its *Web III* noncommercial proposal. *Web III*, 76 Fed. Reg. at 13040. Moreover, the Judges in *SDARS III* did not reject the agreement at issue as a benchmark because it set statutory rates and terms, and the statement referenced by SoundExchange does not say that. Rather, the Judges rejected that agreement because it involved a different rate-setting standard, a different buyer, and different rights. *SDARS III*, 83 Fed. Reg. at 65220-21.

Contrary to SoundExchange's claim, the NPR agreement is not only a proper benchmark – it is the best benchmark for setting rates for noncommercial licensees that include some with large usage as well as small, and Professor Steinberg properly considered its comparability and potential adjustments. He not only analyzed the attributes of noncommercial webcasters generally but he considered the parties to the agreement, the music intensity and variety of NPR and non-NPR religious broadcasters' programming, the statutory rights granted, and potential adjustments based on differences in usage, webcasters, funding sources, and administrative costs. Steinberg AWDT ¶¶ 30, 34-39; 8/26/20 Tr. 4024:1-24, 4025:23-4028:25 (Steinberg).

1488. Disputed in part. While it is undisputed that the Judges made that statement, the comparability test cited in a recent section 114 proceeding is as follows: "In determining whether a benchmark market is comparable, the Judges consider such factors as whether it has the same buyers and sellers as the target market and whether they are negotiating for the same rights." *SDARS III*, 83 Fed. Reg. at 65214. Analysis of comparability shows how good of a benchmark the NPR agreements are, as they involve the same type of buyer (noncommercial broadcasters

with a range of usage), the same sellers (record companies represented by SoundExchange), the same statutory rights under 17 U.S.C. §§ 114(d)(2) and 112(e). TX 3020 at 2, 6-8.

1489. Disputed. Professor Steinberg properly considered comparability and potential adjustments. He not only analyzed the attributes of noncommercial webcasters in detail, but he considered the parties to the NPR agreement, the music intensity and variety of NPR and non-NPR religious broadcasters' programming, the statutory rights granted, and potential adjustments based on differences in usage, webcasters, funding sources, and administrative costs. Steinberg AWDT ¶¶ 30, 34-39; 8/26/20 Tr. 4024:1-24, 4025:23-4028:1 (Steinberg). He also compared use of the NPR agreement with other approaches and concluded that a benchmark approach based on the NPR agreements was superior. *Id.* at 4028:2-25. After finding that "a benchmark is … always superior to a bunch of theorizing if one is available," he concluded that "there are no appropriate benchmarks from the commercial submarket because … the non-commercial sector has a different willingness to pay. And so it would not indicate the difference and it's not obvious how we would correct a commercial benchmark in order to account for this difference." *Id.* at 4028:2-16. He also reiterated Mr. Orszag's finding "that there are no voluntary [noncommercial] agreements in the unregulated markets that could serve as potential benchmarks." *Id.* at 4028:17-20. Further, he found that "the Web IV statutory rates are not an appropriate benchmark" because "those rates were proposed by SoundExchange" but did not "reflect a willing buyer." *Id.* at 4028:21-25.

1490. Disputed. Professor Steinberg's treatment discussed in *supra* ¶ 1489 is not superficial, and key elements of comparability are clear from the face of the NPR agreement itself. TX 3020 at 2, 6-8 (record company sellers, noncommercial broadcaster buyers, rights, license term). Further, the statements regarding past NPR agreements were made regarding the

NRBNMLC's specific rate proposals in those cases (and in *Web II*, an agreement with key differences from the current one) and do not apply here. In *Web IV*, the NRBNMLC's proposal was not based on the metrics of the NPR agreement at all, and the NRBNMLC cited to the NPR agreement only as evidence that noncommercial licensees negotiate flat fees. *Web IV*, 81 Fed. Reg. at 26394. The discussion in *Web II* is even more inapposite. The NPR agreement there covered a 74-month term from 1998-2004, was negotiated in 2001, 6 years before the *Web IV* decision was issued:

> provided for a lump sum amount to cover the entire 74-month term of the contract with no amount specified for different years, and there [wa]s nothing in the contract or the record to indicate the parties' expectations as to levels of streaming or the proper attribution of payments for any given year.

Web II, 72 Fed. Reg. at 24098. Here, by contrast, the NPR agreement specifies annual fees and Music ATH caps, and the NRBNMLC's rate proposal closely mirrors the NPR agreement's metrics. *Compare* NRBNMLC Rate Proposal Ex. A *with* TX 3020 at 7-9.

1491. Disputed. There are many reasons why the NPR agreements are the best basis for setting noncommercial rates here. *First*, both alternatives of the NRBNMLC's rate proposal closely mirror the NPR agreement metrics. *Compare* NRBNMLC Rate Proposal Ex. A *with* TX 3020 at 7-9. *Second*, there is much more information in the record regarding the quantification of the NPR agreement stated license fee components given SoundExchange's production of TX 3022, which it characterized as precisely an effort "to quantify the value of minimum fees, additional usage fees, and administrative convenience discounts/protection from bad debt" under the NPR agreement. TX 2057 at 22-23. SoundExchange admitted that it [redacted]. *Id.* at 23.

Third, the two most recent NPR agreements (unlike the one discussed in *Web II*) do include an annual fee and annual Music ATH caps. TX 3020 at 7-9; TX 3021 at 9-10.

1492. Disputed. SoundExchange mischaracterizes the nature of the hypothetical market by limiting benchmarks to those between "a single service" and "a single record company." In the first webcasting proceeding, the Register made clear that the rates set in the hypothetical market should be those not to which a single buyer and seller would agree but ones to which most buyers and sellers would agree:

> In this configuration of the marketplace, the willing buyers are the services which may operate under the webcasting license (DMCA-compliant services), the willing sellers are record companies, and the product consists of a blanket license from each record company which allows use of that company's complete repertoire of sound recordings. Because of the diversity among the buyers and the sellers, the CARP noted that one would expect "a range of negotiated rates," and so interpreted the statutory standard as "the rates to which, absent special circumstances, most willing buyers and willing sellers would agree" in a competitive marketplace. … Consequently, the Register … adopts the Panel's characterization of the relevant marketplace, recognizing that for purposes of this proceeding, the major record companies are represented by a single entity, the RIAA.

Web I, 67 Fed. Reg. at 45244-45 (quoting *CARP Report* at 24-25; citation and footnote omitted; emphasis added). As seen in the above passage, the Register specifically acknowledged that multiple record companies could be represented by a single entity in the hypothetical marketplace. *Id.* at 45245. The Judges in *Web II* reaffirmed this "most willing buyers and willing sellers" standard and described the "buyers" as "the Services," the sellers as "record companies," and the product being sold as "a blanket license for the record companies' complete repertoire of sound recordings." *Web II*, 72 Fed. Reg. at 24087. SoundExchange's own witness in *Web III* agreed that "[t]he buyers in this hypothetical marketplace are the statutory webcasting services" and "[t]he sellers … are record companies." *Web III Remand*, 79 Fed. Reg. at 23110; *see also id.* at 23106 ("He also properly identified the 'hypothetical willing sellers' as the several record companies."). The Judges in *Web III* also recognized that agreements granting rights

negotiated by SoundExchange on behalf of record companies involve "the same copyright owners whose copyrights are at issue in this case." *Id.* at 23111.

The Judges repeatedly have relied on numerous agreements granting rights with respect to multiple sellers or buyers as evidence of willing buyer/willing seller rates. *See Web IV*, 81 Fed. Reg. at 26320 n. 28 (describing SoundExchange's agreements with NPR/CPB and CBI as evidence of the rates and terms that "willing sellers are prepared to accept" with respect to "at least some noncommercial webcasters"); *id.* at 26370-71 ("[T]he Judges find that the fact that Merlin negotiated collectively on behalf of its members does not diminish the value of Merlin as a party capable of entering into an agreement that is otherwise an appropriate benchmark. Merlin members utilize the collective capacities of Merlin in order to transact licensing business in a more efficient manner … ."); *Web III Remand*, 79 Fed. Reg. at 23111 ("The Judges find that additional reasons support the use of the [SoundExchange agreements with NAB and Sirius XM] as benchmarks ….").

The statute itself specifically allows collectives to negotiate agreements through "common agents." 17 U.S.C. § 114(e). Such agreements are a plus, not a minus, as they reflect buy-in to rates from a broader swath of buyers and/or sellers. Indeed, SoundExchange has attacked agreements with single sellers as <u>not</u> being representative. *Web IV*, 81 Fed. Reg. at 26363 ("SoundExchange asserts that the Pandora/Merlin Agreement pertains only to record companies that represent less than [REDACTED]% of Pandora's performances and therefore cannot represent what the record companies – including all three Majors – comprising Pandora's other [REDACTED]% of performances, would negotiate for in the hypothetical marketplace."); *id.* at 26381; *SDARS II*, 78 Fed. Reg. at 23063, 23089 (citing SoundExchange testimony for observation that proposed benchmarks were "fraught with problems" because "they represent a

sliver of the universe of rights holders for sound recordings"); *see also SDARS III*, 83 Fed. Reg. at 65249.

1493. Disputed. The buy-in to the NPR agreement by virtually all willing sellers and multiple noncommercial buyers makes it more useful, not less; the statute expressly permits multiple buyers or sellers to negotiate collectively; and the Judges have recognized that their task is to set hypothetical market rates to which "most" buyers and sellers, not a single buyer and seller, would agree. 17 U.S.C. § 114(e); *Web II*, 72 Fed. Reg. at 24087; *supra* ¶ 1492. The sellers under the NPR agreement are the same record companies in the target market, as the Judges have recognized. *Web III Remand*, 79 Fed. Reg. at 23111. SoundExchange is merely their agent that acts on record company orders in these negotiations and, if anything, increases seller bargaining power (potentially driving rates up) by collective negotiation. *Id.* at 23113. The same is true of the buyer – NPR/CPB acted as the agent for the NPR-affiliated noncommercial broadcasters buying rights under the agreement. TX 3020 at 6-7. The NPR agreement is no different than the NAB-SoundExchange agreement that SoundExchange successfully relied on as a benchmark in *Web III*, where the Judges described the buyers as "broadcasters represented as a group by the NAB." *Web III Remand*, 79 Fed. Reg. at 23111. SoundExchange itself has relied on precisely such collectively negotiated agreements as benchmarks. *Id.* at 23106; *Web III*, 76 Fed. Reg. at 13040. Similarly, the rights granted by the NPR agreement are precisely the same as those in the hypothetical market – statutorily compliant webcasting. *See Web III Remand*, 79 Fed. Reg. at 23106 (describing SoundExchange's agreements with NAB and Sirius XM as granting "the same noninteractive webcaster rights that are at issue in this proceeding"); *id.* at 23111 ("The rights being sold were precisely the rights at issue in this proceeding …."); *Web I*, Fed. Reg. at 25245 ("RIAA represented the interests of five independent record companies, and the license granted

the same rights as those offered under the webcasting and the ephemeral recording licenses." (emphasis added)). Agreements involving a larger swath of buyers and sellers for the same statutory rights at issue are more, not less, comparable to the target market due to greater buy-in. *SDARS II*, 78 Fed. Reg. at 23063, 23089. The NPR agreements are certainly more comparable to the noncommercial target market than agreements with commercial on-demand services or theoretical models that expressly did not consider noncommercial entities. Willig CWDT ¶ 9 n.9.

1494. Disputed. The Judges rejected the agreement that SoundExchange proffered as a benchmark in *SDARS III* not because it was a settlement agreement (which frequently have been used as benchmarks) but because it was entered into under a different rate-setting standard by a non-comparable buyer offering a different service requiring different rights. *SDARS III*, 83 Fed. Reg. at 65221. None of those are true of the NPR agreement. TX 3020 at 7-9. Moreover, Professor Steinberg did address comparability. *Supra* ¶ 1489.

1495. Disputed in part. Nothing in the assertions regarding NPR-affiliated noncommercial broadcasters undermines the usefulness of the NPR agreements as benchmarks for other noncommercial broadcasters. The key issue flagged in that passage is CPB funding, which Professor Steinberg did address. He concluded that, if anything, the additional funding available to pay for royalties would make NPR-affiliated stations willing to pay higher rates than noncommercial broadcasters without access to such funding. Steinberg AWDT ¶ 39; 8/26/20 Tr. 4039:19-4040:5 (Steinberg). Among available choices for noncommercial rate-setting, Professor Steinberg concluded that a benchmarking approach using the NPR agreement was the best. *Id.* at 4028:2-25.

1496. Disputed. Professor Steinberg did take into account the administrative convenience discount in discussing how the NPR agreement could be expressed as a threshold structure. He

found that the $560,000 annual fee in the 2016-2020 NPR agreement (which does not increase at all over the 5-year term) reflected only a [redacted]). Steinberg CWRT ¶¶ 7-9. He concluded that "[t]he most plausible explanation to account for the administrative convenience value component is that" the 2016-2020 fee is "[redacted]" of what the fee otherwise would have been under the threshold structure. *Id.* ¶ 9; 8/26/20 Tr. 4036:4-19 (Steinberg).

1497. Disputed. As Professor Steinberg discussed, NPR stations' access to federal funding, both to cover their royalties and to operate their stations, does not undermine the usefulness of the NPR agreements as a benchmark but indicates that its rates are at the upper end of reasonable rates for noncommercial broadcasters who do not have access to such funding. Steinberg AWDT ¶ 39; 8/26/20 Tr. 4039:19-4040:5 (Steinberg). Despite Professor Tucker's contrary claim, that funding is significant and stable, as it is appropriated 2 years in advance. Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019, Pub. L. No. 115-245, 132 Stat. 2981, 3111; H.R. 7614, 116th Cong., at 1, 168 (2020); NRBNMLC PFFCL ¶¶ 131-135. In any event, even if this significant source of funding were to go away, that would merely remove one reason why the NPR agreement is an upper bound as opposed to in the middle of a range of reasonable rates.

1498. Disputed. This finding misleadingly recharacterizes what Prof. Tucker said, which was that "doing well in a negotiation with the government is very, very hard." 8/17/20 Tr. 2231:17-2232:11 (Tucker). She later admitted that the federal government "did <u>not</u> negotiate the [NPR] agreement" and that both NPR and CPB are private entities. 8/18/20 Tr. 2516:5-2517:19 (Tucker); 8/26/20 Tr. 4026:8-16 (Steinberg); NRBNMLC PFFCL ¶ 185.

1499. Disputed. Professor Tucker made these claims "not from data" but based on anecdotal listening. 8/18/20 Tr. 2476:14- 2477:1 (Tucker). Both NPR and non-NPR stations exhibit a range of music use, and for both groups, the highest music users will be responsible for the largest proportion of fees. 37 C.F.R. § 380.7; TX 3020 at 6-7. Both sets of rates charge fees only when recordings are used (either as a non-incidental performance or as part of "Music ATH"). *Id.* at 2475:1-5; TX 3035, 3039, 5068; Burkhiser WDT ¶ 11; 37 C.F.R. § 380.7; TX 3020 at 6-7. SoundExchange itself estimated NPR stations' music intensity in covered Music ATH at [redacted] sound recordings per hour, so the NPR agreement is "already correcting for any music intensivity difference." 8/26/20 Tr. 4024:19-21 (Steinberg); TX 3022 "Estimations"; NRBNMLC PFFCL ¶¶ 165-170.

1500. Disputed. There are multiple shortcomings with this comparison that render it meaningless. *First*, the comparison distorts the overall traits of non-NPR noncommercial webcasters by focusing on the single-largest outlier. *Second*, SoundExchange incorrectly claimed that [redacted]. TX 3022 "Estimations" lines 2, 32 (noting that [redacted]); *id.* "Sheet" ([redacted]). *Third*, SoundExchange improperly compared [redacted] for NPR stations ([redacted]) with full-year <u>2018</u> data for EMF – a [redacted] discrepancy – which would have [redacted]. TX 3041 (showing that [redacted]). *Fourth*, SoundExchange's math is wrong. The excess ATH number that SoundExchange used for EMF was estimated by [redacted]. Ploeger

WRT App. D ("[redacted]"). SoundExchange then, however, converted that ATH estimate into Music ATH by first multiplying it by "14 performances per hour on noncommercial Christian AC broadcast stations" to convert it back into performances before then converting into Music-intensive Music ATH at an estimated 15 performances per hour. When that error is corrected, EMF's Music ATH shrinks by over [redacted].[61] *Id.* In short, these numbers are riddled with too many errors and apples-to-oranges issues to be useful.

1501. Disputed. The musical genre transmitted by a particular group of noncommercial webcasters is irrelevant to the statutory rates, which have never differed, and, according to SoundExchange's Mr. Ploeger, should not differ, based on genre. 37 C.F.R. § 380.10; 9/9/20 Tr. 5839:3-11 (Ploeger). Non-NPR and NPR broadcasters both play music in multiple genres. 8/31/20 Tr. 4752:13-17, 4762:13-21 (Burkhiser); 8/13/20 Tr. 1971:14-1972:6 (Orszag); Ploeger WRT ¶ 46 n.38 & App. E; TX 3035. Moreover, there are only three major record companies controlling a substantial majority of recorded music, and they each have a catalog of music spanning multiple genres across multiple labels, including Christian music. Willig CWDT ¶ 26; Harrison WDT ¶ 5; Piibe WDT ¶¶ 5-6; TX 2166 at 4-5. Given this range of genres within each major record company, whether noncommercial webcasters transmit a few genres or more genres would not appear to affect their overall bottom line. NRBNMLC PFFCL ¶¶ 171-175.

1502. Disputed. There is no significant potential for listener diversion by noncommercial broadcasters. Steinberg AWDT ¶¶ 13-22, 25, 42-53, 58; 8/26/20 Tr. 3997:9-22, 3999:3-10, 4006:17-21, 4007:19-22, 4008:9-23, 4009:17-4010:18, 4011:15-4012:5, 10-11 (Steinberg); Cordes CWDT ¶ 16, 19, 26, 29; 8/20/20 Tr. 3265:4-16, 3278:1-10 (Cordes); *supra* ¶ 1374. The Judges previously have found that "because only the relative difference between the benchmark

[61] [redacted] actual performances / 15 performances/hour equals [redacted] estimated Music ATH.

market and the hypothetical target market would necessitate an adjustment, the absence of solid empirical evidence of such a difference obviates the need for such further adjustment." *Web II*, 72 Fed. Reg. at 24095. Here, SoundExchange chose to consider alleged overlap in music on only a single genre and did not study any other genre played by noncommercial stations, including NPR stations. 9/9/20 Tr. 5805:8-12, 5806:16-19 (Ploeger). Given that the adult alternative, classical, and jazz genres most played by NPR stations also are played by numerous commercial services, there is no reason to believe that listener diversion would be any more likely from noncommercial religious stations than from noncommercial alternative, classical, or jazz stations and no basis for adjusting the NPR agreements on this ground. TX 3030, 3035, 3069; 9/9/20 Tr. 5842:14-17 (Ploeger). In any event, record evidence does show that [redacted]:

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

TX 2005 at 89. [redacted]. *Id.* at 64. Listening results were [redacted]. TX 2003 at 93; TX 2004 at 92. Despite the [redacted] music, the NRBNMLC does not seek a discount on this basis but rather only seeks rates that are comparable with those charged to NPR stations for comparable amounts of music use.

1503. Disputed. Professor Steinberg is familiar with the genres of music played on both NPR and religious stations based on his personal listening or review of available genres. 8/26/20 Tr. 4025:23-4026:4, 4065:20-24 (Steinberg). The genre of music played on a service, however, has never been relevant to the rate that the service should pay, and Professor Tucker never attempted to measure "the value of different genres of music" and thus has no basis for arguing that rates should be different on this ground. 8/18/20 Tr. 2474:16-21 (Tucker); *Web II*, 72 Fed. Reg. at 24095. Rather, "[m]usic is music," regardless of genre. 9/9/20 Tr. 5839:3-11 (Ploeger); NRBNMLC PFFCL ¶¶ 229-243.

1504. Disputed. Consolidated reporting is not even mentioned as a component of value in the NPR agreement, and the reporting terms were not included in the proposed terms submitted to the Judges for publication. TX 3020 at 6-10. Mr. Ploeger did not know whether those terms had been agreed to before the agreement was finalized. 9/9/20 Tr. 5824:13-16 (Ploeger). Moreover, SoundExchange has not even attempted to quantify any value it may receive from consolidating reporting. When asked specifically during discovery to identify documents valuing the NPR agreements and to provide "a detailed description of the valuation of … consolidated payment and reporting" in its agreement with NPR, SoundExchange pointed only to TX 3022 and one other document – neither purported to quantify the value of consolidated reporting. TX 2057 at 21-23. Moreover, larger religious broadcasters already are quite consolidated, so SoundExchange already receives much of the benefit of such consolidation; any incremental benefit from further consolidation would be minor. 8/26/20 Tr. 4026:20-4028:1 (Steinberg). The magnitude of that benefit also is questionable given that (a) consolidation does not reduce the volume of such reporting and (b) SoundExchange uses automated processing of the tens of thousands of such submissions, which is overseen by a staff of only 12. Ploeger WRT App. A ¶¶ 9-14. There is no

basis for adjusting the NPR benchmarks based on this factor. *See Web IV*, 81 Fed. Reg. at 26386; NRBNMLC PPFCL ¶¶ 176-181.

1505. Disputed. Professor Steinberg addressed the administrative discount, stating that the NPR annual fee (that did not increase at all from 2016-2020) was lower than what one would expect if one simply extrapolated the estimates in TX 3022 based on a threshold structure and per-performance fees equal to 1/3 of commercial broadcaster fees for additional performances. Steinberg CWRT ¶¶ 7-9; 8/26/20 Tr. 4036:4-19 (Steinberg). Alternative 1 of the NRBNMLC's proposal simply applies this structure with no further discount to account for administrative convenience. NRBNMLC Rate Proposal Ex. A at 9. He further testified that the NPR rates are an upper bound in any event given NPR stations' access to significant and stable government funding not available to non-NPR broadcasters, which further offsets this factor. Steinberg AWDT ¶ 39; 8/26/20 Tr. 4039:19-4040:5 (Steinberg). In any event, these processing costs largely have been automated and likely have decreased significantly. Ploeger WRT App. A ¶ 10.

iii. Exhibit 3022 Strongly Supports Professor Steinberg's Translation of the CPB/NPR Agreement into the NRBNMLC's New Alternative 1

1506. Disputed. SoundExchange described TX 3022 as an effort "made to quantify the value of minimum fees, additional usage fees, and administrative convenience discounts/protection from bad debt" under the NPR agreements. TX 2057 at 22. Professor Steinberg's reliance on it was appropriate.

1507. Disputed. SoundExchange admits that TX 3022 was created in precisely [redacted]. TX 3045 at 1 ([redacted] negotiations). The document thus was not "backward-looking" but included [redacted]

[redacted]. *Compare* TX 3021 at 10 *with* TX 3022 "Estimations." Professor Steinberg properly used TX 3022 to value the 2016-2020 NPR agreement.

1508. Disputed. SoundExchange itself described this document as an effort to value the NPR agreement, including its minimum fee and usage fee components, and it did so for [redacted]. TX 2057 at 22-23; TX 3022 "Estimations"; TX 3045 at 1. These years reflected [redacted]. The reference to [redacted] shows that SoundExchange valued the agreement using [redacted]. TX 3021 at 10; TX 3022 "Estimations." Notably, the 2011-2015 NPR agreement itself charged [redacted] rates for above-cap usage by NPR stations. 74 Fed. Reg. at 40622.

1509. Not disputed. For clarity, "[n]owhere does the statute suggest that the mere existence of such [WSA] agreements, or their general effect on the marketplace or particular negotiations, may not be considered." *Web IV Mem. Op.* at 14. Otherwise, "it would be difficult to deal with the facts on the ground as they exist and to set a rate that is reasonable in the context of the facts." *Id.* at 15 (citation omitted).

1510. Disputed. TX 3022 derived forward-looking valuations for 2014-2015 that are almost identical to the NPR fee set for 2016-2020. TX 3021 at 10; TX 3022 "Estimations"; *supra* ¶¶ 1507-1508. There is no rational explanation for the similarity other than that SoundExchange used the [redacted]. Indeed, while SoundExchange cites some terms of the 2011-2015 NPR agreement, it omits another term that

explicitly sets NPR excess usage rates equal to 1/3 the commercial broadcaster rates without reliance on another agreement. *See* 74 Fed. Reg. at 40622 (setting rates for above-cap performances at $0.00057 to $0.00083 in 2011-2015); *id.* (providing that NPR "License Fee includes; (i) an annual minimum fee of five hundred dollars ($500) for each covered Entity for each year during the Term; (ii) additional usage fees calculated at a royalty rate equal to one third the royalty rate applicable to commercial broadcasters," and (iii) an administrative convenience discount). In other words, in 2011-2015, both NPR and non-NPR stations were subject to the same excess usage fees, which equaled 1/3 of commercial broadcaster rates. *Compare id. with id.* at 40626.

Further, SoundExchange confuses "[redacted]" with "[redacted]," which may, and did, [redacted]. TX 3022 "Estimations" lines 13, 26, "Sheet 1" line 30. Permitted and actual [redacted]. *Id.* "Estimations" line 26 & "Sheet 2" line 10; NRBNMLC PFFCL ¶ 184. SoundExchange cites 2011-2015 Music ATH numbers (which the Judges are barred from taking into account in setting a rate) but ignores that in the current term, NPR was projected [redacted]. TX 3041 "Web V" lines 34, 49. Average Music ATH for the first 3 years of the term alone was just over [redacted]. *Id.* lines 47-49.

1511. Disputed. TX 3022 was a [redacted], and SoundExchange was wrong in its discussion of [redacted]. 8/26/20 Tr. 4078:6-24 (Steinberg); *supra* ¶¶ 1507-1508, 1510; NRBNMLC PFFCL ¶¶ 182-84. Moreover, contrary to SoundExchange's claim, Professor Steinberg did not assume regarding the above-threshold ratio that NPR used all of its license coverage. Rather, he used the [redacted] that

SoundExchange itself did. TX 3022 "Estimations"; Steinberg CWRT ¶¶ 5-6 & nn. 9-11; 8/26/20 Tr. 4033:18-4036:19 (Steinberg).

iv. Basis for Annualizing the ATH Threshold

1512. Not disputed. For clarity, the NRBNMLC's proposal prorates annual ATH according to the number of months in the year that a webcaster streamed. NRBNMLC Rate Proposal Ex. A at 9.

1513. Disputed. The NPR agreement includes annual Music ATH caps, and there is no reason why the cap for non-NPR broadcasters should not be annualized as well. TX 3020 at 7-8. Annualizing the cap would allow noncommercial services to carry forward usage that they would have been entitled to under a monthly cap but did not use, would reduce the mission-obstructing behavior of restricting listenership, and would simplify the payment and processing of excess usage fees by having only one threshold per year to monitor. Steinberg AWDT ¶ 63; 8/26/20 Tr. 4040:6-21 (Steinberg); Cordes CWDT ¶ 37. There is nothing unfair in allowing a year-long Christmas channel to spread out usage if, in fact, it is operating all-year and underconsuming its allotment in other months. If it only operates during the holidays, the NRBNMLC's proposal would prorate the cap based on the time during which the channel operates. NRBNMLC Rate Proposal Ex. A at 9. In any event, year-long Christmas channels do not appear to be common – only [redacted] noncommercial channels with "Christmas" in their name out of many hundreds paid royalties in 2018, and some may not operate year-long. TX 3038. With respect to the K-LOVE Christmas channel, the savings would only amount to a number below [redacted] of EMF's total 2018 royalty payment. Ploeger WRT App. D; TX 3038.

1514. Disputed. For reasons discussed elsewhere, there is no serious threat of significant cannibalization. NRBNMLC ¶¶ 44-110. Moreover, there is no special magic in a monthly versus an annual threshold, and SoundExchange not only agreed to an annual threshold with NPR

broadcasters, but it agreed that the threshold could be shared, which means that a single covered NPR station could have very significant usage without paying higher excess usage fees so long as the overall cap is not exceeded. TX 3020 at 7-8. Only one commercial channel with "Christmas" in its name was listed in 2018 data. TX 3030 ([redacted]).

2. There Is a Sound Basis for the NRBNMLC's New Alternative 2

1515. Disputed in part. To ensure full coverage, the NRBNMLC proposes to apply Alternative 1 rates to licensees not covered by the flat fee. NRBNMLC Rate Proposal Ex. A at 10.

1516. Not disputed.

1517. Not disputed. For clarity, the adjustment also is based on the relationship between the two most recent NPR agreements. TX 3020, 3021.

1518. Disputed. The proposal does cover all noncommercial licensees, and there is nothing in the statute that would preclude adoption of a flat fee. NRBNMLC Rate Proposal Ex. A at 10.

1519. Disputed in part. The NRBNMLC is part of the NRB, which is a legal entity, and it is governed by a Board that includes noncommercial statutory licensees. TX 5316. It long has been the key entity that has negotiated music license rates that apply not only to religious broadcasters but non-NPR, non-college noncommercial broadcasters as well. Emert WDT (*Web IV*) ¶ 16; *e.g.*, *Web IV*, 81 Fed. Reg. at 26391-92.

1520. Disputed. There is nothing in the statute barring the Judges from adopting the NRBNMLC's Alternative 2. Rather, it broadly authorizes the Judges "[t]o make determinations and adjustments of reasonable terms and rates of royalty payments as provided in sections 112(e)" and "114." 17 U.S.C. § 801(b). Moreover, the market is not confined to agreements involving a single service and a single record company. *Web I*, 67 Fed. Reg. at 45244-45; *supra* ¶¶ 1343, 1492.

1521. Disputed. *Web I*, 67 Fed. Reg. at 45244-45; *Web III Remand*, 79 Fed. Reg. at 23106; *Web III*, 76 Fed. Reg. at 13040; *supra* ¶¶ 1487, 1489-1494.

1522. Disputed. Alternative 2 does account for somewhat higher music use by proposing somewhat higher fees and Music ATH caps. TX 3020 at 7-8. Like noncommercial licensees, stations covered by the NPR agreement also consist of some that use much more music than others: at one point, only [redacted] Covered Entities out of hundreds generated the highest [redacted]% of Music ATH. TX 3022 "Comments." SoundExchange nonetheless agreed that NPR stations with differing music use could share Music ATH, just like Alternative 2 proposes to do. TX 3020 at 7-8; NRBNMLC Rate Proposal at 11-12. There is no reason not to adopt it, particularly when Professor Steinberg showed that the increased fee in the 2021-2025 NPR agreement increased relatively proportionately with the increased Music ATH caps. Steinberg CWRT ¶ 10; 8/26/20 Tr. 4038:8-4039:18 (Steinberg). Indeed, before the NRBNMLC amended its rate proposal, Professor Tucker appeared to criticize it for <u>not</u> proposing a flat fee based on the NPR agreement. Tucker WRT ¶ 142 & n.302. *Supra* ¶¶ 1397, 1497-1505; NRBNMLC PFFCL ¶¶ 44-110, 201-247.

1523. Disputed. Consolidated reporting is not mentioned as a component of value in the NPR agreement (although other administrative components are), and Mr. Ploeger did not even know whether those terms had been agreed to before the agreement was finalized and was unable to provide specifics on those terms. TX 3020 at 6-10; 9/9/20 Tr. 5821:25-5823:15, 5824:13-16 (Ploeger). SoundExchange has not attempted to quantify any value it may receive from consolidating reporting, and Mr. Ploeger was unable to do so at trial. TX 2057 at 21-23; 9/9/20 Tr. 5884:5-5885:9 (Ploeger). Moreover, consolidation does not reduce reporting volume, and processing is largely automated. Ploeger WRT App. A ¶¶ 9-14; *supra* ¶ 1504. The NRBNMLC

included in its proposal the same reporting provision that NPR/CPB and SoundExchange themselves included in their submitted terms, and it is willing to discuss consolidation. *Compare* TX 3020 at 9 *with* NRBNMLC Rate Proposal Ex. A at 14.

1524. Not disputed. For clarity, Mr. Ploeger did not know whether the provisions had changed over time. 9/9/20 Tr. 5883:13-19 (Ploeger).

1525. Disputed in part. Professor Tucker provided no basis for knowing whether station data was "messy." SoundExchange has not quantified any savings from such reporting, and Mr. Ploeger was unable to do so at trial. TX 2057 at 21-23; 9/9/20 Tr. 5884:5-5885:9 (Ploeger). They likely are not that significant: processing is largely automated, and reporting is not a stated element of value in the NPR agreement. Ploeger WRT App. A ¶¶ 9-14; TX 3020.

1526. Not disputed. For clarity, the NRBNMLC's Alternative 2 includes the same reporting provision that appears in 37 C.F.R. § 380.32(b), which does not mention consolidation.

1527. Disputed. *Supra* ¶¶ 1504, 1523, 1525. The NRBNMLC is willing to discuss providing consolidated reporting with SoundExchange, but the specifics are not set forth in the regulations for it to review. 37 C.F.R. § 380.32(b). Given that SoundExchange has not quantified the value of such reporting, there is no basis for adjusting the NPR benchmark on this basis. *Web II*, 72 Fed. Reg. at 24095.

1528-1529. Disputed. Alternative 2 does cover all noncommercial licensees, as it is additive to Alternative 1. NRBNMLC Rate Proposal Ex. A at 10.

XII. MINIMUM FEE

Disputed in part. While the Services have no quarrel with this *description* of SoundExchange's proposal, to be clear, they oppose increasing the minimum fee from the current statutory rate of $500.

A. An Increase In The Minimum Fee Is Not Warranted; Its Purpose Is to Cover

SoundExchange's Incremental Costs, Not Its Overall Costs

1531-35. Not disputed.

1536. Disputed in part. The purpose of the minimum fee is to cover SoundExchange's *incremental* administrative costs, not its *overall administrative costs*. As SoundExchange acknowledges, the costs of the collective are to be borne entirely by copyright owners, not by licensees: SoundExchange's administrative costs are funded out of royalties, rather than any additional assessment paid by licensees. *See* TX 3023 at 11 ("The costs of SoundExchange in regards to [statutory] royalties are deducted pursuant to federal law from the royalties collected under the statutory licenses."); TX 3024 at 11 (same). Indeed, while the Copyright Act specifies that the "reasonable costs" of SoundExchange "may [be] deduct[ed] from any of its receipts, prior to the distribution of such receipts to any person or entity entitled thereto," 17 U.S.C. § 114(g)(3), there is no provision of the Act that authorizes SoundExchange to charge licensees amounts over and above royalties owed, to fund the costs of SoundExchange. This stands in contrast with the statutory scheme established by Congress under section 115, where Congress specified that the costs of the collective under that statutory license (the Mechanical Licensing Collective) are to be borne by licensees. *See* 17 U.S.C. § 115(d)(7) (specifying that the "collective total costs" must be funded by assessments and other payments made by licensees); *see also* 85 Fed. Reg. 831 (Jan. 8, 2020) (establishing the amount of the initial assessment). Thus, using the minimum fee to help fund the overall administrative costs of SoundExchange would run afoul of the Act. Instead, the minimum fee serves a very different purpose. In *Webcasting I*, webcasters argued that the "only justification for imposing a minimum fee is to protect against a situation in which the licensee's performances are such that it costs the license administrator more to administer the license than it would receive in royalties," and that "the appropriate calibration for the minimum fee is the incremental costs to the license administrator

of adding another license to the system regardless of how many performances they make." *In re The Matter of Rate Setting for Digital Sound Performance Right in Sound Recordings and Ephemeral Recordings* ("*CARP Report*"), Dkt. No. 2000-9 CARP DTRA 1&2, Report of the Copyright Arbitration Royalty Panel at 32. The Copyright Arbitration Royalty Panel "concur[red] with the [webcasters] that one purpose of the minimum fee is to protect against a situation in which the licensee's performances are such that it costs the license administrator more to administer the license than it would receive in royalties." *CARP Report* at 95. The Librarian of Congress, in reviewing the CARP decision, agreed that the minimum fee was intended to cover "the *incremental* cost of licensing." *Web I*, 67 Fed. Reg. *at* 45,263 (emphasis added).[62] Although later determinations (including *Web II*, as described in this paragraph) have loosely referenced the minimum fee being used to "cover SoundExchange's administrative cost,"[63] those references must be read consistently with the Copyright Act and the *Webcasting I* determination. *See* 17 U.S.C. 803(a)(1) (requiring the Judges to act "on the basis of . . . prior determinations . . . of the . . . Librarian of Congress [and] copyright arbitration royalty panels").

1537-38. Not disputed.

1539-42. Disputed in part. As described above, the purpose of the minimum fee is to cover SoundExchange's *incremental* administrative costs, not its *overall administrative costs*. *See supra* ¶ 1536; *CARP Report* at 95 ("concur[ring] with the [webcasters] that one purpose of the minimum fee is to protect against a situation in which the licensee's performances are such that it costs the license administrator more to administer the license than it would receive in

[62] The CARP also explained, and the Librarian of Congress agreed, that another "arguable purpose is to capture the intrinsic value of a service's *access* to the full blanket license, irrespective of whether the service actually transmits any performances." *CARP Report* at 95; see also 67 Fed. Reg. at 45263. But SoundExchange has not attempted to justify an increase in the minimum fee based on a change in such "access value." *See* Leonard CWRT ¶ 90 n.189.

[63] *See, e.g.*, *Web II*, 72 Fed. Reg. at 24096; *Web III*, 79 Fed. Reg. at 23124; *Web IV*, 81 Fed. Reg. at. 26396-97.

royalties."). Although some subsequent determinations by the Judges have loosely referenced the minimum fee being used to "cover SoundExchange's administrative cost," those references must be read consistently with the Copyright Act and the *Webcasting I* determination. *See* 17 U.S.C. 803(a)(1) (requiring the Judges to act "on the basis of . . . prior determinations . . . of the . . . Librarian of Congress [and] copyright arbitration royalty panels"); *see also supra* ¶ 1536.

B. SoundExchange's Incremental Costs Have Not Increased And Its Overall Cost Calculation Is Flawed

1543. Disputed. Again, as described above, the purpose of the minimum fee is to cover SoundExchange's *incremental* administrative costs, not its *overall administrative costs*. *See supra* ¶ 1536.

1544. Disputed. SoundExchange's calculated per-channel administrative cost of $4,448 is legally irrelevant because it does not reflect SoundExchange's *incremental* administrative costs. *See supra* ¶ 1536. The figure is also flawed, even on its own terms, at several levels, as described in the paragraph that follows. *See infra* ¶ 1545.

1545. Disputed in part. SoundExchange's per-channel administrative cost figure calculation is fraught with errors. First, SoundExchange's per-channel cost calculation begins with a $55 million figure that reflects SoundExchange's 2018 "Total Operating Administrative Expenses" rather than the cost of processing and distributing royalties, specifically. *See* 9/9/20 Tr. 5860:2-5861:4, 5863:6-12, 5866:15-5874:3 (Ploeger); *see also* TX 3023 at 43; Steinberg WRT ¶ 19. As Mr. Ploeger testified at the hearing, the $55 million figure represents "the total administrative cost for everything," "it's not limited to just webcasting." 9/9/20 Tr. 5863:6-12. Indeed, Mr. Ploeger acknowledged that the figure includes many line items that he was unable to confirm reported costs associated with processing and distributing royalties, including: "Property and Equipment Depreciation" ($4,913,768); "Rate-Setting Proceedings Amortization" (which

Mr. Ploeger presumed included legal fees and expert fees for rate setting proceedings) ($8,214,936); "Interest expense" ($136,004); and "Tax expense" ($212,998). *See id.* 5867:1-5874:3; TX 3023 at 43; *see also* Steinberg WRT ¶ 19; 8/26/20 Tr. 4043:1-5 (Steinberg). Nor could Mr. Ploeger confirm whether the $55 million figure included SoundExchange's fixed costs. 9/9/20 Tr. 5873:16-5874:3 (Ploeger). Second, SoundExchange's allocation of its inflated administrative expense figure of $55 million to calculate an administrative cost per channel is seriously flawed. SoundExchange derives its per-channel cost by dividing the $55 million by SoundExchange's total number of licensees, and then dividing that number by an estimate of the average number of channels per licensee. *Id*. at 5860:5-5861:4. However, SoundExchange's channels-per-licensee estimate is predicated on a problematic assumption: for services for which SoundExchange lacked information about their total number of channels, but for which it was generally aware that the service had a large number of channels, it assumed the service had 100 channels. *Id.* at 5857:18-5859:5; Ploeger WRT App. A ¶ 49. Mr. Ploeger testified that Pandora was one such station even though Pandora has more than 100 channels—it possibly has millions. 9/9/20 Tr. 5869:6-5860:1. SoundExchange's calculation thus spreads the costs of administering Pandora's millions of channels across an artificially limited subset of stations, thereby falsely inflating SoundExchange's administrative cost per channel. *See id.* 5863:15-5864:15.

1546. Disputed in part. SoundExchange's calculated per-channel administrative cost figure is both legally irrelevant and seriously flawed. *See supra* ¶¶ 1544-1545.

1547. Disputed in part. SoundExchange's calculated per-channel administrative cost figure is both legally irrelevant and seriously flawed. *See supra* ¶¶ 1544-1545.

1548. Disputed. SoundExchange's calculated per-channel administrative cost figure is both legally irrelevant and seriously flawed. *See supra* ¶¶ 1544-1545. Particularly relevant,

here, is the fact that, as described above, in calculating its average channels per webcaster figure, SoundExchange assumed that larger webcasters, for which it could not ascertain the precise number of channels that the webcaster possessed, had *only 100 channels*. 9/9/20 Tr. 5857:18-5859:5; Ploeger WRT App. A ¶ 49. And SoundExchange made that assumption with respect to Pandora, although it admitted during the hearing Pandora has many more than 100 channels—possibly *millions.* 9/9/20 Tr. 5859:6-5860:1 (Ploeger). As such, SoundExchange has not substantiated its claim in this paragraph that there has been a "long-term decrease in the average number of channels or stations per webcaster licensee," SX PFFCL ¶ 1548, with any reliable data. *See also supra* ¶ 1544.

1549. Disputed in part. SoundExchange's calculated per-channel administrative cost figure is both legally irrelevant and seriously flawed. *See supra* ¶¶ 1544-1545. In particular, as discussed above, SoundExchange's calculation of the average number of channels per webcaster is based on faulty assumptions that render its analysis unreliable. *See* SX PFFCL ¶¶ 1544, 1549.

1550. Not disputed.

1551. Disputed. The purpose of the minimum fee is to cover SoundExchange's *incremental* administrative costs, not its *overall* costs. *See supra* ¶ 1536. The record does not show any increase in SoundExchange's incremental costs since *Web IV* that would justify any increase to—let alone a doubling of—the minimum fee. SoundExchange offered no such evidence, focusing instead on a supposed increase in its overall administrative costs, *see, e.g.*, Ploeger WRT ¶¶ 4-15; *id.* App. A ¶¶ 46-51, which standing alone is irrelevant to setting the minimum fee. If anything, the record shows that SoundExchange's incremental administrative expenses have decreased since *Web IV*. SoundExchange witnesses touted SoundExchange's "major technology initiatives over the last several years," including its client portal

"SoundExchange Direct"; its licensee portal "Licensee Direct"; its public site that allows searching of ISRCs; and its information technology platform called "Next Gen," which "consists of a set of six interoperating expert systems or modules supporting the various stages of the royalty collection and distribution process." Ploeger WRT App. A ¶ 9; *see also id.* ¶ 10 (observing that statements of account and reports of use "[h]istorically … were mostly sent to SoundExchange by postal mail" but now "are mostly delivered through Licensee Direct," an electronic portal); 8/11/20 Tr. 1470:22-24 (Orszag) ("[redacted]"). The electronic system processing tens of thousands of licensee submissions is overseen by a staff of only 12. Ploeger WRT App. A ¶ 11.

Further, despite SoundExchange's claim that its costs are not "fixed," *see supra* ¶ 1545, Mr. Ploeger admitted at the hearing that fixed costs may be embedded in the $55 million "Total Operating Administrative Expenses" figure from which SoundExchange calculates its costs per-channel, *see* 9/9/20 Tr. 5873:16-5874:3. Moreover, webcasters paying only the minimum fee—50% of commercial services and 97% of noncommercial services—decrease SoundExchange's processing costs dramatically. Ploeger WRT App. A ¶ 34. Rather than submitting 13 statements of account per year as a large webcaster does, they submit only one. 37 C.F.R. § 380.3(a) (requiring statements only when payments are due). They also submit 85% fewer weeks of reports of use than does a large webcaster. *Id.* § 370.4(d)(3)(ii) (permitting minimum fee webcasters to submit reports of use for 8 weeks per year in lieu of census reporting). Given the low level of usage of these services, NAB proposed in a pending rulemaking that they be exempt from reporting altogether, which would decrease processing costs even further. *See* Joint Comments of NAB and the Radio Music License Committee Regarding the Copyright Royalty

Judges' Notice and Recordkeeping Rulemaking, Docket No. 14-CRB-0005 (RM), 50-52 (June 30, 2014). SoundExchange already agreed to do so for college broadcasters that webcast at or below 80,000 monthly ATH if they pay a $100 proxy fee, and there are [redacted] of other noncommercial webcasters also at that low usage level. TX 3038; TX 3019 at 9-10. The existence of small—but many—services provide no basis for raising the minimum fee.

1552. Disputed. As described in *supra* ¶ 1536, the costs of administering section 114 licenses are to be borne entirely by copyright owners, not by licensees. Indeed, while the Copyright Act specifies that the "reasonable costs" of SoundExchange "may be deducted from any of its receipts, prior to the distribution of such receipts to any person or entity entitled thereto," 17 U.S.C. § 114(g)(3), there is no provision of the Act that authorizes SoundExchange to charge licensees amounts over and above royalties owed, to fund the costs of SoundExchange. Rather, the "only justification for imposing a minimum fee is to protect against a situation in which the licensee's performances are such that it costs the license administrator more to administer the license than it would receive in royalties," and that "the appropriate calibration for the minimum fee is the incremental costs to the license administrator of adding another license to the system regardless of how many performances they make." *CARP Report* at 32. Presently, (despite SoundExchange's claim that royalties are being "sucked out of [the] system and being used to process statutory licensing"), even at its current level, the minimum fee serves not to offset administrative costs, but as a source of extra royalties for copyright owners, above and beyond the statutory rate set by the Judges. During the hearing, Mr. Ploeger testified that, where a licensee's minimum fee payment exceeds the value of the licensee's actual performances, the payment is distributed to copyright owners as an additional royalty, over and above the royalty that had already been paid to those copyright owners for the actual usage at the statutory per-play

rate. *See* 9/9/20 Tr. 5874:18-5875:21, 5876:8-5878:3. An increase in the minimum fee will, therefore, not help offset any increase in incremental costs, but instead will funnel more royalties to copyright owners. Put simply, such an increase will, in effect, be a backdoor royalty bump borne by the smallest copyright owners.

1553. Disputed in part. For the reasons discussed in *supra* paragraphs 1530-1553, SoundExchange has not shown that doubling the minimum fee is justified.

C. SoundExchange's Settlement with CBI Shows that SoundExchange's Proposed Increase to the Minimum Fee is Excessive

1554. Disputed. The fees charged in the CBI agreement increase by only $50 annually and include substantial usage. TX 3019 at 6-7. They are thus not strictly minimum fees and do not remotely support SoundExchange's proposal to double the fee.

1555. Disputed. CBI, not SoundExchange, had a far greater incentive to settle, as its litigation costs reduced to zero, while SoundExchange's costs decreased only modestly given that it still needed to litigate both a noncommercial and commercial case. This indicates that CBI fees were <u>higher</u>, not lower, than willing buyer/willing seller rates. Steinberg AWDT ¶ 31.

1556. Disputed. SoundExchange's processing costs for the 50% of commercial services and 97% of noncommercial services similarly are reduced by over 85% given the far fewer submissions made by this group. *See supra* ¶¶ 1551-1553. SoundExchange could decrease those costs further by deciding to waive reports of use for a similar fee for the [redacted] noncommercial webcasters also webcasting at or below 80,000 monthly ATH. TX 3038.

D. Other Indicators Do Not Support SoundExchange's Minimum Fee Increase

1557. Disputed. SoundExchange itself proposed a $500 minimum fee through 2020, which was not disputed by the services, so it is not a "bargain" but merely reflects a meeting of the minds of willing buyers and sellers. *Web IV*, 81 Fed. Reg. at 26396-97. Further, the fee was

charged per licensee, not per channel, in *Web* I running through 2002 (as Mr. Orszag conceded), which was vastly less expensive for entities with multiple channels. *Web I*, 67 Fed. Reg. at 45274; 8/13/20 Tr. 2015:22-25 (Orszag). It has not been in place "for over twenty years."

1558. Disputed. SoundExchange agreed to $500 for 2020, so that year, not 1998, is the year from which to consider changes. *Web IV*, 81 Fed. Reg. at 26396-97; Steinberg CWRT ¶ 15. To the extent that inflation is relevant at all—and it is not—at a minimum, it should be assessed from 2020 through 2025, which yields an increase to only about $550-$555. *Id.* ¶ 14.

1559. Disputed. If anything, SoundExchange's costs have decreased over time due to the introduction of multilayered automated processing technology. *See supra* ¶ 1551.

1560-1563. Disputed. The minimum fee is designed to cover incremental processing costs; "it does not address actual usage." *Web II*, 72 Fed. Reg. at 24099; Steinberg AWDT ¶ 13. Despite SoundExchange's quotation to a passage from *Web II* where the Judges considered whether to add a usage element to the noncommercial fee, the Judges refused to do so, instead finding that it had "no basis upon which to add a usage element that is not recoupable to the minimum fee" and that $500 was "a ceiling beyond which [some noncommercial entities] would not be willing buyers." *Id.*

1564-1565. Disputed. For several reasons, SoundExchange's reliance on musical works fees to support its minimum fee proposal is improper. *First*, SoundExchange itself repeatedly has opposed used of musical works fees as proof of sound recording fees. CARP Report at 41; *Web II*, 72 Fed. Reg. at 24092-93; Steinberg CWRT ¶ 20. *Second*, the fees are not minimum fees but flat fees covering unlimited broadcasting. 37 C.F.R. § 381.5(c). *Third*, "the fees are for broadcasting rights, not webcasting rights, where administrative costs may differ." Steinberg CWRT ¶ 20. *Fourth*, the structure of the collectives licensing public performances of

musical works is quite different from SoundExchange, as there are multiple collectives licensing mutually exclusive repertories. "Adding administration costs from separate elements would result in double-counting some cost elements that could be avoided if administration were handled by a single entity" such as SoundExchange. *Id.* There simply are too many differences for this analogy to be meaningful.

1566. Disputed in part. Beyond its reference to other statutory schemes not applicable here, SoundExchange offers no justification for increasing the minimum fee cap. Assuming it is simply intended to be multiple of the minimum fee, NAB opposes the increase for all the same reasons discussed above. *See supra* ¶¶ 1530-65.

XIII. EPHEMERALS

1567-68. Not disputed.

A. The Ephemeral License Has No Independent Economic Value, and It Is Appropriate To Express the Value of Ephemeral Copies as a Fixed Percentage of a Bundled Royalty

1569. Not disputed.

1570. Disputed. While the Services do not dispute that ephemeral recording right is frequently needed, it does not have independent economic value. *See Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Final Rule*, 78 Fed. Reg. 23054 at 23055-56 (Apr. 17, 2013) ("*SDARS II*"); *Determination of Royalty Rates for Digital Performance Right in Sound Recordings and Ephemeral Recordings: Final Rule and Order*, 79 Fed. Reg. 23102 (Apr. 25, 2014) at 23104-105 ("*Web III Remand*"); *Web II*, 72 Fed. Reg. at 24101-02 (citing U.S. Copyright Office: A Report of the Register of Copyrights Pursuant to §104 of the Digital Millennium Copyright Act at 144 n.434 (Aug. 2001)).

1571. Not disputed.

1572. Not disputed with respect to commercial services. The NRBNMLC disputes

that agreements with commercial services are relevant benchmarks for noncommercial broadcasters but does not dispute SoundExchange's ephemeral recording proposal because it is found in SoundExchange's agreement with NPR, which is a relevant benchmark for noncommercial services. TX 3020 at 8.

1573. Not disputed.

B. The Best Benchmark for the Allocation Is the Agreement Between Artists and Record Companies

1574-75. Not disputed.

C. The Judges Should Make the Editorial Changes Proposed by SoundExchange and Embraced by NRBNMLC

1576-77. Not disputed.

XIV. TERMS AND OTHER REGULATORY LANGUAGE

A. Standards for the Adoption of Terms and Other Regulatory Language

1578. Disputed in part. SoundExchange is correct that the Judges should consider "matters of feasibility and administrative efficiency" in adopting terms. *Web II*, 72 Fed. Reg. at 24102. But the Copyright Act still requires that the terms be ones that willing buyers and willing sellers would agree to. *Id.*; 17 U.S.C. § 114(f)(1)(B). In other words, terms can be imposed for efficiency's sake only if it can be demonstrated that "rational willing buyers and willing sellers" would select them. *Web II*, 72 Fed. Reg. at 24102.

B. Consistency with PSS/SDARS Regulations

1579. Disputed in part. Although the Services do not oppose the technical amendments to the proposed rule, they do oppose the standard proposed by SoundExchange, which would require the Judges to "conform the webcasting regulations to the PSS/SDARS regulations in Part 382, except where there is a good reason not to." The webcasting rules and SDARS rules need not necessarily be parallel, and conforming them purely for the sake of

conformity could introduce unintentional changes or problems. Indeed, the PSS/SDARS regulations were adopted under a different ratemaking standard than the statutory license at issue here. *See SDARS III*, 83 Fed. Reg. at 65210 (explaining that the section 801(b)(1) factors applied to "determinations and adjustments of reasonable terms and rates" for the statutory license for satellite radio and preexisting subscriptions services). A party's burden here is different: each proposed term must be one that would have been agreed to by willing buyers and willing sellers in the marketplace. 17 U.S.C. § 114(f)(1)(B). And even if the legal standards were the same, it would be inappropriate to relieve a party of its burden to demonstrate the need for specific terms in each proceeding.

1580. Disputed in part. SoundExchange is correct that the Services have proposed keeping most of the existing webcasting terms. But this would not "introduce complexity and confusion," as SoundExchange argues. Making unnecessary changes would. *See supra* ¶ 1579.

1581. Not disputed. The Services note, however, that "consistency of terms" across licenses does not trump the statutory willing buyer/willing seller standard. *See supra* ¶ 1579.

1582. Disputed in part. The assertions of operational advantages for SoundExchange are neither supported by evidence nor sufficient on their own to justify organizational and other changes to the existing webcasting rules. Changes to the existing rules can create operational burdens for webcasters, and SoundExchange—as the proponent of the changes—has the burden to justify them. While the technical changes proposed here are minor enough that the Services have not opposed them, the Judges should not adopt a standard that would, in the future, allow SoundExchange to propose substantial changes without showing the efficiencies for both sides of the willing buyer/willing seller bargain. *See supra* ¶ 1579.

1583. Disputed. The "extra work" required to flip some pages when reading the

regulations is insufficient on its own to justify significant organization changes to the rules. Nonetheless, as noted, the Services do not oppose SoundExchange's limited changes here.

C. Designating SoundExchange as the Collective

1584-85. Not disputed.

1586. Disputed. This is self-serving hearsay from a SoundExchange board member and SoundExchange employees. The Copyright Royalty Judges should not credit it.

1587. Not disputed.

D. Audit Terms

1588. Disputed in part. Licensees provide reports of usage and statements of account each month and are required to attest to their truthfulness and accuracy. *See* 37 C.F.R. § 380.3. There is no record evidence of what the audits are "supposed" to do, other than simply verify that the correct amounts are being paid.

1589. Not disputed.

1590. Disputed. There is no evidence of widespread "delaying" or "stonewalling" of audits by services "to prevent meaningful scrutiny of their activities." To the contrary, delays often occur because of the burdensome nature of the requests. *See* Joint PFFCL ¶¶ 342-45; Barry WRT ¶ 11. In the Services' experience, SoundExchange's selected auditor frequently delays the process by requesting access to documents that are well beyond the scope of what is reasonably necessary to review a licensee's payments. *See, e.g.*, Barry WRT ¶ 9-11.

1. Late Fee for Late Payments Discovered in Audits

1591. Not disputed.

1592. Disputed. An underpayment discovered in an audit is not the same as a late payment or past-due payment *known* to be owed but made after deadline. The statutory and regulatory provisions that SoundExchange cites regarding late fees for section 115 royalties do

not even *mention* audits, and there is no reason to believe that they apply to audits. *See* 17 U.S.C. § 115(d)(8)(B)(i); 37 C.F.R. § 385.3.

1593. Disputed in part. SoundExchange refers to "late payments discovered in audits," but that is a misnomer; they are *underpayments* on timely payments. *See supra* ¶ 1592. In *SDARS III*, the Judges appropriately applied the federal post-judgment interest rate to such underpayments. 83 Fed. Reg. at 65262.

1594. Not disputed. While the Services do not dispute that this is SoundExchange's proposal, they oppose that proposal for the reasons set forth below. *See infra* ¶¶ 1596-1618.

1595. Not disputed.

1596. Disputed. The post-judgment interest rate is appropriate for the reasons discussed in paragraphs 1597-1618 below.

i. There is No Reason to Require Webcasters to Pay Higher Late Fees Than PSS and SDARS Providers

1597. Disputed. The Judges did not adopt a "near-zero late fee" in *SDARS III*, but they did adopt the post-judgment interest rate for underpayments discovered in audits and should do so here too. *See SDARS III,* 83 Fed. Reg. at 65210, 65262; *see also* Joint PFFCL ¶¶ 328-32. The rate adopted in *SDARS III* is the same interest rate applied to federal court judgments, which is "equal to the weekly average 1-year constant maturity Treasury yield, as published by the Board of Governors of the Federal Reserve System." *See* 28 U.S.C. § 1961(a). It so happens that, in today's challenging economic environment, the rates are lower than they have ever been in the last five years, as reported by the Federal Reserve at https://fred.stlouisfed.org/series/DGS1. But Congress obviously believed that pegging the interest rate for federal court judgments to this metric would be sufficient to give payors sufficient incentive to pay on those judgments. SoundExchange provides no basis for the Judges to disagree with that legislative judgment.

1598. Disputed in part. The Services do not dispute that there are far fewer PSS and SDARS services than webcasting services, but they dispute that this is a reason to adopt what the Judges themselves have called a "punitive" 18% per year late fee for audits. *SDARS III*, 83 Fed. Reg. 65262.

1599. Not disputed.

1600. Disputed. Testimony in this proceeding demonstrates that the Services strive to pay full and accurate royalties for use of sound recordings, both because the law requires it and because it is the right thing to do. *See* Ritz WDT ¶¶ 7-8, 41-42; Joint PFFCL ¶ 332. SoundExchange has provided no evidence of the "moral hazard" it posits. To the extent there is any moral hazard here, it belongs to SoundExchange, which, under the current 18% interest rate, has an incentive to delay the conclusion of audits and collect a healthy return on any underpayments. Joint PFFCL ¶ 332; Barry WRT ¶ 25. Moreover SoundExchange's "Russian roulette" solution to its invented moral hazard is itself punitive: a service unlucky enough to be selected for an audit will be hammered with a 18% per year late fee on even good-faith underpayments.

1601. Disputed. The record demonstrates that underpayments even in the context of a per-play royalty may be the result of good faith disputes. *See* Williams WDT ¶ 43; Ritz WRT ¶ 42; 8/31/20 Tr. 4523:11-4524:12 (Barry).

1602. Not disputed. However, SoundExchange's observation that the August 2020 prime rate was 3.25% does not support SoundExchange's proposed rate, which is almost six times higher (18%).

1603. Not disputed. However, the cited rates at which webcasters have borrowed money do not support SoundExchange's proposed 18% rate, which is multiples higher.

1604. Disputed. SoundExchange's unfounded speculation that the Services' proposal would create "perverse incentives" for webcasters should be afforded no weight. Citing Mr. Bender's testimony, SoundExchange argues that the Services' proposed interest rate would amplify the statutory license's moral hazard by providing cheap borrowing for webcasters that have their underpayments discovered. Ploeger WRT App. A (Bender WDT) ¶ 110. Not only does Mr. Bender groundlessly attribute duplicitous behavior to statutory webcasters, but SoundExchange also ignores the logical converse of this accusation: an 18% annual interest rate encourages SoundExchange to delay audits and their resolution in the hope of capitalizing on the underpayment interest. *See* Joint PFFCL ¶ 332; Barry WRT ¶ 25. There is no evidence that either SoundExchange or the webcasters run their businesses that way. Ritz WDT ¶¶ 7-8, 41-42; Williams CWDT ¶ 43; Pifer WRT ¶ 8.

iii. Record Evidence Demonstrates That Many Errors Are the Result of Good Faith Mistakes

1605. Disputed in part. Quality assurance processes cannot catch all errors. Underpayments discovered in an audit, unlike late payments, are likely to stem from some sort of inadvertent miscalculation or technical error in performance counts. Witz WDT ¶ 46; Williams CWDT ¶ 43; Pifer WRT ¶ 8. SoundExchange's argument that it "sometimes" chooses to waive late fees is cold comfort when its proposed interest rate is a usurious 18%; the matter should not be left to SoundExchange's discretion.

1606. Disputed in part. SoundExchange has pointed to no evidence of a "deliberate policy decision" or "outright fraud" regarding underpayments. Underpayments discovered in an audit are unlikely to stem from a known failure to comply. Witz WDT ¶ 46; Williams CWDT ¶ 43; Pifer WRT ¶ 8. Such a policy decision would directly contradict the licensees' relationships with artists and business incentives to ensure royalty payments are timely and accurate. Ritz

WDT ¶¶ 7-8, 41-42.

1607. Disputed in part. The definition of a performance in the existing rates and terms does exclude some performances that last less than 30 seconds, so the issue of short performances has not always been clear. *See* 37 C.F.R. § 380.7 (definition of "Performance"). Moreover, the referenced decisions addressed particular limited periods: before 2006 (*Web I*) and after 2015 (*Web IV*). The *Web III* remand decision was not delivered until the spring of 2014.

1608. Disputed in part. The referenced underpayments all occurred in periods (2009-2012) that were *not covered* by the above referenced decisions, and thus they do not provide examples of intentional under-reporting sufficient impose additional audit requirements or a punitive late fee on all underpayments. Just as the Judges found in *SDARS III*, "the more punitive 1.5% per month rate" is not appropriate given that audits often "uncover good faith errors." *SDARS III*, 83 Fed. Reg. at 65210, 65262; *see also* Williams CWDT ¶ 43; Barry WRT ¶ 24; Pifer WRT ¶ 7. The failure to make timely payments is simply not analogous to underpayments made in good faith and on a timely basis, but which are later discovered to be deficient in an audit several years later. Joint PFFCL ¶ 329.

1609. Disputed in part. SoundExchange has presented no evidence that [redacted] has actually excluded streams for which payment is owed. In any event, these references to [redacted] marketing materials are not evidence that *webcasters* are acting in bad faith, or that a late fee on audits is the way to address an issue with the webcasters' vendors.

iv. Willing Buyers and Willing Sellers In This Market Would Not Agree To A 18% Per Year Late Fee for Underpayments Discovered In An Audit

1610. Disputed. SoundExchange claims that adopting the post-judgment rate as an audit late fee would not meet the willing buyer/willing seller standard. But SoundExchange fails to acknowledge the application of their argument to the current rate. The current interest rate is

so outrageously high that out of several thousand contracts entered into by Sirius XM and Pandora that relate to audit findings, such an interest rate exists in less than ten of them. 8/31/20 Tr. 4525:12-16, 4530:1-7 (Barry); Joint PFFCL ¶ 330.

Additionally, the interest rate applied to federal court judgments adopted in *SDARS III* already reflects Congress's judgment about what is necessary to fully compensate copyright owners from any losses related to underpayment of royalties. *See* 28 U.S.C. § 1961; *see Frank Music Corp. v. Metro-Goldwyn-Mayer, Inc.*, 886 F.2d 1545, 1552-1553 & n.12 (9th Cir. 1989) (explaining that "[f]or the restitutionary purpose . . . to be served fully, the defendant generally should be required to turn over to the plaintiff not only the profits made from the use of his property, but also the interest on these profits," and applying the rate in § 1961 to prejudgment interest). Joint PFFCL ¶ 328.

Finally, Mr. Bender's statements about late fees in the music industry are unsupported hearsay concerning non-produced agreements about which he has no demonstrated expertise.

1611. Disputed in part. The agreements that SoundExchange cites between labels and interactive streaming services [redacted]. TX 4035 at 20, 28; TX 5111 at 24, 34. And even if they did, those agreements are not appropriate benchmarks because they are the product of the labels' complementary oligopoly power, and there is no reason to believe the late fee would not also reflect that power. *See generally* Joint PFFCL ¶¶ 60-61. Furthermore, agreements between [redacted]. *See, e.g.*, Ex. 2013 ([redacted]).

1612. Disputed in part. The [redacted] agreement cited by SoundExchange reflects the same complementary oligopoly power noted in paragraph 1611 above. And the [redacted]

[redacted], while described accurately by SoundExchange, is only one among hundreds of agreements; it does not demonstrate that [redacted] is an appropriate willing buyer/willing seller interest rate.

1613. Disputed in part. SoundExchange admits that the late fees cited in these agreements are [redacted] the 1.5% per month proposed here. And [redacted], nor does SoundExchange cite any testimony explaining those provisions.

v. Evidence of Hardship Due to the Current Late Fee on Late Payments Discovered in Audits is Unnecessary

1614. Not disputed. But "actual hardship" is not the legal standard; willing buyer/willing seller is. *See supra* ¶ 1578. And the market evidence here does not support the unreasonably high interest rate that SoundExchange seeks. *See supra* ¶¶ 1610-13.

1615. Disputed in part. Sirius XM was not "willing to incur [redacted] of late fees on undisputed debt." To the contrary, the audit report cited by SoundExchange shows that [redacted]. TX 5244* at 129, 134-35. SoundExchange is correct that the matter ultimately settled.

1616. Disputed. SoundExchange speculates that if the late fee were reduced, it would never be able to collect even undisputed amounts. But again, there is no evidence that statutory webcasters run their businesses that way, and to the contrary, they have a business incentive to ensure royalty payments are timely and accurate. Ritz WDT ¶¶ 7-8, 41-42; Joint PFFCL ¶ 332.

vi. The Late Fee Should Not be Unnecessarily Punitive

1617. Disputed in part. The Services dispute SoundExchange's purely speculative assertion that a late fee "applicable at all times until full payment is received," is "critically important" to motivate webcaster compliance. In fact, the current late fee is unnecessarily

punitive. As Joe Ritz, Vice President of Finance and Digital Networks at iHeart, explained, iHeart "has strong business incentives to ensure royalty payments are timely and accurate" in order to maintain its close and important relationships with artists, who ultimately receive the royalties, and its direct deal partners, for which iHeart uses the same systems to track performances. Ritz WDT ¶¶ 7-8, 41-42; Joint PFFCL ¶ 332.

1618. Disputed in part. SoundExchange contends that the late fees proposed by the Services would not make artists and copyright owners whole for the lost time value of money that was paid late. But the Services' proposal is the standard interest rate applied to federal court judgments. The interest rate applied to federal court judgments adopted in *SDARS III* already reflects Congress's judgment about what is necessary to fully compensate copyright owners from any losses related to the underpayment of royalties. *See supra* ¶ 1610; Joint PFFCL ¶ 328. SoundExchange's speculation about unspecified "higher rate[s]" that artists and copyright owners might earn by investing the money themselves plainly does not support SoundExchange's usurious 18% proposal.

2. Frequency of Audits

1619. Not disputed.

1620. Disputed in part. SoundExchange misleadingly argues "there are plenty of opportunities for a licensee to delay," and subsequently cites Mr. Barry's testimony regarding the difficulty of making progress on an audit during a certain time of the year. But SoundExchange omits the fact that Mr. Barry's testimony on this point also attributes delay to the auditors and such delay can often involve no fault. Indeed, audits noticed near the end of a calendar year or in first-quarter "tax season" have historically been the subject of substantial delays, as the *external auditors* commonly have other significant demands on their time that cannot be controlled by the licensee. Barry WRT ¶ 9. Sirius XM encountered precisely these sorts of difficulties scheduling

SoundExchange's current audit of the 2018 license period, in which fieldwork scheduled to take place the week before Thanksgiving had to be rescheduled to February through *no fault of either party*. Barry WRT ¶ 10; Joint PFFCL ¶ 343.

1621. Disputed in part. SoundExchange incorrectly implies that a service would benefit by "manag[ing] to drag out a previous audit." But the Services do not hope to "drag out" an audit and in fact are very often *not* the party causing the delay. It has been Sirius XM's experience that auditors, often at SoundExchange's behest, request access to documents that are well beyond the scope of what is reasonably necessary to review a licensee's payments. Barry WRT ¶ 12. Resolving the dispute—which was at best ancillary to the auditor's purpose—took weeks to resolve. *Id*; Joint PFFCL ¶ 345.

Moreover, [redacted] *See, e.g.*, Ex. 2013-27.

1622. Not disputed.

3. Response Deadlines

1623. Not disputed. This paragraph summarizes SoundExchange's proposal, which the Services oppose.

1624-26. Not disputed.

1627. Disputed in part. The evidence SoundExchange points to paints an incomplete view of the record. The record is replete with evidence that the auditors retained by SoundExchange were the cause of many delays. *See supra* ¶¶ 1590, 1620-21; Joint PFFCL ¶¶ 342-345.

1628. Disputed in part. SoundExchange again paints an incomplete view of the record. *See supra* ¶¶ 1590, 1620-21; Joint PFFCL ¶¶ 342-345.

1629. Disputed in part. SoundExchange erroneously states "[t]he desire to make no

progress on audits during almost five months of the year illustrates the need for some reasonable deadlines to keep the process moving." The services do not dispute that audits noticed near the end of a calendar year or during first-quarter "tax season" have historically been the subject of substantial delays. But there is no testimony that the services "desire" to make no progress during this time. To the contrary, much of this delay is attributable to the schedules of *external auditors*, which SoundExchange selects. Barry WRT ¶ 9; Joint PFFCL ¶ 343.

1630. Not disputed.

4. Fee Shifting If Requested Information Is Not Provided on a Timely Basis

1631. Not disputed. This paragraph summarizes SoundExchange's proposal, which the Services oppose.

1632. Disputed in part. SoundExchange broadly claims it is feasible for licensees to respond to information requests in less than 60 days. Yet SoundExchange overlooks the fact that its proposed language lacks any requirement that the auditor's request be substantively reasonable, or reasonable to complete within 60 days. Barry WRT ¶ 20; Pifer WRT ¶¶ 14-16; Joint PFFCL ¶ 352. SoundExchange's proposal would open the door to unreasonable demands, to which licensees would be forced to comply under penalty of paying the full cost of the audit. This is not an abstract fear, as it is well-documented that [redacted] Barry WRT ¶ 20; Pifer WRT ¶ 15.

1633. Disputed in part. SoundExchange fails to mention that under the current regulations, delays in the audit process *already* result in the service paying incremental interest as the audit is performed. An additional cost-shifting penalty would therefore be duplicative and unnecessary. Barry WRT ¶ 18; Joint PFFCL ¶ 350.

1634. Disputed in part. SoundExchange has presented no evidence that [redacted] has actually excluded streams for which payment is owed. In any event, the relevant regulatory provision requires a service to use "use commercially reasonable efforts to obtain or to provide access to any relevant books and records maintained by third parties for the purpose of the audit." 37 C.F.R. § 380.6(e). SoundExchange has presented no evidence that Services have failed to meet that obligation. Moreover, it is hardly appropriate or fair to shift costs to licensees when third parties refuse to cooperate with information requests.

1635. Not disputed.

1636. Disputed in part. Again, there is no evidence that the services have failed to meet their obligation to use commercially reasonable efforts to obtain third-party information. As the document SoundExchange cites indicates, [redacted]. Ex. 5004, at 1 [redacted]). [redacted] *Id.*

1637. Disputed in part. *See supra* ¶¶ 1635-1636. In addition, the quote about it being [redacted] relates to the fact that information sought in the audit [redacted]. Ex. 5004, at 2.

1638. Disputed in part. *See supra* ¶ 1635. Moreover, this is unsupported hearsay, about the nature of the communications between an ostensibly "independent" auditor and a

licensee.

1639. Disputed in part. *See supra* ¶¶ 1635, 1638.

1640. Disputed in part. *See supra* ¶¶ 1635-1639.

1641. Disputed in part. SoundExchange has provided no basis to assess the estimate in its audit fees. Moreover, an added expense of [redacted] due to these alleged delays by third parties provides no basis to shift the *entire* cost of the audit to a licensee.

1642. Disputed. SoundExchange pursues a proposal that is fundamentally unbalanced: the responsibility for paying the cost of the *entire audit* would apparently fall on the service if the service fails to complete even a *single* information request by the proposed 60-day deadline. Barry WRT ¶ 19. Shifting the full cost of a potentially lengthy and complex audit based on a single late response, however immaterial or unreasonable the request, clearly lacks proportionality and fails to properly balance the incentives on both sides. Joint PFFCL ¶ 351. Moreover, SoundExchange makes no effort to justify its proposal by reference to the willing buyer/willing seller standard, or by reference to any of the benchmark agreements in this case, which is fatal to its argument.

5. Auditor's Right to Consult

1643. Not disputed. This paragraph summarizes SoundExchange's proposal, which the Services oppose.

1644. Disputed in part. SoundExchange claims that webcasters have "often tried to impede audits" by insisting on limits to consultation. Rather than impede the audit process for which they have an incentive to complete, the services instead insist on limits to consultation to ensure a neutral playing field. Joint PFFCL ¶¶ 353-56.

1645-48. Not disputed.

1649. Disputed. SoundExchange incorrectly asserts that an auditor needs to consult

with the verifying entity to understand the status of the work, make judgments about the budget, and determine whether to call off an audit. SoundExchange misunderstands the roll of the auditor. The governing regulations appropriately provide that the auditor be "independent" and not an agent of SoundExchange or another verifying entity. 37 C.F.R. § 380.7 (defining "Qualified auditor" as an "*independent* Certified Public Accountant licensed in the jurisdiction where it seeks to conduct a verification") (emphasis added); Barry WRT ¶ 22. Moreover, the "Duty of auditor to consult," noted in the title of the current section 380.6(f), refers to the auditor's duty to consult *the payor* (not the "client") by reviewing tentative findings with "an appropriate agent or employee of *the payor* in order to remedy any factual errors and clarify any issues relating to the audit." 37 C.F.R. § 380.6(f) (emphasis added); Joint PFFCL ¶ 354; *see also* Barry WRT ¶ 23.

1650. Disputed in part. SoundExchange incorrectly asserts that auditors should be able to ask their "client," the Verifying Entity, about the statutory license and past interactions with the payor. SoundExchange misunderstands the role of the auditor. *See supra* ¶ 1649.

1651. Disputed in part. The services dispute the fact that "the way to make [auditors take consistent positions in audits] is for the Verifying Entity to be able to communicate to an auditor." SoundExchange again misunderstands auditor independence. The governing regulations appropriately provide that the auditor be "independent," not a mere agent of SoundExchange or another verifying entity. *See supra* ¶ 1649.

1652. Disputed. The "[d]uty of auditor to consult," noted in the title of the current section 380.6(f), refers to the auditor's duty to consult *the payor*. 37 C.F.R. § 380.6(f) (emphasis added). There is no consultation role for the verifying entity.

1653. Not disputed.

1654. Disputed in part. As explained *supra* ¶¶ 1649-52, SoundExchange's proposal is plainly incongruous with the regulations and their purpose.

1655. Disputed. SoundExchange asserts that rejecting its proposal would "depriv[e] the auditor of the Verifying Entity's input." And yet SoundExchange maintains historical practices of close coordination and consultation with auditors prior to and during the course of an audit. *See* Joint PFFCL ¶ 355 & n.46. SoundExchange's proposed language would enshrine in the regulations a *carte blanche* for SoundExchange to tilt what is meant to be a neutral playing field in its own favor; it should be rejected.

6. The Possibility of Overpayments

1656. Not disputed.

1657. Disputed in part. The Services dispute SoundExchange's characterization that the proposed change is a "solution looking for a problem." While SoundExchange argues that discovery of overpayments is a rare occurrence, that is not a persuasive reason for rejecting this proposal. If the services can be liable for underpayments (with significant interest), then they should also be able to recover any overpayments. Joint PFFCL ¶¶ 333-38.

1658-59. Not disputed.

1660. Disputed in part. SoundExchange claims that it would have difficulty recovering overpayments because SoundExchange does not hold statutory royalties in reserve against the possibility of refunding or crediting them to licensees. There is no practical basis, however, for rejecting a requirement for SoundExchange to reserve funds to refund overpayments. Joint PFFCL ¶¶ 337-38. SoundExchange has not explained, for instance, why it could not simply pay overpayments out of its unclaimed funds pool. *See* Ploeger WRT ¶ 82 (asserting that "undistributable royalties paid to a collective under a statutory license . . . are to be used for the federal purposes of the statutory license"). The new collective that administers

the statutory license for mechanical rights is required, in the case of an overpayment of royalties, to "appropriately credit or offset the excess payment amount and apply it to the blanket licensee's account, or upon request, issue a refund within a reasonable period of time." 37 C.F.R. § 210.27(k)(5). There is no reason to conclude that SoundExchange cannot issue credits for overpayments when the Mechanical Licensing Collective can.

7. Deadline for Audit Completion

1661. Not disputed.

1662. Disputed. The 10- and 12-month periods that Sirius XM and Pandora currently propose for completing an audit are significantly *longer* than—not "similar to"—the 6-month period proposed by NAB and NRBNMLC in *Web IV*.

1663. Disputed in part. SoundExchange incorrectly claims it is unreasonable to expect that all the steps necessary to complete an audit could be packed into ten months. But a one-year timeframe for the audit would encourage diligence and responsiveness by both the service *and* the auditor while avoiding needless micromanagement and providing flexibility for responding to information requests. Joint PFFCL ¶¶ 340-48. While the services fully support conducting audits efficiently and without unnecessary delays, SoundExchange's proposal to micromanage the timing of intermediate steps in the audit process is unworkable and unfair to the payor. Barry WRT ¶ 8. A hard 60-day deadline to schedule fieldwork and respond to information requests cannot account for unavoidable delays that are not within the licensee's control. *Id.* ¶ 9; Ritz WRT ¶ 25. Sirius XM and Pandora propose a much more effective solution by simply requiring that audits be completed within one year of being noticed. Barry WRT ¶ 16.

E. Statements of Account Showing Recoupment of Minimum Fees Are

Unnecessary and Burdensome

1664-1665. Disputed. The Services oppose any requirement to report usage when royalties are not due. Licensees already are required to have their Chief Financial Officer or other authorized person:

> submit a signed certification on an annual basis attesting that Licensee's royalty statements for the prior year represent a true and accurate determination of the royalties due and that any method of allocation employed by Licensee was applied in good faith and in accordance with U.S. GAAP.

37 C.F.R. § 380.3(b). SoundExchange thus already receives assurances from licensees that their reporting is accurate, and the legal risk, including late fees, falls on licensees if they underpay. The current regulations properly require submission of statements of account only when fees are due, and licensees only are required to report "[s]uch information as is necessary to calculate the accompanying royalty payment." *Id.* § 380.3(a)(1). There is no need for SoundExchange "to confirm" every month that licensees do not owe additional royalties. The proposal appears to be an attempt to gain unnecessary confidential information to which SoundExchange is not entitled. It is particularly unnecessary for noncommercial webcasters, whose usage allotment under the minimum fee resets every month such that there is no need to track usage across months so long as they verify that they remain below the ATH cap. *Id.* § 380.10(a)(2). Even if the Judges establish an annual threshold, such additional reporting still should not be required, as noncommercial webcasters bear the legal risk of not reporting and largely remain below the ATH cap. Ploeger WRT App. A ¶ 34.

1666. Disputed. Services should not have to undertake the additional effort of logging and reporting three months' worth of full usage data in their reports of use when those reports only require reporting of two 7-day periods per calendar quarter. 37 C.F.R. § 370.4(d)(3)(ii).

Moreover, the additional reporting burden on the 97% of noncommercial services and 50% of commercial services who do not exceed the minimum fee, regardless of how substantial, simply is not warranted where SoundExchange does not need this information to process and distribute royalties. SoundExchange's mandate is to collect and distribute royalties, not to collect additional information unnecessary for it to perform its functions. 17 U.S.C. § 114(g)(3).

F. Account Numbers

1667-70. Not disputed.

G. Reporting of ISRCs

1671 - 1678. The Services oppose SoundExchange's proposal to "require[e] licensees to use International Standard Recording Codes ('ISRCs') where available and feasible" as not properly presented for decision in this proceeding.[64] The Judges commenced a rulemaking to address precisely such reporting issues. *See* Notice of Proposed Rulemaking, Docket No. 14-CRB-0005 (RM) (May 2, 2014). Numerous entities, including commercial and noncommercial broadcasters, presented extensive evidence opposing such reporting. *See* Joint Comments of the National Association of Broadcasters and the Radio Music License Committee Regarding the Copyright Royalty Judges' Notice and Recordkeeping Rulemaking, Docket No. 14-CRB-0005 (RM), Part III.C (June 30, 2014); Joint Reply Comments of the National Association of Broadcasters and the Radio Music License Committee Regarding the Copyright Royalty Judges' Notice and Recordkeeping Rulemaking, Docket No. 14-CRB-0005 (RM), Part I.C.2.a (Sept. 5, 2014). That rulemaking remains pending. Thus, as the Judges held in *Web IV* with respect to a similar issue also presented in that rulemaking, "[t]he forum for that request is the rulemaking,

[64] Sirius XM and Pandora's opposition to SoundExchange's proposals regarding reporting of ISRCs and reporting of directly licensed tracks is limited to the issues raised in their initial proposed findings and conclusions. *See* SXM-PAN PFFCL ¶¶ 253-55.

not this proceeding." *Web IV*, 81 Fed. Reg. at 26404.

Further, Google's witness, Mr. Dan Pifer, testified as to how SoundExchange's proposal would effectively shift onto the Services the effort of gathering information which the Services often do not have complete access to, and which originates with SoundExchange's own members in the first instance. Pifer WDT ¶¶ 18-21.

H. Reporting Usage of Directly Licensed Tracks

1679-81. Not disputed.

1682. Disputed in part. Although SoundExchange alleges that a similar provision in the statutory license for satellite radio "has proven helpful for identifying potential payment errors and disputes related to the classification of recordings as directly licensed," it has not pointed to evidence of any instance where SiriusXM had *actually* made an error in categorizing directly licensed tracks. *See* Bender WDT ¶¶ 123, 125. Nor has it explained why the ability to *audit* a webcaster would not be sufficient to allow it to identify such potential misclassification.

1683. Disputed in part. SoundExchange does not require this information to distribute royalties that are paid to it under the statutory license. 17 U.S.C. § 114(g)(2) (referring to "a nonprofit collective designated by the Copyright Royalty judges to distribute receipts from the licensing of transmissions in accordance with subsection (f)" (emphasis added)). SoundExchange is responsible for administering the statutory license, and it has not been given any role by Congress in administering voluntary licenses. *See* 17 U.S.C. § 114(f)(2) (providing that voluntary licenses "shall be given effect in lieu of . . . any determination by the Copyright Royalty Judges).

1684. Disputed. SoundExchange argues the principles of "accuracy and transparency" warrant their proposed change. But many of the direct licenses ([redacted]) have [redacted] the reporting of the existence of such direct

deals to SoundExchange. *See, e.g.*, Ex. 2081 ([redacted]). The Judges' lack the legal authority to vitiate such provisions. See 17 U.S.C. § 114(f)(2). Finally, the Judges should be particularly cautious about forcing webcasters to reveal their direct licensing partners to SoundExchange, given the record evidence in this proceeding that SoundExchange has actively discouraged direct licensing activity. *See supra* ¶ 1154; NAB PFFCL ¶ 55. SoundExchange's proposal would give it a "hit list" of labels to target for more focused dissuasion.

I. Unclaimed Funds

1685-88. Not disputed.

1689. Not disputed. This paragraph summarizes SoundExchange's proposal regarding unclaimed funds, which Sirius XM and Pandora oppose for the reasons stated in their initial proposed findings and conclusions. *See* SXM-PAN PFFCL ¶¶ 250-52.

1690-91. Not disputed.

1692. Disputed in part. SoundExchange omits the fact that the "administrative expenses" it wishes to fund using unclaimed royalties have included legislative and litigation efforts against the very parties who are the source of those royalties (statutory licensees). Barry WRT ¶ 35. If SoundExchange merely wanted to pass the unclaimed royalties along to artists and copyright owners (as its paragraph 1692 suggests), then it could do so based on usage data under the framework already establish by section 115, *see* SX PFFCL ¶ 1688, which Sirius XM and Pandora propose to apply here, *see* SXM-PAN PFFCL ¶ 252. The Services also note that if SoundExchange were allowed to use unclaimed funds to offset its administrative costs, that would further undermine SoundExchange's case regarding an increase to the minimum fee.

1693. Disputed in part. Regardless of whether SoundExchange (a non-profit entity) could technically *profit* from using unclaimed royalty payments to defray its own administrative

expenses, SoundExchange could still needlessly and significantly increase those expenses with the benefit of unclaimed funds. Barry WRT ¶ 36.

1694. Not disputed.

J. Proxy Distribution for Missing Reports of Use

1695-1705. Not disputed.

K. Definition of Performance

1706-09. Not disputed.

CONCLUSION

For the foregoing reasons and those set forth in the Services' initial filings, the Judges should reject SoundExchange's Proposed Rates and Terms.

Dated: November 11, 2020

Respectfully submitted,

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ATTACHMENT A:

Exhibits Admitted or Offered Into Evidence
Subject to Qualification and/or Pending Objections

Trial Exhibit	Judges' Ruling	Transcript Citation
1029	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	9/9/2020 Tr. 6047:7-11 (housekeeping)
1030	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	9/9/2020 Tr. 6047:7-11 (housekeeping)
2006	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/27/20 Tr. 4406:25-4410:1 (housekeeping)
2011	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/27/20 Tr. 4406:25-4410:1 (housekeeping)
2012	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/27/20 Tr. 4406:25-4410:1 (housekeeping)
2031	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/31/20 Tr. 4533:16-25 (Williams)
2035	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	9/1/20 Tr. 4993:4-4994:18 (Wheeler)
2047	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	9/9/20 Tr. 6051:3-6052:2 (housekeeping)
2048	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	9/9/20 Tr. 6051:3-6052:2 (housekeeping)

Trial Exhibit	Judges' Ruling	Transcript Citation
2086	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/31/20 Tr. 4541:14-4542:11 (Williams)
2091	Decision on admission deferred; SoundExchange's pending objections preserved and on the record.	8/31/20 Tr. 4586:15-4587:6 (Williams)
5244	Admitted subject to pending written objections.	9/9/20 Tr. 5780:24-5782:4 (housekeeping)
5246	Admitted subject to pending written objections	9/9/20 Tr. 5780:24-5782:4 (housekeeping)
5247	Admitted subject to pending written objections	9/9/20 Tr. 5780:24-5782:4 (housekeeping)
5248	Admitted subject to pending written objections	9/9/20 Tr. 5780:24-5782:4 (housekeeping)
5261	Decision on admission reserved; Services' pending objections preserved and on the record.	8/27/20 Tr. 4474:3-22 (Newberry)
5264	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5495:4-14 (Adadevoh)
5265	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5499:9-5500:19 (Adadevoh)
5269	Decision on admission reserved; Services' pending objections preserved and on the record.	8/31/20 Tr. 4798:7-15 (Burkhiser)
5271	Decision on admission reserved; Services' pending objections preserved and on the record.	8/31/20 Tr. 4798:7-15 (Burkhiser)
5385	Admitted only as an exhibit that Professor Tucker relied on under Federal Rule of Evidence 703	8/17/20 Tr. 2297:6-2303:10, 2308:18-2309:5 (Tucker)
5401	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5487:8-24 (Adadevoh)

Trial Exhibit	Judges' Ruling	Transcript Citation
5410	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5469:10-5650:3 (Harrison)
5413	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5651:25-5652:11 (Harrison)
5414	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5653:12-20 (Harrison)
5415	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5654:18-5655:1 (Harrison)
5421	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5656:9-16 (Harrison)
5422	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5657:12-20 (Harrison)
5429	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5658:15-25 (Harrison)
5450	Decision on admission reserved; Services' pending objections preserved and on the record. Exhibit also subject to pre-hearing motion.	9/9/20 Tr. 5780:6-23 (housekeeping)
5451	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5259:25-5260:11 (Piibe)
5461	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5237:3-5241:24 (Piibe)

Trial Exhibit	Judges' Ruling	Transcript Citation
5467	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5243:16-5244 (Piibe)
5468	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5252:4-5259:3 (Piibe)
5469	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5261:13-23 (Piibe)
5513	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5270:3-5270:13 (Piibe)
5514	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5276:4-13 (Piibe)
5517	Decision on admission reserved; Services' pending objections preserved and on the record.	9/2/20 Tr. 5284:20-5285:9 (Piibe)
5520	Decision on admission reserved; Services' pending objections preserved and on the record.	9/3/20 Tr. 5503:1-21 (Adadevoh)

Proof of Delivery

I hereby certify that on Tuesday, November 17, 2020, I provided a true and correct copy of the Services' Corrected Reply to SoundExchange's Proposed Findings of Fact and Conclusions of Law (Corrected Public Version) to the following:

UMG Recordings, Inc., represented by David A. Handzo, served via ESERVICE at dhandzo@jenner.com

Educational Media Foundation, represented by David Oxenford, served via ESERVICE at doxenford@wbklaw.com

Warner Music Group Corp., represented by David A. Handzo, served via ESERVICE at dhandzo@jenner.com

American Association of Independent Music ("A2IM"), The, represented by David A. Handzo, served via ESERVICE at dhandzo@jenner.com

SAG-AFTRA, represented by David A. Handzo, served via ESERVICE at dhandzo@jenner.com

Sony Music Entertainment, represented by David A. Handzo, served via ESERVICE at dhandzo@jenner.com

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Signed: /s/ Todd Larson