No.
In The
Supreme Court of the $\mathfrak{G n i t e d}$ States
National Religious Broadcasters
Noncommercial Music License Committee, Petitioner, v.

Copyright Royalty Board and Librarian of Congress,

Respondents.
On Petition for Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

## APPENDIX TO PETITION FOR A WRIT OF CERTIORARI (VOLUME 2 of 2)

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ii. Did Professor Willig correctly reject the 2019 "Long Range Scenario" (LRS) for Pandora prepared by Sirius XM?

Pandora also criticizes Professor Willig's decision to ignore the data contained in Sirius XM's LRS, Trial Ex. 4010, in his calculation of Pandora's profit margins over the 2021-2025 rate period. Although Professor Willig contends (with no attribution) that this LRS was prepared solely for this proceeding, Pandora's Vice President of Financial Planning and Analysis, Jason Ryan, describes the LRS as a document "generated by Sirius XM in the ordinary course of business," and is intended, inter alia, to "guide management in the preparation of its operating budget and business plan for the next year." Ryan WRT $1 / 36$ (emphasis added). According to Mr. Ryan, the budgets created through Sirius XM's LRS process "are also a tool that the Board of Directors of Sirius XM uses throughout the year to gauge the health of the business and at the end of the year when assessing performance-based compensation of executive officers and employees." Id. More particularly, Mr. Ryan explains that the LRS process proceeds in the following manner:

The [REDACTED] flow from our reasonable efforts to plan and predict the trajectory (contraction or growth) of the business.

Id. ब 38.
Mr. Ryan's testimony is uncontroverted on this point. Further, there is no record evidence to support Professor Willig's "understanding" that Sirius XM's purpose in creating this particular LRS was to use it as evidence in this proceeding. See Willig WDT app.

D ब 3 n.4. There is also no evidence to suggest that Sirius XM manipulated the financial information in this June 2019 LRS in order to affect the financial analyses undertaken in this proceeding. ${ }^{255}$

Nonetheless, as noted supra, Professor Willig independently justifies his reliance on the Scenario 2 merger financial data on the fact that "Pandora's investment bankers prepared discounted cash flow valuation analyses using these Scenario 2 projections, which produced valuations in-line with the $\$ 3.5$ billion market price paid by Sirius XM to acquire the company." Id. Accordingly, the Judges must examine on its own merits the Scenario 2 data upon which Professor Willig relies to compute Pandora's profit margins.

Professor Shapiro takes issue with Professor Willig's claim that the price paid to Pandora shareholders by Sirius XM is supported by the Scenario 2 financial projections, noting that the

[^0]acquisition price was determined "in part by synergies not included in Scenario 2 which considers Pandora as a standalone company." Consequently, Professor Shapiro asserts that the "discounted cash flow" set forth in the Scenario 2 materials does not generate the acquisition price paid by Sirius XM. Shapiro WRT at 72-73.

The Judges find that Professor Shapiro's criticism neither compromises the probative value of the Scenario 2 data nor Professor Willig's reliance on it to support his Shapley Value Model. Although the "discounted cash flow" contained in the Scenario 2 materials, standing alone, may not generate the actual acquisition price paid by Sirius XM, Professor Shapiro does not dispute that such information was relied upon by the investment bankers in their development of an appropriate price-one that ultimately was accepted by Pandora shareholders. That purchase price is not disconnected from projections based on Pandora's economic condition as of the date of the acquisition. ${ }^{256}$

Moreover, the price that willing sellers (here, Pandora shareholders) agree to pay to a willing buyer (here, Sirius XM), reflects a price established in $a$ market-the market for corporate control. See Henry G. Manne, Mergers and the Market for Corporate Control, 73 J. Pol. Econ. 110, 112 (1965) ("[C]ontrol of

256 Professor Shapiro does not assert that the inclusion of synergistic value necessarily disqualifies financial projections as useful inputs into a Shapley model in this proceeding. In fact, he points out that the alternative and subsequent financial projection in the LRS, on which he relies, explicitly includes "anticipated synergies" in its financial projections. Shapiro WRT at 73.
corporations may constitute a valuable asset" and is purchased and sold in "an active market for corporate control. . . ."). The fact that the purchase price incorporates not only Pandora's capitalized discounted cash flow, but also the synergistic value assigned to Pandora by the investment banks and Sirius XM, upon the consummation of the merger, does not negate the evidentiary usefulness of the financial data underlying that acquisition price. A company's shares, like any assets, are appropriately valued at their highest and best use. Given that the acquisition of Pandora by Sirius XM indeed occurred, it is reasonable to conclude that Pandora's highest and best use, in terms of market value, was as a division of Sirius XM.

Accordingly, the Judges find that Professor Willig's reliance on Scenario 2 data was reasonable. ${ }^{257}$
iii. Professor Shapiro's Calculation of Scenario 2 "Marginal Profit" After Applying the Foregoing Criticisms

Professor Shapiro combines the foregoing criticisms based on Professor Willig's Shapley Value Model data inputs into a recalculation of marginal profits that is otherwise consistent with Professor Willig's Scenario 2 approach. The recalculation with regard to the subscription service is set forth in Figure 6 of Shapiro WRT at 47, and the recalculation with regard to the ad-supported service is set forth in

[^1]Figure 7 of Shapiro WRT at 48. Each figure is reproduced below:
Figure 6: Pandora Projected Margins: Pandora Plus Subscription Service [RESTRICTED]

## [REDACTED]

Figure 6 shows that substituting Professor Shapiro's changes for Professor Willig's original estimated data inputs results in a significantly lower per-performance margin at Pandora Plus, the subscription service. Shapiro WRT at 47. (As noted supra, Professor Willig also made most of these adjustments in his WRT.) Specifically, whereas Professor Willig calculated a per-performance margin of $\$ 0.0048$, Professor Shapiro re-calculated a perperformance margin of $\$$ [REDACTED]. 258
Figure 7: Pandora Projected Margins: Advertising-Supported Service [RESTRICTED]
[REDACTED]
Figure 7 shows that substituting Professor Shapiro's changes for Professor Willig's original estimated data inputs results in a significantly lower per-performance margin at Pandora Plus, the subscription service. Shapiro WRT at 46-47. (As noted supra, Professor Willig also made most of these adjustments in his WRT.) Specifically, whereas Professor Willig calculated a per-performance margin

[^2]of $\$ 0.0042$, Professor Shapiro re-calculated a perperformance margin of $\$$ REDACTED]. ${ }^{259}$

The Judges adopt these adjustments to Professor Willig's profit margin calculations in his Shapley Value Model. ${ }^{260}$
${ }^{259}$ The impact of these adjustments on the royalty estimates generated by Professor Willig's Shapley Value Model, together with the impact of the adjustments to Professor Willig's opportunity cost calculations, is set forth infra. The Judges also note that Figures 6 \& 7 show that Professor Shapiro's adjustments and corrections to the original profit margins in Professor Willig's Shapley Value Model result in Scenario 2 profit margins that are essentially identical to the profit margins estimated by Professor Shapiro in the "alternate forecasts" based on the LRS and Merger Proxy Scenario 1A. Shapiro WRT, Figs. 6 \& 7 (last two columns). Accordingly, there is no necessity to consider those alternatives as necessary to establish different royalty rates in this proceeding.
${ }^{260}$ The Judges explain in text accompanying note 241, supra, that they rely on Mr. Ryan's categorizations and allocations of revenues and costs because of his competency with regard to these issues, given his role as a financial executive, and because of the Judges' perception of his credibility as a witness. By contrast, SoundExchange did not proffer an accounting or financial expert to testify regarding these categorization and allocation issues, leaving these issues to an economist, Professor Willig. Although Professor Willig is without question an esteemed economist, the Judges find that he is not nearly as competent as Mr. Ryan to give testimony regarding Pandora's financial and accounting issues. See also 8/5/20 Tr. 306-08 (Willig) (Professor Willig was qualified as an expert in this case in "microeconomics, industrial organization, the use of statistics in economics, and the use of survey research and economics," and was previously qualified in other matters also as an expert in the economics of antitrust and intellectual property issues.). Finally, the Judges note that Professor Willig himself, in his role as an expert economic witness, explained that the differences in Pandora's marginal profits did not drive his Shapley Value

## iv. Alleged Errors in Professor Willig's Scenario 2 Opportunity Cost Calculations

Professor Shapiro alleges that Professor Willig made several errors in his calculation of opportunity costs that resulted in an overestimation of the opportunity costs incurred by record companies in his Shapley Value Model. ${ }^{261}$ More particularly, Professor Shapiro addresses Professor Willig's calculation of these opportunity costs through the latter's application of the "diversion rate" 262 estimations in the survey undertaken by Professor Gal Zauberman

Model results, because the opportunity costs of the record companies were so great as to dominate the royalty payout due to them pursuant to his modeling. Id. at 555 ("the opportunity costs almost exhaust[] the pre-royalty distributor profits [because][a]fter the distributor pays out to the labels their opportunity costs, there is not very much left . . . to split among the parties.").
${ }^{261}$ To be clear, the opportunity cost issues addressed in this section of the Determination do not involve Professor Shapiro's broader economic argument regarding the asserted "Must Have" status of each Major, and the impact of that status on the calculation of opportunity costs.
${ }^{262}$ A "diversion rate" as used in the Zauberman Survey and as applied by Professor Willig is the percentage of surveyed listeners to a noninteractive service who would switch (divert) to another form of listening to music if the noninteractive service was not available. Professor Willig multiplies each percentage diversion rate by the royalty generated per-subscriber (or peruser, for the ad-supported service) by that other form of listening. The sum of those products equal Professor Willig's opportunity cost estimate. Willig WDT ๆ 47 \& fig.6. As discussed supra, that opportunity cost estimate constitutes an economic cost that record companies must recover (i.e., as a fallback value). The usefulness of the Zauberman Survey to calculate such switching, in the face of the Services' criticism, is separately discussed, elsewhere in this Determination.
(Zauberman Survey) to estimate the extent to which listeners to noninteractive services reported they would divert their listening to alternative forms of music listening if noninteractive services were no longer available.

Professor Shapiro calculates a lower estimated opportunity cost than calculated by Professor Willig through the latter's application of the Zauberman Survey. Specifically, Professor Shapiro alleges that Professor Willig made errors that inflated the opportunity costs attributable to purchases of CDs, vinyl records (vinyl) and digital downloads that the survey data indicated would occur if noninteractive services were unavailable.
(A) Royalties per Purchaser of CDs, Vinyl \& Digital Downloads

First, Professor Shapiro alleges that Professor Willig erroneously calculates the "CD/Vinyl/Digital Download Royalties per Purchaser" presented in Exhibit D. 3 of the Willig WDT. Professor Willig first separately calculates these monthly per-purchaser royalties for each of the three product subcategoriesCDs (\$[REDACTED] monthly per purchaser), Vinyl (\$[REDACTED] monthly per purchaser) and Digital Downloads (\$[REDACTED] monthly per purchaser). Willig WDT, app. D, ex. D. 3 (Row "I" therein). The Zauberman Survey reported the diversion to all three of these purchases as a single diversion. But to calculate opportunity costs accurately, Professor Willig needs to unbundle the monthly per purchaser royalties for each of these three products separately. Accordingly, in order to generate his estimated opportunity cost calculation from the bundled
categorization in the Zauberman Survey, Professor Willig attempts to calculate the "Weighted Average" of these three royalty figures. Id. (Row "I," Column 4 therein). He calculates his opportunity cost total for this category-a monthly per purchase royalty of $\$[$ REDACTED - by weighting each of these three categories by their share of retail revenue, inter se. Id. (Row "G" \& n. 4 therein).

According to Professor Shapiro, weighting by share of retail revenue is incorrect. The correct weighting, he asserts, is by the number of units purchased per buyer of each of the three formats. Shapiro WRT, app. D at 81. To demonstrate that weighting by units purchased is the appropriate method, Professor Shapiro presents a step-by-step example:

1. Assume 10 individuals buy CDs and 10 individuals buy Digital Downloads
2. Assume each CD buyer spends an average of $\$ 3$ per month for CDs
3. Assume each Digital Download buyer spends $\$ 9$ per month for Digital Downloads
4. So, total retail revenues are $\$ 30$ per month for CDs ( $\$ 3 \times 10$ people)
5. And, total retail revenues are $\$ 90$ per month for Digital Downloads ( $\$ 9 \times 10$ people)
6. Assume net royalties paid are $50 \%$ of retail revenue for each unit of either product
7. So, CD monthly royalties equal $\$ 15$ ( $50 \%$ of $\$ 30$ )
8. And, Digital Download royalties equal \$45 (50\% of \$90)
9. Total royalties are therefore $\$ 60(\$ 15+\$ 45)$
10. Because there are 20 assumed buyers ( 10 for each product) average monthly royalties per buyer $=\$ 3$ ( $\$ 60 \div 3$ )
11. But under Professor Willig's approach, the answer is NOT $\$ 3$.
12. Professor Willig instead weights the monthly royalties by the share of retail revenue attributable to each product, CDs or Digital Downloads.
13. For CDs, this represents $25 \%$ of total retail revenue $(\$ 3 \times 10$ people $=\$ 30=25 \%$ of $\$ 120)$
14. For Digital Downloads, this represents the remaining $75 \%$ of total retail revenue ( $\$ 9 \times 10$ people $=\$ 90=75 \%$ of $\$ 120$ )
15. The $25 \%$ of total retail revenue attributable to CDs is one-third of the $75 \%$ of total retail revenue attributable to Digital Downloads
16. So, weighting monthly royalty via retail revenue would be done via the following ratio:
$\$ 30$ CD revenue $\times(\$ 1.50$ royalty per buyer $)+(\$ 90$ Digital Download revenue $\times \$ 4.50$ royalty per buyer $) \div 30+90=(\$ 45+\$ 405) \div(\$ 120)=\$ 450 \div$ $\$ 120=\$ 3.75$
17. $\$ 3.75$ is $25 \%$ greater than $\$ 3.00$.

Shapiro WRT at 81-82.
Professor Willig acknowledges that Professor Shapiro's approach is the correct way to calculate opportunity costs for these physical royalties. 8/5/20 Tr. 504 (Willig) ("Professor Shapiro pointed out that
maybe I wasn't perfectly logical in where I applied my weights, and I think there was some merit to that point that Professor Shapiro made, so I went back and I changed that. . . ."). ${ }^{263}$

The Judges find Professor Shapiro's recalculation of these royalty weights- agreed to by Professor Willig-to be appropriate. The purpose of this opportunity cost analysis is to estimate the number of units of each subcategory of product (CDs, Vinyl and Digital Downloads) that would be

[^3]purchased by each listener to a noninteractive service if that service was no longer available, and then multiply the number of units attributable to each subcategory by the royalty attributable to each item purchased. This exercise does not implicate retail prices. Accordingly, Professor Willig's use of retail prices as weights introduces an irrelevant factor.

Applying the foregoing principles, the weighted average opportunity cost for these three products is $\$[$ REDACTED $]$, rather than the $\$[$ REDACTED $]$ in the Willig WDT, app. D, D. 3 (Row "I," column 4 therein). See Shapiro WRT, app. D at 82 (Figure D.1: Correction to Exhibit D. 3 in the Willig WDT, Revised Exhibit D. 3 (Row J therein).
(B) Alleged Overestimation of Incremental Expenditures on CDs/ Vinyl/Digital Downloads

Professor Shapiro's next criticism with regard to Professor Willig's opportunity cost analysis is that it "overestimates the incremental expenditures that listeners would make on CDs, Vinyl, and Digital Downloads if statutory webcasting were no longer available." Shapiro WRT at 83. More specifically, Professor Shapiro asserts that Professor Willig makes two errors in this computation: First, he avers that Professor Willig allegedly overestimates the amount of money individuals would spend on CDs, Vinyl and Digital Downloads, an alleged error that causes Professor Willig to inflate the opportunity cost input into the Shapley Value Model. Second, according to Professor Shapiro, Professor Willig allegedly underestimates the number of individuals who would switch from a noninteractive service and to CDs, Vinyl and Digital Downloads, an alleged error by
which Professor Willig actually incorrectly reduces the opportunity cost input in the Shapley Value Model. Id.

With regard to the allegation of overestimating the amount of spending on these three products, Professor Shapiro understands that Professor Willig assumes that people who switch some of their listening from noninteractive to CDs, Vinyl and Digital Downloads will then incrementally "spend as much as the average consumer who purchases those media types." Id. ${ }^{264}$ As Professor Shapiro notes, this assumption carries with it the implicit assumption that these switching consumers did not buy any of these three products when they were listening to a noninteractive service, but then bought the same amount of these music formats as an average user subsequent to the hypothetical elimination of noninteractive services. Id. In fact, Professor Willig acknowledges that he treats these substitutions in the same all-or-nothing manner as the binary choice of whether to subscribe to an interactive streaming service if noninteractive services were unavailable. See Willig WDT, app. E, © 13 ("I estimate incremental royalties from diversion to [CDs, Vinyl and Digital Downloads] in the same way as for [subscriptions to] Paid-[On Demand] and [Sirius XM].").

Professor Shapiro opines that the proper approach is to treat the purchase of each of these

[^4]three products in a manner analogous to the use of an ad-supported service, where the listener makes marginal listening decisions on a per performance basis. In support of his argument, Professor Shapiro enlists a useful supporter-Professor Willig himselfwho, in $S D A R S$ III, converted royalties from incremental purchases of these three products on a per performance basis. Shapiro WRT at 83 n. 205 (citing Professor Willig's SDARS III Written Direct Testimony at $\mathrm{B}-5$ to $\mathrm{B}-6$ ). In further reliance on Professor Willig's own analysis (in the present proceeding), Professor Shapiro points out that a document on which Professor Willig relied, Trial Ex. 5039, showed that on-demand listeners spend less per month on these three products than the average purchaser, generating only $\$$ [REDACTED] in monthly royalties, substantially less than the $\$[$ REDACTED $]$ weighted average per month calculated by Professor Willig or the $\$$ [REDACTED] recalculated weighted monthly average computed by Professor Shapiro. Professor Shapiro opines that it is unreasonable to conclude (as did Professor Willig), that noninteractive listeners-with their revealed lower Willingness-to-Pay for a streaming servicewould spend multiple times more money than on demand listeners on CDs, Vinyl and Digital Downloads. Shapiro WRT at 83 n.206.

Professor Shapiro further relies on SoundExchange's own survey expert to support his critique of Professor Willig's estimation of opportunity cost emanating from the shift by some listeners to purchases of these three products. That survey expert, Professor Zauberman, reports that such diverted ad-supported listeners would allocate
only $14.1 \%$ of their diverted time to these three products, and such diverted subscribing listeners would allocate even less of their diverted time, $9.9 \%$, to these three products. Shapiro WRT at 84 n. 207. According to Professor Shapiro, it is untenable for Professor Willig to assume that listeners and subscribers who divert such small fractions of their diverted time to these three products would also purchase these products in the same quantities (generating the same royalties) as all consumers who purchase these three products. Shapiro WRT at 84.

Instead, Professor Shapiro claims that it is more reasonable to assume that people who switch from noninteractive services to these three products "would generate incremental royalties consistent with the proportion of time they divert. . . ." Id. Once more, he enlists Professor Willig in support of his position, noting that, in SDARS III, Professor Willig's opportunity cost calculation applied the same assumption-estimating incremental royalties from CDs and downloads as proportional to incremental listening to these products. Id.

Professor Shapiro attempts to apply this "proportionate diversion" assumption by applying data from the "Share of the Ear" survey to his spending calculations. First, he incorporates in this analysis his calculation of the weighted average spending of consumers- $\$[$ REDACTED $]$ per monthon all three products. Second, Professor Shapiro calculates the incremental share of time that people would devote to these three products after switching from noninteractive services. Here, he relies on the "Share of the Ear" survey, which reports that Pandora subscribers allocate about [REDACTED]\% of their
music listening time to streaming music services, of which [REDACTED]\% is spent listening to Pandora. Thus, Pandora subscribers spend [REDACTED]\% ([REDACTED]\% x [REDACTED]\%) of their music listening time on Pandora. And, as noted above, according to the Zauberman Survey, listeners to adsupported noninteractive services will divert an average of $14.1 \%$ of their time to these three products, and noninteractive subscribers will divert an average of $9.9 \%$ of their time to these three products.

Putting these data points together, Professor Shapiro explains that " $[t]$ he product of the share of time allocated to Pandora and the diversion rate to these three products [yields] the incremental time allocated to these [three products] in the absence of webcasting. Id. at 85 . So, he calculates that users of the ad-supported service will allocate an incremental [REDACTED] $\%$ (i.e., [REDACTED]\% x [REDACTED]\%) of their listening time to these three products and, in the same manner, subscribers will allocate [REDACTED]\% (i.e., [REDACTED]\% x [REDACTED]\%) of their listening time to these three products. Id.

The final step in Professor Shapiro's analysis is his comparison of this incremental listening time to the average time listening to these three products. To take this step, Professor Shapiro applies additional data from the "Share of the Ear Survey." That survey reports that the average music consumer spends [REDACTED] \% of his or her listening hours listening to "Owned Music," which is another way of referring to CDs, Vinyl and Digital Downloads. As Professor Shapiro notes, this implies that, for listeners switching away from the ad supported noninteractive
services, incremental spending increases for these three products by approximately [REDACTED]\% (i.e., [REDACTED]\%/ [REDACTED]\%), and, for listeners switching away from subscriptions to noninteractive services, the increase is about [REDACTED]\% (i.e., [REDACTED]\%/[REDACTED]\%). Shapiro WRT app. D at 84-85. ${ }^{265}$

Professor Shapiro acknowledges that he is using data on switches in listening time (from noninteractive services to these three products) in order to estimate changes in the total monthly amount spent on those three products. Id. at 85. However, he considers increases in listening to be a reasonable proxy for increased purchases, rather than a confounding conflation of two data sets. Id. The Judges agree, and find his use of this change in

[^5]listening to be a reasonable window into the likely changes in purchases. People who would increase their listening to music via these three products would need to purchase such products, ${ }^{266}$ and it would be highly irrational for people to purchase these new products but not "consume" them, in order to substitute for their lost listening to noninteractive services.

Applying the foregoing changes, Professor Shapiro makes the following revisions to Professor Willig's calculation of per person monthly incremental royalties for people who switched from noninteractive services to these three products:

For switching from ad-supported noninteractive services, Professor Shapiro calculates incremental royalties of $\$[$ REDACTED $]$ (i.e., $\$[$ REDACTED $] \times$ [REDACTED]\% $\times$ ([REDACTED]\%/ [REDACTED]\%), less than Professor Willig's calculation of \$[REDACTED]; and

For switching from subscription noninteractive services, Professor Shapiro calculates incremental royalties of $\$[$ REDACTED $] \quad$ (i.e., $\$[$ REDACTED $] \times$

[^6][REDACTED]\% $\times$ ([REDACTED]\%/ [REDACTED]\%), less than Professor Willig's calculation of \$[REDACTED].
$I d$. at 85-86.
The Judges find Professor Shapiro's foregoing corrections to be reasonable and appropriate.

Professor Shapiro's next opportunity cost adjustment, relating to these three products pertains to what he alleges is Professor Willig's failure to address incremental purchases by "consumers who already listen to [owned] CDs, Vinyl, and Digital Downloads . . . ." Id. at 86. As noted supra, this correction is contrary to Pandora's interest because it increases the opportunity cost associated with diversions to these three products, and, ceteris paribus, increases the royalties paid by Pandora under Professor Willig's Shapley Value Model.

Professor Shapiro notes that the Zauberman Survey finds that $69 \%$ of listeners to an ad-supported noninteractive service and $67 \%$ of listeners to a subscription noninteractive service would divert some of their time to these three products in the absence of such noninteractive services. However, Professor Willig does not estimate any opportunity cost associated with these listeners. ${ }^{267}$ This result
${ }^{267}$ Professor Willig classifies respondents in the Zauberman survey as "new" buyers of these three products only if they indicate both that they have not listened to CDs, Vinyl, and Digital Downloads in the previous 30 days and that they would listen to these media in case the webcaster went away. Under this definition, Professor Willig finds that [REDACTED]\% of the listeners to the advertising-supported webcasters and [REDACTED]\% of listeners to the subscription-based
suggests that these individuals would divert some time to buying and listening to new purchase of these three products, thereby creating an additional opportunity cost that would generate incremental royalties to the record companies under Professor Willig's Shapley Value Model. Shapiro WRT, app. D at 86 .

According to Professor Shapiro, the correct opportunity cost associated with these purchases can be estimated as the product of: (1) These listener shares ([REDACTED]\% for ad-supported listeners and [REDACTED]\% for subscribers, multiplied by (2) the incremental monthly royalties per buyer of these three products, which Professor Shapiro (as discussed above) calculated as $\$$ [REDACTED] for ad-supported switching and $\$[$ REDACTED $]$ for subscription switching.

Professor Shapiro therefore adjusts the opportunity cost associated with switching to these three products to $\$[$ REDACTED] (i.e., $\$[$ REDACTED] $\times[$ REDACTED]\%) for switching ad-supported users and to $\$[$ REDACTED] (i.e., $\$[R E D A C T E D] ~ \times$ [REDACTED]\%) for switching subscribers. Shapiro WRT, app. D at 86; see also id.at Fig. 8.

The Judges find Professor Shapiro's adjustments in connection with the three products (CDs, Vinyl and Digital Downloads) to be reasonable and appropriate bases to increase the opportunity cost arising from diversions to these products.
webcasters qualify as new buyers of CDs, Vinyl, and Digital Downloads. See Willig WDT, Fig.6.

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(C) The Treatment of Non-Music and AM/FM Diversion in Professor Willig's Opportunity Cost Analysis

Google's economic expert witness, Dr. Peterson, finds fault with Professor Willig's application of the results of the Zauberman Survey, by which he assumes that all the plays diverted from noninteractive services would be recaptured through listeners' accessing of royalty-bearing plays. Specifically, Dr. Peterson testifies as follows:
[Professor] Willig's model assumes that the entire ad-supported non-interactive statutory streaming business can be shut down, and the music industry won't lose a single performance. So that's inconsistent with how economists think of choice, and it's inconsistent with commonsense. If there are people whose favorite way to listen to music is through a Pandora-like service, we would certainly expect them to expand their listening hours as well and find opportunities to use that service when they would not listen to another service.

And . . . the evidence for this is . . . in the Zauberman surveys, where if you take the service away, some people say they will spend some of their day doing something other than listening to music. So it is incorrect to assume that all of the performances are preserved if you shut down the service.

8/25/20 Tr. 3734-35 (Peterson). This point ties in directly to the calculation of opportunity cost. As Dr. Peterson further notes, because the Zauberman Survey asks respondents how they would replace time
spent listening to noninteractive services, those who would substitute non-royalty bearing activities would, necessarily, if noninteractive services were available, substitute away from the non-royalty bearing activities and listen to royalty-bearing noninteractive services. 8/25/20 Tr. 3735 (Peterson) ("[T]he consequence . . . of course, is that if you join the [noninteractive] service, [the label] gain[s] . . . performances and the opportunity cost of the performances on the services is reduced as a result [and] this leads to an overstatement of opportunity costs.") (emphasis added).

During cross-examination, Dr. Peterson made this point in greater detail in a manner that is wellworth quoting in full:
Q. And do you recall that one of the [Zauberman Survey] switching options was do something other than listen to music?
A. That is an option in the Zauberman Survey that I think is not properly reflected in Dr. Willig's model.
Q. Well, just looking at the survey, since the survey does contemplate people doing something other than listening to music, if a . . . free noninteractive service was taken away, some people would go back to doing things other than istening to music, right?
A. That's correct.
Q. And doesn't that account for the idea that free non-interactive services could expand listening overall?
A. That free non-interactive services would expand listening overall?
Q. Right.
A. Oh, that's exactly my point. So . . . Dr. Willig's model says if there are a million plays on the service, and the must-have labels shut it down, a million plays are diverted and a million plays are collected in the aggregate by the labels . . . . That's the assumption that's built into his model. And I'm asserting, I think what you just said, which is that that's not a very good assumption because some people would say, well, I loved Pandora but since I can't have Pandora . . . I'm going to read a book. And so there would be fewer performances overall. And so that aspect of Dr. Zauberman's survey is not at all reflected in the mathematics of Dr. Willig's model. And that's-that's a problem.
Q. But looking at the survey, it does allow for the possibility that the-that the service could expand listening or not expand listening? That option is there in the survey, right?
A. But not in his model. I mean, it-and it actually doesn't really play into his opportunity cost either, which is very important here. So I disagree wholeheartedly with what you're saying.

8/25/20 Tr. 3799-3800 (Peterson) (emphasis added).
The Judges agree with Dr. Peterson. The Shapley Value Model constructed by Professor Willig overstates the opportunity costs because it does not

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consider the "opportunity benefits" ${ }^{268}$ generated by listeners to noninteractive services who would otherwise divert to a non-royalty bearing activity, such as reading a book, as Dr. Peterson notes. But this defect in Professor Willig's opportunity cost calculation goes further, extending to any non-royalty bearing activity undertaken by a diverted listener, including listening to AM/FM (terrestrial radio).

As noted supra, AM/FM (terrestrial) radio stations do not pay royalties for their performances of sound recordings (because the Copyright Act does not confer a general public performance right on sound recording copyright owners). However, if noninteractive services attract listeners who would otherwise divert to terrestrial radio (as survey data in evidence indicate), there is a "negative opportunity cost" (i.e., an "opportunity benefit") foregone by the record companies if they were to refuse to license noninteractive services. For example, at current statutory rates, the foregone "opportunity benefit" would be $\$ 0.0018$ per play listened to by terrestrial listeners who would have otherwise accessed music via an ad-supported noninteractive service if it existed, and $\$ 0.0023$ per play listened to by terrestrial listeners who would have otherwise accessed music via a subscription noninteractive service if it existed.

These "opportunity benefits" foregone are likely not de minimis, as the surveys in evidence in this proceeding indicate a significant amount of diversion to these alternatives by respondents who completed

[^7]392a
the survey. See, e.g., Zauberman Survey ||| $24-27$ ( $85 \%$ of ad-supported noninteractive listeners would spend $27 \%$ of their diverted time listening to AM/FM radio over-the-air, and $79 \%$ of noninteractive subscribers would spend $18 \%$ of their diverted tine listening to $A M / F M$ radio in this royalty-free manner-if their form of noninteractive services were unavailable). See also id. (48\% of ad-supported noninteractive listeners would spend $16 \%$ of their diverted time doing something other than listening to music and, for subscribers to noninteractive services, $50 \%$ would spend $10 \%$ of their diverted time in these non-royalty-bearing activities). As noted supra, the "opportunity benefit" of these lost listeners is $\$ 0.0018$ and $\$ 0.0023$ for the plays diverted during such time periods from the ad-supported and subscriber noninteractive services, respectively.

SoundExchange notes though that Professor Willig engaged in a similar treatment of AM/FM listening, with his so-called "fork in the road approach," that the Judges adopted in SDARS III, leaving interactive royalties unadjusted downward (thus not adjusting downward to correct for their complementary oligopoly power and not adjusting upward to reflect the absence of sound recording royalties for AM/FM plays). But, the NAB points out, although Professor Willig's "fork in the road" testimony in SDARS III went unchallenged on crossexamination and in Sirius XM's proposed findings, see SDARS III, 83 FR at 65238, the Services are challenging the point here. Thus, the NAB asserts that the appropriateness of that approach is properly at issue in this proceeding.

The Judges agree with the NAB in this regard. All rate proceedings are conducted de novo, and any factual determinations made in a prior proceeding therefore certainly can be considered anew now.

The Judges find that Professor Willig's "fork in the road" approach does not adequately address the opportunity cost issue raised by Dr. Peterson. It is insufficient and off-point to treat lost listeners who divert to any non-royalty bearing alternatives as simply irrelevant to the complementary oligopoly premium attached to interactive opportunity costs. In fact, as Dr. Peterson makes clear, such non-royalty bearing alternatives-because they substitute for royalty-bearing noninteractive plays-generate what can be called "opportunity benefits."

In addition to the "opportunity benefit" point addressed above, the NAB makes a separate legal criticism of Professor Willig's "fork in the road" approach. Specifically, the NAB argues:
[T]o the extent including supracompetitive royalty inputs in an opportunity cost analysis yields supracompetitive outputs, those outputs are inconsistent with the established legal standard requiring the rates set here to reflect effective competition. Web IV, [81 FR 26316] at 26332. Further, as a legal matter, there is a fundamental difference between complementary oligopoly rates for sound recording rights in interactive services and the lack of royalties for terrestrial radio play. The latter is a function of a Congressional judgment enshrined in federal copyright law. See 17 U.S.C. 106(6); id. sec. 114(a). The existence of complementary
oligopoly power, in contrast, has never been blessed by Congress. To the contrary, this body has always regarded the majors' complementary oligopoly power as a feature of the market that must be corrected in establishing rates here. There is no sense in which it would be legally appropriate for the Judges to similarly "correct" lack of royalties resulting from the lack of a legally recognized public performance right for terrestrial radio play of sound recordings.

NAB PFFCL 『136 n.34. In response, SoundExchange argues as follows:

For the first time at any point in this proceeding, NAB offers a lengthy argument against the "fork in the road" analysis offered by Professor Willig and endorsed by the Judges in SDARS III. See [83 FR 65210] at 65238. This is completely inappropriate argumentation that, despite being offered as a "finding of fact," is tellingly bereft of even a single supportive citation to the record in this case. See NAB PFFCL p. 1 n.1. Notably, both Dr. Leonard and Professor Shapiro made explicit at trial that they were not challenging this concept.

SoundExchange's Corrected Replies to NAB's Proposed Findings of Fact and Conclusions of Law - 136 (footnote) (SX RPFFCL (to NAB)).

SoundExchange's reply is unavailing. The NAB's argument is not in the form of a proposed "finding of fact." Rather, it quite clearly is in the nature of a
proposed "conclusion of law." 269 Further, SoundExchange has not substantively replied to the NAB's argument. ${ }^{270}$

Moreover, the Judges conclude that the legal substance of the NAB's argument is persuasive. The absence of a public performance right for sound recordings on terrestrial radio-and hence the absence of any attached royalty obligation-was a statutory decision by Congress. The Judges identify no legal authority by which they may use that Congressional decision as an offset against the effect of complementary oligopoly power on the rate setting process. Moreover, because there is no royalty paid by terrestrial broadcasters for playing sound recordings, there is no basis for the Judges to simply assume either the existence or extent of a positive royalty, if

[^8]such a public performance right actually existed. Indeed, regardless of the economic merits, the issue of whether such a public performance right and an associated royalty obligation should be created remains a matter of dispute in the legislative arena. Compare https://www.sound exchange.com/ advocacy/closing-theamfm-radio-royalty-loophole/ (asserting that "the reality is that AM/FM radioterrestrial broadcast radio-uses music to draw an audience that in turn allows broadcasters to bring in $\$ 14.5$ billion/ year of revenue from advertising. While paying nothing for their primary product!") with https://www.nab.org/
documents/newsroom / pressrelease.asp?id=4130
(asserting the allegedly "tremendous benefits of free, promotional airplay for musicians and labels.").

Finally, the Services also make a further factual challenge regarding Professor Willig's "fork in the road approach." While not directly challenging that approach as a device for offsetting complementary oligopoly effects from the zero terrestrial royalty payments, Dr. Leonard, the NAB's economic expert witness, asserts that this "fork in the road" approach does not address the complementary oligopoly impact of the "Must Have" nature of the Majors, which makes a noninteractive service's "no license" negotiating strategy untenable. 8/24/20 Tr. 3411-13 (Leonard).

The Judges find Dr. Leonard's point to be helpful. Elsewhere in this determination, the Judges make essentially the same point regarding the imbedding of a complementary oligopoly effect in the "arrival orderings" in Professor Willig's Shapley Value Model. Dr. Leonard's testimony in this regard is helpful because it makes clear that the "fork in the road"
approach simply does not address this separate inclusion of a complementary oligopoly effect on the rates derived from Professor Willig's Shapley Value Model.
v. The Adjusted Opportunity Costs in Professor Willig's Shapley Value Model, Incorporating the Foregoing Changes in the Opportunity Cost Attributable to Music Purchases

Based on the foregoing adjustments accepted by the Judges, Professor Willig's opportunity cost calculation must be adjusted, as set forth in the figure below:

## Figure 8: Correcting Professor Willig's Opportunity Cost Calculations [RESTRICTED]

[REDACTED] Shapiro WRT at 50, Fig. 8.
As the above table shows, Professor Shapiro's adjustments reduce the opportunity cost for adsupported services from $\$[$ REDACTED] (Professor Willig's estimate) to $\$[R E D A C T E D]$ (Professor Shapiro's adjusted estimate). For subscription services, these adjustments would reduce Professor Willig's opportunity cost estimate from $\$[$ REDACTED $]$ to Professor Shapiro's adjusted estimate of $\$[$ REDACTED]. Id.; see also Willig WDT - ${ }^{47}$, Fig. $6 .{ }^{271}$

[^9]However, according to Professor Shapiro, the "Share of Ear" analysis by Professor Willig erroneously inflates these opportunity costs, by overestimating the diversion rates to new subscriptions and new owned media purchases. Shapiro WRT, app. D at 86. Accordingly, Professor Shapiro rebuts this alternative approach by explaining the alleged limitations in Professor Willig's methodology and presenting an adjusted version that Professor Shapiro claims is a superior application of the "Share of Ear" data.
vi. The Impact of All of Professor Shapiro's Data Input and Opportunity Cost Adjustments to Professor Willig's Calculation of Statutory Royalties in the Scenario 2 Approach

Applying all of Professor Shapiro's data and opportunity cost adjustments to Professor Willig's Scenario 2 approach, the Judges find that the royalty rates proposed by Professor Willig must be significantly reduced. Specifically, these royalty rate

[^10]399a

| differences | are | follows: ${ }^{272}$ |
| :--- | ---: | :---: |
|  | Ad supported | Subscription |
| Willig pa- <br> rameters <br> Shapiro Ad- <br> justed In- <br> puts ...... | \$[REDACTED] | \$[REDACTED] |

See Willig WDT If 51, Fig.9; Shapiro WRT, Fig. 15 at $64 .{ }^{273}$

Additionally, because these adjusted rates are average rates over the 2021-2025 rate period, like Professor Willig's proposed rates, they need to be discounted back to 2021 to establish rates for that first year of the rate period. Professor Willig deflated these rates by a factor of 0.96117 , applying the U.S. Federal Open Market Committee's inflation rate forecast for 2021 of two percent. Willig WDT 955 \& n.43. (The Services have not objected to Professor

[^11]Willig's application of this inflation-adjustment process.). Applying Professor Willig's adjustment factor of 0.96117 , the Judges' calculate 2021 royalty rates, based on their adoption of Professor Shapiro's input-adjusted version of Professor Willig's Shapley Value Model parameters, to be $\$[$ REDACTED] for adsupported services and \$[REDACTED] for subscription services. ${ }^{274}$
vii. The Impact of Shapley "Arrival Orderings" Given the Judges' Finding That They Do Not Reflect "Effective Competition"

The Judges must incorporate their prior finding that Professor Willig's Shapley Value Model incorporates complementary oligopoly power in the number of arrival orderings. There is no record evidence that suggests how Shapley Values and resulting royalties would be computed if the arrival orderings were changed to ameliorate the market power generated by the number of arrival orderings created by the fragmentation of copyright ownership of "Must Have" repertoires across three Majors.

The Judges note that Professor Willig's Shapley Value Model does not explicitly address the potential impact of steering by a noninteractive service, i.e., one that promises to play more sound recordings from a record company that agrees to a lower royalty or threatens to play fewer sound recordings from a record company that declines to agree to a lower

[^12]royalty. ${ }^{275}$ Accord 8/18/20 Tr. 2638 (Shapiro) ("The primary focus of competition certainly . . . in Professor Willig's model . . . is not steering").

Professor Willig maintains that his Shapley Value Model implicitly incorporates the value of steering because the characteristic function embodies "the extreme form of steering," that is, "a black-out, non-license situation," which, as explained supra, would result in the commercial demise of the noninteractive service because each Major is a "MustHave." 8/10/20 Tr. 1070-72 (Willig).

The Judges find Professor Willig's treatment of a Major blackout to be a difference in kind rather than one of degree when compared with steering. An essential aspect of steering is that it serves to partially disaggregate a record company's repertoire by allowing the noninteractive service to modify its song selection to marginally lower its royalty costs, while increasing the royalty revenue paid to the record company increasing plays via steering and decreasing royalty revenue to the record company "steered against" by the service. See Web IV, 81 FR at 26367. As also explained therein, the noninteractive service would not go out of business as it would if it lacked a license from a Major, but rather would see an improvement to its bottom line. Id. Clearly, therefore, marginal steering is different in kind. The characteristic function, on whose features Professor

[^13]Willig relies, does not contemplate this steering-based disaggregation. ${ }^{276}$

Thus, because the royalty rates derived from Professor Willig's Shapley Value Model reflect complementary oligopoly power (even as adjusted supra), they must be discounted to reflect effective competition. However, the Judges find nothing in the record to estimate the value of an effective competition adjustment to Professor Willig's Shapley Model-derived royalty rates (as adjusted herein). ${ }^{277}$ Accordingly, the evidentiary record only allows the Judges to state with regard to the royalty rates they have determined-by adjusting Professor Willig's Shapley Model-derived rates- that those 2021 rates, $\$[$ REDACTED $]$ for ad-supported services and $\$[$ REDACTED $]$ for subscription services, exceed an effectively competitive rate by an indeterminate

[^14]amount. As such, these rates serve only as limited guideposts, ${ }^{278}$ indicating that effectively competitive rates generated via a Shapley Value Model would be less than these levels. ${ }^{279}$

## 2. Professor Shapiro's Nash-in-Nash Model

On behalf of Pandora, Professor Shapiro proffers two game theoretic bargaining theories to support proposed benchmark rates. In his direct testimony, he presents his "Nash-in- Nash" (N-I-N) model, and in his rebuttal testimony, as a critique of Professor Willig's Shapley Value Model, Professor Shapiro advances his "Myerson Value" model.

Professor Shapiro explains that the licensing of performances of sound recordings needs to be analyzed with a "bargaining model [that] account[s] for the multiple bilateral negotiations that would take place" between noninteractive services and record companies. 8/18/20 Tr. 2654-55 (Shapiro). The dynamic in such a market, he explains, is that "although each record label would negotiate separately with each webcaster (assuming no coordination), the outcome of negotiations between

278 When "the Judges are confronted with evidence that, standing alone, is not itself wholly sufficient, they may rely on that evidence "to guide the determination," i.e., by using it as a "guide post" when considering the application of more compelling evidence. SDARS II, 78 FR at 23063, 23066 (emphasis added).
${ }^{279}$ As discussed supra, Professor Willig's estimated rates are also too high because they do not reflect the "opportunity benefit" of listeners who would substitute noninteractive listening for nonroyalty bearing activities, including listening to AM/FM radio. And, given the legal infirmity of the "fork in the road" approach, also discussed supra, his proposed rates are further improperly inflated.
one label-webcaster pair would be expected to affect the outcomes between other pairs." Id.; Shapiro WDT at $27 .{ }^{280}$

The game theoretic approach that best addresses this simultaneous competition and bargaining context and is the "dominant way" of modeling such a market, according to Professor Shapiro, is the N-I-N model, a "noncooperative" game theory model which utilizes "a consistent solution to simultaneous [bilateral] negotiations between multiple pairs of actors." 8/18/20 Tr. 2655 (Shapiro). ${ }^{281}$ Using his N- IN model, Professor Shapiro generates an adsupported royalty rate of $\$[$ REDACTED] per play, and $\$[$ REDACTED $]$ per play for subscription services. Shapiro WDT at 28 tbl.4, 32 tbl. 7 .

Professor Shapiro applies his N-I-N bargaining model for both ad-supported and subscription webcasting. For both forms of webcasting, his N-I-N model includes eight record companies with the

[^15]largest shares of listening on Pandora ${ }^{282}$ plus two "catch-all" categories of independent record companies. Shapiro WDT at 27-28 \& tbl.4; id. at 7576; 8/19/20 Tr. 2742, 2747 (Shapiro).

In Professor Shapiro's N-I-N modeling "the first step" in identifying royalty rates "is to examine the opportunity cost to an individual record company of licensing its repertoire to a statutory webcaster." Shapiro WDT at 4 (emphasis added). He defines record company opportunity costs in the same general manner as Professor Willig-the royalties foregone by a record company if it licenses its repertoire to a noninteractive service rather than to another type of service or offers its repertoire for sale as a physical or digital product. ${ }^{283}$ However, in performing his

282 The eight record companies are [REDACTED].
283 in the present context as follows:
The opportunity cost approach recognizes that, when a record company licenses its repertoire to a music service, some customers will devote additional listening time to that music service rather than listening to music in other ways. Because of the decreased listening to sound recordings through other media, the record company in question will lose some of the royalties it would otherwise have earned on performances or sales of recordings through these other media, to the extent the record company would have received incremental royalties from that listening.

Shapiro WDT at 3. In Professor Shapiro's N-I-N model, a record company's opportunity cost for licensing a webcaster is the product of four factors: (1) The total number of performances on the given webcaster's service (referred to as " $N$ " in his model); (2) the percentage of those performances that would be lost to other forms of listening in the absence of a license from the record company (referred to as " $L$ " in his model); (3) the average per performance royalty the record company would earn from other forms of listening (referred to as " $R$ "); and (4) the record
opportunity cost analysis, Professor Shapiro relies on a fundamental difference in the hypothetical unregulated noninteractive market. Specifically, he testifies:
[S]ome degree of competition among record companies would also arise if a webcasting service can obtain significant bargaining leverage by threatening to drop a given record company from its service entirely if the royalty rate offered by that record company is unreasonably high.

*     *         *             *                 * 

Importantly, my analysis here relies on new evidence that no individual record company is even close to being "must-have" for Pandora's advertising-supported webcasting service.
Shapiro WDT at 11-12.
Accordingly, Professor Shapiro's entire N-I-N Model relies upon "new evidence" that he asserts demonstrates that no single record company in fact is a "Must Have" for a noninteractive service. Because further application of his N-I-N Model turns on the sufficiency of this new evidence, the Judges to turn now to an examination of that evidence.
a. Pandora' "Label Suppression Experiments"

To determine whether each of the Majors is a "Must Have" for noninteractive services, Professor Shapiro asked Pandora to conduct several "Label
company's share of performances on the webcaster and the alternative services (referred to as " $S$ "). Shapiro WDT at 17; 8/ 18/20 Tr. 2663-65 (Shapiro).

Suppression Experiments" (LSEs) pursuant to general instructions he provided to Pandora. Shapiro WDT app. E. The LSEs were conducted and supervised by an in-house Pandora economist employed as a "Distinguished Scientist," Dr. David Reiley. Trial Ex. 4091 \| $\mathbb{T} 1-4,6,11-13$ (WDT of David Reiley) (Reiley WDT). Dr. Reiley constructed LSEs to answer the question: "What effect, if any, there would be on users' listening if Pandora stopped playing the entire catalog of a particular record company on Pandora’s ad-supported service?" Reiley WDT \|| ${ }^{\text {| } 11, ~}$ 13.

In an attempt to answer this question, Dr. Reiley and his colleagues ran five experimental treatments among listeners of Pandora's ad-supported tier. ${ }^{284}$ One group in each experiment received the "treatment" (described below) and the other group in each experiment was the "control" group, which did not received the "treatment."

Each treatment intentionally suppressed music from a different record company-not totally-but as completely as possible. Two of the treatments separately suppressed music from [REDACTED], and three separately suppressed music from [REDACTED]. Id. ब 12; 9/1/20 Tr. 4899 (Reiley).

Dr. Reiley then compared the listening behavior of users in the five treatment groups to the behavior of the control group, which did not receive any

[^16]suppression treatment. Reiley WDT If 19. He ran these LSEs over a roughly three-month period, from June 4 to August 31, 2019, and again for another approximately three-month period concluding December 4, 2019. Reiley WDT © 16; Trial Ex. 4108 \|\| 4 (WRT of David Reiley) (Reiley WRT).

In analyzing the results, Dr. Reiley focused primarily on a particular metric: The average hours listened per registered Pandora ad-supported user, noting that "average hours per listener was a standard metric for in-house experiments at Pandora. Reiley WDT $\mathbb{1}$ 19. According to Dr. Reiley, the LSEs demonstrated that "for the initial three-month experimental period, a near-total suppression of spins of any single record company [REDACTED]." Id. 『\| 21-24; 9/1/20 Tr. 4906-07. (Reiley). He depicted the results of his three-month run of these LSEs in the following figure:
[RESTRICTED]
[REDACTED]

## Reiley WDT, Fig. 2. ${ }^{285}$

As noted supra, Dr. Reiley also extended these LSEs for an additional three months. He reported his

[^17]cumulative six month totals, which, he testified, confirmed his conclusion regarding the three months of experiments, viz., that [REDACTED]. Reiley WRT T\|\| 12-16 \& Fig.1. ${ }^{286}$
b. SoundExchange's Criticism of Pandora's LSEs, Pandora's Responses, and the Judges' Findings and Analysis
i. The LSEs Are Unreliable and Uninformative

According to SoundExchange, the LSEs are not a reliable source of evidence, and thus cannot be utilized as an economic analysis to calculate Professor Shapiro's input " $L$ " in the opportunity cost calculation necessary for his $\mathrm{N}-\mathrm{I}-\mathrm{N}$ - modeling. Willig WRT $19 \|$ 22-27; 8/5/20 Tr. 351-53, 570-72, 574 (Willig). Even at this high conclusory level, Pandora offers less than a full-throated defense of the LSEs, asserting not that the LSEs are objectively sufficient and persuasive evidence, but that, comparatively, they are "the best, most reliable evidence of the effects of a record label blackout on listening on Pandora's ad-supported radio tier." Services RPFFCL ब 852 (citing 9/1/20 Tr. 492728 (Reiley).

[^18]The first criticism levelled by SoundExchange is that the design of the LSEs impeded detection by respondents who were exposed to a label blackout (the treatment group) of the existence of the blackout. More particularly, a SoundExchange economic expert witness, Professor Catherine Tucker, criticized the LSEs for making the LSEs' participants, "blind" to the experiments' nature (see Reiley WDT ๆ 7), in that they were not made aware that they had lost access to the repertoire of the suppressed record company. Trial Ex. 5605 - 18 (CWRT of Catherine Tucker) (Tucker WRT); 8/17/20 Tr. 2280-81 (Tucker).

Pandora responds by pointing to Dr. Reiley's testimony, in which he invokes the principal scientific reason for making the study "blind" to participants. Specifically, he identifies what is known in experimental work as the "Hawthorne effect," by which participants in an experiment modify their behavior simply because they become aware of the experiment. 9/1/20 Tr. 4927-28 (Reiley). Moreover, Pandora argues that it would have no reason to notify ad-supported users of the existence of a real-world label black-out, and that any communication Pandora could have attempted to convey to the "treatment groups" would not even "come close to replicating the sort of real-world third-party communications" disclosing the blackout (discussed below) that Professor Tucker claims (wrongly in Pandora's opinion) would occur. Services RPFFCL $\mathbb{1} 858$.

The Judges find significant merit in SoundExchange's criticism. The failure of the LSEs to provide notice to participants in the "treatment groups" that they had lost access to the repertoire of a given record company is an important omission. Its
importance is based on the fact that the value of a webcasting service lies not only in the sound recordings a listener hears, but the listeners' understanding of the repertoire to which the service has access and derivatively, which the listener can expect to be included in the sound recordings he or she may hear. To be sure, such access likely has more value to an interactive (on demand) service than to a noninteractive service, but that comparison is hardly dispositive. And the assertion by Pandora that it could hardly have provided the same type of notice and disclosure that third parties would have disseminated (discussed in more detail below), while likely correct, only underscores the incompleteness and lack of necessary "real world" elements in the experiments. That is, the fact that the necessary disclosures of information could not possibly have been included in the experiment-by Pandora's own admission-indicates to the Judges that the error lies in the fundaments of the LSEs, and that Pandora's unavoidable omission of such notices is hardly an argument supportive of the use of the LSEs in this proceeding. ${ }^{287}$

[^19]The Judges also reject Dr. Reiley's reliance on the general principle that participants in an experiment should not be made aware of the nature of the experiment. Rather, the Judges concur with Professor Tucker, who testifies that this principle is inapplicable where, as here, "we're interested in

Winston, Government Failure versus Market Failure at 27 (2006) ("efficiency . . . requires that buyers and sellers be fully informed.... If consumers are uninformed or misinformed about the quality of a product, they may derive less utility from it than they expected."); Karl-Gustaf Lofgren et al., Markets with Asymmetric Information: The Contributions of George Akerlof, Michael Spence and Joseph Stiglitz, 104 Scandinavian J. Econ., no. 2, 195, 205 (2002) (Joseph Stiglitz, winner of the Nobel Prize for his work on the economics of information, and "probably the most cited researcher within the information economics literature . . . has time and again pointed out that economic models may be quite misleading if they disregard informational asymmetries [and] that many markets take on a different guise in the perspective of asymmetric information . . . ."); Diane Coyle, Markets, State, and People 73, 303 (2020) ("The absence or presence of information asymmetries can make all the difference to how a market functions . . . . The assessment of efficiency ... should account for . . . likely behavioral responses."). But the LSEs tacitly assume a market infected by such informational asymmetry regarding the offerings of a noninteractive service, and in so doing create an experimental market infused not with effective competition, but rather with market failure. See Joseph E. Stiglitz \& Jay K. Rosengard, Economics of the Public Sector 93 (4th ed. 2015) (identifying "imperfect information" as one of "six basic market failures"); Anne Steineman, Microeconomics for Public Decisions 147 (3d. ed. 2018) ("Market failures can also occur because of imperfect information. Efficiency requires that all relevant information be available to consumers . . . .") (emphasis added). The irony of this point is not lost on the Judges: Professor Shapiro endorses as evidence of a hypothetical effectively competitive market an experiment (the LSEs) that generate the absence of a condition-adequate informationwhose presence is necessary to avoid market failure.
actually measuring what happens when people receive and know about receiving a degraded service." 8/17/20 Tr. 2281 (Tucker).

Several SoundExchange witnesses testify that services in competition with Pandora (if it was the service blacking-out a label) would have strong economic incentives to disseminate and exploit this information by: (1) Publicizing Pandora's shrunken repertoire; (2) emphasizing their own more complete repertoires; (3) targeting existing Pandora users via advertising campaigns; (4) offering promotional prices in conjunction with an emphasis on the new gap in repertoires, to encourage switching away from Pandora; and (5) expanding their own offerings or changing their prices in response to the change offering environment. Tucker WRT |II 48-49; Willig
 Simonson WRT \|fl 21- 27, 30; 8/5/20 Tr. 570-74 (Willig). Moreover, SoundExchange notes that even Professor Shapiro concedes that Pandora's competitors would engage in such messaging if Pandora blacked-out a Major. 8/19/20 Tr. 2704-06 (Shapiro). Further, Professor Shapiro also concedes that "there would very likely be external sources of information about this that users would receive." In an attempt to address this likely reality, he simply used the high statistical point estimate [REDACTED] as a proxy for the lost listening, even though he [REDACTED]" 8/19/20 Tr. 2703 (Shapiro) (emphasis added). In fact, Professor Shapiro broadly acknowledges it is "true" that "the experiments [are] imperfect in various respects . . . ." Id. at 2710.

Despite its expert making these concessions regarding its own experiments, Pandora criticizes

SoundExchange for not offering evidence beyond its witnesses' testimony regarding the likely industry responses to a Major's blackout. The Judges find this criticism is meritless and only underscores the inherent deficiencies in the LSEs. Pandora's argument is essentially that, although its model does not specify necessary elements of reality, the adverse party, SoundExchange, bore the burden of producing evidence of how that reality would affect noninteractive services in the real world.

Quite the contrary, Pandora, as the proponent of the LSE evidence, bears the burden of producing sufficient evidence to demonstrate the necessary realism of its experimental modeling. 288 Economic experiments are models, ${ }^{289}$ and all economic models need to be analyzed through a "realism filter." Dani Rodrik, Economics Rules at 27 (2015) (noting that the "critical assumptions" of an economic model must be

[^20]evaluated through a "realism filter" to determine whether more realistic assumptions "would produce a substantive difference in the conclusion produced by the model"). Pandora's LSEs do not pass through such a "realism filter."

SoundExchange further asserts that the disclosure of the black-out would not be made only by Pandora's competitors. It notes that, in the realworld, beyond the confines of the experimental world, consumers would learn about a Major's blackout on a noninteractive service from a number of additional sources, specifically, by artists and managers whose sound recordings and musical works would be unavailable and by the record company that had been subject to the blackout. SoundExchange asserts that these persons and entities would have the economic incentive to disseminate information regarding the blackout, and how their sound recordings could otherwise be accessed. 8/5/20 Tr. 352- 53, 570-71 (Willig); 8/17/20 Tr. 2285 (Tucker). Other witness testimony explained that additional information channels-social media platforms, news media and personal networks of friends and family-would also be able to inform listeners to a noninteractive service that the repertoire of songs to which they have access had been reduced. Tucker WRT 『T 19-27; Willig WRT © 24; Zauberman WRT ब| ${ }^{\|}$25-33; Simonson WRT -||| 21-30.

In response, Pandora again chastises SoundExchange for offering only speculation regarding the anticipated response by noninteractive listeners upon learning of the blacking out of a Major record company from economically motivated industry competitors and stakeholders. Pandora
further criticizes SoundExchange's witnesses for relying on anecdotes pertaining to the reactions of listeners to on demand services upon learning that they had lost access to identifiable music from a particular Major. As noted above, the Judges agree with Pandora that the reactions by noninteractive listeners could be less intense, given that they have no expectation of hearing a particular song. But again, the market for noninteractive music also involves the promotion of access to a large repertoire of music that can be accessed by the curators (algorithmic or human) of that repository. A shrinking of that repertoire clearly would constitute important relevant information for a listener in choosing to remain with, or begin listening to, a noninteractive service. And once again, the burden of producing evidence regarding the importance, vel non, of such information is properly borne by Pandora, as the proponent of the experimental evidence, so that its model is sufficiently realistic and useful when proffered to set statutory rates with real world impact. Finally, as noted supra regarding the response by Pandora's competitors, Pandora's assertion that its experiment could not model thirdparty dissemination of true information and listener reaction thereto is actually a self-criticism by Pandora of the usefulness of its experiment, rather than an appropriate critique of the SoundExchange witnesses whose testimony revealed the insufficiency of the experiment's design. That is, if the LSEs could not possibly have been designed to demonstrate realworld effects, that evidence is lacking in probative value, and Pandora cannot escape that finding by
attempting to lay off on its adversary a burden of producing contrary evidence. ${ }^{290}$

Another defect in the LSEs alleged by SoundExchange is that Pandora did not prevent listeners in the treatment group from listening to songs via Pandora's "Premium Access" feature, which allows ad-supported users to access on-demand functionality for a limited time in exchange for viewing additional video advertisements. Reiley WDT - 15; Phillips WDT 【\| 25-26. Pandora entices adsupported users with repeated prompts and an offer to access bespoke songs if an ad-supported user "opt[s] into a Premium Access Session." 8/31/30 Tr. 4645-46, 4632-33 (Phillips).

According to SoundExchange, Pandora's decision not to suppress content when listeners in a treatment group were using "Premium Access" had the effect of masking the label blackouts, logically leading listeners in the treatment groups to believe that the repertoire of the blacked-out label was still available to them. Reiley WDT ब 15; Phillips WDT © \| $25-26$; Tucker WRT II 38; 8/17/20 Tr. 2319-20 (Tucker); 8/ 31/30 Tr. 4645-46 (Phillips). Moreover, SoundExchange maintains that this disguise effect existed regardless of whether ad-supported listeners ultimately opted into Premium Access sessions, because the offer suggested the accessibility of all

[^21]repertoires, including those of the blacked-out record company. Tucker WRT 『| $\mid$ 37-38.

Pandora acknowledges that the non-suppression of the blacked-out record company's repertoire on "Premium Access" was not an error or oversight, but rather intentional. Services RPFFCL 【\| 870, 872. It also concedes that listeners in the treatment groups heard a "small number" of tracks from the otherwise blacked-out record company. SX PFFCL \| 874. Pandora further asserts that SoundExchange has proffered no evidence that such Premium Access was intended to, or in fact did, "disguise" the absence of a blacked-out repertoire, because such limited access would not be confused with access on Pandora's noninteractive service. Services RPFFCL ๆ 873. In sum, Pandora, while acknowledging that the LSEs therefore did not generate "perfect suppression," notes that [REDACTED]\% of the blacked-out record companies' recordings were in fact suppressed. Services RPFFCL ब 875 (and citations therein).

The Judges find SoundExchange's criticism of the LSEs in this regard well-taken. If listeners heard otherwise blacked-out songs after accessing Pandora's ad-supported service, there is no persuasive evidence that they would recall, going forward, whether that the songs or artists they heard-which included recordings that they selected-had been accessed via the noninteractive curation process or via the Premium Access feature on that otherwise noninteractive service. Rather, Pandora asks the Judges simply to assume that listeners would be so attentive as to parse and recall the specific Pandora services through which they heard certain recordings. There is simply no reason to
make such a counterintuitive assumption. Further, because a noninteractive service offers a listener the potential to hear music from a large repertoire, when a listener hears a sound recording from a particular favored artist, the listener has no reason to conclude that such recordings are in fact unavailable via the noninteractive service. That is, it seems at least equally reasonable to assume that a listener would expect to be able to access songs it hears on a service, regardless of the precise tier on which the service provided the song to the listener-at least without some further sufficient evidence to the contrary. Once again, Pandora bears the burden of producing sufficient evidence in this regard, and no such evidence is in the record.

Additionally, Pandora's own experience in conducting experiments should have put it on notice that the periodic playing of songs that are otherwise suppressed is sufficient to disguise the suppression. In its steering experiments relied upon by the Judges in Web IV, Pandora explained that by decreasing the frequency of the plays of songs from high-royalty record companies, without completely eliminating plays of those songs, Pandora could reduce its royalty costs without degrading the listener's perception of the repertoire of the service. Here too, the playing of otherwise blacked-out record company songs accessed via the noninteractive service, in the Premium Access promotional space, potentially allowed the listener to assume no such degradation. And importantly, Pandora does not provide any reason why it did not turn off the Premium Access feature for listeners
selected for the LSEs, which would have mooted this concern. ${ }^{291}$

SoundExchange notes that in light of the foregoing deficiencies in the LSEs, even Dr. Reiley and Professor Shapiro make a consequential admission: They simply do not know how adsupported listeners would have reacted if they were made aware of the label blackouts. See 9/1/20 Tr. 4928 (Reiley) ("[I]f we imagine that listeners were informed of [the missing content], then I don't know what impact that would have on listening."); Shapiro WDT at 21 ("LSEs "do not fully capture what would happen in the real world in the event of a blackout resulting from one of [the] record companies withholding its repertoire from Pandora . . . . [L]isteners were presumably not aware of the blackout, and they might react more strongly if they were aware.").

SoundExchange further notes that, although Pandora's goal was to achieve 100\% label suppression in the treatment group (aside from allowing Premium Access to plays of suppressed labels), it failed even in that endeavor, for several reasons. First, SoundExchange identifies what it describes as a "technical error," whereby the suppression was turned off for a period of time over several days-

[^22]June 13-16 and 26-during the treatment period because of various software and system upgrades. Reiley WDT II 31; Reiley 9/1/20 Tr. 4956-58 (Reiley). For Pandora's 89-day experiment, this five-day period represents approximately $6 \%$ of the entire experimental period during which the suppression was partially interrupted. The Judges find that this technical error in the experiment, standing alone, would not invalidate the LSEs, but in combination with the other defects, serves to eliminate further any weight the Judges could place on the LSEs.

Next, SoundExchange points out that Pandora continued to provide a number of "miscellaneous provider tracks " 292 to the treatment group, including recordings from the suppressed labels, again causing the suppression level to be reduced. Reiley WDT ब ${ }^{28}$; Reiley WRT बT\| 21-23; 8/17/20 Tr. 2321-2322 (Tucker). More particularly, Professor Tucker testified that approximately [REDACTED]\% of users in the major label treatment groups were exposed to at least one "miscellaneous provider" track during the LSEs. See Tucker WRT app. 1 (Rows 13-14); 8/17/20 Tr. 2322 (Tucker).
[REDACTED] Dr. Reiley's understanding that few spins of these "miscellaneous provider tracks" constituted plays from the suppressed labels. Reiley WDT I 30 ; Reiley WRT $\mid 123$ (noting that his team tested a sample of miscellaneous provider tracks and

[^23]422a
determined that only $10-15 \%$ of them (i.e., $10-15 \%$ of $6 \%$ of total plays) were from the suppressed label); 9/1/20 Tr. 4921-24 (Reiley) ("Most of [the miscellaneous provider tracks] are going to be tracks that belong to other owners, since [REDACTED]).

With regard to Professor Tucker's testimony, Pandora notes that she conceded that the fact that approximately [REDACTED]\% of users heard a miscellaneous provider track during the experimental period does not mean that they heard a suppressed label track. See 8/18/20 Tr. 2403 (Tucker). Also, Pandora points out that the [REDACTED]\% figure reported here by SoundExchange ([REDACTED]\% to be precise) includes miscellaneous provider tracks played during Premium Access sessions. See Tucker WRT app. 1 at lines 13-14. As explained supra, Premium Access sessions had been intentionally excluded from the LSEs.

With regard to the number of potential miscellaneous provider tracks to which a listener in the treatment group may have been exposed, the Judges agree that it is likely that such exposure was relatively low. However, even this likely small effect, when combined with the other deficiencies in the LSEs, renders the experimental results less than conclusive. Moreover, the fact that many of these miscellaneous provider tracks may have been provided within the Premium Access feature does not mitigate the imperfection. As stated supra, Pandora has not offered a sufficient explanation as to why adsupported listeners would accurately parse the difference between songs played as ad-supported or as Premium Access songs accessed via the ad-supported service, in order to be cognizant of the loss of certain
songs on the ad-supported tier alone. Further, because these "miscellaneous provider tracks" are apparently relatively popular, ${ }^{293}$ they may have an outsized influence on a listener's satisfaction with the ad-supported service compared to less popular songs, and thus a relatively greater impact on the accuracy of the experiment.

Another issue raised by SoundExchange is the LSEs' handling of ad-supported users who upgraded to Pandora Plus or Pandora Premium subscription tiers during the experiment and thus did not receive the suppression treatment during the entire experimental period. Despite these upgradings, Pandora continued to analyze these upgraded listeners as part of the treatment group. See Reiley WDT $\mid 132$ ("[A]lthough listeners who upgraded to Plus or Premium no longer received treatment after subscribing, I have not excluded those listeners or their listening metrics from the analysis . . . . ."); see also Reiley WRT \| 19. More particularly, the experimental data showed that [REDACTED]\% of adsupported users in the [REDACTED] treatment group and [REDACTED]\% in the [REDACTED] treatment group upgraded to a subscription tier during the LSEs. Tucker WRT app. 1; Reiley WDT - 32 . Professor Tucker explained that this upgrading has the potential of masking the shift by ad-supported users in the ad-supported service. 8/17/20 Tr. 2318 (Tucker).

Pandora does not dispute the accuracy of the data as presented by Professor Tucker. Rather, Dr. Reiley states that he did not exclude these listeners in part
${ }^{293}$ See supra note 292.
＂because they did receive at least partial treatment prior to the upgrade ．．．．＂Reiley WRT 『 19．Although that is not inherently unreasonable，there is also merit in Professor Tucker＇s assertion．The upgrading individuals may have abandoned the ad－supported service（via their upgrading）because of the label suppression，which would have justified either the elimination of those upgraders from the experiment， or perhaps counting them as having abandoned the ad－supported service because of the suppression．${ }^{294}$

Next，SoundExchange avers that the LSEs cannot estimate how consumers would react over a time period longer than the LSEs，such as the five－year rate－setting period．See Tucker WRT『 77 （＂Consumer learning can lead to substantial difference in the measured effect of a treatment over time＂）；8／17／20 Tr． 2323－25（Tucker）（＂［C］ertainly the substance of these critiques does not change when you look at a longer time period．）．

In response，Pandora relies on the testimony of Professor Shapiro and Dr．Reiley，in which they extrapolate to the LSEs longer－term effects from other experiments that had measured the longer－term impact of ad－loads on listening and the impact of steering，respectively．Reiley WDT © 36；Reiley WRT －27．More particularly，Dr．Reiley and Professor Shapiro found that，by this extrapolation，the three－ month LSEs should be adjusted by a factor of three， increasing the negative impact associated with a label

[^24]blackout (and finding that the adjustment factor should equal two for the six-months of data). Shapiro WDT at 21, 24-25, tbl.3; 8/19/20 Tr. 2701 (Shapiro).

SoundExchange challenges as ad hoc Pandora's reliance on these unrelated experiments. It argues that neither Dr. Reiley nor Professor Shapiro provides "legitimate support for why this relationship, which was obtained from a different experiment involving a different treatment and a different experimental design, is applicable here." Tucker WRT © 93; 8/5/20 Tr. 583-84 (Willig). Going more deeply, Professor Willig opined that "there is really no particular reason to believe, from a logical basis or an economic basis, that the three times or the two times is an accurate correction." 8/5/20 Tr. 583 (Willig). Multiple SoundExchange witnesses further explained that these other two experiments are simply too unlike the LSEs to provide useful information. Tucker WRT ๆT 76-83; Zauberman WRT $\| \mathbb{T} 40-45,53-56$; Simonson WRT ब| $\mathbb{4}$ 41-45; Willig WRT 『| 26.

Going even further, Professor Willig distinguished the ad-load experiment from the LSEs:
[A]d load is a different sort of a degradation of the service from the point of view of the listeners than a narrowing of the repertoire of the music that's played, and the ability of a listener to discern that the ad load has increased is going to be relatively obvious. And whether or not that's the case for the missing music is somewhat less certain . . . . And so the applicability of the information from the ad loads study to the LSEs is really questionable. It is really rather speculative.

8/5/20 Tr. 584 (Willig). Finally, with regard to the ad load experiment comparison, SoundExchange notes that Dr. Reiley acknowledged the absence of any record evidence to support what is essentially nothing more than his assumption of a correlation between the effects of ad load and label suppression. 9/1/20 Tr. 4970 (Reiley).

Regarding the other purportedly comparative experiment-the steering experiments conducted by Pandora's Dr. Stephan McBride-SoundExchange's witnesses identified an important dissimilarity with the LSEs: The McBride steering experiments measured the effects of steering only up to a $30 \%$ level. See 9/1/20 Tr. 4925, 4990 (Reiley). Nonetheless, Dr. Reiley simply assumed that he could extrapolate from the results of a steering experiment in order to generate long-term effects from a [REDACTED]\% suppression of a label. Id. at 4925 (Reiley).

Finally, SoundExchange again relies on the testimony of Professor Reiley himself to demonstrate the arbitrariness of his decision to multiply the threemonth results by three, and the six-month results by two. Specifically, Dr. Reiley acknowledged that "it's impossible to know exactly what would happen without running the experiment for a . . . much longer period of time," and that his comparison to the ad-load experiment was a "best guess at what we think the long-run effects are likely to be." 9/1/20 Tr. 4910-11 (Reiley).

In rebuttal to these criticisms, Pandora relies first on Dr. Reiley's testimony that he had the benefit of having been involved in Pandora's ad-load experiments, but he acknowledged that Pandora had
engaged in few other long-term experiments. Reiley WDT 『\| $27-28$; 9/1/20 Tr. 4915-16 (Reiley). Based on that experience, he observed a decline in listening hours over approximately the first year of the ad-load experiments that was linear in nature, which he testified could render reasonable and justifiable Professor Shapiro's decision to double the effects of the six-month LSE experiment. Reiley WDT ब 28; 8/19/20 Tr. 2701 (Shapiro).

Pandora nonetheless concedes that its ad-load experiment was not perfectly correlated with the LSEs with regard to long-term effects. Attempting to turn the tables on SoundExchange, Pandora and Dr. Reiley chastise SoundExchange (yet again) for not presenting any contrary evidence. 9/1/20 Tr. 4907-09 (Reiley).

In similar fashion, Pandora relies on Dr. Reiley's conclusion that the LSEs were also consistent with longer-run extrapolations of Dr. McBride's steering experiments. However, Dr. Reiley acknowledges the wider confidence intervals in the LSEs' results compared to the steering experiments. 9/1/20 Tr. 4925, 4990 (Reiley). And, as with the alleged correlation between the LSEs and the ad-load experiments, Pandora points to the absence of any contrary evidence from SoundExchange to refute this alleged correlation. Services RPFFCL 『 961.

The Judges agree with SoundExchange that Pandora has failed to show the long term effects of a sustained blackout of a Major or other label by Pandora. There is insufficient evidence to support a finding that the results of two unrelated experiments-testing the impact of changing ad-loads
and the steering of plays-can be mapped onto the LSEs. The fact that these other experiments may be the only available potential comparators does not mean that they are useful, or even that they are the best comparators. ${ }^{295}$

SoundExchange also focuses on an aberrational statistical output from the LSEs. The three-month results showed a [REDACTED]-i.e., this aspect of the LSEs found that listening [REDACTED]. Reiley WDT $\|$ 22. Similarly, after six months, the [REDACTED] treatment group showed [REDACTED]. Reiley WRT $\| \mathbb{T} 12-14$ \& Fig. 1. Considering these results, Professor Willig found it implausible that "users would listen to Pandora more if it lost access to [REDACTED]." Willig WRT \|\| 2829.

According to Dr. Reiley, these results are not statistically significant from a zero effect, and therefore should not be considered anomalous. Reiley WDT II 22 \& Fig. 2. Nonetheless, Professor Shapiro discarded the [REDACTED] data, replacing it with the three-month [REDACTED] loss rate, which he noted generated an even greater opportunity cost result. 8/19/20 Tr. 2699 (Shapiro); Shapiro WDT at 22, 27; tbl. 4 at 26.

[^25]Professor Willig explained why, in his opinion, Professor Shapiro's substitution of [REDACTED] for [REDACTED] data is inappropriate:
[I]t is completely illogical to reject the results of an LSE applied to one [REDACTED], while simultaneously claiming the results from the same experiment applied to a [REDACTED] are not only reliable, but can be extrapolated to the record company for which the experiment was deemed to be unreliable. None of the LSEs produce results that are statistically different from zero, and as such, Professor Shapiro's approach amounts to drawing on the random "noise" from one LSE and asserting that such noise constitutes a better estimate of blackout effects than the random noise from his other LSEs. This is completely inappropriate and cannot form the basis for reliable results.

Willig WRT \| 28.
The Judges agree with Professor Willig's criticism. Although it was "conservative" for Professor Shapiro to plug in the [REDACTED] data for the [REDACTED]data, that act of purported "fairness" does not make the LSEs reliable. Indeed, because the LSEs also did not include a treatment group blackingout [REDACTED]'s repertoire (for reasons that Pandora did not explain), Pandora is left with the data generated from the [REDACTED] results to serve as a proxy for the [REDACTED], when the experiment was designed to include [REDACTED]. Although there can be circumstances when information gleaned from only one Major is sufficient, an expert witness cannot simply discard data sources
that he believed, ex ante, to be necessary, but which, ex post, cast doubt on the usefulness of the experiment, in order to paper-over anomalous results. ${ }^{296}$

In fact, SoundExchange takes Professor Shapiro to task for making other adjustments to the LSE results that it claims are equally ad hoc in nature. First, it criticizes Professor Shapiro for attempting to mitigate the real world fall-out (through third-party disclosure of the blackout, discussed supra) that would likely ensue upon a blackout of a Major by Pandora by simply relying on the upper end of the $95 \%$ confidence interval from the LSEs. Professor Willig notes that the upper end of these confidence intervals would be as tainted by the experiments' inability to measure the impact of these real world effects as the point estimates that Professor Shapiro decided to ignore. Alternately stated, the confidence intervals, like the point estimates, are simply unrelated to the real world dissemination of information regarding the blackouts, and thus cannot be invoked as a proxy for the effect of such real world

[^26]events. See 8/5/20 Tr. 581 (Willig); see also 8/ 17/20 Tr. 2335 (Tucker) (finding this adjustment to be "incredibly ad hoc and unreliable" and "anything but conservative"); Tucker WRT \| 92 (finding these adjustments "untethered to any valid procedure to produce reliable field experiment estimates"). Moreover, SoundExchange asserts that Professor Shapiro did not present a logical, mathematical or statistical justification for this adjustment. Rather, he instead multiplied the effect of the treatment four times over, a multiple that he testified-in decidedly imprecise language-"[REDACTED]" 8/19/20 Tr. 2704-27 (Shapiro).

In response, Pandora claims that Professor Shapiro never claimed there was a correlation between the impact of the non-disclosure of the label suppression and the parameters of the confidence interval. Services RPFFCL 『 955. But to the Judges, that response merely underscores SoundExchange's broader criticism-no aspect of the data arising from the LSEs addresses this non-disclosure problem.

Accordingly, the Judges are in agreement with the criticism levelled by SoundExchange. The mere fact that Professor Shapiro moved in the direction of greater listening loss by relying on the results at the upper end of the $95 \%$ confidence interval is undeniably uncorrelated with the real-world effects of third-party disclosure of the existence of the blackout of a label. As the record testimony and evidence discussed above demonstrates, Pandora proffered no evidence to counter the argument that such a blackout would likely lead to the cratering of

Pandora's listener base, making even Professor Shapiro's quadruple adjustment meaningless. ${ }^{297}$
ii. Conclusion Regarding the LSEs and the Implication for Professor Shapiro's N-I-N Model

For all of the foregoing reasons, the Judges cannot rely on the LSEs to support Professor Shapiro's calculation of his input " $L$ " in his N-I-N model), i.e., the percentage of those performances that would be lost to other forms of listening in the absence of a license from the record company. The failure (or inability) of the LSEs to address the effects of thirdparty motivated disclosure over the longer-term of the existence of the blackouts on Pandora's listenership, is alone a fatal defect in the LSEs. The other defects catalogued above constitute a further metaphorical "death by a thousand cuts," further supporting the Judges' decision to put no weight on the results of the LSEs. The Judges are in agreement with Professor Willig's testimony that, after considering the foregoing issues, Professor Shapiro's parameter " $L$ " is flawed because it is based on unreliable data from the LSEs. Willig WRT ब| $\|$ | 22- 27); 8/5/20 Tr. 351-53, 57074 (Willig) (LSEs are "absolutely not" a reliable source of evidence for use in economic analysis).

Because a useful input " $L$ " is a sine qua non of Professor Shapiro's opportunity cost calculation within his N-I-N Model, the Judges’ decision to reject the calculation of that value (which was intended to

[^27]show that any one Major is not a "Must Have") renders Professor Shapiro's N-I-N Model unusable. ${ }^{298}$

## 3. Professor Shapiro's Myerson Value Model

In his rebuttal testimony, Professor Shapiro utilizes what he described as a "Meyerson Value" modeling, developed by the economist Roger Myerson, which Professor Shapiro claims is a superior to Professor Willig's "Shapley Value" approach as a form of analysis in this proceeding. More particularly, Professor Shapiro testifies that Myerson Value modeling is similar in nature to the Shapley Value, and in fact can generate values equal to those produced by Shapley Value modeling in certain circumstances. Here, however, Professor Shapiro maintains that the two values depart from one another. The reason for the different outcomes is that the Myerson Value is applicable when there are "contract externalities," a complication that is not addressed in Shapley Value modeling. Shapiro WRT at 32 . By "contract externalities," Professor Shapiro is referring to a situation where, in the present context, any one notional licensing agreement reached by a Major record company with a noninteractive service would affect the agreements reached by that noninteractive service with the other two Majors. Shapiro WRT at 59. Professor Shapiro opines that these "contract externalities" would occur if the repertoire of each Major was not a "Must Have" for a
${ }^{298}$ Accordingly, the relative merits and criticisms of the other aspects of Professor Shapiro's N-I-N Model are moot.
noninteractive service. ${ }^{299}$ In this regard, he acknowledges that, for his Myerson Value approach to be relevant (as with his N-I-N model) the Judges would need to find that the Majors are not "Must Have" licensors for noninteractive services. See 8/19/20 Tr. 2755-56 (Shapiro) (acknowledging that the differences between the Shapley Value modeling results and the Myerson Value modeling results would be relatively small if the Majors are indeed "Must Haves" for noninteractive services). Applying this model, Professor Shapiro generates an adsupported rate of $\$ 0.00146$ per play, and a subscription rate of $\$ 0.00155$ per play. Shapiro WRT at 63 .

The dispositive defect in Professor Shapiro's Myerson Value modeling is that it too requires the application of the results from the LSEs to demonstrate that no one Major is a "Must Have," and that bi-lateral negotiations within the model would account for this situation. But, as noted above in the Judges' discussion of Professor Shapiro's N-I-N model, an approach that is dependent upon a finding that the Majors are not "Must Haves" for a noninteractive service is in conflict with the Judges'

[^28]finding that such a "Must Have" condition exists. Accordingly, the Judges decline to apply Professor Shapiro's Myerson Value modeling and results.

## D. Evaluation of NAB Proposal for a Separate Rate for Commercial Simulcasters

The NAB participated in this proceeding on behalf of commercial radio stations that simulcast their over-the-air broadcasts on the internet. In this proceeding, the Judges focus on the internet transmissions of these broadcasters.

The NAB argues that commercial simulcasting (simulcasting) is distinct from other forms of commercial statutory webcasting. Given the purported differences, the NAB advocates for a separate (lower) rate for simulcasters than for other eligible nonsubscription transmissions by webcasters. The NAB maintains that simulcasting constitutes a distinct submarket in which buyers and sellers would be willing to agree to lower royalty rates than their counterparts in the commercial webcasting market. It proposes a statutory rate of $\$ 0.0008$ per play for simulcasts and $\$ 0.0016$ for other eligible nonsubscription transmissions. NAB PFFCL ब 10. The NAB's proposal defines a simulcast transmission as "a public performance of a sound recording by means of the simultaneous or near-simultaneous retransmission, as part of an eligible nonsubscription transmission, of the same sound recording included in a 'broadcast transmission,' as the term is defined in 17 U.S.C. 114." NAB Proposed Rates and Terms at 8.

The NAB broadly contrasts simulcasting with custom radio services, which, it asserts, are standalone products, untethered to a corresponding
radio broadcast. Leonard WDT \| 33. It indicates that custom radio provides a personalized experience that reflects a specific user's preferences. Leonard WDT $\mathbb{I}$ 33; 8/18/20 Tr. 2430-31 (Tucker); see also 8/13/20 Tr. 1819 (Orszag). The NAB adds that such services also permit more interactivity than simulcasts, such as seeding stations, skipping to another song, and thumbing up or down, all of which curate the listening experience. 8/24/20 Tr. 3427 (Leonard); Leonard WDT - 49; Leonard WRT $\mathbb{\|}$ ब 41-47.

Dr. Leonard, whom the NAB engaged to analyze the appropriate statutory royalty for public performance rights for sound recordings for webcasting under the Section 114 license and to evaluate the NAB's proposal regarding that statutory royalty, set out three types of webcasting services subject to the Section 114 license: Simulcast, Custom Radio, and internet Radio. Leonard WRT ITI 32-35. His stated criteria for simulcasts tracks closely to the proposed regulatory definition offered by the NAB. Dr. Leonard characterized custom radio as a service that "streams music to listeners over the internet without any simultaneous terrestrial broadcast. Unlike simulcasts, custom radio is a 'one to one' stream, with a particular listener receiving an individualized stream reflecting his or her expressed preferences, subject to the limitations on 'interactivity' imposed by the Section 114 license, as interpreted by U.S. courts." Leonard WRT ब 33.

He characterized internet radio as "a 'native digital' service [that] does not involve the retransmission of a terrestrial broadcast." Leonard WRT I 34. He went on to state that internet radio is more similar to custom radio than to simulcast and
that, while internet radio stations do not vary the music played based on an individual listener's preferences, such services nonetheless often feature greater user functionality than simulcast, such as allowing listeners to pause and skip songs. He also maintained that internet radio services do not feature much non-music or localized content, nor are they subject to FCC regulation or public interest requirements. He also asserted that internet radio services are not a significant part of the streaming market and noted that his report does not treat internet radio services as distinct from custom radio services. Leonard WRT © 35.

As the proponent of a rate structure that treats simulcasters as a separate class of webcasters, the NAB bears the burden of demonstrating not only that simulcasting differs from other forms of commercial webcasting, but also that it differs in ways that would cause willing buyers and willing sellers to agree to a lower royalty rate in the hypothetical market. Web IV, 81 FR at 26320. As discussed below, based on the record in the current proceeding, the Judges find that the NAB has not satisfied that burden. Therefore, the Judges do not adopt a different rate structure for simulcasters than that which applies to other commercial webcasters.

## 1. History

No prior rate determination has treated simulcasters differently from other webcasters. In Web $I$, the Librarian, at the recommendation of the Register, rejected a CARP report that set a separate rate for retransmission of radio broadcasts by a third-
party distributor and adopted a single rate for commercial webcasters. 67 FR at $45252 .{ }^{300}$

In Web II, the Judges rejected broadcasters' arguments that rates for simulcasting should be different from (and lower than) royalty rates for other commercial webcasters. 72 FR 24084, 24095 (May 1, 2007), aff'd in relevant part sub nom. Intercollegiate Broad. Sys. v. Copyright Royalty Bd., 571 F.3d 69 (D.C. Cir. 2009) (Web II).

The NAB reached a WSA settlement with SoundExchange prior to the conclusion of Web III covering the remainder of the Web II rate period and all of the Web III rate period. At the request of the NAB and SoundExchange, the Judges adopted the settlement as statutory rates and terms binding all simulcasting broadcasters. See 75 FR 16377 (April 1, 2010). Consequently, simulcasters did not participate in the Web III proceeding, in which the Judges determined rates for "all other commercial webcasters." Although the Judges did not determine separate rates for simulcasters in Web III, because the Judges adopted the NAB settlement, simulcasting broadcasters paid different rates than webcasters that operated under the rates determined by the Judges.

In Web IV, the Judges also rejected broadcasters' arguments that rates for simulcasting should be different from (and lower than) royalty rates for other commercial webcasters. 81 FR at 26323.

[^29]
## 2. Proposed Benchmark Agreements

In the current proceeding, the NAB offered proposed benchmark agreements in support of its rate proposal, supplemented by an alternative economic analysis. The NAB offered different types of voluntary agreements in support of its proposal: Direct license agreements between sound recording rights owners and webcaster iHeart and license agreements for musical compositions between performing rights organizations and webcasters Pandora and iHeart.
a. The iHeart/Indie Agreements

The NAB sets forth as proposed benchmarks a set of 16 renewed direct license agreements between iHeart and independent ("indie") record labels that include rights for simulcasting and other webcasting. Exs. 2013-2026, 2081-2082 (the iHeart/Indie Agreements). The NAB's economist, Dr. Leonard, accurately indicated that the terms and conditions of iHeart's direct deals with indies are generally consistent across all of these agreements. Leonard WDT © 63. The NAB argues that these agreements provide insight into how willing buyers and willing sellers license simulcast and custom radio streams on different terms. 8/24/20 Tr. 3355 (Leonard); Leonard WDT 『 65; Trial Ex. 2154 ब 14 (WDT of James Russell Williams III ("Tres Williams")) (Williams WDT),

The NAB maintains that 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 same rights at issue under the section 114/112 licenses. 8/ 24/20 Tr. 3375-76 (Leonard); see also id. at 3355; Leonard WDT 『 65. Dr.

Leonard focused his analysis on the renewal agreements because he concluded that these agreements indicate that the effective per-play rates under those agreements were acceptable to both parties and that the iHeart-Indie benchmarks are the best evidence of a willing buyer/willing seller transaction at the effective per-play rates that predated the renewal. Leonard WRT © 50; Leonard WDT ब 65 ; 8/24/20 Tr. 3357-58.

The NAB argues that the iHeart/Indie Agreements reflect licensors' views of the relative promotional and substitutional considerations associated with licensing iHeart's simulcast and custom radio services and generate average rates below the statutory rate. Leonard WDT © 71, 75. In the NAB's view, the indie labels' willingness to accept below-statutory rates was motivated by steering, including both the ability to garner more plays of the indies' catalogs and special relationships with top programmers at iHeart. 8/31/20 Tr. 4538-39; 4542-43 (Williams).

SoundExchange asserts that the iHeart/Indie Agreements are not a reliable or appropriate benchmark. It points out Dr. Leonard's acknowledgement that the iHeart/Indie Agreements account for only [REDACTED]\%, [REDACTED]\%, and [REDACTED]\% of iHeart's total simulcast, custom radio, and webcast performances, respectively. Leonard WDT ब 72 \& app. A4. SoundExchange maintains that the scope of these licenses makes them insufficiently representative to serve as persuasive benchmarks, citing the Judges' decision, in SDARS III, not to use as a benchmark a far larger number of direct licenses with indie record
labels, 500 direct licenses representing $6.4 \%$ of the tracks on Sirius XM playlists because they were not representative of the market. SDARS III, 83 FR at 65249.

SoundExchange also criticizes the persuasiveness of the iHeart/Indie Agreements because the agreements [REDACTED] 8/24/20 Tr. 3492 (Leonard). SoundExchange adds that all but two of the agreements [REDACTED]. Orszag WRT © 59. SoundExchange also maintains that under the iHeart/Indie Agreements, iHeart had little incentive to steer plays toward the contracting indie labels' content. It cites to Dr. Leonard's acknowledgment that broadcasters' choice of content is driven not by simulcasting but by terrestrial radio choices and the considerations there. 8/24/10 Tr. 3503 (Leonard). ${ }^{301}$ SoundExchange adds that [REDACTED]. SX PFFCL - 9 1181-1182; Orszag WRT ब 59.

SoundExchange asserts that the iHeart/Indie Agreements do not fully account for the economic value of simulcasting to the parties. It maintains that the indie labels that entered into the iHeart/Indie Agreements received several other benefits not available under the statutory license in exchange for accepting a lower royalty rate. Orszag WRT ब 62 . It asserts that these motivating factors serve as key differentiators between direct license agreements and

[^30]the statutory environment and that taking royalty rates from direct licenses at face value would distort the estimate of overall market rates. Orszag WRT 9 68.

SoundExchange indicates that the labels entering into the iHeart/Indie Agreements were motivated by [REDACTED]. Orszag WRT ๆ\| 65. The agreements include payments that are characterized [REDACTED]. See, e.g., Trial Ex. 2013 \|\| 1(j), 1(g)(g), and 4(a)(i) The U.S. copyright law confers no exclusive right of public performance by means of terrestrial radio transmissions for sound recording copyright owners. Mr. Orszag [REDACTED] Orszag WRT \|q 66. Mr. Orszag argued that a label whose catalog performs better on terrestrial radio than it does on simulcasting or custom webcasting might expect [REDACTED]. Id. He added that several indie labels generally [REDACTED], or [REDACTED]. Orszag WRT $\mathbb{T} 466 \mathrm{n} .139$. Mr. Orszag also indicated that in addition to the financial benefits, this [REDACTED] served as an [REDACTED]. Id. बI 65; 8/ 31/20 Tr. 4606-07 (Williams) (acknowledging that "[REDACTED]").

SoundExchange also argues that the labels entering into the iHeart/Indie Agreements direct license were motivated by royalties for pre-1972 catalog, something the labels were not otherwise entitled to prior to the passage of the Music Modernization Act in 2018. Orszag WRT बT 67.

SoundExchange notes that the iHeart/ Indie Agreements enabled indie labels to both avoid deduction of SoundExchange's administrative fee and capture the full amount of royalties owed by iHeart,
without any mandatory share of royalties under the iHeart/Indie Agreements going directly through SoundExchange to featured or nonfeatured performing artists, as would have been the case under the statutory license. 8/13/20 Tr. 1852-53 (Orszag); Orszag WRT $\|$ 63. The NAB elicited testimony from Mr. Orszag indicating that he was aware of only one of the indie labels that agreed to the iHeart/ Indie Agreements, [REDACTED], which primarily focuses on budget classical music, that [REDACTED]. 8/13/20 Tr. 1853 (Orszag). Mr. Orszag indicated that one of the indie labels that agreed to the iHeart/Indie Agreements, [REDACTED], may still employ splits with certain artists, equal to or proximate to the 50/ 50 split due to performing artists under the statutory license. However, he did not represent that he knew know all of [REDACTED]'s deals with its artists, or the share of royalties that artists may be due. 8/13/20 Tr. 1855-57 (Orszag). ${ }^{302}$

## b. The PRO Agreements

The NAB offers agreements licensing public performance rights in musical works to webcasters as a providing evidence to reinforce the conclusion that simulcast should receive a lower royalty rate than custom radio. Leonard WDT ब 83, 89. The NAB argues that agreements between performance rights organizations and webcasters indicate that simulcast

[^31]and custom radio exist as distinct products subject to different rates in voluntary agreements. 8/24/20 Tr. 3389-91 (Leonard); Leonard WDT $\mathbb{1} 81$.

Dr. Leonard referenced a 2017 ASCAP Radio Station License Agreement with iHeart. He represented that the license includes coverage for simulcasts and certain non-simulcast webcasts but excludes coverage for custom radio webcasts that offers music programming customized for any specific user or enables a user to provide feedback to customize the music programming made available to such specific user. Leonard WDT \|q 85-86. Dr. Leonard maintained that this ASCAP license is informative because: The radio stations licensees offering simulcast services are the same licensees at issue in this proceeding; the license covers analogous rights, for performance of musical compositions as compared to performance of sound recordings; the license covers simulcast and non-simulcast (noncustom) internet radio, [REDACTED]; the agreement is a transaction negotiated under the competitive protections of the ASCAP antitrust consent decree; and it functions as an industrywide agreement. Leonard WDT ब 87. Dr. Leonard testified [REDACTED], so he compared the ASCAP license's percentage of revenue rate for simulcasts with an effective Pandora royalty, which he calculated as a percentage of revenue. Leonard WDT © 88; 8/24/20 Tr. 3390 (Leonard). His analysis indicated that the ratio of the ASCAP royalty rate as a percentage of revenue for simulcast to the ASCAP royalty rate as a percentage of revenue for Pandora ranges from 38\% to $48 \%$. Leonard WDT © 88.

Dr. Leonard represented that BMI has offered to the Radio Music License Committee ${ }^{303}$ a percentage of revenue royalty rate for terrestrial broadcasts simulcast and certain limited non-simulcast noncustom streaming. He maintained this is an indication that BMI treats simulcasting as equivalent to radio stations' terrestrial broadcasts. Leonard WDT © 89. He also acknowledges that the RMLC did not request and BMI did not offer a rate for custom radio. Leonard WDT ब 90. Dr. Leonard also indicated that a group of radio stations represented by the RMLC entered into licenses with the PRO SESAC covering the period from January 1, 2016 to December 31, 2018 that provided a percentage of revenue royalty rate for terrestrial broadcasts and simulcast. Leonard WDT 『 91.

The NAB also argues that litigation with ASCAP and BMI over the royalty rates it was required to pay to those PROs for its custom radio product indicates that custom radio services are not similarly situated to radio stations' product, and that the two services are not "similarly situated" under the ASCAP consent decree but are "different types of services." SX PFFCL -T 90-91; see In re Pandora Media, Inc., 6 F. Supp. at 320; BMI v. Pandora Media, Inc., 140 F. Supp. 3d 267, 270 (S.D.N.Y. 2015).

SoundExchange counters the NAB's arguments regarding the PRO agreements by asserting that it is not informative that custom webcasting is generally licensed separately and at a higher rate because licensees pay the PROs on a percentage of revenue

[^32]basis. 8/24/20 Tr. 3534-35 (Leonard). SoundExchange notes that Dr. Leonard acknowledges that radio broadcasters typically play less music per hour than custom webcasters, and the percentage-of-revenue rates paid to the PROs by simulcasters would reasonably be lower than the rates paid to the PROs by custom webcasters. See, e.g., Leonard WDT 139 \& app. C2-C18; see also 8/24/20 Tr. 3535-36 (Leonard); Orszag WRT | 48. SoundExchange maintains that the different intensities of music use explain the different effective percentage of revenue rates in PRO agreements for simulcast and custom radio. Orszag WRT ब|『 50-51.

SoundExchange adds that the NAB did not actually submit into the record any operative agreement between any PRO and any webcaster that covers custom radio and that NAB's claimed evidence about what custom radio pays is from unseen agreements between Pandora and two PROs is inadequate. SX PFFCL \| \| 1096-97; 8/24/20 Tr. 3541, 3542 (Leonard). SoundExchange argues that Dr. Leonard does not know what the agreements may actually say and he cannot say whether the rates for custom webcasting reflect potential tradeoffs on other terms. SX PFFCL 『\| 1097-99. SoundExchange adds that Dr. Leonard admitted that he did not know if there were such tradeoffs or how they were negotiated because he had not actually seen the agreements. 8/ 24/20 Tr. 3542, 3551 (Leonard).

SoundExchange then argues that the definitions regarding "similarly situated" licensees in the ASCAP and BMI consent decrees include factors that are distinct from the provisions of 17 U.S.C. 114(f)(1)(B). SoundExchange maintains that the differences
between the consent decrees and the statute explain why PROs treat custom radio differently from broadcast and simulcast. It notes that the ASCAP consent decree expressly identifies, "the nature and frequency of musical performances" as a factor to identify whether services are similarly situated, and states that similarly situated services "use music in similar ways and with similar frequency." SX RPFFCL (to NAB) ब 102, citing United States v. ASCAP, No. 41-1395 (WCC), 2001 WL 1589999, at *3 (S.D.N.Y. June 11, 2001).
3. Conclusions Regarding Benchmark Evidence for Simulcasting as Distinct From Other Forms of Statutory Webcasting
a. iHeart/Indie Agreements

Based on the entirety of the record, the Judges do not accept the iHeart/ Indie Agreements as sufficiently probative of the relevant market to accept them as meaningful or persuasive benchmarks, or therefore as adequately persuasive to establish a separate rate for simulcasting. Importantly, these direct licenses cover only a small portion of the sound recordings performed by iHeart, and an even smaller portion of the entire market for simulcast, custom radio, and internet radio performances. The Judges also find that the record is insufficiently informative as to the effect of steering on the agreed upon royalty rates because none of them contain [REDACTED]. In addition, because U.S. copyright law confers no exclusive right of public performance by means of terrestrial radio transmissions for sound recording copyright owners, or prior to passage of the MMA a right to royalties for pre-1972 sound recordings, the

Judges have misgivings regarding the extent to which the royalties under the agreements accurately reflect the myriad of motivations, and value received, for labels to enter into them. In sum, the characterization of part of the compensation in these agreements [REDACTED] is suspect, as it is not economically rational for a licensee to pay a royalty for an activity for which no license is required. The NAB has not sustained its burden to provide an adequate basis in evidence or economic theory that would permit the Judges to allocate this compensation accurately. ${ }^{304}$

The Judges find that SoundExchange offered compelling indications that the indie labels that entered into the iHeart/ Indie Agreements were motivated by non-monetary benefits that undermine the application of the agreements as reliable benchmarks. The Judges find that the NAB did not adequately counter or account for these concerns.

SoundExchange also raised legitimate concerns that several indie labels generally [REDACTED], or [REDACTED], on the [REDACTED] of the direct licenses across multiple monthly royalty statements, thus skewing the motivations of the Indie labels, especially in the context of payments for unrecognized rights under U.S. copyright law. The NAB did not present the Judges with adequate evidence to address or account for these legitimate concerns.

[^33]The Judges observe, and find concern with the fact that while the NAB's proposal seeks to contrast simulcasting with all other statutory webcasting, the NAB chose to more consistently draw a contrast between simulcasting and custom radio services, by treating internet radio, without adequate justification, as indistinct from custom radio. The Judges find that this conflating of internet radio and custom radio services was not adequately supported by the record evidence, and that therefore the proper comparison between simulcasting and all other statutory commercial webcasting was insufficiently established. ${ }^{305}$

## b. PRO Agreements

Based on the entirety of the record, the Judges find that evidence regarding agreements between performance rights organizations and webcasters is insufficiently persuasive to establish that simulcast and custom radio exist as distinct products subject to different rates in voluntary agreements. As an initial

305 The Judges also observe, but do not necessarily rely upon, the apparent ability of the [REDACTED]. While there was an indication that some labels and artists agreements, in particular a notably successful recording artist group, may employ artist share splits equal to or proximate to the $50 \%$ share due to performing artists under the statutory license, the Judges have sparse indication regarding the range or frequency of actual artists' shares that may be equal to or proximate to the statutory 50/50 split. The Judges also note that the [REDACTED] Agreements [REDACTED]. See e.g., [REDACTED] Agreement, Ex 2013, \| 4b. This is in contrast to at least one other agreement in evidence covering webcasting uses eligible for the 114 statutory license, the 2016 Pandora/UMG agreement, which indicates an obligation for UMG to "[REDACTED]," Ex 5013, SOUNDEX_W5_ 000010111.
matter, the Judges note that PRO negotiations and agreements cover different rights, and involve different parties from those at issue in this proceeding. It is also relevant that the rights at issue are often subject to detailed on-going government oversight via consent decrees. The Judges are in agreement with SoundExchange that the definitions regarding "similarly situated" licensees in the ASCAP and BMI consent decrees include factors that are distinct from the provisions of 17 U.S.C. 114(f)(1)(B).

In addition, the Judges find it troubling that the NAB did not actually submit into the record any operative agreement between any PRO and any webcaster that covers custom radio. The Judges find the NAB's claimed evidence about what custom radio pays, purportedly derived from unseen agreements between Pandora and two PROs, to be inadequate and unreliable. SoundExchange correctly points out that neither the NAB nor the Judges can know what the agreements actually say, and whether the agreements may reflect tradeoffs on other terms.
4. Qualitative Arguments Regarding a Separate Rate for Simulcasters

In addition to its proposed benchmarks, the NAB offers several qualitative arguments why willing buyers and sellers would agree to lower simulcasting rates. For the reasons set forth below, and based on the entirety of the record, the Judges are not persuaded that the offered qualitative arguments sufficiently establish that willing buyers and sellers would agree to separate, lower simulcasting rates.
a. Degree of Interactivity

The NAB argues that simulcasters should pay a lower royalty because simulcast transmissions are among the least interactive form of webcasting. NAB PFFCL \|T147-153. It asserts that in establishing a digital performance right for sound recordings and the statutory license at issue, Congress recognized that "interactive services are most likely to have a significant impact on traditional record sales" while noninteractive services were more promotional and less substitutional. NAB PFFCL \| 148 (citing H.R. Rep. No. 104-274, at 14). The NAB suggests that this legislative history indicates Congress's recognition that a service's interactivity is a good proxy for its ability to substitute or interfere with other streams of revenue. Leonard WDT © 49. It points to the Copyright Office's recognition that "it may be appropriate [for the Judges] to distinguish between custom and noncustom radio, as the substitutional effect of personalized radio on potentially competing interactive streaming services may be greater than that of services offering a completely noncustomized experience." NAB PFFCL ब 149 (citing Copyright and the Music Marketplace, supra at 178). The NAB also offers the testimony of Aaron Harrison, Senior Vice President, Business and Legal Affairs of UMG Recordings, who agreed that typically "[REDACTED]" 9/3/20 Tr. 5691 (Harrison).

As a record company executive, Mr. Harrison's testimony provides some evidence that record companies [REDACTED] because those services are less likely to displace sales of sound recordings. However, the value of his statements for determining whether a differential rate is justified for simulcasters is limited. First, Mr. Harrison was not
addressing specific negotiations or transactions. Second, the series of questions Mr. Harrison was responding to were focused on additional functionality of directly licensed interactive services. 9/3/20 Tr. 5690-92 (Harrison). Mr. Harrison clarified this in his testimony stating his understanding that UMG has only licensed "[REDACTED]." 9/3/20 Tr. 5691 (Harrison).

While the NAB posits that simulcasting is less interactive than custom webcasting, it has not established that simulcasting, as a rule, is materially less interactive than the full scope of noninteractive webcasting, all of which would be subject to the general commercial webcasting rates. The statutory license is available to services that offer a continuum of features, including various levels of interactivity, which are offered in a manner consistent with the license. While the Judges recognize, as have others, that a variety of factors may support a separate rate, on the record before them, the Judges find insufficient basis for parsing the interactivity across statutory services as proposed, or to set a customized rate structure among categories of commercial webcasters based on statutorily permissible levels of interactivity.

## b. Promotional Effect

The record includes numerous statements concerning the specific promotional value to copyright owners of terrestrial radio plays for stimulating revenue for sound recordings, thus leading to a licensee's willingness to accept lower rates for such plays. See, e.g., 9/3/20 Tr. 5734 (Harrison); Trial Ex. 2153 at 7-19 (WDT of Tom Poleman) (Poleman WDT);

9/9/20 Tr. 5944 (Sherwood); Leonard WRT 『\| 97-101. The record also indicates that characteristics that enhance promotional value include tight playlists with limited recordings and repeated plays of recordings on those playlists. Additionally, the record includes some indication that labels may not distinguish the between terrestrial radio versus simulcasting in terms of promotional benefit. Poleman WDT \|\| 7; 8/27/20 Tr. 4418-19.

The bulk of the evidence is persuasive that labels perceive a distinct promotional value in over the air radio play of their recordings, including participation in certain promotional programs and opportunities to enhance their ability to leverage promotional plays on terrestrial radio, with some necessary tie-in to simulcast plays. However, the record provides little persuasive indication that labels similarly, affirmatively, seek plays over simulcasts for purposes of promotion. The indications that labels may not distinguish the between terrestrial radio versus simulcasting in terms of promotional benefit is reasonably indicative that labels simply do not consider the promotional value of simulcasts (which reaches a relatively small number of listeners) in their pursuit of the promotional value of terrestrial radio plays. The NAB fails to analyze adequately the degree to which labels assign promotional value, or take actions motivated by promotional value of simulcasts in relation to the promotional value labels seek via terrestrial plays.
c. The Value of Non-Music Content as a Differentiator

The NAB points to simulcasts' differentiated use of music versus non-music content, compared to
custom radio, which is geared more toward music content. NAB PFFCL $\mathbb{1}$ I 165-167. It sets forth that terrestrial radio and simulcasters play relatively few songs compared to custom radio services. NAB PFFCL ब 167; Leonard WDT © 47; 8/24/20 Tr. 3427:38 (Leonard) ("[terrestrial broadcasters and simulcasters] use forms of non-music content to compete in the marketplace . . . in contrast, a custom radio station is basically 100 percent music."). It adds that terrestrial radio and simulcasters play relatively small catalogs of songs compared to custom radio services and that as a result any particular sound recording is not significantly important for the transmitted programming. NAB PFFCL ब 167; 9/3/20 Tr. 5734 (Harrison); Leonard WDT © 45. The NAB also offers that radio stations receive the most ad revenue during parts of the day where they play the least music, as an indication that terrestrial radio and simulcasters value non-music content less. 8/24/20 Tr. 3429-31 (Leonard). It also suggests that audience surveys and proposed benchmark agreements (addressed above) indicate that listeners place a relatively high value on non-music content. The NAB maintains that taken together this "evidence suggests music content has less value per minute, and therefore less value per-play, on simulcast than on custom radio." NAB PFFCL ब 172.

Like the NAB's proposed analysis of promotional value, its arguments regarding differentiated use of music versus non-music content by terrestrial radio and simulcasters compared to custom radio are insufficient. Both analyses fail adequately to address the relative motivations behind programming choices as they may apply to terrestrial radio versus
simulcasting, and extent to which each transmission method plays a role in programming choices. Additionally, the bulk of the evidence and analysis regarding differentiated use of music versus nonmusic content involves comparison of simulcasts and custom radio, the latter of which is merely a subset of other eligible nonsubscription transmissions. This type of evidentiary comparison does not match with the proposal to differentiate rates between simulcast and all other eligible nonsubscription transmissions. While the NAB posits that simulcasts are able to differentiate by use of nonmusic content and that simulcasters play relatively few songs compared to custom radio, it has not adequately established that simulcasting, as a rule, is materially less music intensive than the full scope of noninteractive webcasting, all of which would be subject to the general commercial webcasting rates.

## d. Competition With Other Commercial Webcasters

SoundExchange argues that simulcasters and other commercial webcasters compete for listeners and revenue in the same submarket and therefore should be subject to the same rate. It cites to numerous statements in government filings submitted by broadcasters and the NAB in support of this position. See, e.g. NAB 2018 comments filed with the FCC (Trial Ex. 5472) (acknowledging radio broadcasters have myriad competitors for streaming audiences); Cumulus Media, Inc. December 31, 2019 SEC filing Form 10-K (Trial Ex. 3042) at 8 (discussing competition with various digital platforms and services, including streaming music and other entertainment services for both listeners and advertisers). Additionally, SoundExchange points to
internal NAB and iHeart documents indicating that broadcasters view digital music services as competitors. See, e.g. NAB Board Meeting Minutes from January 29, 2018 (Trial Ex. 5196) at 3 (discussing "[REDACTED]"). SoundExchange also offers evidence that certain webcasters affirmatively seek to compete with simulcasters as well as terrestrial radio, including [REDACTED]. Trial Ex. 5056 at 73. The Judges find these indications of mutual competition between simulcasters and other commercial webcasters to be a compelling indication that simulcasters and other commercial webcasters operate in the same, not separate submarkets.
5. Survey Evidence Regarding Separate Rate for Simulcasters

## a. The Hauser Survey

The NAB engaged Professor John Hauser to determine the degree to which listening to simulcasts substitutes for various alternative activities, the importance of different types of content to simulcast listeners, and how much consumers listen to simulcasts. See Trial Ex. 2151 ब $\mid$ 6-7, app. E (WDT of John Hauser) (Hauser WDT); 8/27/20 Tr. 4333-35 (Hauser). Professor Hauser's survey results are expressed as a series of "diversion ratios" reflecting the percentage of respondents that, in the absence of simulcasts, would consume content from the potential alternative activities presented in the survey. Hauser WDT app. R.

Professor Hauser indicated that his survey employed standard scientific methods to maximize reliability. The method included Screening Questions to ensure an appropriate target audience and
attention checks to verify that respondents read the survey questions carefully. He also used a doubleblind methodology and included question and response options unrelated to the study's objective and used filters and randomization of response options (when appropriate) to avoid certain biases. Hauser WDT $\|$ \| 14, 22-24, 39.

After screening for the appropriate target sample audience, 536 respondents moved to the main survey. Of that group of qualified respondents, 532 completed the survey. Professor Hauser testified that this sample size was adequate to enable him to provide statistically significant results. Hauser WDT © 76.

In an introduction to the survey, the respondents were instructed that "There are various ways in which you can listen to content, some of which are defined below. Please read these definitions carefully, and keep them in mind when responding to questions in this survey." The descriptions of the listening options were:

Live AM/FM radio broadcasts through a radio: Live AM/FM radio is broadcast locally, thus allowing listeners to listen to local stations that may offer news, sports, weather, talk, and/or music through an AM/FM radio that is portable, in the home, or built into a car. Stations may broadcast programming created locally (e.g., morning shows with local traffic and weather), or nationally. Radio stations may be not-for-profit (e.g., NPR, college radio stations) or commercially supported by ad sales (commercial radio).

Live AM/FM radio broadcasts over the internet: Live AM/FM radio broadcasts over the internet allow listeners to listen to the same content through their computers or other internet-capable devices that is simultaneously transmitted to AM/FM radios. Live AM/FM radio broadcasts over the internet may be accessed by going to the website or app of a radio station, or to the website or app for a platform such as iHeartRadio or TuneIn.

Satellite radio (SiriusXM): Satellite radio is broadcast nationwide via satellite, thus allowing listeners to listen to the same stations anywhere in the country through a receiver that is portable, in the home, or built into a car. Satellite radio is available by subscription and offers commercial-free music as well as sports, news, talk, and other programming. Satellite radio may offer different stations that are not available on live AM/FM radio broadcasts through a radio or over the internet.

On-demand music streaming services: Ondemand music streaming services allow listeners to choose the specific song, artist, or playlist they wish to hear, in addition to playlists provided by the service. These services may be available for free with ads, or through a paid subscription without ads. On-demand music streaming services include Apple Music, adsupported Spotify, Spotify Premium, Google Play Music, and others.

Not-on-demand music streaming services: Not-on-demand music streaming services do not
allow listeners to choose the specific song or artist they wish to hear, but instead provide a pre-programmed list of songs based on listener preferences. The specific planned selection and order of songs remain unknown to the listener (i.e., no prepublished playlist). These services may be available for free with ads, or through a paid subscription without ads. Not-on-demand music streaming services include adsupported Pandora, Pandora Plus, and others.

Hauser WDT app. D-6-7. At various points in the survey, respondents were informed may click a link to review these definitions. See, e.g. Hauser WDT app. D-11.

The first question in the main survey, Q1, asked respondents to approximate the total number of hours they spent listening to live AM/FM broadcasts from commercial radio stations over the internet over the prior three days. Hauser WDT ब 93.

On average, respondents estimated that they spent 5.3 hours listening to internet simulcasts of terrestrial commercial radio during the past three days (approximately 1 hour per day). The median respondent estimated spending four hours listening to internet simulcasts of terrestrial commercial radio during the past three days- approximately 1.5 hours per day. A total of 91.6 percent of the respondents spent less than twelve hours over three days (i.e., four hours per day) and 96.7 percent spent less than eighteen hours over three days (i.e., six hours per day). Three respondents spent more than ten hours per day and no respondents spent more than fortyeight hours over the three-day period. The average
estimated number of hours spent listening to internet simulcasts of terrestrial commercial radio by day of week ranged from 1.7 to 1.8 hours. Hauser WDT - \| \| 94-95.

The next question, Q2, asked respondents about the types of content to which they listened on internet simulcasts of terrestrial commercial radio. Respondents were prompted to select all of the offered types of content to which they listened on internet simulcasts of terrestrial commercial radio in the last three days. Hauser WDT © 96. The offered types of content were as follows:
-Music (all genres, e.g., pop country rock children's music religious music)
—Sports (e.g., game broadcasts commentary) News weather and traffic
-Religion (nonmusic content, e.g., preaching education)
—Talk (e.g., live DJ commentary politics personal finance
-Comedy (e.g., sketch comedy stand up)
-Kids and family nonmusic content (e.g., educational programs)
—Other content. Please specify [TEXT BOX DO NOT ALLOW BLANKANCHOR GO TO Q4 IF ONLY OTHER IS SELECTED ANCHOR]
-Don't know/Unsure [EXCLUSIVE ANCHOR] [IF "DON’T KNOW/ UNSURE" IS SELECTED GO TO Q4 OTHERWISE GO TO Q3]
Hauser WDT app. D-10.

On average, respondents indicated that they listened to 2.6 types of content on internet simulcasts of terrestrial commercial radio in the last three days. The breakdown was as follows: 413 respondents ( 82.4 percent) selected music; 277 respondents ( 55.3 percent) selected news weather and traffic; 248 respondents ( 49.5 percent) selected talk; 182 respondents (36.3 percent) selected sports; 89 respondents ( 17.8 percent) selected comedy; 34 respondents (6.8 percent) selected religion; 32 respondents ( 6.4 percent) selected kids and family; and 2 respondents ( 0.4 percent) selected other content types. Hauser WDT 『 97.

Appendix O, displays a table of the results.
If respondents indicated that they listened to one or more types of content in the past three days, they were next asked, in Q3, to indicate the level of importance each type of content had for them, choosing between "not important," "somewhat important," and "very important" for each type of content. Hauser WDT © 99.

A total of 256 ( 51.1 percent) indicated music was very important, 185 ( 36.9 percent) indicated news, weather and traffic was very important, 123 (24.6 percent) indicated talk content was very important, 99 (19.8 percent) indicated sports content was very important, 45 ( 9.0 percent) indicated comedy was very important, 22 ( 4.4 percent) indicated religious content was very important, and 18 ( 3.6 percent) indicated that kids and family content was very important. Hauser WDT © 100.

Appendix P, displays a table of the results.

The respondents were then asked, in Q4, about options they would consider in place of internet simulcasts as follows:

Now suppose that live AM/FM radio broadcasts from commercial radio stations over the internet were not available for the next five years. Assume that everything else would be available for the next five years as it is now. Which of the following if anything would you consider doing in place of listening to such broadcasts over the internet during the next five years? The prices below are examples and do not include promotional discounts taxes or fees. If you are unable to say whether you would do or would not do a particular activity please indicate this by choosing the 'Don't know Unsure' option. It is important that you do not guess.

Hauser WDT ब|f 101-104, app. E, Q4
Then, in Q5, respondents were asked, out of the selected consideration set, which option they would choose, as follows:

Continue to suppose that live $\mathrm{AM} / \mathrm{FM}$ radio broadcasts from commercial radio stations over the internet were not available for the next five years. Assume that everything else would be available for the next five years as it is now. Now think about the most recent time you listened to live AM/FM radio broadcasts from commercial radio stations over the internet. Please consider situations similar to that time and the content you listened to at that time. Which one of the following would you do in place of listening to such broadcasts over the internet in similar
situations during the next five years. The prices below are examples and do not include promotional discounts taxes or fees. If you are unable to say which particular activity you would do please indicate this by choosing the 'Don't know/Unsure' option. It is important that you do not guess.
Hauser WDT $\mathbb{T I T} 101-105$, app. E, Q5.
Professor Hauser indicated that the consider-then-choose question formulation served two functions. First, the question serves a filter. Respondents cannot select a medium if they would not at least consider it. By using such a filter, the survey avoids asking respondents to guess about which medium they would choose. Second, Professor Hauser represented that there is strong scientific evidence that consumers use a two-stage consider-then-choose decision process when they make a consumption decision, and that this format is more realistic and provides a better representation of the decision processes that consumers use. Hauser WDT ब『 102.

The options in Q4 and Q5 were as follows: ${ }^{306}$
(A) On-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the internet

[^34][1] I would listen to on-demand music streaming service(s) through the paid subscription(s) I already have (e.g., Apple Music, Spotify Premium, Google Play Music).
[2] I would purchase new paid subscription(s) to on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Apple Music, Spotify Premium, or Google Play Music at $\$ 9.99$ per month or $\$ 119.88$ per year).
[3] I would listen to on-demand music streaming service(s) that have ads and that I do not need to pay for (e.g., ad-supported Spotify).
[4] I would listen to music on video site(s) that have ads and that I do not need to pay for (e.g., ad-supported YouTube).
(B) Not-on-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the internet
[5] I would listen to not-on-demand music streaming service(s) through the paid subscription(s) I already have (e.g., Pandora Plus).
[6] I would purchase new paid subscription(s) to not-on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Pandora Plus at $\$ 4.99$ per month or $\$ 59.88$ per year).
[7] I would listen to not-on-demand music streaming service(s) that have ads and that I do not need to pay for (e.g., ad-supported Pandora).
(C) Satellite radio (Sirius XM) in place of live AM/FM radio broadcasts from commercial radio stations over the internet
[8] I would listen to satellite radio through the paid subscription I already have (Sirius XM).
[9] I would purchase a new paid subscription to satellite radio that I don't currently subscribe to (e.g., a Sirius XM subscription at $\$ 10.99$ per month or $\$ 131.88$ per year for ad-free music, $\$ 15.99$ per month or $\$ 191.88$ per year for ad-free music, news, traffic, weather, and other content).
(D) Other ways of listening to live AM/FM radio broadcasts in place of such broadcasts from commercial radio stations over the internet
[10] I would listen to live AM/FM radio broadcasts from commercial radio stations through a radio.
[11] I would listen to live AM/FM radio broadcasts from not-for-profit radio stations (e.g., NPR, college radio stations) through a radio.
[12] I would listen to live AM/FM radio broadcasts from not-for-profit radio stations (e.g., NPR, college radio stations) over the internet.
(E) Owned or purchased audio in place of live AM/FM radio broadcasts from commercial radio stations over the internet
[13] I would listen to digital music files or CDs that I already purchased.
[14] I would purchase and listen to digital music files or CDs that I don't currently own.
[15] I would listen to music obtained through peer-to-peer file sharing or free download sites.
[16] I would listen to non-music digital content that I already purchased or downloaded (e.g., podcasts, audiobooks).
[17] I would purchase or download and listen to non-music digital content that I don't currently own (e.g., podcasts, audiobooks).
(F) Television and video options in place of live AM/FM radio broadcasts from commercial radio stations over the internet
[18] I would watch video content that I already purchased, subscribe to, or have access to (e.g., movies, cable television, Hulu, Netflix).
[19] I would purchase or subscribe to video content that I don't currently own or subscribe to (e.g., movies, cable television, a Hulu subscription at $\$ 5.99$ per month or $\$ 71.88$ per year, a Netflix subscription at $\$ 8.99$ per month or $\$ 107.88$ per year).
[20] I would listen to music channels through my existing cable or satellite television subscription (e.g., Music Choice).
(G) Print options in place of live AM/FM radio broadcasts from commercial radio stations over the internet
[21] I would read print or online content that I already purchased, subscribe to, or have access to (e.g., books, newspapers, magazines).
[22] I would purchase or subscribe to print or online content that I don't currently own or subscribe to (e.g., books, newspapers, magazines). Others
[23] Other [PIPE IN RESPONSE TEXT FROM Q4]
[24] Don't know/Unsure
Hauser WDT app. D-15-17
Appendix Q , displays a table of the results to Q4 regarding consider options, and is reproduced below. BILLING CODE 1410-72-P

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years

Q4

| Response Options ${ }^{(10}$ | Would consider | Would not consider | Don't know/Unsure |
| :---: | :---: | :---: | :---: |
| A) On-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the internet |  |  |  |
| 1. I would listen to on-demand music streaming service(s) through the paid subscription(s) \| already have (e.g., Apple Music, Spotity Premium, Google Play Music). | $\begin{gathered} 295 \\ (58.9 \%) \end{gathered}$ | $\frac{141}{(28.1 \%)}$ | $\begin{gathered} 65 \\ (13.0 \%) \end{gathered}$ |
| 2. I would purchase new paid subscription(s) to on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Apple Music, Spotify Premium, or Google Play Music at $\$ 9.99$ per month or $\$ 119.88$ per year). | $\begin{gathered} 150 \\ (29.9 \%) \end{gathered}$ | ${ }_{(51.19)}^{256}$ | $\begin{gathered} 95 \\ (19.0 \%) \end{gathered}$ |
| 3. I would listen to on-demand music streaming service(s) that have ads and that I do not need to pay for (o.g, ad-supported Spotity). | $(77.0 \%)$ | $\begin{gathered} 72 \\ (14.46) \end{gathered}$ | $(8.6 \%)$ |
| 4. I would listen to music on video site(s) that have ads and that I do not need to pay for (e.g., ad-supported YouTube). | $\begin{gathered} 381 \\ (76.0 \%) \end{gathered}$ | $\begin{gathered} 78 \\ (15.6 \%) \end{gathered}$ | $\stackrel{42}{(8.4 \%)}$ |
| B) Not-on-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 5. I would liston to not-on-demand music streaming service(s) through the paid subscription(s) I already have (e.g.. Pandora Plus). | $\stackrel{229}{(45.7 \%)}$ | $\begin{gathered} 199 \\ (39.7 \%) \end{gathered}$ | $\stackrel{73}{(14.6 \%)}$ |
| 6. I would purchase new paid subscription(s) to not-on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Pandora Plus at $\$ 4.99$ per month or $\$ 59.88$ per year). | $\begin{gathered} (29.5 \%) \\ (248) \end{gathered}$ | ${ }_{(54.9 \%)}^{275}$ | $\begin{gathered} 78 \\ (15.6 \%) \end{gathered}$ |
| 7. I would liston to not-on-domand music streaming servico(s) that have ads and that I do not noed to pay for (0.9, ad-supportod Pandora). | $\begin{gathered} 350 \\ (69.9 \%) \end{gathered}$ | $\begin{gathered} 106 \\ (21.2 \%) \end{gathered}$ | $\begin{aligned} & 45 \\ & (9.0 \%) \end{aligned}$ |
| C) Satellite radio (Sirius XM ) in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 6. I would listen to satolite radio through the paid subscription / already have (Sirius XM). | $\stackrel{210}{(41.9 \%)}$ | $\stackrel{221}{(44.1 \%)}$ | $\begin{gathered} 70 \\ (14.0 \%) \end{gathered}$ |
| 9. I would purchase a new paid subscription to satellite radio that I don't currently subscribe to (e.g., a SiriusXM subscription at $\$ 10.99$ per month or $\$ 131.88$ per year for ad-free music, $\$ 15.99$ por month or $\$ 191.88$ per year for ad-free music, news, traffic, weather, and other content). | ${ }_{(22.8 \%)}^{114}$ | $\stackrel{297}{(59.3 \%)}$ | $\begin{gathered} 90 \\ (18.0 \%) \end{gathered}$ |
| D) Other ways of listening to live AM/FM radio broadcasts in place of such broadcasts from commercial radio stations over the Internet |  |  |  |
| 10. I would listen to live AMFM radio broadcasts from commercial radio stations through a radio. | $(90.6 \%)$ | $\begin{gathered} 26 \\ (5.2 \%) \end{gathered}$ | $\begin{gathered} 21 \\ (4.2 \%) \end{gathered}$ |
| 11. I would listen to live AMFM radio broadcasts from not-for-profit radio stations (e.g., NPR. college radio stations) through a radio. | $\begin{gathered} 351.7 \%) \\ (769 \end{gathered}$ | $\begin{gathered} 82 \\ (16.4 \%) \end{gathered}$ | $\begin{gathered} 60 \\ (12.0 \%) \end{gathered}$ |
| 12. I would listen to ive AMFM radio broadeasts from not-for-profit radio stations (e.g. NPR, college radio stations) over the internet. | $(72.3 \%)$ | $\begin{gathered} 85 \\ (17.0 \%) \end{gathered}$ | $\begin{gathered} 54 \\ (10.8 \%) \end{gathered}$ |

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years

Q4

| Response Options ${ }^{10}$ | Would consider | Would not consider | $\begin{gathered} \text { Don't } \\ \text { know/Unsure } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| A) On-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the internet |  |  |  |
| 1. I would listen to on-demand music streaming service(s) through the paid subscription(s) \| already have (e.g. Apple Music, Spotify Premium, Google Play Music). | $\begin{gathered} 295 \\ (58.9 \%) \end{gathered}$ | $\frac{141}{(28.1 \%)}$ | $\frac{65}{(13.0 \%)}$ |
| 2. I would purchase new paid subscription(s) to on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Apple Music, Spotify Premium, or Google Play Music at $\$ 9.99$ per month or $\$ 119.88$ per year). | $\begin{gathered} 150 \\ (29.9 \%) \end{gathered}$ | $\stackrel{256}{(51.1 \%)}$ | $\begin{gathered} 95 \\ (19.0 \%) \end{gathered}$ |
| 3. I would listen to on-demand music streaming service(s) that have ads and that I do not need to pay for (0.g, ad-supported Spotity). | $\begin{gathered} 386 \\ (77.0 \%) \end{gathered}$ | $\begin{gathered} 72 \\ (14.4 \%) \end{gathered}$ | $\begin{aligned} & 43 \\ & (8.6 \%) \end{aligned}$ |
| 4. I would listen to music on videe site(s) that have ads and that I do not need to pay for (e.g., ad-supported YouTube). | $\begin{gathered} 381 \\ (76.0 \%) \end{gathered}$ | $\begin{gathered} 78 \\ (15.6 \%) \end{gathered}$ | $\stackrel{42}{(8.4 \%)}$ |
| B) Not-on-demand music streaming services in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 5. I would liston to not-on-demand music streaming service(s) through the paid subscription(s) I already have (e.g. Pandora Plus). | $\begin{array}{r} 229 \\ (45.7 x) \end{array}$ | $\begin{gathered} 199 \\ (39.7 \%) \end{gathered}$ | $\begin{gathered} 73 \\ (14.6 \%) \end{gathered}$ |
| 6. I would purchase new paid subscription(s) to not-on-demand music streaming service(s) that I don't currently subscribe to (e.g., an individual subscription to Pandora Plus at $\$ 4.99$ per month or $\$ 59.88$ per year). | $\begin{gathered} 148 \\ (29.5 \%) \end{gathered}$ | $\begin{aligned} & 275.9 \%) \\ & (54.9 \end{aligned}$ | $\begin{gathered} 78 \\ (15.6 \%) \end{gathered}$ |
| 7. I would liston to not-on-demand music streaming servico(s) that have ads and that I do not noed to pay for (0.9, ad-supportod Pandora). | $\begin{gathered} 350 \\ (69.9 \%) \end{gathered}$ | $\begin{gathered} 106 \\ (21.2 \%) \end{gathered}$ | $\begin{gathered} 45 \\ (9.0 \%) \end{gathered}$ |
| C) Satellite radio (SiriusXM) in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 8. I would listen to satollite radio through the paid subscription / already have (Sirius XM ). | $\begin{gathered} 210 \\ (41.9 \%) \end{gathered}$ | $\begin{gathered} 221 \\ (44.1 \%) \end{gathered}$ | $\begin{gathered} 70 \\ (14.0 \%) \end{gathered}$ |
| 9. I would purchase a new paid subscription to satellite radio that I don't currently subscribe to (e.g., a SiriusXM subscription at $\$ 10.99$ per month or $\$ 131.88$ per year for ad-free music, $\$ 15.99$ per month or $\$ 191.88$ per year for ad-free music, news, traffic, weather, and other content). | $\stackrel{114}{(22.8 \%)}$ | $\stackrel{297}{(59.3 \%)}$ | $\begin{gathered} 90 \\ (18.0 \%) \end{gathered}$ |
| D) Other ways of listening to live AM/FM radio broadcasts in place of such broadcasts from commercial radio stations over the Internet |  |  |  |
| 10. I would listen to ilve AMMFM redio broadcasts from commercial radio stations through a radio. | $(90.6 \%)$ | $\begin{gathered} 26 \\ (5.2 \%) \end{gathered}$ | $\begin{gathered} 21 \\ (4.2 \%) \end{gathered}$ |
| 11. I would listen to live AMFM radio broadcasts from not-for-profit radio stations (e.g., NPR, college radio stations) through a radio. | $\begin{gathered} 359 \\ (71.7 \%) \end{gathered}$ | $\begin{gathered} 82 \\ (16.4 \%) \end{gathered}$ | $\begin{gathered} { }^{60} \\ (12.0 \%) \end{gathered}$ |
| 12. I would listen to Iive AMFM radio broadcasts from not-for-profit radio stations (e.g., NPR, college radio stations) over the Internet. | $(72.3 \%)$ | $\begin{gathered} 85 \\ (17.0 \%) \end{gathered}$ | $\begin{gathered} 54 \\ (10.8 \%) \end{gathered}$ |

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years

| Response Options ${ }^{10}$ | Would consider | Would not consider | Don't know/Unsure |
| :---: | :---: | :---: | :---: |
| E) Owned or purchased audio in place of live AMMFM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 13. I would liston to digtal musio filies or CDs that I aroady purchased. | $\begin{array}{r} 397 \\ (79.2 \%) \end{array}$ | $\frac{77}{(15.4 \%)}$ | $\begin{gathered} 27 \\ (5.4 \%) \end{gathered}$ |
| 14. I would purchase and listen to digital music files or CDs that I don't currently own. | $\begin{gathered} 260 \\ (51.9 \%) \end{gathered}$ | $\stackrel{167}{(33.3 \%)}$ | $\begin{gathered} 74 \\ (14.8 \%) \end{gathered}$ |
| 15. I would listen to music ebtainod through peer-to-peor ffie sharing or free downioad sites. | $\begin{gathered} 190 \\ (37.9 \%) \end{gathered}$ | $\stackrel{217}{(43.3 \%)}$ | $\begin{gathered} 94 \\ (18.8 \%) \end{gathered}$ |
| 16. I would listen to non-music digital content that I already purchased or downloaded (o.g. podcasts, audiobooks). | $\stackrel{299}{(59.7 \%)}$ | $\begin{gathered} 145 \\ (28.9 \%) \end{gathered}$ | $\stackrel{57}{(11.4 \%)}$ |
| 17. I would purchase or download and listen to non-music digital content that I don't currently own (e.g. podcasts, audiobooks). | $\begin{gathered} 240 \\ (47.9 \%) \end{gathered}$ | $\begin{gathered} 181 \\ (36.1 \%) \end{gathered}$ | $\begin{gathered} 80 \\ (16.0 \%) \end{gathered}$ |
| F) Television and video options in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 18. I would watch video content that I already purchased, subscribe to, or have access to (e.g. movies, cable television, Hulu, Netflicx). | $\begin{gathered} 420 \\ (83.8 \%) \end{gathered}$ | $\begin{gathered} 61 \\ (12.2 \%) \end{gathered}$ | $\begin{gathered} 20 \\ (4.0 \%) \end{gathered}$ |
| 19. I would purchase or subscribe to video content that I don't currently own or subscribe to (e.g. movies, cable television, a Hulu subscription at $\$ 5.99$ per month or $\$ 71.88$ per year, a Netfic subscription at $\$ 8.99$ per month or $\$ 107.88$ per year). | $\stackrel{223}{(44.5 \%)}$ | $\stackrel{211}{(42.1 \%)}$ | $\begin{gathered} 67 \\ (13.4 \%) \end{gathered}$ |
| 20. I would listen to music channols through my existing cable or satelite television subscription (0.g. Music Choice). | $\left(\begin{array}{c} 315 \\ (62.9 \%) \end{array}\right.$ | $(23.8 \%)$ | $\begin{gathered} 67 \\ (13.4 \%) \end{gathered}$ |
| G) Print options in place of live AM/FM radio broadcasts from commercial radio stations over the Internet |  |  |  |
| 21. I would read print or online content that I already purchased, subscribe to, or have access to (e.g, books, newspapers, magazines). | $\begin{gathered} 312 \\ (62.3 \%) \end{gathered}$ | $\begin{gathered} 127 \\ (25.3 \%) \end{gathered}$ | ${ }_{(12.4 \%)}^{62}$ |
| 22. I would purchase or subscribe to print or online content that I dont currently own or subscribe to (e.g., books, newspapers, magazines). | $\stackrel{(42.5 \%)}{213}$ | $\stackrel{205}{(40.9 \%)}$ | $\begin{gathered} 83 \\ (16.6 \%) \end{gathered}$ |
| 23. Other ${ }^{[2]}$ | $\begin{gathered} 34 \\ (100.0 \%) \end{gathered}$ | - | - |
| Average Number of Selections per Respondent | 12.6 | 6.7 | 2.7 |

Source: Simulcast Switching Survey ( $\mathrm{N}=501$ )
 Nomen
Hauser WDT app. Q.
Appendix R, displays a table of the results to Q5 regarding which option they would choose, and is reproduced
below.

## 471a

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years

Q5

| Response Options | Count | Percentage | 25\% Contidence Interva ${ }^{\text {m }}$ |
| :---: | :---: | :---: | :---: |
| A) Os-demand music streaming services in place of live AMFM radio broadcasts from commercial radio stations over the intermet | 92 | 18.4N | [ $15.0 \mathrm{O}, 21.8 \mathrm{~N}$ ] |
| 1. I woud taten to on-demand music strearing wervice(b) through the paid sabecription(s) \| aready have leg. Apple Music, Spotity Premium, Google Play Music). | 37 | 74\% | [5.1\% $2.7 \%$ ] |
| 2. I would purchase new paid subsotption(s) to on-demand musio streaming servioe(s) trat I dont currenty wibecribe to (eg., an indvidual s.becription to Apple Muric, Spotity Promium, or Coogle Phay Music at $\$ 0.50$ per moeth or $\$ 110.88$ per yeath. | 7 | 1.4\% | [0.4\%. 2.4*) |
| 3. I would listen to on-demand music atreaming servics(s) that have ads and that $\mid$ do not need to pay for (e 3, edeupported Spotif). | 25 | 50\% | [3.15, 8594) |
| 4. I would listen to music on video sitef(s) that have ads and trat I do not need to pay for (e.a. as-supponed YouTibe). | 23 | 4.6\% | [2.8\%, 6.48] |
| B) Not-on-demand music streaming services in place of live AMFM radio broadcasts from commercial ratio stations over the interset | 56 | 11.2\% | [2.4\%. $13.4 \%]$ |
| 5. I would asten to not-on-demans muic streaming servioess) troough the paid subscriptoris) ! already have (e g., Pandora Puas) | 8 | 16\% | [0.5\% 2.7\%] |
| 6. I would purchase new paid subsotption(s) to not-on-demand musio streaming service(s) that I don't currertiy mibscribe to se. g., an indivitial subecription to Pandora Plus at $\$ 4.99$ per morth or $\$ 5988$ per ywar). | 14 | 28\% | [1.3\%, 4.2\%] |
| 7. I woud isten to not-on-demand musc streaming serviceist that have ads and that I do not need to pay for (e a, ad-suppotied Pansora) | 34 | 805 | [4.85-9064] |
| C) Satelite radio ( $\$$ iriuaXM in place of live AMFM radio brosdcasts from commercial radio stations over the intemet | 42 | 8.4\% | [59\%\% 10.8\%] |
|  | 28 | 52\% | [3.2\% 7,18] |
| 9. I weuld purchate a new paid subecription to atalite radio thas I dont currenty nubecrbe to (e. g., a $S$ inusXM subsorption at $\$ 10.99$ per morth or $\$ 131.88$ per year for ad-tree music, $\$ 15.99$ per morth or $\$ 181.88$ per year for astree muilc. newe. tratic, weather, and other cortent!. | 16 | 32\% | [1.0\% 4.7\%] |
| D) Other ways of listering to live MMFM radio broadcestas in place of such brosdcasts from commercial radio stations over the internet | 151 | 32.1\% | [23.0\%, 36.2\%] |
| 10. I would isten to live AMFM radio brosdcasts from comsmercial radio statores trough a rado | 127 | 25.34 | 121.5\%, 2974] |
| 11. I would lieten to live AMFM radio brosdcasts from not-for-profft radio stations (eg. NPR, cologe rasio atations) through a radio. | ${ }^{18}$ | 36\% | [2.0\% 52\%] |
| 12 I would isten to live AMFM radio broadcasts from not-for-proff radio statione fog, NPR. colege rasio stations) over the Internet. | 15 | 32\% | [1.03, 4.7\%] |

## Activities to Which Respondents Would Switch If Internet Simulcasts of

 Terrestrial Commercial Radio Were Unavailable for Five YearsQ5

| Response Options ${ }^{\text {(1) }}$ | Count | Percentage | 96\% Confidence Intervap ${ }^{\text {P }}$ |
| :---: | :---: | :---: | :---: |
| b) Owned or purchased madio in place of live AMFM radio beoadcasts from comemercial radio stations over the internet | 56 | 11.2\% | [0.4\%, 13.8\%] |
| 13.1 moud lisen to diplat munio fies er CDs Fret / areasty purchased. | 30 | 6.0\% | [30\%, Q.1\%] |
| 14. I woud purchase and listen to digtar music fies or CDs that I don't currently ome. | 9 | 1.8\% | [00\%, 304] |
|  | 3 | 0.\% | 100\%, 1.3\%] |
| 16. I woudd limeten to non-muzic dighal oontent that I wready purchased or downioaded (eg.). podcasts, audiobooks). | 8 | 1.5\% | [0.5N, 2.73] |
| 17. I woud purchaee or sowricad and leten to non-music digtal oontent thas 1 son't cumertly own-(0 g, poscans, audicbooks) | 8 | 12\% | 1028.2.2\%1 |
| F) Television and video options in place of live ADHFM radio broadeasts from commercial radio stations over the internet | 59 | 11.8\% | [8.55, 14.6\%] |
| 18. I woud wabch wise coctict trat I aresty purchased, sibecribe to, or have mosese to (e. . , movies, catle televisibn, Hilu, Nerfieg. | 37 | 748 | [518, 2741 |
| 12 I woud puchase or subserbe to wideb consemt that I cont curnerty own ar subserbe to (e.a, movies, catie television, a thilu subecristion at 58.89 per month or $\$ 71.88$ per year, a Nethix subscribtion at \$s. 89 per month or $\$ 107.85$ per year). | 12 | 24\% | [1.16, 3.7\%] |
| 20.1 would liben to muak channels through my exating cable or sabeltis selevision sutacriction (eg., Music Choice). | 10 | 20\% | [085, 324] |
| G) Print options in place of live AMFM radio broadcasts from oommercial radio stations over the internet | 15 | 3.08 | [1.5N, 4.85] |
| 21. I would mas prirt or orine contert trat I arcasy purchseed, s.becribe to, or have socess io (e.a bsobs, newspapen, maguines). | 10 | $20 \%$ | [080, 323] |
| 22. I would purchase or subeerbe to print or onfine confers that I donit curvently own or wibscribe to (eq, books, newspapens, magazines). | 5 | $1.0 \%$ | [0.1*, 1.9\%] |

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years Q5
Resporse Options ${ }^{\text {li }}$

Hauser WDT app. R.

Professor Hauser developed a table to summarize the alternatives that were selected by more than 3.0 percent of survey respondents, which is reproduced below.

| Response Optioses | Count | Pereentage | 95\% Confidence hnterval |
| :---: | :---: | :---: | :---: |
| I woild lister to the AMIMM rndo troackass from commercal mato stasons trrough radio | 127 | 20.3\% | [21.5\%.29 2\%1 |
| I woald isten to on-demand masic streaming service(s) farough the paid sutseriction(s) \| alresdy tave eg. Apple Music, Spotty Prerrium, Googio Play Music) | 37 | 7.4\% | [6.1\%, 2.7\%) |
| I woald wateh video contest the f aireadr purchased sabseribe is, of heve astess is jeg . moves. cable televeisn. Hulu. Netlis). | 37 | 7.6\% | [5.15, 2.7\%] |
| I woald liten to not-ondenand muse streaming servicesa) trat have ads and tat I do not twed 10 pay for (e.g. ads-apported Pandoral. | 34 | 6.6\% | [4.5\%, 2006] |
| I wouls tiden io digtat muse fles or coss ithet a lisacy purctased | 30 | 6.08 | [905, 8, \%) |
| I woids isten to satelte radio trough the paid eubscribtion I aimady tave (5musXM) | 26 | 5.2\% | [3.2\%, 7.1\%] |
|  pay for (o.g, zd-wuppoind Spoth) | 25 | 0.0\% | [3.18\%, 6.5\%] |
| I would isten to musie on video she(s) that nave ads and that I do not teed to pay for (e.g. assucported YouTvibe). | 23 | 4.6\% | [2.8\%, 5.53\%] |
|  solege rade stancos) throug e rado | 18 | 3.8\% | [20\%, 5.25] |
| I woals parchase a new paid subscription to satalte rado that I dont currently subscrbe to (e.g., a SinuaXM sulscription at $\$ 10.90$ par month or $\$ 131.86$ per year for ashroe music, 315.99 per month or 3191.82 per year for adtree musio, news, trafle, weather, and other cortant | 16 | 3.2\% | [1.5\%, 4.7\%] |
|  scolege rado stations) over the intornet. | 15 | 3\%\% | [ $10 \%$ 4.7\%] |

Source: Simulcast Switching Survey ( $\mathrm{N}=501$ ), Appendix R.
Hauser WDT ब $\mathbb{\|}$ 108, table 3.
As reflected in the table, "I would listen to live AM/FM radio broadcasts from commercial radio stations through a radio" was selected by 127 respondents (25.3 percent), and was the most commonly selected alternative. Other commonlyselected alternatives included "I would listen to ondemand music streaming service(s) through the paid subscription(s) I already have (e.g., Apple Music, Spotify Premium, Google Play Music)," which was selected by 37 respondents ( 7.4 percent), and "I would
watch video content that I already purchased, subscribe to, or have access to (e.g., movies, cable television, Hulu, Netflix)," which was selected by 37 respondents ( 7.4 percent). Fourteen respondents (2.8 percent) selected "don't know/unsure" in response to this question. Hauser WDT ब| 109.

Professor Hauser weighted the results of Q5 by the total number of hours each respondent reported listening to internet simulcasts of terrestrial commercial radio in Q1 in to evaluate whether the alternatives respondents consider as substitutes for internet simulcasts of terrestrial radio varied based on the total amount of time respondents spend listening to such simulcasts. He explained that if a respondent listened to only one hour of such simulcasts over the prior three days, his or her response to Q5 would count as one, while if a respondent listened to four hours of such simulcasts over the prior three days, his or her response to Q5 would count as four. Hauser WDT 【TI 110.

Appendix S, displays a table of the weighted results to Q5, and is reproduced below.

| Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years Weighted by Hours Listened Q5 |  |  |
| :---: | :---: | :---: |
| Response Options ${ }^{19}$ | Pencentage Weighted by Hours Listened ${ }^{\text {an }}$ | 95\% Confidence Interval* |
| A) On-demand music atreaming services in place of live AMFM radio broadcasts from commercial radio stations over the internet | 17.2\% | [138\%, 20.54] |
| 1. I woud isten to on-derrand music streaming servicen(s) through the paid subecrption(s) ) aready have (eg. Apple Nuaic, Spotity Premium, Coogie Play Munic) | 75\% | [82\%.20\%] |
| 2. I would purchase new paid suberiptonis) to on demand musio streaming service(s) that I dont currently subecrbe to (e.g. an instivifual subscripion to Apple Musis, Spotity Premium, or Google Pliay Music at 59.59 per morth or $\$ 11988$ per year). | 1.0\% | 10.5\%, 2.7\%] |
| 3. I would isten to on-demand music streaming service(s) that have ads and that I do not need to pay for (e.g, ad-supported Spotity). | 4.7\% | [28W, 6.0\%] |
| 4. I weuld laten to music on video site(a) that have ads and that I do not need to pwy for (e. ., ad-supported YouTute) | 33\% | [1.7\%, 4.9\%] |
| B) Not-on-demand music streaming services in place of tive AMFM radio beoadcasts from commercial radio stations over the interset | 14.0\% | [120\%, 17.14] |
| 5. I would isten to not-ondemund music streaming service(s) through the paid s.bscription(s) + aireaty have (e.g. Pansora Phw). | 28\% | [1.3\%.4.2\%] |
| A. I weuld purchase new paid subscription(s) so notion-demand music stearning servise(k) that I dont currently sabsorbe to (e g . an individual subscription to Pandora Plas at $\$ 4.99$ per month or $\$ 59.85$ per year). | 2.7\% | [1.2\%, 4.1\%] |
| 7. I woudd inten to not-on-dernand music arraaming wervico(3) that have ade ard trat I fo not need to pary for (e as ad-supported Pandoca): | sex | 1818, 11.18] |
| C) Satellise radio (SirivsXM) in place of live AWFM radio broadcasts from commercial radio stations over the internet | 6.8\% | [4.55. 2.06] |
|  | 43\% | [25\%, 6.1\%] |
| 9. I would parchase a new paid subscription to sateine rado that I dont currenty subsorbe to (e.g., a SinunXM subseribtion a $\$ 10.99$ per mentit or $\$ 131.83$ per ybar for ad-vee masic, $\$ 15.99$ per month or $\$ 191.88$ per year for ad-free musio, news, tratic, weather, and other content). | 2.48 | [1.1\%, 3.8\%] |
| D) Other ways of listening to live AMFM radio broadcasts in place of such broadcasts from cormmercial radio stations over the intarnet | 31.2\% | [27.14, 36.3\%] |
| 10.1 wouk listen to the AMJM radin broadcasts from commercial radio statons trrough a rado. | 248\% | [2105, 287\%] |
| 11. I would listen to ive AMFM radio broadcasts from not-for-pooft radio estations (e, _ NPR, colege radio stations) trough a radio. | 28\% | [1.4\%, 4.5\%] |
|  colege rado stasions) ower the internat. | 3.4\% | [1.8\%, 500\%] |


| Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years <br> Weighted by Hours Listened <br> Q5 |  |  |
| :---: | :---: | :---: |
| Reaponse Options ${ }^{\text {17 }}$ | Percentage Weighted by Hours Listened ${ }^{\text {PEP }}$ | $\begin{gathered} 95 \mathrm{~K} \text { Contidence } \\ \text { Intervat }^{2} \\ \hline \end{gathered}$ |
| E) Owned or purchased sudio in place of The AMFM radio brosicasts from commercial ratio stations ower the internet | 11.35 | [1.5\%, 14.1\%] |
| 13.1 mouds inten to dolai masie fies or COn that i aready purchased. | 6.2\% | [4.13, 8.4\%] |
| 14. I wout purchaee and Inten to diglal music thes or CDes that I dont curmenty own | 17\% | 10.5\%, 2.0\%] |
|  | 05\% | co.0s, 1.1\%] |
| 18. I woud inten to non-music dighal contemt that I already purchased or dowrioeded fe. . . podcasks, audiobooks) | 1.3\% | 10.3\%, 2.3\%] |
| 17. I wouk purchase or somioad and ieten to non-musia diptal oartent that I dont ournerty own (e g. podcasks, autiatocia). | 10\% | 19.5\%.2.7\%] |
| F) Telecision and video options in place of ive ANFM radio bromedcasta from commercial radio stations ower the intemet | 1135 | [8.5\%, 14.15] |
| 18. I wous waton vifeo sentert Bual I avialy gurchased, subserbe to, or have access so re g . mores, cable television ruau, Nettia) | 80\% | [50\%, 10.4\%] |
| 19. I would purchase or subscribe to video costent that I dont currently own or subsorbe to <br>  Neffic subscription at 58.89 per morth or $\$ 107.20$ per yeari. | 1.3\% | 106\%, 30\%] |
|  sutscription [e g., Musin Croice). | 1.8\% | p.5\%, 2.7\%1 |
| a) Print eptions in place of live AMFM radio broadeasta from commercial radio stations over the intemet | 3.9\% | [1.5N, 4.8\%] |
| 21. I moids read pirt or ontine consers that I alreasy purchased, subscribe to, or have acoess to (e g , bocka, newasapern, magazines). | 1.4\% | 10.4\%, 25\%] |
| 22. I woul purchsee or subecribe to pirf or onine content trat I dont currenty own or subscrite to (e.9, books, rewspapers, megazines). | 1.6\% | 10.5\% 2.7\%1 |

Activities to Which Respondents Would Switch If Internet Simulcasts of Terrestrial Commercial Radio Were Unavailable for Five Years Weighted by Hours Listened

Q5

| Response Cptions ${ }^{\text {IV }}$ | Percentage Waighted by Hours Listened ${ }^{\text {tom }}$ | $\begin{gathered} \text { 95x Contidence } \\ \text { hberval } \end{gathered}$ |
| :---: | :---: | :---: |
| H0 Others | 4.8\% | [2.8\%, 6.7\%] |
| 23. Other | 08\% | 10.0x, 1.841 |
| 24. Dent know/ Uneus | 4.0\% | [2.3. 57\%1 |
| 0 Disnk responses ${ }^{\text {m }}$ | $0.0 \%$ | (0.0\%, 1.1\%] |









## BILLING CODE 1410-72-C

Hauser WDT app. S.
b. Criticisms of the Hauser Survey

SoundExchange offers several critiques of the Hauser surveys, including those noted below. SX PFFCL ब| 9 1208-1269.
i. Hypothetical Scenario

SoundExchange notes that Professor Hauser's hypothetical scenario requires respondents to predict what they would do if "live AM/FM radio broadcasts from commercial radio stations over the internet were not available for the next five years." Hauser WDT, app. D at $\mathrm{D}-11$. It maintains that the hypothetical, which does not mention music content, may cause respondents to answer the replacement questions in terms of how they would replace non-music content, rather than how they would replace music content. Zauberman WRT I 64. SoundExchange also argues that the long, five year, period toward which respondents are directed to forecast their behavior can be cognitively taxing and confusing for individuals. Zauberman WDT $\mathbb{T}$ 62; see also Simonson WRT \|T 111-112. SoundExchange notes expert testimony from Professor Zauberman who maintained that the ambiguity of Professor Hauser's hypothetical does not adequately follow best practice, which dictates that hypotheticals be posed in a way that ensures the maximum relatability so that respondents are not confused about the scenario they are asked to consider. Zauberman WRT © 65, See, e.g., Floyd Jackson Fowler, Jr., How Unclear Terms Affect Survey Data, 56 Pub. Opinion Q. 218-231 (1992); see
also, Norbert Schwartz \& Daphna Oyserman, Asking Questions About Behavior: Cognition, Communication, and Questionnaire Construction, 22 Am. J. Evaluation, no.2, 127-160 (2001).
ii. Response Options

SoundExchange argues that Professor Hauser did not customize his list of Q4 replacement options to match respondents' individual circumstances. Instead, SoundExchange notes, all respondents received the same list of replacement options, regardless of whether or not all of these options were applicable to them. Professor Zauberman noted that eight of the 22 specific options that Professor Hauser poses for all respondents to consider in Q4 refer to services or content that they are told they already own, have access to, or have purchased, regardless of whether that is true or not. Professor Zauberman asserted that providing such response options to respondents, which do not apply to them, is confusing. Zauberman WRT ब 66-67. Professor Zauberman added that providing respondents with options regardless of the service/content they already own, have access to, or have purchased is poor survey design. Zauberman WRT \| 66-67, See, e.g. Questionnaire Design, Pew Res. Center, https:// www.pewresearch.org/methods/u-s-survey-research/questionnaire-design/ (last visited Jan. 8, 2020); see also, Don A. Dillman et al., The Fundamentals of Writing Questions, in internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method 94, 114-116 (4th ed. 2014).

Professor Zauberman explained the potentially troubling impact of this question design by
considering how a respondent who does not already subscribe to a paid on-demand streaming service may react to option 1, in Q4 ("I would listen to on-demand music streaming service(s) through the paid subscription(s) I already have"), given the choices: "Would consider" "Would not consider" and "Don't know/Unsure?". Professor Zauberman opined that, in such a scenario, none of the available options makes sense. He maintained that the only logical answer regarding a service that the respondent does not already have would be "N/A" or "I do not have such a subscription" and these choices were not present in the survey. Instead, he suggested that respondents may be forced to answer as if they have the service. Zauberman WRT 『 68.

Professor Zauberman identified another alleged flaw in that Professor Hauser's response options are designed in a way that confuses respondents. He argued that the Hauser survey presented respondents with too many response options, and cited scholarship indicating that such choice options may causes cognitive overload and thus unreliable responses. Zauberman WRT II 68; see, e.g., Sheena S. Iyengar \& Mark R. Lepper, When Choice is Demotivating: Can One Desire Too Much of a Good Thing?, 79 J. Personality \& Soc. Psychol., no.6, 9951006 (2000); Elena Reutskaja et al., Choice Overload Reduces Neural Signatures of Choice Set Value in Dorsal Striatum and Anterior Cingulate Cortex, 2 Nature Hum. Behav., 925-935 (2018).

Professor Zauberman explained that Q4 presented respondents with a list of 22 specific response options, plus an open response "Other." And, in Q5, respondents are presented with a list of 22
options, plus a "Don't know/Unsure" option, and a potential "Other" option, depending on their answers Q4. Professor Zauberman offered his view that this is indicative of choice overload. Zauberman WRT | 70; see, e.g., Alexander Chernev et al., Choice overload: A conceptual review and meta-analysis, 25 J . Consumer Psychol., no.2, 333-358 (2015).

Professor Zauberman argued that Professor Hauser's survey design nudges respondents toward choosing free music services and other non-royaltybearing options, over paid music options, and nudges them to select low or nonroyalty-bearing switching options. He asserted that 15 out of the 22 specific options in Q4 and Q5 lead to zero new royalties for record labels, and that this is disproportionally biased towards zero royalties options. Zauberman WRT \| 71. Professor Zauberman also opined that the options may confuse respondents by mixing types of content (e.g. "non-music digital content" or "music on video sites"). He added that providing options that are not mutually exclusive (e.g. "streaming service(s)" or "AM/FM radio broadcasts") is troubling. Zauberman WRT 1 71. Professor Zauberman maintained that Professor Hauser's descriptions within the response options suffer from inconsistent framing and definitions, which he found to privilege free options. In Professor Zauberman's view the survey fails to emphasize "free vs. paid" music listening options in a consistent manner in Q4 and Q5, namely that the non-monetary cost of the free options is less clear or emphasized than the clear indication of the "paid" characteristics. Professor Zauberman pointed out that in Option 3, Professor Hauser chose to use the phrase "have ads and that I do not need to pay for"
rather than simply saying "free" to contrast "paid" in Option 2. In Professor Zauberman's view, this wording in Option 3, rather than simply saying "free on-demand music streaming service(s)," makes the cost (or lack thereof) of the option less salient than the cost (or lack thereof) of its paid counterpart. Zauberman WRT I 71.

Professor Zauberman also found fault with the Hauser survey for excluding options to which respondents might reasonably switch. He noted that the survey does not, for example, describe or offer listening to Sirius XM online as a response option. He argued that if legitimate options had been offered as potential choices, respondents might have been more likely to select other existing paid subscriptions. And, he added, limiting the number of royalty-bearing response options available is likely to depress the number of respondents who select royalty-bearing options. Zauberman WRT ब 71.

Professor Zauberman concluded that the cumulative effect of the criticized survey response options is to privilege certain response options (e.g., AM/FM radio) over others. He maintained that Professor Hauser's survey failed to ensure that the survey hypothetical was as clear and well-defined as possible. Zauberman WRT ब 71.

Professor Simonson also criticized the Hauser survey response options, characterizing the survey as burying music within a wide range of content alternatives, such as traffic, religion, and sports. He pointed out that in the Hauser survey Q2 and Q3, "music" represented just one out of eight response options, and that all types and genres of music were
reduced to just one item, listed alongside a wide range of equally prominent, unrelated categories. Simonson WRT © 102-105.

Mr. Simonson asserted that respondents tend to choose among the options presented to them, citing scholarship on that conclusion:
$[R]$ espondents tend to confine their answers to the choices offered, even if the researcher does not wish them to do so (Bishop et al. 1988, Presser 1990). That is, people generally ignore the opportunity to volunteer a response and simply select among those listed, even if the best answer is not included.

Zauberman WRT © 106 (citing Jon A. Krosnick, Survey Research, 50 Ann. Rev. Psychol. 537, 544 (1999)). Mr. Simonson argued that in the context of a proceeding about music, including numerous nonmusic response options biases survey results, including through diversification bias, order effects, and demand artifacts. Simonson WRT © 106 (citing Fritz Strack, "Order Effects" in Survey Research: Activation and Information Functions of Preceding Questions, in Context Effects in Social and Psychological Research 23-34 (Norbert Schwarz \& Seymour Sudman eds., 1992), https://doi.org/10.1007/978-1-4612-2848-6_3.

He referred to additional research, indicating that the mere fact that respondents are presented simultaneously with multiple options causes them to spread their choices among the options instead of choosing only the option they like most. He argued that a survey designer can decrease the percentage of respondents who indicate they will switch from one
music service to another by presenting respondents with a wide range of options, and that the Hauser Survey does that by leading respondents to consider a wide set of switching options, including options that are unrelated to music. Simonson WRT 『\| 106, 67-74 (citing Itamar Simonson, The Effect of Purchase Quantity and Timing on Variety Seeking Behavior, 27 J. Marketing Res. 150 (1990); Daniel Read \& George Loewenstein, Diversification Bias: Explaining the Discrepancy in Variety Seeking Between Combined and Separated Choices, 1 J. Experimental Psychol.: Applied 34 (1995); and Schlomo Benartzi \& Richard H. Thaler, Naive Diversification Strategies in Defined Contribution Saving Plans, 91 Am. Econ. Rev. 79 (2001); and Craig R. Fox, David Bardolet \& Daniel Lieb, How Subjective Grouping of Options Influences Choice and Allocation: Diversification Bias and the Phenomenon of Partition Dependence, 134 J. Experimental Psychol.: Gen. 538 (2005); Craig R. Fox, David Bardolet \& Daniel Lieb, Partition Dependence in Decision Analysis, Resource Allocation, and Consumer Choice, 3 Experimental Bus. Res. 229 (2005)). Professor Simonson concluded that by offering "irrelevant options" the Hauser survey misrepresents people's real-world experience, in which other content does not generally satisfy a desire for music, and the result is likely to lower the likelihood that respondents choose music options. Simonson WRT 『 107.
iii. Two-Stage Decision Making Process

SoundExchange argues that Professor Hauser's two-stage decision-making structure compounds the alleged errors identified above and further depresses diversion to royalty-bearing options.

SoundExchange notes that the Hauser survey first asks respondents, in Q4, to identify from a list of 22 identified music and non-music options all of the alternatives they would "consider" switching to in place of simulcasts. Then, in Q5, the survey forces respondents to pick just one option from this consideration set that they would use if "live AM/FM radio broadcasts from commercial radio stations over the internet were not available for the next five years." SoundExchange alleges that it was inappropriate for Professor Hauser to present his replacement questions using this "consider-thenchoose" structure. SoundExchange argues that this two-stage process, in which respondents must consider a large set of options before making a final choice, does not match the decision-making processes that consumers actually would engage in if they were replacing their simulcast listening. Zauberman WRT


SoundExchange also argues that the Hauser survey is flawed because Professor Hauser provides no justification for forcing respondents, in Q5, to choose only one option to replace their simulcasting over the course of the next five years. SoundExchange asserts that in the real world consumers can replace music options with multiple substitutes, and takes issue with what it characterizes as an unrealistic notion that, for the next five years, respondents must limit themselves to only one alternative option. Zauberman WRT \| 73; Simonson WRT $\|\| 112$. SoundExchange notes that Professor Hauser acknowledges that it is "not uncommon for individuals to have subscriptions to multiple services, even within the same service type" and that some

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listeners employ multiple services＂because different services within the same service type may offer different features for listeners and different libraries of content．＂Hauser WDT © 85．SoundExchange also posits that the requirement that respondents to the Hauser survey choose only one of the offered currently available options stands in contrast to the reality of a fast changing market．SX PFFCL © 1245 （citing Tucker WDT 『\｜10－15）．

SoundExchange observes that Professor Hauser attempts to ameliorate this concern by focusing respondents on the last three days，and asking what one alternative they would choose in situations similar to their most recent listening session．Hauser WDT © 13 \＆n．8，app．D；8／27／20 Tr． 4344 （Hauser）． However，SoundExchange asserts that this approach fails because，although the survey does mention the last three days，the replacement questions themselves do not contain this language．SX PFFCL【 1251 （citing Zauberman WRT © 74－75 \＆n． 92 （Professor Hauser＇s＂replacement question is for the next five years，not a single use＂））．SoundExchange also argues that Professor Hauser＇s replacement questions create a winner－take－all problem，which biases his results．It offers the example scenario in which Netflix is the primary streaming video service for consumers，but that many consumers also use Amazon Prime Video to a lesser degree．If asked to name only one streaming video service that they use， consumers would choose Netflix．SoundExchange maintains that such responses would mask the extent to which the secondary choice，Amazon Prime Video， is used．Zauberman WRT 『 75．Professor Zauberman testified that this type of the winner takes all
structure of the replacement questions "is highly confusing," and "tremendously underplays [the] secondary players". 8/27/20 Tr. 4210-11 (Zauberman).
iv. Time Estimation Question

SoundExchange argues that Professor Hauser's time estimation question highlights the unreliability of his survey and biases the key questions that follow it. SX PFFCL ब 1262. It notes Professor Hauser's finding that, on average, respondents estimated that they spent 5.3 hours listening to AM/FM radio broadcasts from commercial radio stations over the internet in the past three days (or approximately 1.75 hours per day). SX PFFCL \| 1263 (citing Hauser WDT Ø 94). SoundExchange asserts that time estimate does not at all match reality, and that this mismatch highlights a bias in Professor Hauser's survey population. SX PFFCL I 1264. It points to Professor Zauberman's testimony that, according to The Infinite Dial 2019, Digital AM/FM (i.e., streaming AM/FM radio) accounts for only $3 \%$ of time spent listening to music, and the average online audio listener spends approximately 16.72 hours per week (or 2.39 hours per day) listening to all online audio sources. Professor Zauberman noted that, by contrast, Professor Hauser's time estimates, if accurate, would mean that AM/FM streamed over the internet accounts for more than $70 \%$ of all online audio listening time, on average. Zauberman WRT $\mid 16$ (citing Edison Research \& Triton Digital, The Infinite Dial 2019 at 26; and Edison Research, Share of Ear Q2 2019 at 16). Professor Zauberman added that Professor Hauser provides no empirical evidence, such as industry data, to suggest that respondents are
able to provide reliable estimates, and that available industry data calls the accuracy of the time estimates derived from Professor Hauser's survey into question. Zauberman WRT © 77. Professor Zauberman also argued that qualitative pretests in surveys cannot assure that this type of timing question is reliable or that the right timeframe is being used. Zauberman WRT © 77; 8/27/20 Tr. 4181-82 (Zauberman) (a pretest is "where you test for confusion," not an instrument for "parameteriz[ing] your elements of your survey," like time); id. at 4291-92, 4293-94 (Simonson) (same).

Professor Zauberman argued that because the timing question is the first question in the main questionnaire, it has the potential to influence responses to all subsequent questions. He cites to scholarship indicating that starting with a difficult-to-estimate question can influence the way that respondents answer the rest of the questions, especially when the rest of the survey is complex and difficult to understand. Zauberman WRT I 78 (citing Shari Seidman Diamond, Reference Guide on Survey Research, in Reference Manual on Scientific Evidence 359, 395-96 (2011); Seymour Sudman \& Norbert Schwartz, Contributions of Cognitive Psychology to Advertising Research, 29 J. Advertising Res., no.3, 43-53 (1989); Jon A. Krosnick \& Stanley Presser, Question and Questionnaire Design, in Handbook of Survey Research 263, 291- 94 (2nd. ed. 2010)).

Professor Zauberman also faulted the Hauser surveys for not asking respondents to estimate listening time in the future. He maintained that absent responses about future use, any inferences made based on the offered results must rely on an
assumption about the extent to which a hypothetical change in the marketplace (i.e., the unavailability of AM/FM streaming) would in fact alter both the amount of time respondents spend listening to music in total, as well as for each of the options they would replace it with. Professor Zauberman argues that such an assumption would be problematic without empirical support. Zauberman WRT © 79.

## c. Responses to Criticism of the Hauser Survey

The NAB responded to criticism regarding the number and type of alternatives offered in the switching questions, by noting that Professor Hauser 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. 4340-44 (Hauser); Hauser WDT đ丹 19- 20, 25, 31-33. Professor Hauser testified that his pretests confirmed that respondents found the options to be comprehensive but not too numerous, and to reflect the full scope of options they would consider instead of listening to simulcasts. 8/27/20 Tr. 4340-43 (Hauser). The NAB adds that SoundExchange has advanced arguments and evidence in this proceeding to establish that a wide variety of services, including on-demand video services, broadcast television, video games, and other forms of media, are in competition with each other, and that therefore it was not unreasonable for Professor Hauser to include a variety of services as switching options in his survey.

See, e.g., Trial Ex. 5387 at 28; Trial Exs. 5521, 5353, 5472; Orszag WRT \| 46 n .96 (citing public financial documents, including iHeart 10-Ks).

The NAB addresses SoundExchange's criticism of the Hauser survey for directing respondents to choose one switching option, when consumers in the real world might replace simulcast with more than one alternative, by noting that the survey was "fielded over ten days, invitations were released at different times of the day to ensure representative by day of week." The NAB argues that this approach ensures a random draw in time from the distribution of all instances of listening to simulcast. 8/27/20 Tr. 435253, 4356-57 (Hauser). Professor Hauser maintained that under the approach he used, even 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. 8/26/20 Tr. 4354 (Hauser); Hauser WDT ©I 37.

The NAB addressed Professor Simonson's concern that the Hauser survey asked respondents to pick just one option that they would do for the next five years, by maintaining that Professor Hauser question was never meant to say that respondents will do the same thing in every similar situation. Professor Hauser indicated that the qualitative interviews and pretests confirmed that is not how respondents interpreted the question. 8/27/20 Tr. 4355-56 (Hauser); see also Hauser WDT app. G at 8. He testified that 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. 4356-58 (Hauser). The NAB argues that Professor Hauser's time estimation question is not unreliable and does not conflict with results in the Infinite Dial 2019 and Share of Ear surveys. It asserts that the critique is based on an "apples-to-oranges mistake." See, e.g., Zauberman WRT © 76. Professor Hauser posits that his 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 (Hauser). He points out that Professor Zauberman's comparison does not take into account respondents who listened to zero hours of simulcasts. Professor Hauser offered that "if you put those zeros in, that zero listening, my study lines up pretty well with the [I]nfinite [D]ial." Id. at 4361.
d. Judges' Conclusions Regarding the Hauser Survey

The Judges accept that there are a variety of choices to be made when designing a reliable survey. The selected design choices will often be subject to second-guessing. While the Judges are wary of unreasonably demanding ideal survey design, many critiques will inevitably merit consideration, to varying degrees.

In this instance, the Judges find that the main hypothetical scenario set forth requiring respondents to predict what they would do if live AM/FM radio broadcasts from commercial radio stations over the internet were not available for the next five years is reasonable. While the record reflects some reason to caution against the long, five year, prediction
timeframe as potentially confusing respondents, the Judges do not find that this to be unduly concerning in this instance. However, as discussed further below, the Judges find that the critique regarding the main hypothetical scenario not honing in on music content (thus skewing the results) is worthy of concern.

The Judges find that the Hauser survey approach to the time estimation question was unduly biased toward simulcast listeners in a manner that biased the overall results. The fact that the results of the time estimate question diverge so widely from what may be considered reasonable in light of available industry data exacerbates the Judges' concerns of bias. These concerns ultimately weigh against the overall reliability of the survey. ${ }^{307}$

The Judges find that the "consider-then-choose" structure is an acceptable design choice in this instance. A case could be made that certain consumer choices on specific products or services are ill-suited to such a format. However, SoundExchange has not established convincingly that the design is inappropriate in this case. The decision to offer only one option is more concerning, given that it is widely accepted that consumers often choose more than one music (or non-music) option, especially over a five year period. The NAB's argument that this concern is addressed by the survey being fielded over multiple days does little to ameliorate the Judges concern that, in this particular switching survey addressing music

[^35]options, limiting respondents' choice to one option may confuse respondents and bias results. The NAB's reference to qualitative interviews does not establish to the Judges' satisfaction that respondents understood the question clearly, or that bias is not likely present in the results.

The actual response options provided are the most troubling aspect of the survey. Based on the expert testimony of Professors Zauberman and Simonson the Judges find that the number of choices, in the format provided, can reasonably be expected to produce biased and unreliable results. Professor Hauser indicates that he 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). However, the SDARS III survey was offered in a different format in which the 19 choices were set forth in two stages. Additionally, the offered choices were far more oriented toward music options, which the Judges find more appropriate in the current proceeding to set rates for transmissions of recorded music.

The Judges also note that the defined parameters of not-on-demand music streaming services are limited in a troubling-and ultimately unreasonable-fashion. As SoundExchange noted, the category excludes Sirius XM online as a response option. Additionally, the category excludes a wider array of webcast transmissions that do not vary the music played based on an individual listener's preferences, which Dr. Leonard characterizes as "internet radio." The 22 specific options in Q4 and Q5, on their face, and in reference to the definition of
"Not-on-demand music streaming services" exclude "internet radio." Professor Hauser did not explain or justify these exclusions adequately.

Professor Hauser testified that his pretests confirmed that respondents found the options to be comprehensive but not too numerous, and to reflect the full scope of options they would consider instead of listening to simulcasts. But, the offered options are not comprehensive. Professor Hauser stated that he generated the options from qualitative interviews, which explored what listeners of internet simulcasts of terrestrial commercial radio considered as substitutes for listening to internet simulcasts. However, it is not apparent that the pretests or interview clearly referenced the ensuing survey's hypothetical loss of simulcasting in the marketplace.

Professor Hauser testified that these interviewees described a number of different activities they would do if they could not listen to internet simulcasts of terrestrial commercial radio, including listening to music through paid and adsupported streaming services, listening to podcasts, watching television or movies, and reading news on their computers or smartphones. He indicated that the qualitative interviews revealed that respondents were not familiar with the terms "simulcast" or "simulcasting," nor were many of them familiar with the term "terrestrial radio." Respondents understood the phrase "live radio broadcasts over the internet" to describe internet simulcasts of terrestrial radio. He used the responses to inform the list of alternatives for Q4 of the survey. However, Professor Hauser does not adequately explain why he only offered a subset
of personalized ad-supported streaming services in the alternatives for Q4.

He also states that he augmented these option choices with additional background research into the different ways in which respondents may access different types of content, including Edison Research \& Triton Digital, "The Infinite Dial—The Heavy Radio Listeners Report," April 2018, available at https://www.edisonresearch.com / heavy-radio-listeners-new-insights-fromthe-infinite-dial, p. 8; Edison Research \& Triton Digital, "The Infinite Dial 2019," 2019, available at https://www.edisonresearch.com/infinite-dial2019/, p. 30. However, these two pieces of industry data do not exclude "internet radio."

Another of the NAB's witnesses, Dr. Leonard, who relied on Professor Hauser's survey and testimony for purposes of his opportunity cost analysis, addresses a related issue of his own treatment of internet radio as a product category. Dr. Leonard opined that internet radio is more similar to custom radio than to simulcast. He acknowledged that internet radio stations do not vary the music played based on an individual listener's preferences, which the Judges note is a characteristic that is shared with simulcasters. However, Dr. Leonard maintained that internet radio stations nonetheless often feature greater user functionality than is possible with a linear simulcast stream. He asserted many internet radio services (including AccuRadio) allow listeners to pause and skip songs on an internet radio station, which is not available with a simulcast. Dr. Leonard also offered that internet radio services do not feature much if any non-music content. He added that
internet radio services are not localized services, they are not broadcasters subject to FCC regulation, and they have no public interest requirement nor any obligation to serve any local community. Finally, Dr. Leonard stated his own understanding that internet radio services are not a significant part of the streaming market. Therefore, he stated, his report did not treat internet radio services as distinct from custom radio services.

The Judges find that these observations do not explain or cure the absence of internet radio options in the Hauser Survey. It is notable that for Dr. Leonard's analysis he proposed to treat internet radio services as undistinguished from (or part of) custom radio services, while Professor Hauser excluded it from the scope of any of the options he provided in his survey. Among the most compelling of possible reasons to exclude internet radio from the scope of the provided options might be that internet radio may offer distinct features such as allowing listeners to pause and skip songs, making it more closely similar to custom radio. However, the Judges do not have persuasive evidence of how widely-available such features are on internet radio. Furthermore, even if internet radio services are not a significant part of the current streaming market, that does not establish a compelling reason to exclude it from the scope of provided options in Professor Hauser's survey, because the survey was about a hypothetical marketplace over the next five years during which simulcasts are not available. Even if the NAB had offered the Judges compelling evidence of low market usage of internet radio in the contemporary world, that does not provide adequate reason to exclude an

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option that shares key characteristics with simulcasts. For instance, the Judges note that both internet radio and simulcasts may be amongst the most "lean back" offerings that do not vary the music played based on an individual listener's preferences, which is a reasonable basis for including internet radio as a potential switching option.

While the Judges do not fault the Hauser survey for including too many non-music options, that decision does tend to undermine any reasonable rationale for excluding relevant and readily apparent music options, like internet radio and Sirius XM online, that are not excluded in relied-upon industry studies.

For the above-stated reasons, the Judges do not rely on the Hauser survey to support the NAB's petition for a separate rate for simulcasters.
6. Judges' Conclusion Regarding Separate Rate for Simulcasters

Based on the entirety of the record in this proceeding and for the foregoing reasons, the Judges do not find that a separate rate category for simulcasters is warranted. Additionally, significant evidence in the record persuades the Judges that simulcasters and other commercial webcasters compete in the same submarket and therefore should be subject to the same rate. Granting simulcasters differential royalty treatment would distort competition in this submarket, promoting one business model at the expense of others.

The Judges' conclusion regarding the unreliability of the Hauser Survey also renders Dr.

Leonard's opportunity cost modeling unreliable to the extent it depends on the survey results. Additionally, given the Judges' overall conclusion that the NAB has not sustained its case for a separate rate for simulcasters, we do not proceed through an unnecessary analysis of the NAB's requested royalty rates.

## V. Noncommercial Webcasting Rates

Five entities representing noncommercial broadcasters filed petitions to participate in this proceeding. Three of them-College Broadcasters, Inc. (CBI), the Corporation for Public Broadcasting (CPB), and National Public Radio, Inc. (NPR)entered into settlements and withdrew from further participation. See 85 FR 11857 (Feb. 28, 2020) (public broadcasters' (NPR/CPB) settlement); 85 FR 12745 (Mar. 2, 2020) (noncommercial educational webcasters' (CBI) settlement). Of the remaining two noncommercial participants, only one-the National Religious Broadcasters Noncommercial Music Licensing Committee (NRBNMLC)—participated actively. Educational Media Foundation, while technically a participant, participated only through its membership in the NRBNMLC. See Educational Media Foundation's Notice Re Joining in Direct Case of NRBNMLC (Sep. 23, 2019).

In the current rate period, noncommercial webcasters other than public broadcasters pay a minimum fee of $\$ 500$ per station or channel, which entitles them to make up to 159,140 aggregate tuning
hours (ATH) ${ }^{308}$ per month of digital audio transmissions. ${ }^{309}$ Digital audio transmissions in excess of that ATH threshold incur fees at the applicable commercial rate. 37 CFR 380.10(a)(2). The current rate structure for noncommercial webcasters (including the 159,140 ATH threshold and $\$ 500$ minimum fee) has been in force since the Judges first adopted it nearly 14 years ago in Web II. See Web II, 72 FR at 24100.

## A. Parties' Proposals

## 1. SoundExchange's Rate Proposal

308 "Aggregate Tuning Hours" (ATH) are defined as the total hours of programming that the Licensee has transmitted during the relevant period to all listeners within the United States from all channels and stations that provide audio programming consisting, in whole or in part, of eligible nonsubscription transmissions or noninteractive digital audio transmissions as part of a new subscription service, less the actual running time of any sound recordings for which the Licensee has obtained direct licenses apart from 17 U.S.C. 114(d)(2) or which do not require a license under United States copyright law. 37 CFR 380.7 (2019). Or, more succinctly, the number of hours of programming on all channels and stations multiplied by the number of listeners.
${ }^{309}$ Noncommercial educational webcasters (NEWs) also pay a $\$ 500$ minimum fee per channel or station that allows them to transmit up to 159,140 ATH per month. 37 CFR 380.22(a). NEWs that exceed that threshold in any month must pay the rates established for all other noncommercial webcasters. 37 CFR 380.22(b). NEWs that do not transmit more than 80,000 ATH on any channel or station for more than one month in the preceding year may also pay a "proxy fee" of $\$ 100$ per year that entitles them to a waiver of the requirement to file reports of use. 37 CFR $380.23(\mathrm{~g})(1)$. Other NEWs may elect to provide reports of use on a sample basis. 37 CFR 380.23(g)(2).

## a. Proposed Rates

SoundExchange proposes a continuation of the current rate structure for noncommercial webcasters but with the same across-the-board increases to the minimum fee and commercial rates that SoundExchange also proposes. ${ }^{310}$ See SoundExchange's Proposed Rates and Terms at 3 (Written Direct Statement of SoundExchange vol. 1 sec. B) (Sep. 23, 2019) (SoundExchange Rate Proposal). Under SoundExchange's proposal, noncommercial webcasters would pay an annual minimum fee of $\$ 1000$ per channel or station. This minimum fee would cover up to 159,140 ATH per month of digital audio transmissions. Noncommercial webcasters would be obligated to pay the applicable commercial rate for usage in excess of 159,140 ATH per month. See id.
b. Rationale and Justification

In proposing to continue the existing rate structure, SoundExchange endorses and adopts the rationale for the existing rate structure that the Judges articulated in Web II, when they originally put that rate structure in place. See SX PFFCL ब\| 13461354. SoundExchange asserts that there is no adequate marketplace benchmark for licenses to noncommercial webcasters. SoundExchange's expert, Mr. Orszag, testified that, to his knowledge, "there is no market for licensing noncommercial services, and therefore no voluntary agreements negotiated in

[^36]unregulated markets that could serve as potential benchmarks specific to such services." Orszag WDT - 184.

Rather than basing its proposal on a benchmark analysis, therefore, SoundExchange's proposal rests on the economic insight articulated in Web II that larger noncommercial webcasters have the same or similar competitive impact in the marketplace as similarly sized commercial webcasters. See Web II, 72 FR at 24097; see also Web IV, 81 FR at 26395 ("the Judges apply commercial rates to noncommercial webcasters above the ATH threshold because economic logic dictates that outcome, not because it was observed in benchmark agreements"). In Web II, the Judges recognized that noncommercial webcasters "may constitute a distinct segment of the noninteractive webcasting market that in a willing buyer/willing seller hypothetical marketplace would produce different, lower rates" than those for commercial webcasters but only "up to a point", i.e., the point at which a noncommercial webcaster poses a "threat of making serious inroads into the business of those services paying the commercial rate." Web II, 72 FR at 24097. The Judges employed the noncommercial webcaster's size, as measured by its listenership, as a "proxy" for determining when a noncommercial webcaster poses a competitive threat to commercial webcasters. See id. at 24098-99. Based on the then-average online listenership to NPR stations of 218 simultaneous users, the Judges set a threshold of 159,140 ATH per month for applying commercial webcasting rates. ${ }^{311}$ See id. at 24099.

[^37]Although Mr. Orszag opined that he saw "no reason why commercial and noncommercial services would be treated differently with respect to the rates they pay" in an unregulated market, id. ब 185, he nevertheless supported the existing rate structure based on a history of settlements in rate proceedings. Mr. Orszag acknowledged that SoundExchange had reached settlements in the past with smaller noncommercial webcasters for a "nominal perchannel rate." Id. ब 186. For larger noncommercial webcasters, "there has long existed a demarcation at 159,140 aggregate tuning hours . . . per month" under the compulsory license, "with services that exceed that threshold paying commercial rates on the incremental usage." Id. ब 187. He contended "[t]here is no empirical evidence to suggest, and no reason based in economic theory to think, that record companies would license large noncommercial services that compete meaningfully with commercial services at a fraction of the commercial rate." Id. He noted, moreover, "this structure is supported by precedent and settlements of prior proceedings before the Judges." Id.

SoundExchange also presented expert testimony from Professor Catherine Tucker concerning the impact of the current rate structure on noncommercial webcasters. She testified that under the current noncommercial rates the vast majority of noncommercial webcasters pay only the minimum fee. See Trial Ex. 5604 \| 165 (Tucker WDT). In 2018 (the most recent year for which Professor Tucker had data), [REDACTED] out of a total of [REDACTED] noncommercial webcasters ([REDACTED]\%) paid only the minimum fee per station. See id. Professor

Tucker also testified that, among those noncommercial webcasters that exceed the music ATH threshold and must pay per-performance royalties, "[REDACTED]." Id. I 166. Across the five noncommercial webcasters paying the most for excess usage, "[REDACTED] [REDACTED].'312 Id. Professor Tucker also opined that these noncommercial webcasters would be "well positioned" to pay royalties under this rate structure even with the increases in the minimum fee and per-performance rates that SoundExchange proposes: [REDACTED]." Id. 『I 167.
c. NRBNMLC Response

NRBNMLC controverts nearly every element of SoundExchange's proffered rationale for its rate proposal (and, by extension, the Judges' rationale in Web II, Web III, and Web IV for the existing rate structure). See Services RPFFCL \|\| 1343-1348. Specifically, NRBNMLC rejects SoundExchange's assertions that no adequate marketplace benchmark exists for licenses to noncommercial webcasters, that there is no difference between commercial and noncommercial webcasters from the standpoint of the consumer, and that "there has long been acceptance of the current royalty rate structure for noncommercial webcasters." Id. 『\| 1344, 1345, 1346.

Regarding Mr. Orszag's assertion concerning the lack of appropriate benchmarks, NRBNMLC economic expert Professor Richard Steinberg testified that the settlement agreement SoundExchange reached on behalf of record companies with NPR/CPB

[^38]and, to a lesser extent, SoundExchange's settlement with CBI, constitute suitable benchmarks. See Trial Ex. 3060 ๆ $\mathbb{1}$ 30-39 (AWDT of Richard Steinberg) (Steinberg WDT). NRBNMLC asserts that "[t]he 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." Services RPFFCL $\mathbb{1}$ 1344. As examples, NRBNMLC refers to the agreement the Recording Industry Association of America (RIAA) negotiated with Yahoo! on behalf of record companies that "the Web I CARP chose as its key benchmark;" settlement agreements between SoundExchange and CBI, the National Association of Broadcasters (NAB), and Sirius XM, respectively, that the Judges cited in Web III; and a direct license between Merlin (an entity representing independent record companies) and Pandora that the Judges relied on in Web $I V .{ }^{313} I d$.

NRBNMLC argues that, contrary to Mr. Orszag's assertion, "there are very real differences to consumers between noncommercial and commercial webcasters." The National Religious Broadcasters Noncommercial Music License Committee's Corrected Proposed Findings of Fact and Conclusions of Law I 1345 (NRBNMLC PFFCL). For example, Jennifer Burkhiser, Director of Broadcast Regulatory Compliance and Issues Programming at Family Radio, Inc. (a large noncommercial religious

313 NRBNMLC does not cite any economic testimony for this analysis of the suitability of SoundExchange's settlement agreements with NPR/ CPB and CBI as benchmarks, or their comparability to benchmarks that the Judges used in past proceedings. The discussion is, rather, arguments of counsel.
broadcaster), testified that "[t]hose who really listen to Christian music and . . . radio stations can tell the difference between commercial and noncommercial pretty easily. . . . [T]here's a big difference in motivation and just the programming content based on the two different drivers, profit or mission." 8/31/20 Tr. 4764 (Burkhiser); see also Steinberg WDT \| 19 (contrasting profit maximization and mission maximization); Trial Ex. 3061 ब 29 (CWDT of Joseph Cordes) (Cordes WDT) (stating that programming on noncommercial service, including music, "is chosen for mission-driven reasons rather than commercial popularity"). Professor Steinberg also emphasized the absence of advertising from noncommercial programming. See 8/26/20 Tr. 3997 (Steinberg). Moreover, Professor Steinberg asserts as a matter of economic logic that, "[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 (Steinberg).

NRBNMLC rejects SoundExchange's assertion that the existing rate structure for noncommercial webcasters has long been accepted, stating, "there has never been noncommercial buyer acceptance of a structure incorporating above-threshold commerciallevel per-performance fees." Services RPFFCL ब 1346. Counsel for NRBNMLC supports that statement with the observation that NRBNMLC has "never proposed such a structure" in past webcasting proceedings, and, up until Web $I V$ rates went into effect, most noncommercial webcasters paid lower Webcaster

Settlement Act (WSA) rates, instead of the rates set by the Judges. See id.

NRBNMLC also disputes a key underpinning of the current rate structure: That larger noncommercial webcasters pose a greater competitive threat to commercial webcasters. NRBNMLC economics expert Professor Joseph Cordes testified that there is "no particular economic reason to believe" that as noncommercial webcasters grow in size "their attributes will converge to those of commercial broadcasters." 8/20/20 Tr. 3271-72 (Cordes). A noncommercial broadcaster's "commitment to mission will, in fact, act as a restraint on their proclivity to simply want to go into a market and compete with commercial broadcasters. . . . So long as a nonprofit, indeed, has a strong commitment to mission, that is going to actually have an aversion to competing with its commercial counterparts, because that simply means it's going to have to devote scarce, time, energy and resources to competition rather than achieving its mission." Id. at 3273. In addition, Professor Steinberg testified that even larger noncommercial webcasters are unlikely to cannibalize markets for commercial webcasters. See Steinberg WDT 『\| 25, 42-53.

NRBNMLC argues that Professor Tucker's testimony concerning the largest noncommercial webcasters being "well positioned" to pay increased fees under SoundExchange's proposal is irrelevant and unsupported. NRBNMLC PFFCL ब 259. NRBNMLC cites the Register of Copyrights' recommendation to the Librarian of Congress in Web $I$ for the proposition that an analysis of a licensee's ability to pay is not relevant to the willing
buyer/willing seller standard applied under section 114. See id. | 260 (citing Web I, 67 FR at 45254). NRBNMLC notes, moreover, that the five entities that Professor Tucker examined were all "broadcasters whose primary focus is not simulcasting, which is only a small part of their overall operations" and that, as broadcasters, they "would incur numerous expenses in connection with their broadcast operations, including 'maintaining and operating their stations and translators' and 'applying for and maintaining FCC licenses'." Id. ब 262 (quoting 8/18/20 Tr. 2484-86).

## 2. NRBNMLC's Rate Proposal

a. Proposed Rates

Four days before the beginning of the evidentiary hearing in this proceeding, NRBNMLC submitted two proposed rate structures, which it refers to as "Alternative 1" and "Alternative 2." ${ }^{314}$ See generally NRBNMLC Amended Proposed Rates and Terms (Jul. 31, 2020) (NRBNMLC Rate Proposal). Since NRBNMLC does not refer to its original rate proposal in its proposed findings and conclusions, the Judges deem the original rate proposal to be superseded by the amended rate proposal, and consider only the latter.

Under NRBNMLC's Alternative 1, noncommercial webcasters would pay an annual

[^39]minimum fee of $\$ 500$ that would entitle them to make up to $1,909,680$ ATH of digital audio transmissions in a year. ${ }^{315}$ For transmissions in excess of that threshold, noncommercial webcasters would pay one third of the applicable per performance rate for the same type of transmissions by commercial webcasters. ${ }^{316}$ See id. ex. A at 9.

NRBNMLC modelled its Alternative 2 on SoundExchange's settlement with NPR/CPB. See id. ex. B at 11-15 (redline showing changes from NPR/CPB settlement); NRBNMLC PFFCL © 152. Under Alternative 2, NRBNMLC would pay a flat annual fee of $\$ 1,200,000$ to SoundExchange on behalf of its members for usage by up to 795 noncommercial religious radio stations that NRBNMLC would name. See id. ex. A at 10-11. The proposal would permit NRBNMLC to add additional noncommercial radio stations by paying the minimum fees applicable to other noncommercial webcasters. See id. ex. A at 12. The religious radio stations that NRBNMLC names would be subject to an aggregate usage cap of $540,000,000$ ATH in the first year, increasing by $15,000,000$ ATH each year of the rate term. See id. ex. A at 11. The proposal does not establish any consequence for exceeding those thresholds.
${ }^{315} 1,909,680$ ATH is an annualized version of the existing 159,140 monthly ATH threshold (159,140 12).
${ }^{316}$ Alternative 1 provides for separate above-threshold perperformance rates for noncommercial simulcasting, noncommercial nonsubscription webcasting, and noncommercial subscription webcasting. See NRBNMLC Amended Proposed Rates and Terms at 9 . This structure parallels the rate structure that the Services propose for commercial webcasting.

Like the CBI and NPR/CPB settlement rates, Alternative 2 only applies to a subset of noncommercial webcasters- those noncommercial religious radio stations named by NRBNMLC. NRBNMLC proposes that all other noncommercial webcasters would be subject to Alternative 1. See id., ex. A at 10 .

## b. Rationale and Justification

NRBNMLC argues that noncommercial webcasters occupy a separate market segment, in which noncommercial webcasters and record companies would agree to royalty rates well below rates in the commercial webcasting market. See, e.g., 8/20/20 Tr. 3256 (Cordes); 8/26/20 Tr. 3998 (Steinberg); Cordes WDT § 16. On the buyers' side of that submarket, noncommercial webcasters of all sizes are characterized by a lower willingness to pay as a result of the legal constraints placed on nonprofit entities. See, e.g., 8/ 20/20 Tr. 3255-56, 3259-65 (Cordes). On the sellers' side of the submarket, record companies would agree to lower prices as a form of seller-side price discrimination in order to maximize their overall profits. See, e.g., 8/26/20 Tr. 4001-02 (Steinberg); Steinberg WDT $\mathbb{C l} 45$ n.14; Cordes WDT \| 21.

NRBNMLC advocates a benchmark approach to setting a noncommercial rate, contending that a benchmark approach is superior to using theoretical models to support a rate proposal. NRBNMLC PFFCL - 125. "[A] benchmark is, I think, always superior to a bunch of theorizing if one is available. . . ." 8/26/20 Tr. 4028 (Steinberg). Specifically, NRBNMLC offers the 2019 NPR/CPB settlement with SoundExchange
(2019 NPR/CPB Agreement) as a benchmark that supports its rate proposal. ${ }^{317}$ See, e.g., NRBNMLC PFFCL $\| \mathbb{1}$ 120-121. NRBNMLC contends that employing the 2019 NPR/CPB Agreement as a benchmark "is far superior to using agreements with commercial webcasters to set all or any part of those

[^40]rates." NRBNMLC PFFCL \| 122. According to Professor Steinberg, "there are no appropriate benchmarks from the commercial submarket because . . . the non-commercial sector has a different willingness to pay." 8/26/20 Tr. 4028 (Steinberg). Notwithstanding NRBNMLC's submission of the 2019 NPR/CPB settlement with SoundExchange as a benchmark, NRBNMLC did not present a comprehensive analysis of that settlement by its expert witnesses. This is likely because NRBNMLC did not offer its rate proposal until after it had already submitted the written direct and rebuttal testimony of its witnesses.

As discussed supra, counsel for NRBNMLC argues that " $[t]$ he NPR benchmarks are by far the most comparable agreements to the agreements that noncommercial buyers would negotiate with sellers in the target market in this case." NRBNMLC PFFCL ब $121 .{ }^{318}$ Counsel contends that the 2019 NPR/CPB Agreement involves the same types of buyers, the same sellers, the same works, the same rights, and the same license term as the target noncommercial compulsory license rate. See id. The Judges have used similar factors to assess the comparability of proffered benchmarks in past determinations. See, e.g., Web III Remand, 79 FR at 23115.

As to the specifics of NRBNMLC's Alternative 1 rate proposal, Professor Steinberg testified that, based on his review of SoundExchange's Web IV and Web $V$ settlements with NPR/CPB, he concluded "it's reasonable to have a minimum fee of $\$ 500$ and a one-

[^41]third the commercial broadcaster rate for additional usage." ${ }^{319}$ 8/26/20 Tr. 4039-40 (Steinberg).

To reach that conclusion, Professor Steinberg relied on a statement in SoundExchange's 2015 settlement agreement with NPR and CPB (2015 NPR/CPB Agreement) that breaks down the components of value included in the agreement's flat fee, and on an Excel workbook entitled "[REDACTED] Analysis." ${ }^{320}$ According to Professor Steinberg, SoundExchange prepared the [REDACTED] Analysis "[REDACTED]" for purposes of [REDACTED] to be included in the 2015 NPR/CPB Agreement. Trial Ex. 3064 I 3 (WRT of Richard Steinberg) (Steinberg WRT); see 8/26/20 Tr. 4030 (Steinberg). He contended that the [REDACTED] Analysis [REDACTED]. ${ }^{321}$ See Steinberg WRT || 8; 8/26/20 Tr. 4029-30 (Steinberg).

The 2015 NPR/CPB agreement states:
It is understood that the License Fee includes:
(1) An annual minimum fee of $\$ 500$ for each Covered Entity for each year during the Term;

[^42](2) Additional usage fees for certain Covered Entities; and
(3) A discount that reflects the administrative convenience to the Collective of receiving annual lump sum payments that cover a large number of separate entities, as well as the protection from bad debt that arises from being paid in advance.

37 CFR 380.32(b); see also Steinberg WRT II 8.
According to Professor Steinberg, the [REDACTED] Analysis provides, inter alia, [REDACTED]. See id. ब| 5. [REDACTED] ${ }^{322}$ Id. ब 5; see id. © 6. Professor Steinberg equated the [REDACTED] from the [REDACTED] Analysis with the first element of value cited in the 2019 NPR/CPB agreement and equated the [REDACTED] with the second element of value cited in that agreement. See id. IT 8; 8/26/20 Tr. 4031, 4034-35 (Steinberg).

Professor Steinberg noted that the [REDACTED] rates employed in the [REDACTED] Analysis are approximately [REDACTED] the then prevailing perperformance rates for commercial broadcasters. See

322 The [REDACTED] Analysis used [REDACTED] of $\$[$ REDACTED $]$ for 2014 and $\$[$ REDACTED] for 2015, while the commercial broadcaster rates for those years were $\$ 0.0023$ and \$0.0025. See Trial Ex. 3022; 37 CFR 380.12(a)(4)-(5) (2011). The [REDACTED] Analysis does not actually refer to the commercial broadcaster rates or the 3:1 ratio posited by Professor Steinberg. Instead, it labels the rates as "[REDACTED]." Trial Ex. 3022. The Judges, like SoundExchange, infer that "[REDACTED]" denotes the noncommercial webcaster settlement agreement under the Webcaster Settlement Act, which is a nonprecedential agreement. See SX RPFFCL (to NRBNMLC) ๆ 140. The Judges discuss this infra, at section V.B.1.c.iv.

Steinberg WRT 【T 3, 6 \& n.6. He thus concluded that the [REDACTED] used in the [REDACTED] analysis support a rate for noncommercial webcasters consisting of a $\$ 500$ minimum fee and a perperformance fee for performances over the ATH threshold of one-third the prevailing rate for commercial broadcasters. See 8/26/20 Tr. 4039-40 (Steinberg).

As for the third element of value listed in the agreement (the discount for administrative convenience and protection against bad debt), Professor Steinberg stated:

The most plausible explanation to account for the administrative convenience value component is that [SoundExchange] recognizes that its [REDACTED]. . . We do not know what SX believed [REDACTED], but if it believed [REDACTED].

Steinberg WRT 【 9.
Professor Steinberg acknowledged that he lacked the data to conduct a similar analysis with respect to the 2019 NPR/CPB Agreement that NRBNMLC offers as a benchmark but contended "the numbers in that agreement are consistent with this interpretation." $I d$. © 10. He based this contention on what he described as a "check to see whether the calculations were done in the same way . . . ." 8/26/20 Tr. 4039 (Steinberg). He compared the average cost per music ATH under the 2015 NPR/CPB Agreement (\$0.0020) with the corresponding metric for the 2019 NPR/CPB Agreement (\$0.0021) and concluded that the calculation underlying the 2019 NPR/CPB Agreement "does replicate the calculation" underlying the 2016

NPR/ CPB Agreement. Id.; see also Steinberg WRT $\|$ 10. "It would be better if 1 [REDACTED]" Id.

With respect to Alternative 2, Professor Steinberg stated "we can design a flat-fee structure the same way NPR did it" with adjustments to scale up the fees and ATH caps to reflect a larger number of covered entities than in the 2019 NPR/CPB Agreement. 8/26/20 Tr. 4041 (Steinberg).

You'd want to adjust the 800,000 [dollar annual fee] of [the] NPR [settlement] for the difference in the music ATH cap and the number of covered stations between the . . . religious noncommercials and the NPR non-commercials. But other than that, you'd structure for a-an additional minimum fee, you can add stations, and you could structure into a flat-fee structure all of the factors listed for administrative convenience as well.

Id. In essence, Professor Steinberg described the arithmetic process of scaling up the terms of the NPR/CPB settlement by $150 \%$ to cover a larger number of radio stations and a greater amount of music. See SX PFFCL 『 1615.
c. SoundExchange's Response

SoundExchange rejects NRBNMLC's use of the 2019 NPR/CPB agreement for multiple reasons. Moreover, SoundExchange contends that the 2019 NPR/CPB agreement fails to support NRBNMLC's rate proposals. Finally, SoundExchange questions the

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Judges' authority to adopt one of NRBNMLC's proposed alternatives. ${ }^{323}$

According to SoundExchange, Professor Steinberg "utterly failed to do a proper benchmarking analysis." SX PFFCL 『 1497. Mr. Orszag described benchmarking as "a process that uses rates freely negotiated in unregulated markets as a benchmark to set rates in a similar, regulated market." Orszag WDT - 43 (emphasis added). SoundExchange notes that the parties to the 2019 NPR/CPB Agreement did not set a freely negotiated rate in an unregulated market, but the agreement was instead "a settlement of a regulatory proceeding" and thus "not a proper benchmark." SX PFFCL 『 1497 (citing SDARS III, 83 FR at 65220 (acknowledging that a proffered settlement rate was "not a marketplace benchmark" but "instead a regulated rate")). SoundExchange
${ }^{323}$ In its reply to NRBNMLC's proposed findings, SoundExchange also argues that NRBNMLC's presentation of an [REDACTED] as part of its rebuttal case was procedurally improper and deprived SoundExchange of a reasonable opportunity to rebut that analysis. See SX RPFFCL (to NRBNMLC) IT 121, 241. However, SoundExchange did not seek to exclude Professor Steinberg's written rebuttal testimony in its prehearing motions. Nor did SoundExchange challenge any of the discussion of the [REDACTED] Analysis in the Steinberg WRT in its line-by-line objections. Nor did counsel for SoundExchange object when NRBNMLC offered the Steinberg WRT for admission at the hearing. See 8/26/20 Tr. 3993 (Steinberg). The Judges do not consider an objection first expressed in a party's proposed reply findings to be properly raised. Even if SoundExchange had raised its objection at the proper time, the Judges need not address this procedural argument in light of the Judges' rejection of the 2019 NPR/CPB Agreement as a benchmark on substantive grounds. See infra section V.B.1.
notes that, as a settlement of a statutory rate, the 2019 NPR/CPB Agreement (and its predecessors) "reflect not only their negotiating history and the parties' valuations of the elements of the deal, but also considerations such as the parties' predictions of litigation outcomes and potential savings of litigation costs, and the potential for a party dissatisfied with a litigation outcome to seek redress from Congress." SX RPFFCL (to NRBNMLC) © 149 (citations omitted).

Even if the Judges were to find a settlement agreement informative, SoundExchange argues that NRBNMLC has not established that the 2019 NPR/CPB agreement is sufficiently comparable to serve as a benchmark. SoundExchange and NRBNMLC both acknowledge the critical importance of comparability in assessing the value of a proffered benchmark. See NRBNMLC PFFCL 【T 120-121; SX RPFFCL (to NRBNMLC) ब 120 (citing SDARS I, 73 FR at 4088). According to SoundExchange, NRBNMLC bears the burden of establishing the comparability of its proposed benchmark to the target market, and has failed to do so. See SX RPFFCL (to NRBNMLC) © 130 (citing Web IV, 81 FR at 26320).

SoundExchange asserts that neither of NRBNMLC's economic experts "conducted a meaningful analysis of the comparability of SoundExchange's settlement with CPB/NPR to the hypothetical market for which the Judges must set rates in this proceeding." SX RPFFCL (to NRBNMLC) 『 121. According to SoundExchange, the only assessment of comparability put forward by NRBNMLC "is solely the work of counsel for NRBNMLC." Id.

SoundExchange argues that the NPR/CPB agreements are not comparable benchmarks and that the Judges should reject them as they have in previous webcasting determinations. See SX PFFCL đ 1363 (citing Web IV, 84 FR at 26394). SoundExchange enumerates a number of differences between the NPR/ CPB agreement and the hypothetical target market that it contends render that agreement valueless as a benchmark. ${ }^{324}$ See SX RPFFCL ( to NRBNMLC) ब 121.

SoundExchange also contends that the 2019 NPR/CBP agreement supports neither of NRBNMLC's alternative rate proposals. In addition to the other alleged infirmities of the agreement as a benchmark, SoundExchange notes that each of the alternative proposals lacks material elements of the proffered benchmark and/or includes elements that are not part of the proffered benchmark. Alternative 1 lacks the advance payment of royalties on an annual basis and the requirement of consolidated reporting as in the 2019 NPR/CPB agreement. See SX RPFFCL (to NRBNMLC) 『154. It does, however, annualize the ATH threshold, which was not part of the [REDACTED] Analysis that Professor Steinberg reviewed. See id. Moreover, according to SoundExchange, the one-third of commercial rates for excess performances does not appear in the 2019 NPR/CPB agreement and is instead drawn from the [REDACTED] Analysis-an analysis of non-

[^43]precedential WSA agreements that the Judges are not permitted to consider. See id.

With regard to NRBNMLC's Alternative 2, SoundExchange points out it also does not include consolidated reporting but does include a much larger number of covered entities and music ATH. See id. - 159. According to SoundExchange, the requirement for consolidated reporting, in particular, is a "major benefit" of the NPR/CPB agreement for SoundExchange. Id. (quoting 8/17/20 Tr. 2232 (Tucker)).

In addition, SoundExchange argues that the Judges lack statutory authority to adopt Alternative 2 through a determination (as distinguished from a settlement). See SX PFFCL ब 1518. According to SoundExchange, 17 U.S.C. 114(f)(1) directs the Judges to determine rates binding on copyright owners and "entities performing sound recordings." $I d$. (quoting 17 U.S.C. $114(f)(1)(\mathrm{B})$ ). " $[\mathrm{T}]$ here is no obvious statutory basis for adopting in a litigated proceeding a royalty to be paid by a committee of a trade association" like NRBNMLC, as opposed to an entity performing sound recordings. Id. ब 1520. SoundExchange distinguishes NRBNMLC's Alternative 2 from its own settlement agreement with CPB and NPR, because 17 U.S.C. 801(b)(7) "has special provisions that permit adoption of the CPB/NPR agreement as a settlement." Id.

## B. Judges' Findings and Conclusions

1. Rejection of NPR/CPB Agreement as a Benchmark

NRBNMLC, as the participant offering the 2019 NPR/CPB Agreement as a benchmark in this
proceeding, bears the burden of demonstrating that the agreement is sufficiently comparable to the target market to serve as a benchmark. To the extent that the benchmark market differs the target market, NRBNMLC bears the burden of adjusting the benchmark to account for those differences. NRBNMLC has failed to meet either burden. The Judges, therefore, reject the use of the 2019 NPR/CPB Agreement as a benchmark for setting noncommercial webcaster rates in this proceeding.
a. NRBNMLC Presented Insufficient Analysis of the Effect of Ongoing Litigation on the Benchmark Rate

The 2019 NPR/CPB Agreement is a settlement of ongoing rate litigation before the Judges. SoundExchange argues that that fact alone renders the agreement "not a proper benchmark." SX PFFCL - 1497. The Judges do not agree that a settlement of a rate proceeding is categorically barred from use in a benchmarking exercise. Section $114(\mathrm{f})(1)(\mathrm{B})(\mathrm{ii})$ permits the Judges to consider rates and terms from comparable voluntary license agreements, and it does not create an exception for voluntary agreements reached as a settlement of litigation. Cf. Phonorecords III, 84 FR at 1932-33 (finding "it is beyond dispute that Congress has authorized the Judges, in their discretion, to consider such agreements as evidence" under then-effective provisions of 17 U.S.C. 115(c)(3)(D)). Nevertheless, settlement agreements, unlike voluntary agreements reached outside the context of litigation, are not "free from trade-offs motivated by avoiding litigation cost, as distinguished from the underlying economics of the transaction." Phonorecords III, 84 FR at 1935. To be informative on the question of willing buyer/willing seller rates, the
proffered settlement must take into account tradeoffs motivated by avoiding litigation cost.

NRBNMLC's economic experts did not perform any analysis to disaggregate trade-offs motivated by avoiding litigation cost from the underlying economics of the deal. Neither of NRBNMLC's economic experts even acknowledged the existence of the issue. Professor Cordes did not analyze the 2019 NPR/CPB Agreement at all and Professor Steinberg's analysis of the 2015 NPR/CPB Agreement sought to derive from the flat annual fee a rate for performances in excess of the ATH threshold without any attempt to make adjustments to account for considerations relating to litigation costs (or any justification for not doing so).

The Judges find that, in the absence of evidence concerning the effect of avoidance of litigation costs on the royalty rate agreed to by SoundExchange and NPR/CPB in their settlement agreement, NRBNMLC's analysis of the 2015 NPR/CPB Agreement is not adequately informative of a willing buyer/willing seller rate in the target market.
b. NRBNMLC Did Not Demonstrate That the Benchmark Was Comparable

Section 114 states that the Judges "may consider the rates and terms for comparable types of audio transmission services and comparable circumstances under voluntary license agreements." 17 U.S.C. 114(f)(1)(B)(ii) (emphasis added). Congress thus directed the Judges to inquire into the comparability of a proffered voluntary license agreement. The Judges have long acknowledged that comparability is a key consideration in determining the usefulness of
a proffered benchmark. See, e.g., Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, 73 FR 4080, 4088 (Jan. 24, 2008) (SDARS I).

NRBNMLC presented no economic analysis concerning the comparability of its proffered benchmark. Instead, counsel for NRBNMLC prepared its own analysis as part of NRBNMLC's proposed findings. See NRBNMLC PFFCL I 121. Drawing on factors that the Judges found relevant in past cases, ${ }^{325}$ NRBNMLC contended that the proposed benchmark and target hypothetical market have the same types of buyers, same sellers, same works, same rights, and the same license term. See NRBNMLC PFFCL đ 121. Counsel for SoundExchange-also without the benefit of economic testimony-argues that the 2019 NPR/CPB Agreement is insufficiently comparable to the target hypothetical market. SX RPFFCL (to NRBNMLC) ब 121. SoundExchange contends that there are different buyers (CPB as opposed to individual webcasters), different sellers (SoundExchange as opposed to individual record companies), different sets of works (all commercial sound recordings as opposed to an individual record company's repertoire), and different rights and obligations. See id.

The 2019 NPR/CPB Agreement (and its predecessor agreements) licenses the use of sound

[^44]recordings by noncommercial entities for noninteractive transmissions. The agreement is between SoundExchange- a collective operating on behalf of record companies and recording artists-and CPB-a private entity, created by the government, that provides funding for public broadcasting entities, including NPR stations. Under the agreement, CPB pays SoundExchange funds appropriated by Congress to cover use of commercial sound recordings by NPR stations. The Judges find that, as a general matter the NPR/CPB agreements share common elements with the target market but, as enumerated by SoundExchange, differ in their particulars.

There is insufficient expert testimony to determine the extent to which the similarities between the 2019 NPR/CPB Agreement and the target market support its use as a benchmark or the degree to which the differences between the agreement and the target market detract from that use (or require adjustments to the benchmark rates). As the party proffering the agreement as a benchmark, it was incumbent on NRBNMLC to adduce sufficient evidence to demonstrate that the agreement is sufficiently comparable to the target market. NRBNMLC failed to do so.
c. Professor Steinberg's Analysis of the 2019 NPR/CPB Agreement Is Based on Outdated Information That Applies Rates From a NonPrecedential WSA Settlement Agreement
i. The Contents of the [REDACTED] Analysis

NRBNMLC relies almost exclusively on Professor Steinberg's analysis of the [REDACTED] Analysis to derive rates from the 2019 NPR/CPB Agreement. See

Steinberg WRT $9 \| 4-10$. The [REDACTED] Analysis is an Excel Workbook prepared by SoundExchange in "[REDACTED]," id. \| 3, that consists of [REDACTED] spreadsheets, labelled "[REDACTED]," and "[REDACTED]." Trial Ex. 3022. Professor Steinberg confined his analysis to the "Estimations" spreadsheet. See Steinberg WRT ||【 410.

The heading for the "[REDACTED]" spreadsheet is "[REDACTED] Analysis." The spreadsheet is divided into [REDACTED] sections labelled "[REDACTED]," and "[REDACTED]." Trial Ex. 3022, [REDACTED] sheet. Each section contains several lines of data and calculations. See id.

The "[REDACTED]" section of the "[REDACTED]" spreadsheet (rows [REDACTED]) seeks to estimate the [REDACTED] [REDACTED]. See id.; Steinberg WRT I 4. That estimate is used in the sections that follow.

The "[REDACTED]" section (rows [REDACTED]) calculates the [REDACTED]. See Steinberg WRT \| 4 n.7. The spreadsheet calculates [REDACTED] by multiplying the [REDACTED] from the previous portion of the spreadsheet by [REDACTED], then multiplying that product by the "[REDACTED]" of [REDACTED]. Trial Ex. 3022, Estimations sheet, rows 19-22.

The "[REDACTED]" section (rows [REDACTED]) estimates [REDACTED]by multiplying the[REDACTED] by the "[REDACTED]." Id. rows [REDACTED]; see Steinberg WRT If 5. Unlike the previous sections that calculate [REDACTED], this
section includes an [REDACTED] as well. See Trial Ex. 3022, Estimations sheet, rows 26-28.

The "[REDACTED]" section (rows [REDACTED]) [REDACTED] Trial Ex. 3022, [REDACTED]sheet, rows [REDACTED]; see Steinberg WRT © 6. The spreadsheet computes the [REDACTED]. See id.

To summarize, the "[REDACTED]" spreadsheet examines [REDACTED] scenarios: one in which [REDACTED]. SoundExchange computed [REDACTED]. See Steinberg WRT ॥ $\|$ 4, 6 n.11; Trial Ex. 3022, [REDACTED] sheet, rows [REDACTED], [REDACTED], [REDACTED].
ii. The Purpose of the [REDACTED] Analysis

Professor Steinberg testified that SoundExchange prepared the [REDACTED] Analysis "for the Web IV license agreement," i.e., for purposes of computing the [REDACTED]. Steinberg WRT II 3; see 8/26/20 Tr. 4030 (Steinberg). Professor Steinberg apparently infers that it was "done for the Web IV license agreement," 8/26/20 Tr. 4030 (Steinberg), based on when it was performed and the fact that the annual flat fee in the agreement- \$560,000-is "at most, [REDACTED]" of $\$[$ REDACTED]. Steinberg WRT $\mathbb{I}$ 7. He attributes the [REDACTED] to [REDACTED]. See id.

By contrast, SoundExchange argues that the [REDACTED] analysis "does not purport to address the Web IV CPB/NPR settlement." SX RPFFCL (to NRBNMLC) ๆ 140. SoundExchange describes it as "an old and backward-looking document" that "[REDACTED]" SX PFFCL \|\| $1507-1508$.

The purpose for which SoundExchange performed the [REDACTED] Analysis is not apparent from the document itself. Neither scenario examined on the "[REDACTED]" spreadsheet is identified in a way that suggests that the purpose of the analysis is to derive a flat annual fee for a settlement in Web IV. As counsel for SoundExchange asserts in proposed findings, the document primarily looks backward at the experience under the Web III-era agreement. ${ }^{326}$

Extrinsic evidence of the purpose for the [REDACTED] Analysis is also lacking. There is no testimony or documentary evidence in the record that identifies who requested the [REDACTED] Analysis and for what purpose, who prepared it, and to whom it was circulated.

Nevertheless, the timing of the analysis ([REDACTED]) and the rough proximity of the value derived in the [REDACTED] scenario to the royalty rate adopted in the settlement agreement lend some support for the inference that the analysis was prepared for purposes of [REDACTED]. However, while a plausible inference, it is by no means a certainty-or even a strong probability.

Because there is a plausible basis to infer that the [REDACTED] Analysis was prepared for the 2015 NPR/CPB Agreement, the Judges will not discount the analysis entirely as a tool for deriving an implicit

[^45]per-performance royalty rate from that agreement. However, given the exceedingly thin record on which that inference is based, the Judges give little weight to the [REDACTED] Analysis and the conclusions Professor Steinberg draws from it.
iii. Reliance on an Analysis Based on Ten-Year-Old Data

As described supra, SoundExchange prepared its estimations for the [REDACTED] scenarios in the [REDACTED] Analysis using usage data submitted by [REDACTED] between [REDACTED] and [REDACTED]. See Steinberg WRT © $\|$ 4, 6 n. 11. SoundExchange used the data together with "[REDACTED]" rates to determine values for the [REDACTED] under [REDACTED] scenarios. ${ }^{327}$

The utilization of usage data that is as much as a decade old to interpret the 2019 NPR/CPB Agreement is not necessarily improper. However, the Judges require some explanation why the use of data from another era and another settlement agreement nevertheless yields reliable results. The Judges find Professor Steinberg's analysis unconvincing on this point. To apply the [REDACTED] Analysis to the 2019 NPR/CPB Agreement, Professor Steinberg relies on at least three inferences or assumptions that may be plausible individually but are unconvincing in aggregate.

First, as discussed supra, Professor Steinberg infers that SoundExchange prepared the [REDACTED] Analysis of the Web III-era data to [REDACTED] under the Web $I V$-era settlement. The

[^46]Judges find that inference plausible but weakly supported by the evidence.

Second, Professor Steinberg infers that the annual royalty payments in the $W e b V$-era settlement reflect the same underlying per-performance rate as the Web $I V$-era settlement. Professor Steinberg acknowledged that he lacked the information to perform an analysis similar to the [REDACTED] Analysis on the 2019 NPR/CPB Agreement. See Steinberg WRT © 10. The best he could do under the circumstances was to assert that the numbers in the 2019 NPR/CPB Agreement are "consistent with" his interpretation of the [REDACTED] Analysis, based on a comparison of the average royalty per music ATH under each agreement. The Judges find this a weak basis for applying to the 2019 NPR/CPB Agreement an analysis that [REDACTED]. Professor Steinberg's own awareness of the weakness of this inference is reflected in his statement that " $[\mathrm{i}] \mathrm{t}$ would be better if I had the data to replicate the whole analysis [REDACTED]." Steinberg WRT © 10. In his written testimony, Professor Steinberg did not hold out his analysis as a basis for quantifying a per-performance rate, but only as an indication that the rate would be "[REDACTED]." Id.

Third, Professor Steinberg's analysis assumes that the discount for administrative convenience that is mentioned in the NPR/CPB agreements is separate from the minimum fee and the usage fee that the agreement recites. Professor Steinberg did not consider the possibility that the discount is reflected in either or both of the minimum fee and usage fee that are included in the flat annual payment. Instead, Professor Steinberg speculated that the discount
resulted from SoundExchange's underestimation of excess usage by NPR stations that do not provide census reports of usage. The Judges reject that attempt to identify the discount included in the agreement as unsupported by the evidence.

In sum, the Judges find Professor Steinberg's application of the [REDACTED] Analysis to the 2019 NPR/ CPB Agreement to be questionable, and they accord it little weight.
iv. Reliance on Valuations Based on a NonPrecedential WSA Settlement

SoundExchange based the valuations it performed in the [REDACTED] Analysis on "[REDACTED]" per-performance rates. See Trial Ex. 3022 rows [REDACTED], [REDACTED]; Steinberg WRT I 6 n.10. "NCW" is an abbreviation that SoundExchange uses for "Non-Commercial Webcasters." See 9/9/20 Tr. 5829 (Ploeger). "WSA" is the commonly used abbreviation for "Webcaster Settlement Act." ${ }^{328}$ See, e.g., Web IV, 81 FR at 26318. Based on the context and timing of the [REDACTED] Analysis, the Judges conclude that "[REDACTED]" refers to the Webcaster Settlement Act settlement agreement setting rates and terms for noncommercial webcasters that the Copyright Office published in the Federal Register on August 12, 2009. See Notification of Agreements under the Webcaster

[^47]Settlement Act of 2009, 74 FR 40614, 40624-28 (Aug. 12, 2009). That settlement agreement set rates and terms that noncommercial webcasters could elect to pay in lieu of rates and terms set by the Judges for the period from 2006-2015.

The Webcaster Settlement Act of 2009 (2009 WSA) states that the provisions of a settlement agreement reached under the 2009 WSA are inadmissible as evidence and may not be taken into account by the Judges in any rate proceeding under section 114 or 112:

Neither [the provisions of the WSA] nor any provisions of any agreement entered into pursuant to [the WSA], including any rate structure, fees, terms, conditions, or notice and recordkeeping requirements set forth therein, shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges . . . . It is the intent of Congress that any royalty rates, rate structure, definitions, terms, conditions, or notice and recordkeeping requirements, included in such agreements shall be considered as a compromise motivated by the unique business, economic and political circumstances of webcasters, copyright owners, and performers rather than as matters that
would have been negotiated in the marketplace between a willing buyer and a willing seller . . . . This subparagraph shall not apply to the extent that [SoundExchange] and a webcaster that is party to [a WSA agreement] expressly authorize the submission of the agreement in a proceeding under this subsection.

17 U.S.C. 114(f)(4)(C). Section 6.3 of the NCW-WSA agreement contains similar language, making it clear that SoundExchange and the noncommercial webcasters did not "expressly authorize" use of the agreement in rate proceedings. See 74 FR at 40627.

On its face, it is apparent that the perperformance royalty rates that SoundExchange used in the [REDACTED] Analysis are rates derived from a non-precedential WSA agreement that the Judges are not permitted to consider in a rate proceeding. NRBNMLC does little to address this issue. Professor Steinberg's written rebuttal testimony, in which he analyzes the [REDACTED] Analysis, scarcely acknowledges that the rates he describes (imprecisely) as being [REDACTED] commercial perperformance rates were taken from the nonprecedential NCW-WSA agreement. ${ }^{329}$ In a proposed reply finding, counsel for NRBNMLC acknowledges that the rate comes from a non-precedential WSA agreement, and quotes from a memorandum opinion by the Register of Copyrights (Register) responding to questions referred by the Judges in Web IVpresumably to justify use of a nonprecedential rate in

[^48]this context. See Services RPFFCL 『 1509 (quoting Memorandum Opinion on Novel Material Questions of Law, Docket No. 14-CRB-0001-WR, at 14-15 (Sep. 18, 2015) (Memorandum Opinion)). The reference is inapt. The Register opined that the WSA does not prevent the Judges from considering a direct license concluded outside of the WSA that incorporates terms "that are copied from, are substantively identical to, have been influenced by, or refer to, the provisions of a WSA agreement." Memorandum Opinion at 10. The [REDACTED] Analysis does not examine a non-WSA agreement. It seeks to determine what [REDACTED] (parties to a separate non-precedential WSA Agreement) ${ }^{330}$ would have paid under the NCW-WSA settlement agreement during the period when that settlement was in force.

The Judges conclude that they may not consider the [REDACTED] Analysis in accordance with the provisions of the Webcaster Settlement Act of 2009 as codified in 17 U.S.C. 114(f)(4)(C).
d. The 2019 NPR/CPB Agreement Does Not Support NRBNMLC's Rate Proposals

NRBNMLC relies on the 2019 NPR/ CPB Agreement to support its rate proposal. As previously discussed, the Judges find inadequate evidentiary and analytical support for reliance on that agreement as a benchmark. Even if the Judges found the 2019 NPR/CPB Agreement to be a sound benchmark, the Judges find that it does not adequately support NRBNMLC's rate proposal.

330 See Notification of Agreements under the Webcaster Settlement Act of 2009, 74 FR 40614, 40620-24 (Aug. 12, 2009).

SoundExchange has identified several elements from the 2019 NPR/CPB Agreement that are not present in NRBNMLC's two alternative rate proposals. To the extent these differences result in material differences between the benchmark and the proposed rates, the benchmark does not support the proposed rates without appropriate adjustment (or adequate explanation from a competent witness why an adjustment is unnecessary).
i. Absence of Up-Front Payment

Under NRBNMLC's proposed Alternative 1, each noncommercial webcaster would pay an annual $\$ 500$ per station or channel minimum payment plus monthly payments of perperformance royalties at one-third the rate for commercial webcasters for transmissions in excess of $1,909,680$ ATH per year. See NRBNMLC Rate Proposal ex. A at 2, 9. By contrast, the 2019 NPR/CPB Agreement requires upfront annual payments covering up to 530 NPR stations. See 85 FR 11857, 11857-58 (Feb. 28, 2020).

The 2019 NPR/CPB Agreement recites that the rate reflects
(1) An annual minimum fee for each Public Broadcaster for each year during the Term;
(2) Additional usage fees for certain Public Broadcasters; and
(3) A discount that reflects the administrative convenience to [SoundExchange] of receiving annual lump sum payments that cover a large number of separate entities, as well as the protection from bad debt that arises from being paid in advance.

Id. at 11858. The parties to the 2019 NPR/CPB Agreement prominently highlight the "administrative convenience" and "protection from bad debt" that result from the advance payment structure as being economically significant elements of the agreement that justify a discount in the royalty rate. NRBNMLC does not adjust the per-performance rate that it purportedly derives from the 2019 NPR/ CPB Agreement to reflect the discount for advance payments. In the absence of any adjustment, the 2019 NPR/CPB Agreement does not support NRBNMLC's Alternative 1 rate proposal.

While NRBNMLC's Alternative 2 rate includes advance payments, the issue would persist even if the Judges adopted Alternative 2. Alternative 2 is not a stand-alone rate proposal, since it only covers a subset of noncommercial webcasters (religious broadcasters selected by NRBNMLC). NRBNMLC proposes that all other noncommercial webcasters (not otherwise covered by a settlement) would fall into Alternative 1. In effect, Alternative 1 is part of the Alternative 2 rate proposal.
ii. Absence of Consolidated Reporting

As part of their settlement, SoundExchange and CPB/NPR agreed to continue the practice of consolidating reports of use through CPB. See Joint Motion to Adopt Partial Settlement, Trial Ex. 3020 at 3 (Sep. 23, 2019) (2019 Settlement Motion). The parties aver that they did not include the details of that part of their agreement in the settlement submitted with their motion because the Judges had stated previously that they "do not wish to codify in the Code of Federal Regulations [reporting]
arrangements pertinent only to specific licensees." Id. at 3 n. 2 (citing Notice and Recordkeeping for Use of Sound Recordings under Statutory License, Final Rule, 74 FR 52418, 52419 (Oct. 13, 2009) ("We have no intention of codifying these negotiated variances [from the Judges' regulations] in the future unless and until they come into such standardized use as to effectively supersede the existing regulations.")).

By contrast, NRBNMLC's rate proposal does not require consolidated reporting of usage data. See 8/26/20 Tr. 4068-69 (Steinberg). NRBNMLC's Alternative 2 rate proposal includes a provision stating "NRBNMLC and Noncommercial Religious Broadcasters shall submit reports of use and other information concerning website Performances as agreed upon with [SoundExchange]. In the absence of such an agreement, Noncommercial Religious Radio Stations shall submit reports of use in accordance with then-applicable regulations . . . ." NRBNMLC Rate Proposal ex. A at 14. Unlike the settlement with NPR/CPB, there is no advance commitment to provide consolidated reporting. Compare id. with 2019 Settlement Motion at 3. NRBNMLC merely states that SoundExchange and the religious broadcasters are free to adopt an arrangement concerning reports of use that departs from the Judges' regulations. SoundExchange and religious broadcasters would have that ability without NRBNMLC's proposed language. See Notice and Recordkeeping for Use of Sound Recordings Under Statutory License, Final Rule, 74 FR at 52419 ("digital audio services are free to negotiate other formats and technical standards for data maintenance and delivery and may use those in
lieu of regulations adopted by the Judges, upon agreement with [SoundExchange]").

The record reflects that consolidated reporting has value to SoundExchange. Travis Ploeger, Director of License Management for SoundExchange, testified that CPB (through an entity called NPR Digital Services), collects usage information from NPR stations and provides quality assurance before providing the information to SoundExchange, thus making the information more efficient to process. See 9/9/20 Tr. 5803, 5822 (Ploeger); see also 8/17/20 Tr. 2232 (Tucker) ("one of the things that NPR does is it collects together the messy data of the individual stations and reports it as part of the agreement"). Professor Steinberg also recognized that consolidated reporting by CPB represents a cost savings to SoundExchange. See 8/26/20 Tr. 4068 (Steinberg).

NRBNMLC's proposed Alternative 2 thus differs materially from the proposed benchmark. NRBNMLC makes no attempt to adjust its proposed rate to compensate for this material difference, and provides no justification for not making an adjustment. See 8/26/20 Tr. 4068-69 (Steinberg). Rather, counsel for NRBNMLC faults SoundExchange for failing to quantify the value of consolidated reporting. See Services RPFFCL 『 1523. It is not SoundExchange's (or the Judges') responsibility to rescue NRBNMLC's faulty benchmark by proposing an appropriate adjustment. In the absence of an appropriate adjustment, the 2019 NPR/CPB Agreement does not support NRBNMLC's Alternative 2 rate proposal.
e. Conclusion Regarding NRBNMLC's Proposed NPR/CPB Benchmark

Each of the foregoing critiques counsels for limited or no reliance on the proffered benchmark. In aggregate, the critiques constitute an overwhelming argument for rejecting entirely the 2019 NPR/CPB Agreement as a benchmark. The Judges, therefore, reject NRBNMLC's use of the 2019 NPR/ CPB Agreement as a benchmark.
2. Acceptance of Reasoning Underlying SoundExchange Rate Proposal

SoundExchange relies on the same reasoning adopted by the Judges in webcasting proceedings going back to Web $I I$ to support its proposed rate structure. ${ }^{331}$ Absent persuasive counterarguments, the Judges will accept that reasoning.
a. Evaluation of NRBNMLC Counterarguments

NRBNMLC puts forward six principal counterarguments against the rationale that has supported the existing noncommercial rate structure since Web II. The Judges examine each of them in turn.
i. Noncommercial Webcasters Have a Lower Willingness To Pay Than Commercial Webcasters

A common theme throughout the testimony presented by NRBNMLC is that noncommercial webcasters occupy a distinct market segment from commercial webcasters and have a lower willingness to pay license fees. See, e.g., 8/20/20 Tr. 3255-56 (Cordes); Cordes WDT © 16; Steinberg WDT II 15. NRBNMLC argues that the reason noncommercial webcasters (and nonprofit entities in general) have a

[^49]lower willingness to pay than their commercial counterparts is the "nondistribution constraint," i.e., the prohibition under state and federal law on distribution of profits by nonprofit entities. See 8/26/20 Tr. 3996 (Steinberg); Steinberg WDT © 14. "[B]ecause profits can't be distributed, there are no shareholders. The Board of Directors has no financial interest in what the nonprofit does." 8/26/20 Tr. 3996 (Steinberg). Consequently, "nonprofit organizations are free to pursue charitable missions that are not rewarded in the marketplace." Id.

The nondistribution constraint also limits the financing available to nonprofit entities. "[B]ecause they can't distribute profits, there's no access to traditional equity capital. They can't issue shares of stock that pay dividends." Id. at 3997. The nondistribution constraint "also may pose some challenges to [nonprofits] raising debt capital, because . . . it may limit the amount of collateral that they may be able to pledge in exchange for . . . debt financing." 8/20/20 Tr. 3265 (Cordes). Nonprofits are able to receive donations, "[b]ut donations are limited because donations benefit a group of people. It's a classical public goods problem." Because of free ridership, "each donor gives less than their willingness to pay in equilibrium." 8/26/20 Tr. 3998 (Steinberg). For noncommercial broadcasters specifically, FCC rules also limit their ability to raise funds by prohibiting the sale of advertising. See Steinberg WDT © 28 ; Web IV, 81 FR at 26319-20. In sum, "the limited access to capital and the fact that. . . there are no owners that can . . . capture the surplus, those two factors together from an economic perspective would lower the willingness to pay for-
on the part of noncommercial broadcasters for license fees." 8/20/20 Tr. 3265 (Cordes). On this basis, NRBNMLC repeatedly criticizes the existing rate structure for requiring noncommercial webcasters to pay commercial per-performance royalties. See, e.g., NRBNMLC PFFCL - 31.

The Judges have recognized that noncommercial webcasters occupy a distinct submarket within the webcasting market. See, e.g., Web IV, 81 FR at 2631920. For that reason, the Judges adopted the existing rate structure, which provides a substantial discount to noncommercial webcasters. Unlike commercial webcasters, noncommercial webcasters pay no perperformance royalties for any transmissions up to the 159,140 monthly ATH threshold. See 37 CFR 380.10(a)(2); see also SoundExchange Rate Proposal at 3 , attach. at 21. A large majority of noncommercial webcasters pay only the annual minimum fee (currently $\$ 500$ ) and pay no per-performance royalties at all. See Trial Ex. 5625 ब| $\|$ 9, 33 (WRT of Travis Ploeger) (Ploeger WRT) ("in 2018, approximately $97 \%$ of noncommercial webcasters at the statement of account level $(96 \%$ at the parent company level) paid only the minimum fee."). All noncommercial webcasters, regardless of size, benefit from this allowance. See id. $\mathbb{T} \mathbb{T}$ 35, 37 (in 2018 Family Radio, [REDACTED] religious noncommercial webcasters, received an effective [REDACTED]\% discount from commercial webcasting rates and EMF, the noncommercial webcaster [REDACTED], received an effective [REDACTED]\% discount). SoundExchange's proposal would increase noncommercial rates (as well as commercial rates), but the discount for noncommercial webcasters would
remain at a similar level on a percentage basis. See id. \|\| 36, 38.

NRBNMLC is not correct in stating that the current rate structure (and SoundExchange's proposal) requires noncommercial webcasters to pay commercial rates. A more accurate statement would be that the current rate structure (and SoundExchange's proposal) requires noncommercial webcasters to pay per-performance royalties on performances over the 159,140 ATH threshold at the same marginal rate as commercial webcasters.

NRBNMLC did not examine the question whether noncommercial webcasters' lower willingness to pay requires lower marginal rates as distinguished from lower average rates. The only passing reference to the question was in a colloquy between SoundExchange's expert, Professor Tucker, and the Judges:

Q: As an economist, do you think the more important way to look at this or the more important data point is the marginal rate that's paid per-play or the average rate as you have depicted it?

A: So as an economist, as I was thinking about incentives where, for programming, the marginal rate is going to be hugely important. . . . But when I think about the arguments which were proposed by the non-commercial broadcasters about the idea that non-profits deserve a discount, I think this is the right way of looking at it when thinking about the way that they were framing a discount.

Q: And so do you see that the noncommercial broadcasters would have a marginal decision to make as to whether or not it was worth it to pay the .0028, or whatever the rate would be, perplay based on how much revenue they can anticipate receiving through contributions or whatever donations they could receive as noncommercial broadcasters?

A: You know, so I think as an economist one would have to acknowledge that that would play into their decision-making.
8/17/20 Tr. 2206-07 (Tucker). Professor Tucker's acknowledgement that marginal rates would have an impact on a noncommercial webcaster's decisionmaking does not persuade the Judges that average rates are unimportant. ${ }^{332}$ Nor does it mean that the effective discount for noncommercial webcasters under the current rate structure is meaningless. More importantly, this testimony does not address the question of the appropriate role of marginal rates versus average rates in determining whether a given rate structure exceeds noncommercial webcasters' willingness to pay. NRBNMLC has not adequately developed this argument.

[^50]The Judges find, as they have in past proceedings, that noncommercial webcasters constitute a distinct submarket in which they have a lower willingness to pay for licenses than commercial webcasters. However, the Judges are not persuaded that a rate structure in which noncommercial webcasters pay no per-performance fees up to a threshold and commercial per-performance fees above that threshold is inconsistent with that finding.
ii. In an Unregulated Market Copyright Owners Would Be Willing To Accept Lower Royalties From Noncommercial Webcasters as a Form of Price Discrimination

NRBNMLC argues that the existence of separate submarkets for licensing sound recording performance rights to commercial and noncommercial webcasters fosters seller-side price discrimination that would result in lower royalty rates for noncommercial webcasters. ${ }^{333}$ See NRBNMLC PFFCL $\mathbb{T}$ ब 91-102. Professor Cordes testified that four conditions must be present for price discrimination to occur:
(a) buyers need to have different price elasticities of demand (sensitivity to higher and lower prices); (b) sellers need to be able to identify which groups of buyers have higher and lower price elasticities of demand; (c) sellers need to have an incentive to differentiate

333 As relevant here, Professor Cordes defines price discrimination as "the case in which sellers of a good or service are able to segment the market so that they are able to offer the same good or service at different prices to different groups of buyers." Cordes WDT © 21.
between the price charged to buyers with lower price elasticities and the price charged to buyers with higher price elasticities; and (d) buyers benefiting from the lower prices must not be able to re-sell the good to other buyers.

Cordes WDT II 22. According to Professor Cordes, the hypothetical market for webcasting services would be "conducive for price discrimination to occur . . . ." 8/20/20 Tr. 3266 (Cordes).

Well, first of all, it would be quite easy, obviously, for sellers to be able to identify different segments of the market. You know who the commercial broadcasters are. You know who the non-commercial broadcasters are. So it's not hard to figure out, you know, which-which group is which. Secondly, because of the distinctive traits of nonprofit broadcasters, they would have a higher price elasticity of demand. They would be more likely to buy the good when they otherwise might not, if, in fact, the price were lowered to them. And, finally, noncommercial broadcasters would be prohibited by regulations from reselling the product.

Id. at 3267.
Even if the Judges were to accept the proposition that record companies would engage in seller-side price discrimination in the hypothetical unregulated market, ${ }^{334}$ that does not advance NRBNMLC's attack

[^51]on the current rate structure and SoundExchange's proposed rate structure. As discussed supra, both the existing rate structure and that proposed by SoundExchange provide noncommercial webcasters a substantial discount from the fees charged to commercial webcasters. Professor Cordes' testimony does not address whether price discrimination in the hypothetical market would result in discounts for noncommercial webcasters that would be greater than, less than, or the same as the discount under the current or proposed rates. Nor does it address the particular structure those discounts would take. Nothing in Professor Cordes' testimony concerning price discrimination invalidates or undermines SoundExchange's proposed rate structure.
iii. Concerns About Cannibalization of Commercial Markets by Larger Noncommercial Webcasters Are Unfounded

In Web $I V$, the Judges identified the risk of cannibalization as an important consideration in adopting a rate structure that imposes commercial rates for performances by noncommercial webcasters above the 159,140 ATH threshold. See Web IV, 81 FR 26392 ("there must be limits to the differential treatment for noncommercials to avoid 'the chance that small noncommercial stations will cannibalize the webcasting market more generally and thereby
their prices (the third of his four conditions necessary for price discrimination to occur). For example, the risk of cannibalization, discussed infra, section V.B.2.a.iii, could affect record companies' incentives to engage in price discrimination. These would be relevant considerations in evaluating the strength of Professor Cordes' proposition concerning price discrimination in the hypothetical market.
adversely affect the value of the digital performance right in sound recordings"') (quoting Web II, 72 FR at 24097).

NRBNMLC contends "the cannibalization argument is unsupported by the record and unlikely to occur." Steinberg WDT II 25. NRBNMLC argues that there are a number of differences between commercial and noncommercial entities that make it unlikely listeners will be attracted away from commercial to noncommercial webcasting.
(A) Noncommercial Broadcasters Do Not Seek To Compete With Commercial Broadcasters

NRBNMLC contends that, due to the constraints on, and mission-focus of, noncommercial broadcasters, they are averse to competing with commercial entities and are motivated instead to seek out "unserved markets with respect to their mission." 8/26/20 Tr. 4008 (Steinberg); see Cordes WDT I 16. The concerns about cannibalization that the Judges articulated in past webcasting proceedings focus on potential displacement in listenership from commercial to noncommercial webcasters and is independent of noncommercial webcasters' motivations. The record shows that at least some noncommercial broadcasters seek to expand their audiences. See Emert WDT (Web IV) đ 38 ("It is obviously not ideal for a noncommercial religious broadcaster to turn listeners away from their programming, as it works against our mission of reaching as many people as we can with our message of hope and inspiration . . . .") (emphasis added). Whatever the motivation to increase its listenership-whether it be to "compete" or to
"advance their mission"-it is the increase in listenership itself that poses a risk of cannibalization if that increase results from diverting listeners who otherwise would be listening to a commercial service. See 8/20/20 Tr. 3275-76 (Cordes) (acknowledging that even if a noncommercial webcaster did not set out to compete with commercial webcasters, the noncommercial webcaster could compete with commercial webcasters "simply by growing large because of its popularity."); see also Steinberg WDT - 49 (acknowledging that "it is possible that the crossprice elasticity between the submarkets is negative (indicating some degree of substitutability among listeners)," though opining it is likely to be small due to differences in programming).

Moreover, SoundExchange provided examples of noncommercial webcasters that are in direct competition with commercial webcasters for listeners. Mr. Orszag offered the example of Prazor, a large internet-only noncommercial webcaster with multiple channels of Christian-themed music, and Sirius XM, a commercial service that carries multiple Christianthemed music channels on its internet service. See Orszag WRT I 159. "It is reasonable that a record company negotiating voluntary licenses with Prazor and Sirius XM in an unregulated marketplace would be mindful of the potential for competition between them and limit any discount it might be prepared to provide Prazor accordingly." ${ }^{335}$ Id. (footnote omitted).

[^52]In addition, Mr. Orszag testified concerning Salem Media, a large commercial Christian broadcaster, and EMF, a large noncommercial Christian broadcaster, which both have stations in Atlanta that broadcast in the Christian Adult Contemporary (Christian AC) format. See Orszag WRT $\|\mathbb{I}\|$ 160-161.

There is clear evidence of competition between Salem and EMF. WFSH is a Salem Christian music station in Atlanta, Georgia broadcasting as 104.7 The Fish and webcasting at http://thefishatlanta.com/. WAKL is EMF's K-Love affiliate in Atlanta. EMF acquired the station from for-profit Cumulus in mid-2019, changed its format from talk to Christian contemporary music, and rebranded it as WAKL. In connection with that acquisition, the press has noted that with those two stations and a third broadcasting in the same format, "Atlanta has suddenly become a hotbed of Christian radio competition," and the competition included "[a]ll three stations . . . simultaneously running aggressive billboard campaigns."

Id. \| 161 (footnote omitted). The Judges find this evidence, albeit anecdotal, casts doubt on "[t]he generalities concerning alleged programming differences that Dr. Steinberg and Dr. Cordes offer . . . ." Id.

[^53](B) Noncommercial Broadcasters Are Unlikely To Attract Listeners Away From Commercial Broadcasters

NRBNMLC argues that noncommercial broadcasters' commitment to mission results in important differences between their on-air programming and that of commercial webcasters. See Cordes WDT ब 19; 8/20/ 20 Tr. 3278 (Cordes); 8/31/20 Tr. 4763-64 (Burkhiser). Noncommercial broadcasts include mission-driven nonmusic content, and the music content is selected for its congruency with the mission rather than for its popularity with listeners. See Cordes WDT I $29 ; 8 / 31 / 20$ Tr. 4752-53 (Burkhiser). In addition, NRBNMLC asserts that noncommercial broadcasters pursue different types of listeners than commercial services. Unlike commercial broadcasters, who seek listeners who will increase advertising revenues, noncommercial broadcasters "seek listeners who will best advance their mission." 8/26/20 Tr. 4007 (Steinberg).

To rebut NRBNMLC's argument that the programming and audiences for those entities are so different that cannibalization is unlikely, SoundExchange introduced a study prepared by Massarsky Consulting that compared playlist information on commercial and noncommercial radio stations downloaded from Mediabase, a commercial database service that monitors airplay. See Ploeger WRT \|T 25-26 app. C. This overlap study compared playlist information from 10 randomly selected commercial Christian AC radio stations with 10 randomly selected noncommercial Christian AC stations during the third quarter of 2019:
[T]he resulting summaries showed that there was an overlapping repertoire of 961 recordings by 259 artists used by both one or more commercial stations and one or more noncommercial stations during the quarter. Those artists represented on both commercial and noncommercial playlists constituted just $49.0 \%$ of the artists played on the commercial stations and $74.4 \%$ of the artists played on the noncommercial stations, but their recordings were used disproportionately. Thus, plays of recordings by those artists made up $99.0 \%$ of the total plays on the commercial stations and $99.4 \%$ of the total plays on the noncommercial stations. Similarly, the recordings used on both commercial and noncommercial stations were $52.4 \%$ of the recordings played on the commercial stations and $70.5 \%$ of the recordings played on the noncommercial stations, but constituted $97.4 \%$ of the total plays on the commercial stations and $97.7 \%$ of the total plays on the noncommercial stations.
Id. ब 25 (footnote omitted).
NRBNMLC argues that this study "suffer[s] from so many flaws as to be meaningless." NRBNMLC PFFCL 『 229. NRBNMLC enumerates several of what it views as flaws:
(1) SoundExchange Did Not Present Any Witnesses Who Were Familiar With the Design and Execution of the Study

NRBNMLC contends that Mr. Orszag and Mr. Ploeger were unaware of basic information concerning study design, including whether

SoundExchange considered including genres other than Christian AC in the study. ${ }^{336}$ See NRBNMLC PFFCL $\boldsymbol{\|} \|$ 230-231; 9/9/20 Tr. 5845-49 (Ploeger); 8/13/20 Tr. 2019 (Orszag). Nobody from Massarsky Consultant testified.

The Judges find the testimony of Mr. Ploeger and Mr. Orszag, including their testimony on crossexamination, provides a sufficient basis to assess the overlap study and its limitations. As discussed further, infra, the overlap study stands for a simple, and fairly limited, proposition: Commercial and noncommercial stations broadcasting in the Christian AC format play many of the same songs. Greater detail on the specific decisions that went into the

[^54]design of the study are unnecessary to evaluate the study's support for that narrow proposition.
(2) The Study Did Not Replicate Real- World Behavior of Consumers

NRBNMLC faults the overlap study because it "did not purport 'to replicate the real world in behavior of consumers." NRBNMLC PFFCL | 232 (quoting 8/13/20 Tr. 2039 (Orszag)). NRBNMLC argues, therefore, that the study "cannot be used to infer anything about listener behavior." NRBNMLC PFFCL ब 232.

In the quoted passage from Mr. Orszag's testimony, he argues against the premise of counsel's question on cross-examination, explaining the difference between a "study" and an "experiment":
Q. So I will just ask you-I will ask you a more general question of do you agree with the proposition that litigation experiments need to replicate the marketplace to have external validity in measuring what market participants, you know, might do in that marketplace?

*     *         *             *                 * 

A. Thank you. So embedded in the words that you asked me in your question are lots of terms that are important for consideration here.

The word "experiment" is very different than the concept of study and different from the concept of analysis . . . . An experiment, which is trying to replicate the real world in behavior of consumers, is a different question. It's not something I tackle in this matter . . . . But
nothing that I do here is an experiment . . . . And nothing in my written direct or written rebuttal testimony in this case involves an experiment. So your question, thus, becomes difficult for me to answer in any kind of reliable way.

8/13/21 Tr. 2038-39 (Orszag). NRBNMLC has not identified a flaw in the overlap study. The study was not, and never was intended to be, an experiment. The Judges disagree that the study "cannot be used to infer anything about listener behavior," however. The study provides information about the songs that commercial and noncommercial religious radio stations transmit in common. That is relevant information from which the Judges can draw inferences about whether listeners to commercial religious stations might listen to noncommercial religious stations, and vice versa.
(3) The Study Only Looked at Commercial AC Stations

NRBNMLC criticizes the overlap study for examining playlists only for stations broadcasting in the Christian AC format. See NRBNMLC PFFCL $\mathbb{I}$ 233. "As such," according to NRBNMLC, "the study shows nothing about overlap in any other genre." Id.

SoundExchange has explained that it directed Massarsky Consulting to focus on the Christian AC format because that format is responsible for the majority of webcasting royalties from noncommercial stations. See Trial Ex. Ploeger WRT \| 22 ; 9/9/20 Tr. 5806, 5846 (Ploeger). Because the focus of the inquiry concerning cannibalization is on displacement of listenership, it is logical to examine the portion of the
noncommercial webcasting market with the greatest listenership.

NRBNMLC does identify a limitation of the overlap study: That it focuses exclusively on Christian AC stations. That limitation, however, is not accidental-it is by design. Moreover, it is a reasonable design choice and was apparent from Mr. Ploeger's description of the study. See Ploeger WRT $\|$ 25.
(4) The Sample of Stations Is Not Representative

NRBNMLC argues that the pool of Christian AC stations monitored by Mediabase is not representative of the universe of commercial and noncommercial religious stations, see NRBMNLC PFFCL I 233 (citing 8/13/20 Tr. 2026 (Orszag)), or even of the universe of Christian AC stations. See NRBMNLC PFFCL ब 234 (citing Ploeger WRT 『| 25; 8/13/20 Tr. 2025 (Orszag)). In addition, NRBNMLC contends that the ten commercial and ten noncommercial stations drawn from that pool is also unrepresentative. See NRBNMLC PFFCL đ 235 (citing 8/13/20 Tr. 2026-28 (Orszag)).

By definition, a pool of stations in a single format is not representative of radio stations as a whole. Mr. Orszag readily agreed to this proposition. See 8/13/20 Tr. 2026 (Orszag). As discussed in the previous section, the overlap study's focus on the format that is responsible for the majority of webcasting royalties from noncommercial stations was a reasonable design choice.

Mr. Orszag testified that Mediabase monitors only larger stations and, in that sense, the pool of
stations in its database is not representative of the broader universe of religious radio stations. See id. at 2025 (Orszag). However, Mr. Orszag stated that it was unnecessary to consider the small "mom-and-pop stations" because they do not pay royalties above the minimum fee. Id. at 2025-27. Again, the focus on stations with significant listenership that generate significant webcasting royalties is appropriate for the present inquiry.

Regarding NRBNMLC's contention that the sample of stations selected from the Mediabase database is unrepresentative, Mr. Orszag acknowledged that they are not representative of the larger universe of stations. "By definition, they are going to be larger adult contemporary stations, so basically that means they are not going to be representative of all by definition, they represent the larger ones that qualify to be within the Mediabase data." 8/13/20 Tr. 2027-28 (Orszag).

The Judges find that the samples drawn from the nonrepresentative collection of Christian AC stations in the Mediabase database are, perforce, not representative of the overall universe of radio stations (or religious radio stations). That limits the extent to which the data derived from that sample can be projected to the broader radio universe. However, the purpose of the present exercise is not to project results to the entire universe of radio stations, but to the much narrower universe of radio stations likely to be subject to per-performance royalties under the current rate structure. The Judges also note that the
sample was selected randomly，which diminishes the possibility of intentional bias．${ }^{337}$

In sum，the Judges find the sample sufficiently representative of the segment of the radio market that is of interest here for the Judges to draw inferences about that market．
（5）Five of the Ten Commercial Stations Examined in the Study are Owned by the Same Company

NRBNMLC notes that Salem Media Group owns five of the ten commercial stations covered in the study．NRBNMLC PFFCL 『 237．Salem is the leading U．S．commercial Christian broadcaster．See Ploeger WRT 『 22．NRBNMLC stresses that＂Mr．Orszag did ＇nothing to test empirically whether the effect of a single owner owning a big chunk of those stations would bias the analysis．＇＂Id．（quoting 8／13／20 Tr． 2029 （Orszag）．NRBNMLC also points out that only 12 of Salem＇s 100 stations broadcast in the Christian AC format．NRBNMLC PFFCL 『 237 （citing Trial Ex． 3049）．

The fact that a large number of the stations that Massarsky Consulting randomly selected were owned by Salem is unsurprising and reflects Salem＇s position as one of the larger players in this market．Moreover， while owned by Salem，Mediabase data reflects that

[^55]the five stations have distinct (albeit similar) playlists. See Ploeger WRT at app. C; Trial Ex. 3040.

The fact that a large majority of Salem stations broadcast in other formats is immaterial. By design, the overlap study is limited to Christian AC stations. ${ }^{338}$
(6) No Two Stations Used in the Study Operate in the Same Market

NRBNMLC argues that, because no two stations used in the study operate in the same market, "listeners to the stations largely would not overlap or pose risk of cannibalization . . . ." NRBNMLC PFFCL - 9 238. The overlap study seeks to demonstrate that commercial and noncommercial stations broadcasting in the Christian AC format play many of the same songs. It does not purport to show the extent of geographic overlap. NRBNMLC's observation is not relevant. Moreover, it is factually incorrect as applied to webcasting, since any streamed station can be accessed from anywhere in the world regardless of where the broadcast station is located.
(7) The Study Measured the Existence, not the Extent, of Overlap

NRBNMLC observes that "the study counts all plays of a recording as overlapping, as long as a recording is played just one time in one group and at least one time in the other group . . . ." 8/13/20 Tr. 2032 (Orszag).

NRBNMLC's suggestion is that the overlap study significantly overstates the degree of playlist overlap
${ }^{338}$ See infra, section V.B.2.a.iii(B)(3).
between commercial and noncommercial stations. NRBNMLC's suggestion is not borne out by the underlying data. Trial Ex. 3040 shows the number of "spins" of songs on each station. Some songs that are played frequently on some commercial stations are also played frequently on noncommercial stations. For example, [REDACTED] was played in excess of [REDACTED] times on [REDACTED] of the commercial stations and on [REDACTED] noncommercial stations [REDACTED]. See Trial Ex. 3040. Mr. Ploeger testified that "the recordings used on both commercial and noncommercial stations were $52.4 \%$ of the recordings played on the commercial stations and $70.5 \%$ of the recordings played on the noncommercial stations, but constituted $97.4 \%$ of the total plays on the commercial stations and $97.7 \%$ of the total plays on the noncommercial stations." Ploeger WRT || 25. In light of these statistics and a review of the underlying data, the Judges conclude that the scenario described in NRBNMLC's observation is very unlikely.
(8) The Study Did Not Measure Similarities or Differences in Nonmusic Programming

NRBNMLC observes that the overlap study did not examine any of the differences or similarities of nonmusic content between commercial and noncommercial stations and argues that it thus ignores important context. See NRBNMLC PFFCL - 240 . NRBNMLC contends "[ $t$ ]his is the very 'context that offers listeners quite different listening experiences and thereby removes the chance that they would be indifferent between the two listening experiences.’" Id. (quoting Cordes WDT 『 29).

Again, the overlap study seeks to demonstrate that commercial and noncommercial stations broadcasting in the Christian AC format play many of the same songs. It does not purport to show that the listening experience on commercial and noncommercial stations is the same. While information about nonmusic content would have been helpful to the Judges in assessing the risk of cannibalization, its absence does not render the overlap study uninformative.
(9) SoundExchange Did Not Conduct a Similar Study

To Test Commercial/ Noncommercial Overlap in Music Played on NPR Stations

NRBNMLC asserts that "an equally fatal deficiency in the overlap study is that SoundExchange did not conduct a study to test commercial/ noncommercial overlap of any musical genre played on NPR stations." NRBNMLC PFFCL - 9240 . NRBNMLC argues that the absence of such a study renders the overlap study "wholly uninformative" as to how NRBNMLC's benchmark should be adjusted to account for any promotional or substitutional effect. Id. ब| 243.

Once again, NRBNMLC criticizes the overlap study for not doing something it was not designed to do. Moreover, it is NRBNMLC's burden to show that its benchmark is comparable and to propose adjustments to the extent that it is not. Arguing that the overlap study does not carry that burden for NRBNMLC is not a valid criticism. Finally, NRBNMLC did not advance its benchmark analysis of the NPR agreement until Professor Steinberg's written rebuttal testimony, by which time it was too
late for SoundExchange to design and conduct a study. The Judges will not hold SoundExchange's lack of prescience against it.
(10) The Judges' Conclusions Regarding the Overlap Study

The Judges find the overlap study to be informative on the question whether commercial and noncommercial stations play many of the same songs. Specifically, the Judges find that the overlap study demonstrates that there is substantial overlap in the music played by commercial and noncommercial stations broadcasting in the format that accounts for most noncommercial royalties. Due to the limitations in the overlap study, the Judges find that it does not support any conclusion as to the specific degree of overlap or whether the overlap actually results in audience diversion. Rather, it supports a conclusion that there is sufficient similarity in the music content of these stations to make diversion a realistic possibility.
(C) Listener Diversion Will Increase, Not Decrease, Record Company Royalties

NRBNMLC argues that a decrease in the cost of webcasting by noncommercial broadcasters will most likely cause listener diversion from those broadcasters' over-the-air broadcasts to their webcasts. See NRBNMLC PFFCL ब 212. Professor Steinberg testified that "if we make webcasting less costly to stations, they are less likely to limit their webcasting," permitting more listeners to switch from the broadcast to the webcast. 8/26/20 Tr. 4011-12 (Steinberg). Because webcast plays bear royalties while terrestrial radio plays do not, Professor

Steinberg argues that this form of diversion will enhance record company revenue. See id. at 4012.

NRBNMLC's hypothesis concerning the sources and destinations of listener diversion are speculative and unsupported by evidence. Since there is some internal logic to NRBNMLC's hypothesis, the Judges do not reject it outright, but they accord it little weight.
iv. Lower License Fees for Noncommercial Broadcasters Will Result in a Net Increase in Record Company Revenue

NRBNMLC argues that "even with identical products, SoundExchange still would collect-and sound recording copyright owners would receive-the same or greater royalties if the noncommercial market segment were charged a lower perperformance rate due to the additional noncommercial buying activity that would occur." NRBNMLC PFFCL II 217; see Steinberg WDT II 46 ("[W]hen two statutory prices are set, one for each submarket, the price set for commercial webcasters can be the same as the single price, while the [noncommercial webcasters] are charged a lower price and hence buy more licenses. When more licenses are sold, the value of digital performance rights increases."). This a reprise of the argument concerning price discrimination discussed supra, section V.B.2.a.ii.

The Judges find NRBMNLC's price discrimination argument unpersuasive. NRBNMLC's economic testimony establishes that one of the conditions necessary for price discrimination to take place in a market is "sellers need to have an incentive
to differentiate between the price charged to buyers with lower price elasticities and the price charged to buyers with higher price elasticities . . . ." Cordes WDT 『 22 . But the NRBNMLC has not demonstrated that such an incentive is present.

The NRBNMLC merely speculates that increased listenership on noncommercial internet stations will generate more royalties via a diversion of listeners from terrestrial broadcasts than are lost by the diversion of listeners away from commercial internet radio (i.e., cannibalization). The NRBMNLC proffers no evidentiary support for this speculation, precluding any reliance by the Judges on this argument.
v. SoundExchange Failed To Provide Empirical Evidence of Cannibalization

Ironically, NRBMNLC contends that the record lacks empirical evidence of substantial cannibalization. See NRBNMLC PFFCL ब 219; Steinberg WDT ๆ 48 ("[T]here is no scientific study in the record demonstrating that cannibalization has ever occurred in this market."). NRBNMLC notes that several record company witnesses testified that they were unaware of their companies ever having performed such an analysis. See, e.g., 9/3/20 Tr. 5599 (Adadevoh). But there is no reason why SoundExchange should be required to provide evidence regarding cannibalization to support NRBMNLC's price discrimination argument.

The current rate structure for noncommercial webcasters, which has been in place since 2006, was designed to limit cannibalization of commercial webcasting by noncommercial webcasters. It is
unsurprising that no participant has sought to measure the amount of cannibalization in the marketplace. If the rate structure has worked as intended, such a study would be expected to show little if any actual cannibalization. The Judges do not find the absence of empirical evidence of widespread cannibalization to undermine the argument that the risk of cannibalization under a different rate structure exists.
vi. The 2019 NPR/CPB Agreement Demonstrates That Copyright Owners Will License Noncommercial Broadcasters at a Lower Rate in Spite of Fears of Cannibalization

NRBNMLC argues that SoundExchange's repeated settlements with NPR/CPB show that record companies are willing to reach agreements with large noncommercial broadcasters "at rates that are significantly lower on average than the current noncommercial rates." NRBNMLC PFFCL 『 244. "If willing record company sellers were genuinely concerned about alleged cannibalization above the threshold from larger noncommercial broadcasters, they would not have agreed to accept lower rates from NPR stations." Id. 『 247.

The Judges concluded that NRBNMLC has failed to demonstrate that the 2019 NPR/CPB Agreement is a comparable benchmark. See infra, section V.B.1.b. In the absence of a demonstration of comparability, the Judges reject NRBNMLC's use of that agreement and its predecessors to demonstrate that concerns about cannibalization are unfounded.
b. Judges' Conclusions Regarding Reasoning Underlying SoundExchange Proposed Rate Structure

NRBNMLC's counterarguments do not persuade the Judges to reject the rationale for setting rates for above-threshold transmissions equal to commercial rates. The Judges find that there is a risk that large noncommercial webcasters may draw listeners from commercial webcasters and that adopting a rate structure that applies commercial per-performance rates to above-threshold plays by those larger noncommercial webcasters is appropriate.

## 3. Adoption of Rate Structure

NRBNMLC relies entirely on the 2019 NPR/CPB Agreement as a benchmark to support its rate proposal. ${ }^{339}$ Having rejected use of the 2019 NPR/CPB Agreement as a benchmark, ${ }^{340}$ the Judges find NRBNMLC's rate proposal unsupported by the evidence and must reject it. ${ }^{341}$

By contrast, the Judges find that the rationale for a continuation of the noncommercial rate structure in place since 2006 remains valid. The Judges, therefore, adopt SoundExchange's proposal for a two-part rate structure under which noncommercial webcasters pay a minimum fee that entitles them to transmit performances of sound recordings up to an ATH threshold and pay commercial, nonsubscription per-

[^56]performance rates ${ }^{342}$ for transmissions in excess of that threshold.

Neither SoundExchange nor NRBNMLC proposed that the minimum fee for noncommercial webcasters should differ from the minimum fee for commercial webcasters. The Judges find that noncommercial webcasters should continue to pay the same per station or channel minimum fee as commercial webcasters. ${ }^{343}$

While both SoundExchange and NRBNMLC propose the same average ATH threshold, SoundExchange proposes retaining the current structure in which the ATH threshold is measured on a monthly basis ( 159,140 ATH per month), while NRBNMLC proposes (in its Alternative 1) that the ATH threshold be measured on an annual basis (1,909,680 ATH per year). ${ }^{344}$

NRBNMLC contends that annualizing the ATH threshold will "account for seasonal listener peaks and valleys" and "lower transaction costs for both parties . . . ." NRBNMLC PFFCL 『 158. Professor Steinberg testified that "by doing it on an annual basis, you have lower transactions costs for both parties, and I didn't see any real reason . . . not to do it. I didn't see any real reason why we shouldn't save that money." 8/26/20 Tr. 4040 (Steinberg). NRBNMLC also argues that the NPR agreements support an annualized threshold since they include

[^57]annual music ATH allotments. See NRBNMLC PFFCL ब 158.

NRBNMLC offered no evidence- apart from Professor Steinberg's unsubstantiated assertionthat an annualized ATH threshold would reduce transactions costs. NRBNMLC also offered no explanation why the NPR/CPB settlement agreements- agreements that include both an annual payment and an annual ATH allotmentsupports a proposal that annualizes only the ATH allotment but retains monthly payments. The Judges find neither argument persuasive.

With regard to levelling out "seasonal peaks and valleys," NRBNMLC made no case why that is an appropriate or desirable outcome. To be sure, it may well result in lower royalty payments for certain noncommercial webcasters-particularly those that perform large amounts of music with seasonal appeal, such as Christmas music. However, many commercial webcasters also perform large amounts of music with seasonal appeal, increasing the likelihood that noncommercial webcasters will divert listeners from commercial webcasts. Without a more developed argument, supported by evidence, the Judges will not make such a significant change to the method of applying the ATH threshold to noncommercial webcasters. The ATH threshold shall apply on a monthly basis. Noncommercial webcasters will be subject to per-performance royalties for transmissions in excess of 159,140 ATH in a month.

## VI. Minimum Fee

Section 114 of the Copyright Act requires the Judges to determine a minimum fee for each type of
service covered by the statutory license. See 17 U.S.C. 114(f)(1)(B). Section 112 contains a similar requirement for the statutory license for ephemeral recordings. See 17 U.S.C. 112(e)(3)-(4). For the current rate period, the minimum fee for all services is $\$ 500$ annually for each station or channel, with an aggregate cap for each commercial webcaster of $\$ 50,000$ (i.e., 100 stations or channels). ${ }^{345}$ See 37 CFR 380.10(b). For commercial webcasters, the minimum fee is credited toward per-performance usage fees. See id. For noncommercial webcasters, payment of the minimum fee covers usage up to 159,140 Aggregate Tuning Hours (ATH) of audio transmissions. See id. § 380.10(a)(1), (b).

For the forthcoming rate period, SoundExchange proposes to increase the minimum fee to $\$ 1,000$ annually for each station or channel. See SoundExchange's Proposed Rates and Terms at 2 (Sep. 23, 2019) (SoundExchange Rate Proposal). SoundExchange also proposes to increase the aggregate cap for commercial webcasters to $\$ 100,000$. See id. The Services each propose no change to the current $\$ 500$ minimum fee and $\$ 50,000$ cap. See Google LLC's Proposed Rates and Terms at 2 (Sep. 23, 2019) (Google Rate Proposal); NAB’s Proposed Rates and Terms at 8 (Sep. 23, 2019) (NAB Rate Proposal); The NRBNMLC's Amended Proposed Noncommercial Webcaster Rates and Terms, ex. A at 9 (Jul. 31, 2020) (NRBNMLC Rate Proposal); ${ }^{346}$ and Amended

[^58]Proposed Rate and Terms of Sirius XM Radio Inc. and Pandora Media, LLC at 1 (Jan. 10, 2020) (Sirius XM Rate Proposal).

## A. SoundExchange's Justification for Increasing the Minimum Fee

SoundExchange argues that it is "reasonable and appropriate for the minimum fee at least to cover SoundExchange's administrative cost." SX RPFFCL (to Services) 『 358 (quoting Digital Performance Right in Sound Recordings and Ephemeral Recordings, 79 FR 64669, 64672 (Oct. 31, 2014) (Web II Second Remand)); see 8/13/20 Tr. 2055 (Orszag) ("it's important that that minimum fee be set at such a level that is consistent with the cost of processing and dealing with these royalty statements"). SoundExchange contends that its average per station or channel administrative cost more than doubled between 2013 and 2018, increasing from approximately $\$ 1,900$ to approximately $\$ 4,448$. See Ploeger WRT $\| \mathbb{T} 13-14$; id. app. A. $\| 50$ (WDT of Jon Bender) (Bender WDT). According to SoundExchange, increasing the minimum fee from $\$ 500$ to $\$ 1000$ would ensure that every webcaster contributes reasonably to SoundExchange's average administrative costs, even if it does not cover them entirely. See Ploeger WRT \| 13; Bender WDT $\mathbb{I} 51$.

SoundExchange offers its settlement with CBI as confirmation of the need for an increase in the minimum fee. See SX PFFCL $\| \mathbb{1}$ 1554-1556. In that settlement the parties agreed to an increase in the

[^59]minimum fee, starting at $\$ 550$ in 2021 and increasing annually in $\$ 50$ increments to $\$ 750$ in 2025. See Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies to Facilitate Those Performances (Web V), 85 FR 12745, 12746 (Mar. 4, 2020) (CBI Settlement). SoundExchange put forward two reasons why the increase in the CBI Settlement falls short of the $100 \%$ increase that it seeks in its rate proposal. "First, it avoided the complexities and incremental costs of litigating with a group of webcasters that collectively paid only $\$ 336,800$ in statutory royalties (including reporting waiver fees) in 2018." Ploeger WRT I 15. "Second, as a group, the noncommercial educational webcasters covered by the settlement impose lower costs on SoundExchange than other webcasters" because $98 \%$ of them pay a $\$ 100$ proxy fee that allows them not to file reports of use (thus alleviating SoundExchange of the cost of processing those reports or, if necessary, chasing down delinquent reports). Id. ब 16.

SoundExchange also contends that the $\$ 500$ annual minimum fee has remained the same for more than twenty years, in spite of general increases in the cost of goods and services. See Bender WDT © 42; 8/11/20 Tr. 1467 (Orszag). Mr. Orszag testified that using the Consumer Price Index (CPI-U) would be an appropriate, if imperfect, means of measuring the declining purchasing power of the minimum fee compared to the general cost of goods and services. See 8/11/20 Tr. 1469-71, 1473-74 (Orszag). Jonathan Bender, SoundExchange's former CEO, testified that "[a]ccording to the Bureau of Labor Statistics’ CPI inflation calculator, $\$ 500$ in October 1998 was
equivalent to $\$ 782.19$ in August 2019. By the beginning of the next rate period in January 2021, that can reasonably be expected to exceed $\$ 800$, and of course it will continue growing during the coming rate period." Bender WDT © 43. Since prices for services have increased more rapidly than overall prices, SoundExchange contends it is reasonable to expect that its costs of administering the statutory license have increased more rapidly than the CPI-U. See 8/11/20 Tr. 1467-68 (Orszag).

SoundExchange notes that the minimum fee has not kept pace with per-performance royalty rates for webcasting. Mr. Bender testified that the total royalty rate for nonsubscription commercial webcasters increased 2.36 times between 1998 and 2019. ${ }^{347}$ "If the minimum fee today were set to cover the same number of performances as contemplated by the Librarian in Web I, it would be over \$1180." Bender WDT $\mathbb{I}$ 44. Performing the same calculation using 2006 rates under Web $I I$ as a starting point would yield a minimum fee of over $\$ 1437$ for subscription services. See id. $\mathbb{1} 45$.

SoundExchange also seeks to justify an increase in the minimum fee by the generally increasing level of usage.

SoundExchange has observed a marked increase in the average number of performances across all webcasters whose royalties are

[^60]administered by SoundExchange. We are not aware of a corresponding increase in the average number of channels per webcaster, implying an increase in per channel or station usage. Growth in per channel or station usage means that if minimum fees are to both cover usage and ensure a contribution to the costs of administering the statutory license, minimum fees should go up.
Bender WDT © 52.
In addition, SoundExchange notes that its proposed minimum fees are roughly in line with minimum fees charged for performing musical works by the performing rights organizations (PROs) that represent songwriters and music publishers. SoundExchange asserts that the Judges, and the Librarian before them, used musical works rates "as a check on the reasonableness of the minimum fee under the statutory license." Bender WDT © 53.

Pursuant to the Judges' regulations under Section 118 of the Copyright Act, in 2021, the smallest college broadcasting stations will pay $\$ 746$ just for use of ASCAP and BMI musical works, plus more if they license musical works through SESAC and Global Music Rights. College broadcasting stations affiliated with large schools will pay $\$ 1,928$ for use of ASCAP and BMI musical works. In the case of public broadcasting entities, music format stations in even the smallest markets will pay $\$ 1,639$ for use of ASCAP, BMI and SESAC musical works. In large markets the number is $\$ 14,532$. As the Judges are well aware, "sound recording rights
are paid multiple times the amounts paid for musical works rights" in unregulated markets.
$I d$. (citations and footnotes omitted).
Finally, SoundExchange contends that its proposed $\$ 100,000$ cap on minimum fees for commercial webcasters with more than 100 stations or channels (up from $\$ 50,000$ in the current rate period) "is consistent with the minimum fees paid by PSS and SDARS and by new subscription services transmitted through cable and satellite television networks . . . ." Id. © 54 (citations omitted). SoundExchange avers the change will have a limited impact on commercial webcasters: "In 2018, only 20 webcasters paid the $\$ 50,000$ minimum fee and so would presumably pay a $\$ 100,000$ minimum fee under SoundExchange's proposal. Of them, 18 ultimately paid total royalties in excess of $\$ 100,000$." Id.

## B. The Services' Response

The Services reject SoundExchange's effort to justify an increase in minimum fees based on increases in its average administrative cost, arguing that that measure is irrelevant. "The purpose of the minimum fee is to cover SoundExchange's incremental administrative costs, not its overall administrative costs." Services RPFFCL ब 1536. The Services cite the CARP report and the Librarian's decision in Web I as concurring with this position. See id. (citing Report of the Copyright Arbitration Royalty Panel, Docket No. 2000-9 CARP DTRA 1\&2, at 32, 95 (Feb. 20, 2002) (Web I CARP Report); Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral

Recordings, Final rule and order, Docket No. 2000-9 CARP DTRA 1\&2, 67 FR 45240, 45263 (Jul. 8, 2002) (Web I Determination)).

The Services draw a contrast between the mechanism for funding SoundExchange's administration of the section 114 license and the Mechanical Licensing Collective's (MLC) administration of the section 115 license: Unlike the MLC, which is funded by an assessment on licensees (separate from, and in addition to, usage fees), SoundExchange's costs are deducted from the royalties it collects. Compare 17 U.S.C. 115(d)(7)(A) with 17 U.S.C. $114(\mathrm{~g})(3)$. Based on this contrast, the Services conclude that "using the minimum fee to help fund the overall administrative costs of SoundExchange would run afoul of the Act." Services RPFFCL ब 1536.

The Services also argue that SoundExchange's average cost calculation is flawed. The Services contend that SoundExchange began its with "Total Operating Administrative Expenses" rather than the cost of processing and distributing royalties. See Steinberg WRT I 19. The Services argue that "Total Operating Administrative Expenses" covers administration of licenses other than webcasting, and improperly includes "Property and Equipment Depreciation," "Rate-Setting Proceedings Amortization," "Interest expense," and "Tax expense." See id.; 9/9/20 Tr. 5863, 5867-74 (Ploeger); Trial Ex. 3023 at 43 (SoundExchange Consolidated Financial Statements, Years Ended December 31, 2018 and 2017). NRBNMLC's expert, Professor Steinberg, opined that SoundExchange's estimate of administrative costs is "grossly inflated." Steinberg

WRT 『 19．The Services also fault SoundExchange for attributing 100 channels to services that actually had more than 100 channels or stations，which the Services contend also inflated SoundExchange＇s computation of administrative costs on a per－channel basis．Services RPFFCL ब 1545；see 9／9／20 Tr．5857－ 58 （Ploeger）；Bender WDT 『 49.

The Services dispute SoundExchange＇s assertion that its settlement with CBI confirms the need for an increase in the minimum fee，pointing out that the minimum fee increase in that settlement falls short of the increase that SoundExchange has proposed．See Services RPFFCL 『1554．The Services argue that the minimum fee in the CBI agreement is，＂if anything， too high for broader application＂because CBI had more to gain by settling than SoundExchange． Steinberg WDT II 31．While the Services acknowledge SoundExchange＇s explanation that a lower minimum fee is justified for CBI members because they impose lower costs on SoundExchange than do other services， the Services point out that the same rationale could apply to all commercial and noncommercial webcasters that pay only the minimum fee．See Services RPFFCL ब 1554．The Services opine that ＂SoundExchange could decrease those costs further by deciding to waive reports of use for ．．． noncommercial webcasters also webcasting at or below 80，000 monthly ATH．＂Id．

The Services dispute SoundExchange＇s argument that inflation over the past twenty years justifies a minimum fee increase．First，the Services deny that the current minimum fee has been in place that long， since the minimum fee under Web $I$ was applied per licensee，not per station or channel．See id．© 1557；

8/13/20 Tr. 2015 (Orszag). Second, the Services contend that "SoundExchange agreed to $\$ 500$ for 2020," in Web IV, "so that year, not 1998, is the year from which to consider changes." Services RPFFCL - 1 1558. Moreover, notwithstanding the general rate of inflation, the Services suggest that SoundExchange's processing costs have decreased over time due to increasing use of automation. See id. - 1559; see also Bender WDT $\| \mathbb{I}$ 9-10; 8/11/20 Tr. 1470 (Orszag).

Regarding SoundExchange's argument that the minimum fee has not kept pace with per-performance rates, the Services point out that the Judges have stated that the minimum fee "is meant to cover administrative costs" and "does not address actual usage." Web II, 72 FR at 24099.

The Services describe SoundExchange's arguments based on rates for use of musical works as "improper." Services RPFFCL ब 1564-1565. The Services note that SoundExchange has long opposed, and the Judges have long rejected, use of musical works fees for setting sound recording rates. See, e.g., Web II, 72 FR at 24092-95; see also Bender WDT $\mathbb{I} 53$ \& n. 16 ("the use of musical work rates to set sound recording rates has otherwise been thoroughly rejected, which SoundExchange believes is proper"). In addition, the Services argue that the rates cited by SoundExchange are not comparable because they are flat fees covering unlimited broadcasting rather than minimum fees. See Services RPFFCL I 1564-1565 (citing 37 CFR 381.5(c)). The Services also note differences in the structure of the market for licensing musical works (i.e., multiple collecting societies with mutually exclusive repertoires versus a single
collective covering the entire industry), as well as differing administrative costs at the level of each individual collecting society. See Steinberg WRT ब 20.

Finally, the Services reject SoundExchange's reference to minimum fees for PSS and SDARS to justify increasing the cap on minimum fees for commercial webcasters, stating that the other statutory licenses are "not applicable here." Services RPFFCL ब 1566.

## C. The Judges' Findings and Conclusions Regarding the Minimum Fee

SoundExchange offers six measures by which it argues that the current $\$ 500$ minimum fee should increase: SoundExchange's average administrative cost, the minimum fee agreed to by SoundExchange and CBI, inflation, per-performance sound recording royalty rates, usage, and minimum fees charged for broadcasting of musical works. The Services' reject each of these measures (or SoundExchange's application of them) for various reasons. Instead, they offer two possible measures for adjusting the minimum fee: SoundExchange's incremental administrative costs and anticipated inflation between 2020 and 2025.

1. Increased Average Administrative Cost Since 2013

Supports Increasing the Minimum Fee
a. Use of Incremental Versus Average Administrative Costs

The Judges and their predecessors have never determined that the minimum fee under section 114 exists solely to cover SoundExchange's incremental administrative costs. To be sure, the Services have
made that argument consistently since Web $I$. However, the Judges and their predecessors have never embraced it.

In Web I, for example, the CARP concurred with the Services 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. 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.

Web I CARP Report at 95. The CARP did not find that the minimum fee existed solely to cover incremental costs, access value, or both.

In his review of the Web I CARP Report, the Librarian stated "the Panel could propose any rate consistent with the agreements so long as the proposed rate would cover costs for administering the license and access to the works. "348 Web I Determination, 67 FR at 45263 (emphasis added). Whether the CARP and the Librarian were referring

[^61]to average or incremental costs of administering the license, it is clear that both agreed that covering those costs was only one purpose for the minimum fee.

As the Services acknowledge, in later decisions the Judges routinely referred to the minimum fee as covering SoundExchange's "administrative cost" or "average administrative cost," rather than SoundExchange's incremental cost of administering the license. See, e.g., Web II, 72 FR at 24096; Web III, 79 FR at 23124; and Web IV, 81 FR at. 26396-97.

The Services are unable to point to relevant statutory language or legislative history that supports their position. While the Copyright Act itself is silent as to the purpose of the minimum fee, legislative history instructs that "[a] minimum fee should ensure that copyright owners are fairly compensated in the event that other methodologies for setting rates might deny copyright owners an adequate royalty." H.R. Rep. No. 105-796, at 85 (1998) (DMCA Conference Report). The DMCA Conference Report plainly does not limit a minimum fee merely to covering incremental costs of administering the license. Covering incremental costs is one element of ensuring that copyright owners are "fairly compensated," but it is not the only element. Covering incremental costs is the bare minimum that a minimum fee must accomplish.

The Judges find the Service's argument contrasting the funding mechanism for SoundExchange with the funding mechanism for the Mechanical Licensing Collective to be inapt. The minimum fee is not an assessment, over and above royalties, that funds SoundExchange's operations.

For commercial webcasters, the minimum fee is credited against usage. For noncommercial webcasters, the minimum fee includes a substantial quantity of usage. While there are webcasters whose usage falls below the amount that is covered by the minimum fee, that is simply inherent in the nature of any minimum fee. The fact that some webcasters do not recoup the entire value of the minimum fee does not convert it into an administrative assessment.

There is little testimony in the record on the subject of whether, from an economic standpoint, it is preferable to refer to incremental or average costs in setting the minimum fee. The following colloquy between Mr. Orszag and the Judges is on point:

Q: Mr. Orszag, you mentioned a couple of times that you look at average cost, not incremental . . . I'm equating that with marginal cost. But doesn't economics, basic economic principles [counsel] . . . that pricing should equal marginal cost if it's otherwise competitive?

A: But pricing in those discussions also say that we need to ensure that the pricing covers costs as well, because if everyone got marginal cost pricing, then it could be the situation where everyone is getting a low price but they're not actually covering the cost to administer the service.

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Q: Are you saying—are you saying this is a declining cost of business for SoundExchange so the marginal cost is below average cost at the-at the level of production?

A: I-I would assume that to be the case here. If [you] add one new licensee, the cost of adding that one licensee is far below the cost of the first licensee. And so we need to- one would need to ensure that thethe total costs are covered so that the service can actually be provided in that circumstance.
8/12/20 Tr. 1760-61 (Orszag). Mr. Orszag's unrebutted testimony supports setting the minimum fee with reference to SoundExchange's average administrative cost.

The Judges, consistent with prior determinations, conclude that they may consider SoundExchange's average administrative cost in setting the minimum fee.
b. Computation of Average Administrative Cost

Professor Steinberg testified that SoundExchange's computation of administrative costs was flawed because it "does not distinguish between administrative costs attributable to licensing and processing fees from other administrative costs associated with running any modern corporation." Steinberg WRT © 19. The Services contend that SoundExchange improperly included in its calculation of average administrative costs a number of items unrelated to license administration, such as property and equipment depreciation, interest and tax expenses, and amortization of the cost of participating in rate-setting proceedings. See id.; Services RPFFCL ब 1545.

This aspect of Professor Steinberg's testimony follows from the Service's position that the function of the minimum fee is to cover SoundExchange's
incremental cost of licensing. Given the Judges' conclusion that they may consider SoundExchange's average administrative cost in establishing a minimum fee, the Judges accord it no weight.

Similarly, the Judges do not find SoundExchange's inclusion of costs related to the administration of licenses other than the webcasting license to be improper given that the Judges will consider SoundExchange's average administrative cost. SoundExchange has computed that average by dividing its total administrative costs by its total number of licensees (webcasting and nonwebcasting), then dividing that quotient by the estimated number of channels or stations per licensee. See Bender WDT बTI 48-50; 9/9/20 Tr. 5893 (Ploeger). That is an appropriate means of determining SoundExchange's average administrative cost per channel or station.

Finally, the Judges do not find SoundExchange's estimation of the number of channels or stations per licensee to be improper. In deriving that estimate, SoundExchange attributed 100 channels or stations to licensees that had more than 100 channels or stations. The existing and proposed minimum fee structure caps minimum fees for commercial webcasters at 100 times the per-channel or station minimum fee. SoundExchange's methodology thus divides per-licensee administrative costs over the average number of channels or stations for which licensees pay the minimum fee. ${ }^{349}$ See Bender WDT

[^62]- 49. The Judges find that it is appropriate to limit consideration to channels or stations for which licensees pay the minimum fee, given that the purpose of the calculation is to find a basis for setting that minimum fee.

The Judges find SoundExchange's calculation of its average administrative cost on a per-channel or station basis to be acceptable. The Judges are mindful that, because it is based on an estimation of the number of channels or stations per licensee, it is itself an estimate rather than a precise quantification.
c. Judges' Conclusions Concerning Increased Average Administrative Cost as a Basis for Increasing the Minimum Fee

The record reflects that SoundExchange's estimate of its average administrative cost on a perchannel or station basis increased from approximately $\$ 1,900$ to approximately $\$ 4,448$ between 2013 and 2018, an increase of 2.34 times. See Ploeger WRT T T 13-14; Bender WDT $\mathbb{1} 50$. While both are estimates, SoundExchange calculated both using the same methodology.

The absolute amount of SoundExchange's estimated average administrative cost exceeds SoundExchange's proposed minimum fee by a significant amount. The relative increase in average administrative costs (134\%, which would yield a minimum fee of $\$ 1170$ ) also exceeds the relative increase in the minimum fee that SoundExchange is seeking ( $100 \%$, yielding a minimum fee of $\$ 1000$ ). The Judges conclude that the evidence relating to SoundExchange's average administrative cost
supports the increased minimum fee that SoundExchange has proposed.
2. SoundExchange's Settlement With CBI Supports Increasing the Minimum Fee

SoundExchange and CBI agreed to a gradual increase in the minimum fee to $\$ 750$ by 2025 . This increase is materially different from that proposed by SoundExchange, both in its magnitude and its gradual implementation. Nevertheless, SoundExchange offers it as confirmation of the need for an increase in the minimum fee and offers two explanations for the difference between the agreement and the proposed minimum fee: Litigation savings and a lower cost for processing usage statements from CBI members. See SX PFFCL - \|T1554-1556 (and record citations therein).

On the existing record, the Judges cannot accept SoundExchange's first explanation. As the Services point out, both parties saved litigation costs by settling, and it is entirely possible that the litigation savings were of equal or greater value to CBI than SoundExchange.

SoundExchange's second explanation is a stronger justification for the lower increase. The Judges reject the Services' counterargument that other low usage webcasters would have similarly low processing costs if they, like the noncommercial educational webcasters covered by the CBI agreement, were permitted to pay a proxy fee and thus avoid submitting reports of use. See Services RPFFCL ब 1554. They are not permitted to do that. The Judges will not assume away a cost that

SoundExchange bears, based on the Services' counterfactual.

The Judges conclude that the CBI agreement is evidence that willing buyers and willing sellers would agree to a minimum fee that exceeds the existing minimum fee. The unique circumstances of the CBI agreement may indicate that the increase agreed to in that settlement may be toward the low end of reasonable minimum fees. However, given the indeterminacy of the effect of litigation costs on the parties' relative bargaining positions, the Judges find that they cannot derive a specific minimum fee amount from that settlement.
3. General Inflation Since 2006 Supports an Increased Minimum Fee

SoundExchange argues that increases in the general level of prices while the $\$ 500$ minimum fee has been in effect, as measured by the CPI-U, is another justification for increasing the minimum fee. The Services appear to acknowledge inflation as a justification for increasing the minimum fee, although they would have the Judges look only to prospective inflation from 2020 to 2025 because "SoundExchange agreed to $\$ 500$ for 2020 " in its Web IV rate proposal. Services RPFFCL ब 1558.

The Judges reject the Services' argument that the current $\$ 500$ minimum fee is a willing buyer/willing seller rate because SoundExchange and the Services both proposed that amount in Web IV. The current minimum fee was determined by the Judges and imposed as part of the regulatory scheme. SoundExchange's rate proposal was a position taken in a regulatory proceeding, not the action of a willing
seller in a market unconstrained by a statutory license.

The Judges also reject SoundExchange's contention that the appropriate starting point for calculating inflation is 1998. The Web I minimum fee was calculated per licensee, not per channel or station. See 8/13/20 Tr. 2015 (Orszag). It was not the same fee that the Judges adopted for the Web II rate period, beginning in 2006, that was assessed on a perchannel or station basis. The current $\$ 500$ annual per channel or station minimum fee has been in place since 2006; 2006 is the appropriate base year for any inflation calculation.

According to the Bureau for Labor Statistics, the CPI-U for January 2006 was 198.3, and the CPI-U for December 2020 was $260.474 .^{350}$ That represents a $31.35 \%$ increase. Consequently, to have the equivalent purchasing power of the minimum fee in 2006, the current minimum fee would need to increase to $\$ 656.77$.

The Judges recognize that general inflationary data are an imperfect substitute in this context for data concerning changes to SoundExchange's actual costs. Nevertheless, the Judges find that the increase in inflation over the period from 2006 to the end of 2020 reflects an erosion in the purchasing power of the minimum fee that supports an increase, though

[^63]not necessarily the doubling that SoundExchange seeks.
4. Other Justifications for Increasing the Minimum Fee

The Judges reject SoundExchange's additional justifications for increasing the minimum fee: Increased royalty rates, increased usage, and failure to keep pace with minimum fees for public performance of musical works. While the minimum fee is recoupable against charges for usage, it is not a usage fee as such. SoundExchange has provided no reasoned explanation why the minimum fee should be tied to the royalty rates or the amount of usage, and the Judges see no reason, a priori, that it should be.

Regarding the minimum fees charged by PROs for public performance of musical works, the Judges (at SoundExchange's urging) have long rejected use of musical works rates in setting sound recording rates. See, e.g., Web II, 72 FR at 24092-95; Bender WDT - 53 \& n.16. The Judges see no reason to make an exception for the minimum fee.

## 5. Conclusion

The three justifications offered by SoundExchange and accepted by the Judges suggest a range of minimum fees from $\$ 656.77$ at the low end to $\$ 1,170$ at the high end. The Judges find this range to represent the zone of reasonable minimum fees supported by the record in this proceeding.

Of the three accepted justifications, the Judges find the increase in SoundExchange's average administrative cost to be the most compelling. Unlike the inflation approach, average administrative cost
relates directly to actual costs incurred by SoundExchange. Unlike the minimum fee agreed to by SoundExchange and CBI, the average administrative cost does not suffer from the indeterminacy of the relative savings in litigation costs achieved by the parties to the settlement. The Judges recognize that the average administrative cost put forward by SoundExchange is an estimate since it incorporates SoundExchange's estimate of the average number of channels or stations per licensee. Consequently, the Judges regard the 134\% increase in average administrative costs, and the $\$ 1,170$ minimum fee it implies, as an upper limit on a reasonable minimum fee. Nevertheless, since the Judges find the average administrative cost approach to be the most compelling, the Judges find that the minimum fee should be set closer to this upper limit than to the lower limit (set using the rate of inflation).

SoundExchange's proposed $\$ 1,000$ minimum fee falls comfortably within the zone of reasonable minimum fees determined by the Judges and falls closer to the high end of that range. The Judges, therefore, adopt SoundExchange's proposed $\$ 1,000$ perchannel or station minimum fee for the forthcoming rate period. The Judges also adopt SoundExchange's proposal to increase the cap on minimum fees for commercial webcasters to $\$ 100,000$, in effect retaining the existing 100 channel or station cap for each commercial licensee. The Judges deem this adjustment to be arithmetically necessary because failure to increase the cap would negate the increase in the minimum fee for the largest webcasters (who would effectively pay the same amount on half as many channels).

## VII. Ephemeral License Rate and Terms

Section 112 of the Copyright Act creates a statutory license to make phonorecords to facilitate the transmission of sound recordings under the section 114(f) statutory license and requires the Judges to determine reasonable rates and terms of royalty payments for making those so-called "ephemeral recordings." 17 U.S.C. 112(e). During the current rate period, the royalty for ephemeral recordings is part of the total royalty for webcasting and constitutes 5\% of that amount. 37 CFR 380.10(d).

SoundExchange proposes that the Judges retain the current royalty rate and rate structure for ephemeral recordings in the forthcoming rate period with some "clarifying editorial changes" to the relevant regulatory terms. SX PFFCL ब 1568; see SoundExchange's Proposed Rates and Terms at 3, 22 (Sep. 23, 2019) (SoundExchange Rate Proposal). Most of the Services propose to retain the existing provision on ephemeral recordings. See Sirius XM and Pandora First Amended Proposed Rates and Terms at 1 (proposing that the current terms continue except as otherwise indicated); Google Proposed Rates and Terms at 1; NAB Proposed Rates and Terms at 9; NRBNMLC Amended Proposed Rates and Terms ex. A at 9 (Alternative 1). In its Alternative 2 rate proposal, NRBNMLC includes the same editorial changes that SoundExchange proposes. See NRBNMLC Amended Proposed Rates and Terms ex. A at 12 (Alternative 2). The Services do not dispute SoundExchange's proposal to adopt 37 CFR 380.10(d) with the editorial changes SoundExchange and

NRBNMLC propose. ${ }^{351}$ See Services RPFFCL - \|\| 1576-1577.

As in Web $I V$, SoundExchange relies on the designated testimony of economist Dr. George Ford from Web III. See Trial Ex. 5616 (Designated WDT of George Ford) (Ford Des. WDT); Web IV, 81 FR at 26397-98. Dr. Ford testified that "it is typical for ephemeral copy rights to be expressly included among the grant of rights provided" in marketplace agreements between record companies and music services. Ford Des. WDT at 11. "Most of these agreements do not set a distinct rate for those ephemeral copies, incorporating them instead into the overall rate that the [music services] pay[] for the combined ephemeral copy rights and performance rights." Id. at 11-12. Dr. Ford also testified that to the extent marketplace agreements do set a royalty rate for ephemeral recordings they generally express that rate as a percentage of an overall bundled rate for both performances and ephemerals. See Ford Des. WDT at 12-14.

[^64]SoundExchange also offers several direct licenses in the record of this proceeding as evidence that marketplace agreements do not set distinct rates (as distinguished from bundled rates) for ephemeral recordings. See, e.g., Trial Ex. 4035 at 11-12, 16-19 (2015 agreement between [REDACTED] and [REDACTED] granting [REDACTED]); Trial Ex. 5037 at 3-4, 5-9 (2017 agreement between [REDACTED] and [REDACTED] granting [REDACTED]).

As to the specific allocation of royalties between the performance and ephemeral recording rights, SoundExchange notes that this allocation has no effect on the Services. See SX PFFCL © 1574. Rather, the real interested parties in determining the allocation are record companies and performing artists because payments under section 114 are subject to a mandatory division between artists and record companies and payments under section 112 are not. See id.; Ford Des. WDT at 13-14; 17 U.S.C. $114(\mathrm{~g})(2)$. "Because the willing buyer" (i.e., the music service) "is disinterested with respect to that allocation, the agreement between the record companies and the artists thereby becomes the best indication of the proper allocation of royalties." Ford Des. WDT at 14. Dr. Ford testified to the existence of an agreement between artists and record companies that $5 \%$ of royalties should be allocated to the ephemeral recordings right and $95 \%$ should be allocated to the performance right. See id. at 15. Mr. Bender testified that the SoundExchange board of directors, which is comprised of record company and performing artist representatives, "adopted a resolution reflecting agreement that $5 \%$ of the
royalties for the bundle of rights should be attributable to the Section 112(e) ephemeral royalties, with the rest being allocated to the Section 114 performance royalties." Bender WDT ब 56. SoundExchange avers that "[a]s a result, a 95\%-5\% split 'credibly represents the result that would in fact obtain in a hypothetical marketplace negotiation between a willing buyer and the interested willing sellers under the relevant constraints.'" SX PFFCL © 1575 (quoting Ford Des. WDT at 15). ${ }^{352}$ SoundExchange states that the editorial changes it seeks to 37 CFR 380.10(d) more "clearly state[ ] the effect of the $95 \%-5 \%$ split," and opines that "[t]his change will not have any effect other than making the current rule clearer." SX PFFCL ब 1576. SoundExchange notes that the change is consistent with NRBNMLC's Alternative 2 proposal and with SoundExchange's settlements with CBI and NPR/CPB. See id. $\mathbb{\| \|} 1568,1577$.

The Judges find the testimony and agreements that SoundExchange cites in its proposed findings to be persuasive as to both the inclusion of ephemeral recordings royalties within a bundled rate for performances and ephemerals and the specific allocation of $5 \%$ of the bundled royalty to the section 112(e) license. The Judges also find SoundExchange's proposed editorial changes to be appropriate and supported by the record. The Judges, therefore, adopt

352 The SoundExchange Board resolution reflecting the agreement between artists and copyright owners is not in the record. Dr. Ford's and Mr. Bender's testimony concerning the agreement, therefore, is hearsay. The Judges exercise their discretion under 37 CFR 351.10(a) to admit and consider this hearsay testimony.

SoundExchange's proposals regarding ephemeral recordings in their entirety.

## VIII. Terms

One of the purposes of this proceeding is to establish terms for the administration of the rates the Judges determine for the rate period 2021 to 2025. The parties proposed adoption of certain terms to be included in Subchapter E of Chapter III, title 37 CFR The Judges have weighed the proposals and the arguments of the parties in support of or opposed to various regulatory provisions and adopt the Terms as detailed in "Exhibit A" to this determination. The parties' proposals, and the Judges' rulings, include the following. ${ }^{353}$

## A. Standards for the Adoption of Terms and Other Regulatory Language

The Judges' employ the willing buyer/ willing seller standard to establish terms for the administration of royalty rates. 17 U.S.C. 114(f)(1)(B); Web II, 72 FR at 24102. SoundExchange offers that the Judges have an obligation to adopt terms that will facilitate an efficient collection, distribution, and administration of the statutory royalties. SX PFFCL © 1578 (citing Web II, 72 FR at 24102); see also SDARS II, 78 FR at 23073. The Judges clarify that decisions to adopt terms, while informed by policy considerations, such as those suggested by SoundExchange, are ultimately guided by record evidence. Rulemaking proceedings are the proper

[^65]avenue for consideration of several of the terms requested in this proceeding. As is addressed below, the Judges have a pending rulemaking proceeding in which they may address several such proposals.

SoundExchange also argues for consistency of terms with those applicable to satellite radio and preexisting services. SX PFFCL $\mathbb{\|} \|$ 1579-1583. The Services counter that the standard the Judges must apply regarding proposed terms is the willing buyer/willing seller standard. Services RPFFCL【T 1579-1583. As stated above, the Judges' decision regarding terms is informed by such considerations but is guided ultimately by the willing buyer/ willing seller standard. As SoundExchange acknowledges, the market for webcasting is different from other services, and different rates and terms apply. In addition, evidence differs across proceedings. As a general matter, the Judges seek consistency across the regulatory provisions administering rates, to the extent consistency is warranted or permitted by the specific facts of individual rate proceedings.

## B. Designating SoundExchange as the Collective

The Judges designate SoundExchange as the Collective under this Determination. SoundExchange participated in this proceeding as the existing and presumed Collective. SoundExchange proposed to continue as the Collective. See SoundExchange Proposed Rates and Terms at 12. No party objected to SoundExchange continuing in the role of Collective. The Judges acknowledge the administrative and technological knowledge base developed by SoundExchange over its years of service as the Collective. Finding sufficient basis, in the entirety of
the record, for SoundExchange to serve, the Judges re-designate SoundExchange to serve as the Collective for purposes of collecting, monitoring, managing, and distributing sound recording royalties established by part 380 of the Judges' regulations.

## C. Audit Terms

There are several issues presented in this proceeding regarding the audit provisions. The more persuasive evidence points to resolution of most of the issues in favor of continuing to apply the existing terms. The record contains evidence of a number of contracts that have substantially similar audit provisions to such regulations. The audit provisions are addressed below.

1. Late Fee for Late Payments Discovered in Audits

The Services propose a separate interest rate for late payments resulting from underpayments discovered in audits. The Services propose a fee for audit-discovered late payments that is lower than the prevailing $1.5 \%$ late fee. Specifically, the Services propose the interest rate for preexisting subscription services and satellite radio services, ${ }^{354}$ which looks to the federal post-judgment rate in 28 U.S.C. 1961. Services PFFCL $\| \mathbb{T}$ 328-330; Second Amended Proposed Rates and Terms of Sirius XM Radio Inc. and Pandora Media at 2; NAB Proposed Rates and Terms at 6; Google Proposed Rates and Terms at 3; NRBNMLC's Amended Proposed Rates and Terms ex. A at 6. SoundExchange counters, in part, that the current context differs from PSS/ SDARS. SX PFFCL © $\|$ 1593-1601. The Judges agree that the context

[^66]differs, but that is not the determining factor. As addressed below, the contract terms negotiated by willing buyers and willing sellers, in evidence from similar markets, are persuasive.

Both the Services and SoundExchange make arguments about good faith and bad faith on the part of stakeholders in the context of audit-discovered late payments. SX PFFCL \|\|\| 1605-1609; Services PFFCL - $\int$ 329. The Judges find insufficient evidence in the record to suggest that any actor, in this context, is or has been significantly motived by, or acted in, bad faith. Such matters, if confronted, may be adequately addressed by the re-adoption of other requirements in the existing audit provision, such as those requiring reasonableness, the use of a Qualified Auditor, and actions being in accordance with generally accepted auditing standards. As for the arguments over whether the late fee, applied to all late payments, is a hardship, the Judges make no judgment either way. Such late fees in exemplary contracts demonstrate that willing parties have agreed to such terms, even if they may at times function as a hardship. See, e.g., Trial Ex. 4035 at 20, 28; Trial Ex. 5111 at 24, 34. Relatedly, the Services put forth an argument that applying a general late fee rate to audit-discovered late payments is unnecessarily "punitive." Services RPFFCL ब\| $1617-1618$. The Judges find that differences between a reasonable late fee being viewed as alternatively punitive or motivating are largely semantics. Indeed, the Services recognize that in its original context, the general late fee of $1.5 \%$ monthly interest rate plainly serves as a short-term penalty to incentivize timely payment. Services PFFCL ब 330. Based on the entirety of the record, the

Judges find a late fee, applicable across all late payments, motivates compliance, as it should.

Specifically, several contract terms negotiated by willing buyers and willing sellers on matters such as this one serve as reliable evidence. See, e.g., Trial Ex. 5013 at 80; Trial Ex. 5037 at 69 (regarding "late payments discovered in audit"). The Judges find that the contracts in evidence indicate sufficient and persuasive instances in which willing buyers and willing sellers negotiated that the same late fee rate exists for any late payments, without separate treatment of underpayments discovered in an audit. $I d$. The Judges therefore conclude that the designated late fees will apply to any late payments, [REDACTED] the underpayments are discovered in audits.

The Judges re-adopt the monthly late fee of 1.5 percent. The Judges observe that in admitted contracts, there is a range from [REDACTED] up to [REDACTED]\%. See, e.g., Trial Ex. 2013 ([REDACTED]); Trial Ex. 4035 at 20, 28 ([REDACTED]\%); Trial Ex. 5013 at 38, 80 ([REDACTED]\%); Trial Ex. 5074 at 2 ([REDACTED]\%), 5037 at 68-69 ([REDACTED]\%). The $1.5 \%$ rate is an accepted rate in the market. For this reason, the Judges adopt it as the generally applicable late fee, and reject the Services' proposed change.

## 2. Frequency of Audits

SoundExchange proposes adoption of a provision regarding frequency of audits that would allow it to conduct multiple audits of a licensee in parallel, with each audit covering a different period of time.

Specifically, SoundExchange proposes a change to reflect that the payor's payments for a particular year may be audited only once, rather than that a licensee may be audited only once a year. SoundExchange suggests a need for such a provision by offering evidence of various delays in recent audits. It also notes that its proposal is similar in effect to the statutory provision concerning audits of services licensed under the section 115 blanket license. SX PFFCL $\| \mathbb{1}$ 1619-1622. The Services dispute that delays in audit processing are attributable to licensees or that licensees may benefit from prolonging the audit process. Services RPFFCL $\mathbb{\|} \|$ 1620-1621. The Services indicate that several of the Services' benchmark agreements limit the frequency of audits. Services RPFFCL ๆ 1622; see, e.g., Trial Ex. 5013 at 79; Trial Ex. 5037 at 69 (regarding "audit" no more than once per calendar year). The Judges are informed by the terms in negotiated contracts addressing the frequency of audits, cited by the Services and otherwise-namely, those that limit audits of a payor's or licensee's payments to once per year. The Judges find that such evidence, and the record as a whole, does not support SoundExchange's proposal to allow an audit of a payor or licensee more than once in any year. The Judges, therefore, reject SoundExchange's proposal.
3. Audit Deadlines and Audit Fee Shifting

SoundExchange proposes response deadlines within audits, alleging various delays in past audit processes. SX PFFCL \|\| 1623-1630. SoundExchange also proposes that the costs of an audit be shifted to the licensee if the auditor is not provided requested information that is in the possession of the licensee or
its contractor within 60 days after a written request therefor, again, referring to various alleged delays in past audit processes. SX PFFCL $\mathbb{\|} \|$ 1631-1642. The Services dispute the causes and nature of the alleged delays and offer that there is a lack of record evidence to support the SoundExchange proposals. Services PFFCL \|\| 1623-1642. Sirius XM, Pandora, and NAB propose what they characterize as a much more effective solution than the SoundExchange proposal, which is to require that audits be completed within one year of being noticed. Services PFFCL ब|T 341346. The Judges find that the record does not provide persuasive evidence that either side's proposals would be negotiated by willing buyers and willing sellers. The Judges do not adopt the proposed deadlines or fee shifting. The Judges are persuaded that the existing, and broadly re-proposed, provisions requiring reasonableness, the use of a Qualified Auditor, and actions being in accordance with generally accepted auditing standards, adequately address the concerns regarding delays. At the same time, these existing provisions are persuasively supported by record evidence, such as relevant contracts negotiated by willing buyers and willing sellers. See, e.g., Trial Ex. 5013 at 70-80. Trial Ex. 5037 at 69 (regarding [REDACTED]).

## 4. Auditor's Right To Consult Its Client

SoundExchange requests terms clarifying that an auditor may consult with its client throughout the audit process, including to advise the client concerning the status of the audit, request information from the client relevant to the audit, and request the client's views concerning tentative findings and other issues. In support of this proposal,

SoundExchange points to alleged impediments to efficient completion of audits that may be alleviated by its request. SX PFFCL ब \| 1643-1655. The Services oppose this requested provision, alleging that it would disrupt the proper independence of an auditor. Services PFFCL $\| \mathbb{\|}$ 353- 356; Services RPFFCL \| $\|$ 1623-1642. The Judges find that the record does not provide persuasive evidence that SoundExchange's proposals would be negotiated by willing buyers and willing sellers. The Judges do not adopt the proposed provisions allowing auditors broad consultation with its client. The Judges are persuaded that the existing, and re-proposed, provisions requiring the use of a Qualified Auditor and actions being in accordance with generally accepted auditing standards appropriately address the scope of client and third-party-auditor consultations. At the same time, these existing provisions are persuasively supported by record evidence, such as relevant contracts negotiated by willing buyers and willing sellers. See, e.g., Trial Ex. 5013 at 79; Trial Ex. 5037 at 69 (regarding [REDACTED]).
5. Credit for Overpayment

Sirius XM/Pandora and NAB propose that the Judges specify that the amount of any overpayment discovered in an audit may be deducted from the next payment(s) due. Services PFFCL \|\| 333-334; Sirius XM and Pandora First Amended Proposed Rates and Terms at 2; NAB Proposed Rates and Terms at 6. Sirius XM, Pandora, NAB, and the NRBNMLC suggest that the proposal is a matter of basic fairness and is in line with regulations issued by the Copyright Office related to the audit of statements of account
under the statutory licenses in secs. 111 and 115. Services PFFCL ๆT 335-338. SoundExchange, in its opposition to this proposal, submits that it is unnecessary, as isolated overpayments in an audit are rare, and such overpayments have been offset by larger underpayments. SoundExchange adds that the proposal is administratively burdensome, noting that the money may not be recoupable once it is paid to artists. SX PFFCL \|T 1656-1660. On the balance of the record, the Judges are in agreement with SoundExchange. In addition, in this context, the burden of submitting accurate payments is on the licensee, and the licensee bears the risk of overpayment. Therefore, the Judges do not adopt this proposal.

## 6. "Net" Underpayments

Under existing regulations, SoundExchange must bear the costs of audits that it requests unless the auditor determines that there was an underpayment of $10 \%$ or more, in which case the service being audited pays the reasonable cost of the audit. 37 CFR 380.6(h). NAB and the NRBNMLC seek to clarify that the costs of an audit shifted to a service only in the case of a net underpayment (i.e. underpayments less any overpayments) of $10 \%$ or more. NAB, through its witness, Tres Williams, offered the view that the clarification better reflects practices in the marketplace. Services PFFCL 『 339 (citing Williams WDT \| 42). The Judges are persuaded by the entirety of the record, including the testimony of Mr. Williams and relevant marketplace contracts in the record, that the proposal is representative of practices negotiated by willing buyers and willing sellers in the marketplace. See, e.g., Trial Ex. 5013 at 80; Trial Ex.

5037 at 69 (regarding [REDACTED]). The Judges, therefore, adopt the proposal.

## D. Statements of Account Showing Recoupment of Minimum Fees

SoundExchange proposes that even services that pay the minimum fee be required to file statements of account and reports of use. It urges that such reporting would pose a minimal burden on licensees and would promote timely and accurate calculation of minimum fee recoupment. SoundExchange avers that, in the absence of statements of account showing recoupment of minimum fees, SoundExchange frequently finds itself inquiring of licensees concerning missing statements of account, only to be told that the licensee's usage to date is covered by a minimum fee payment. SX PFFCL ๆ\| 1664-1666. The Services oppose any requirement to report usage when royalties are not due, noting that licensees already are required to certify their statements of account on an annual basis. The Services also indicate that the proposed change would be unnecessary and burdensome. Services RPFFCL $\| \mathbb{I}$ 1664-1666. The Judges appreciate the desire to ensure the accuracy of payments, including minimum payments. However, the Judges note that the record contains little useful evidence regarding how licensees in this category would address such reports in a willing buyer/willing seller context. Additionally the Judges observe that goals of the requested provision may be addressed through revisions to the Reports of Use provisions in 37 CFR 370. A related rulemaking is pending, and the Judges intend to refresh the record on the subjects of that rulemaking. See Docket No. 14-CRB- 0005 RM.

## E. Account Numbers and Reporting of ISRCs

SoundExchange proposes requirements for the use of account numbers on payments, statements of accounts, and reports of use. SXPFFCL \|\| 16671670. The Services do not oppose SoundExchange on this matter. Services RPFFCL 『\| 1667-1670. The Judges find the proposal a reasonable and appropriate means of improving the efficiency of processing payments, statements of account, and reports of use and, therefore, adopt the proposal.

SoundExchange proposes a provision requiring licensees to use International Standard Recording Codes (ISRCs) in their reports of use, where available and feasible, notwithstanding 37 CFR 370.4(d)(2)(v). SoundExchange expresses concern that the current regulations addressing reports of use are not sufficient to identify unambiguously which recordings a service used. SX PFFCL đ\| 1671-1678. The Services point to the rulemaking that may address the use of ISRCs and suggest that it would be inappropriate to shift onto the Services the effort of gathering such information, which the Services often do not have complete access to and which originates with SoundExchange's own members in the first instance. Services RPFFCL \|ी 1671-1678. The Judges note that the record contains little useful evidence regarding how licensees would address such a requirement in a willing buyer/ willing seller context. Additionally the Judges observe that goals of the requested provision may be addressed through the Reports of Use provisions in 37 CFR 370. A related rulemaking is pending, and the Judges intend to refresh the record on the subjects of that rulemaking. See Docket No. 14-CRB- 0005 RM.

## F. Reporting Usage of Directly Licensed Tracks

SoundExchange proposes adopting a provision requiring reporting of directly-licensed sound recordings excluded from royalty calculations. It offers that similar provisions have proven helpful for identifying potential payment errors and disputes relating to the classification of recordings as directly licensed. SX PFFCL đđ 1679-1684. The Services submit that SoundExchange has not pointed to evidence of any instance of significant errors in categorizing directly-licensed tracks, nor has it indicated that its ability to audit a webcaster would not be sufficient to allow it to address any such errors. They add that SoundExchange does not require this information to distribute royalties that are paid to it under the statutory license and that, in some instances, licensees are bound by confidentiality provisions preventing such disclosure. Services RPFFCL $\| \mathbb{I}$ 1679-1684. The Judges find that the record, including the instances of negotiated agreements regarding holding such direct license information confidential, is persuasive evidence for not adopting the requested provision. The Judges, therefore, do not adopt the proposal.

## G. Unclaimed Funds

SoundExchange proposes that if it is unable, for a period of three years, to identify or locate a copyright owner or performer who is entitled to receive a royalty distribution, it may apply such "unclaimed funds" to offset any costs deductible under 17 U.S.C. 114(g)(3), as it was permitted to do prior to Web IV. It points to the Music Modernization Act (MMA) and the new provisions in sections115(d)(3)(J)(i)-(ii) and 114(g)(7)
as a signal from Congress that the Judges are authorized to preempt state property law claims to unclaimed funds. It urges that the Judges need not, and should not, direct SoundExchange to act in accordance with applicable federal, state, or common law with regard to such funds. SX PFFCL $\mathbb{\|} \|$ 16851694. The Services oppose SoundExchange's request, pointing out that it would allow SoundExchange to spend the unclaimed funds on legislative and litigation expenses and potentially profit from the use of such funds. They further note that if SoundExchange is authorized to use unclaimed funds to offset its administrative costs, it may undermine the Collective's case regarding minimum fees. Services RPFFCL 『\| 1692-1693. Sirius XM and Pandora oppose the requested provision for similar reasons and go on to dispute the application of section 115(d)(3)(J)(i)-(ii) to the request. Sirius XM and Pandora request that the Judges require that any unclaimed funds be distributed among copyright owners based on usage data, instead of providing a windfall to SoundExchange. Pandora/Sirius XM PFFCL ब \| 1 250-252.

The Judges agree with Sirius XM and Pandora that the provisions of sec. 115 are not applicable to the current proposal. The Judges also accept SoundExchange's arguments that the new section $114(\mathrm{~g})(7)$ authorizes regulations that preempt state law and are persuaded that the MMA provision expresses a policy choice favoring such preemption. On the entirety of current record, the Judges are not convinced that the unclaimed funds should be distributed among copyright owners based on usage data. The Judges are persuaded that the more
appropriate path (and the path that is consistent with intent of Congress) is to allow the Collective (i.e., SoundExchange), after three years, ${ }^{355}$ to apply unclaimed funds against administrative expenses, thus reducing the burden of administrative expenses that must be borne by copyright owners and performing artists.

## H. Proxy Distribution for Missing Reports of Use

SoundExchange proposes a provision to allow the use of proxy data to distribute royalties in certain circumstances in which adequate reports of use are not available. SX PFFCL ब $\mathbb{1} 1695-1705$. The Judges are not persuaded by SoundExchange's arguments or evidence in favor of the particular proposal to allow proxy distribution. The Judges observe that SoundExchange points to prior authorizations allowing proxy distributions which were granted through rulemaking authority as opposed to determinations of rates and terms. The Judges also observe SoundExchange's citations to the new provisions of section $114(\mathrm{~g})(7)$. The Judges again note the pending rulemaking and the Judges' intent to refresh the record on the subjects of that rulemaking. See Docket No. 14-CRB- 0005 RM.

## I. Definition of Performance

Google proposes that the Judges delete text from definition of Performance setting out that an example of a performance is "the delivery of any portion of a

[^67]single track from a compact disc to one listener." Google Proposed Rates and Terms at 3. SoundExchange opposes deletion of the text, urging that the entirety of the definition is necessary to know what the sound recording unit is that must be counted, especially for particular types of recordings such as Classical music tracks. SX PFFCL 『\| 17061709. The entirety of the record is persuasive to the Judges that the entirety of the definition should be maintained. The Judges, therefore, reject Google's proposal.

## IX. Royalty Rates Determined by the Judges

## A. Annual Price Level Adjustments to Statutory Royalty Rates

In Web $I V$, the Judges set statutory rates for the first year of the rate term (2016) and specified that the rates would be adjusted annually for the reminder of the rate term to reflect cumulative changes in the CPI-U from a base level set in November 2015. See Web IV, 81 FR at 26404; 37 CFR 380.10(c). The Judges effectively broke with their practice in Web II and Web III of specifying annual increases, relying on Professor Shapiro's Web IV testimony that "a regulatory provision requiring an annual price level adjustment is preferable to an implicit or explicit prediction of future inflation (or deflation)." Web IV, 81 FR at 26404 . With the exception of the NAB, all of the participants' rate proposals would continue the practice established in Web IV of making annual price level adjustments based on the CPI-U. See SoundExchange Rate Proposal at 2-3; Sirius XM and Pandora Second Amended Proposed Rates and Terms at 1; Google Proposed Rates and Terms at 4;

NRBNMLC Amended Proposed Rates and Terms ex. A at 9 (Alternative 1).

The NAB opposes price level increases to the statutory rates. See NAB PFFCL 【| 4 207-208. The NAB bases its proposal to eliminate price level increases on a discussion in Dr. Leonard's written testimony:
[A]s 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. Prices in other industries reflected in the CPI may be driven by economic factors that play no role in the music industry. Conversely music prices may be driven by economic factors that play no role in other industries. For either reason the general CPI may have low correlation with prices in the music industry.

Leonard WDT ब 119 (emphasis added). Dr. Leonard then argues that a review of prices in the music industry "suggests little, if any, change in recent years." Id. \| 120. Dr. Leonard notes that the retail price for subscription streaming services has remained the same or declined over the past several years, implying that per subscriber royalties (which are generally calculated as a percentage of the subscription price) have also stayed constant or declined. See id. He also states 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." Id. '

The NAB states that SoundExchange's proposal is based on testimony from Mr. Orszag that assumes "that revenue can be expected to increase over time at
least at the rate of inflation." NAB PFFCL ब 208 (quoting Orszag WDT © 82 n .118 ). The NAB argues that Mr. Orszag "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." Id.

In support of inflation-based price level increases, SoundExchange cites testimony from Professor Shapiro and Mr. Orszag supporting inflation-indexed rates. See SX RPFFCL (to NAB) 『 208 (citing Shapiro WDT at 4; Orszag WRT © 138; Peterson WDT © 14 ("The recommended per-play rate could be escalated for inflation as measured by the consumer price index (CPI)."); Willig WDT \| 55 (deriving average rates for five-year period, then using discount rate equal to rate of inflation to compute 2021 rate)).

SoundExchange argues that Professor Leonard's analysis of pricing is inadequate because of its reliance on subscription pricing in a market that is dominated by ad-supported services, and because his perception of the trend for effective per-play royalty rates for ad supported services is based on inadequate data. See SX RPFFCL (to NAB) © 207. As to the latter point, SoundExchange also refers to Mr. Orszag's testimony that advertising prices are a more relevant metric and have increased faster than the CPI. See id. (citing Orszag WRT 『 137).

Finally, SoundExchange argues that "there is no basis for singling out simulcasters for a special analysis of inflationary trends," noting that the NAB
bears the burden of demonstrating that simulcasters are entitled to a differentiated rate.

The Judges find Dr. Leonard's testimony concerning price level adjustments unpersuasive. Dr. Leonard's statements concerning the difference between general inflation and inflation in the music industry (e.g., "the general CPI may have low correlation with prices in the music industry") is both tentative and poorly supported by the market evidence he analyzes. In this regard, the Judges agree with the critique lodged by SoundExchange and Mr. Orszag. See SX RPFFCL (to NAB) đ 207; Orszag WRT - 137.

More critically, the NAB fails to provide persuasive evidence to support its proposal that statutory royalty rates should remain at the same level throughout the rate term for all types of services. That proposal contains an implicit assumption that price levels will remain the same across the music industry over the next five years. That is hardly selfevident. In the absence of persuasive evidence that prices will remain static across the entire music industry for the next five years, the Judges will not presume that to be the case. The NAB has not presented such persuasive evidence. ${ }^{356}$

[^68]The Judges find a price level adjustment based on changes to the CPI-U to be supported by the testimony of economists who testified on behalf of SoundExchange and the Services. Moreover, the Judges find changes in the CPI-U to be a reasonable proxy for measuring changes in price levels in the relevant industries. ${ }^{357}$

Consequently, the Judges will set statutory rates for the year 2021 and index those rates for inflation over the remainder of the rate term using 2020 as the base year. Specifically, for the years 2022 through 2025 , the rates shall be adjusted to reflect any inflation or deflation, as measured by changes in the Consumer Price Index for All Urban Consumers (U.S. City Average, all items) (CPI-U) announced by BLS in November of the immediately preceding year, as described in the regulations set forth in this Determination.

## B. Minimum Fee

In accordance with the Judges' analysis, supra, section VI.C, the annual minimum fee applicable to commercial webcasters shall be $\$ 1,000$ per channel or station, subject to an annual cap of $\$ 100,000$ per
the CPI- U are clearly preferable to rates that are frozen arbitrarily for the duration of the five-year rate term.
357 The Judges note that when rates in a voluntary settlement must be extended beyond the term of a settlement to cover the period of a statutory rate term, Congress has instructed the Judges to adjust those rates "to reflect national monetary inflation during the additional period the rates remain in effect." 17 U.S.C. 805. The Judges view this as support for the proposition that national inflation rates are a reasonable proxy for price changes in the relevant industries.
licensee. The minimum fee shall be non-refundable, but shall be credited against usage fees.

The annual minimum fee applicable to noncommercial webcasters (other than those covered by SoundExchange's settlements with CBI and NPR/CPB), shall be $\$ 1,000$ per channel or station. The minimum fee shall be nonrefundable, and shall cover usage up to 159,140 ATH per month.

## C. Commercial Rates

## 1. Commercial Subscription Rates

In accordance with the Judges' analysis supra, section IV, the royalty rate for noninteractive subscription services is $\$ 0.0026$ per play. In computing this rate, the Judges take note that Professor Shapiro and Mr. Orszag agree that the benchmark rate needs to be adjusted to reflect the actual increase in the CPI-U for 2020 because the economic data on which they rely is current only into 2019. See Shapiro WDT at 2 (recommending 2019 as the applicable base year to measure price level changes in 2020); Orszag WDT © 82 n.118. (requesting that the Judges follow their procedure in the prior webcasting rate proceeding, see Web IV, 81 FR at 26405, where the Judges adjusted a steeringbased benchmark rate to reflect actual inflation in the year prior to the first year of the new rate period (i.e., 2015 for the 2016-2020 rate period)). Applying this approach, the Judges note that in 2020, the CPI-U increased by 1.4\%. https://www.bls.gov/ opub/ted/2021/consumer-price-index- 2020-inreview.htm (accessed June 10, 2021). Applying a 1.4\% adjustment to the $\$ 0.0026$ rate increases the rate to

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$\$ 0.0026364$ which, when rounded, remains at $\$ 0.0026$ for $2021 .{ }^{358}$

## 2. Commercial Nonsubscription Rates

Having found the weighted consideration of Mr. Orszag's and Professor Shapiro's benchmark model analyses for the ad-supported market yielded a rate of $\$ 0.0023$ per play, and Dr. Peterson's benchmark model analysis for the ad-supported market yielded a rate of $\$ 0.0021$ per play, the Judges conclude that the more granular, label-specific, analysis and application of adjustments to account for funneling/ conversion in Dr. Peterson's benchmark analysis lends greater weight to the $\$ 0.0021$ per-play rate. The Judges apply the same methodology for adjusting this ad-supported rate as they applied in the immediately preceding paragraph for the subscription rate, and for the same reasons. Here too, the $1.4 \%$ increase in the CPI-U does not increase the statutory rate set by the Judges, i.e., it increases the rate to $\$ 0.0021294$ which, when rounded, remains at $\$ 0.0021 .359$ The Judges

[^69]note that this conclusion is also supported by the limited guideposts yielded by Professor Willig's Shapley Model-derived rates, as adjusted by the Judges, which indicate that effectively competitive rates would be less than $\$ 0.0023$ for ad-supported services. For these reasons, and in accordance with the Judges' analysis supra, section IV, the royalty rate for ad-supported, or commercial nonsubscription, services is $\$ 0.0021$ per play.

## 3. Ephemeral Recording Rate

In accordance with the Judges' analysis supra, section VII, the royalty rate for ephemeral recordings under 17 U.S.C. 112(e) applicable to commercial webcasters shall be included within, and constitute $5 \%$ of, the royalties such webcasters pay for performances of sound recordings under section 114 of the Act.

## D. Noncommercial Rates

## 1. NPR-CPB/SoundExchange Settlement

The Judges have previously adopted the settlement agreement between SoundExchange, on one hand, and National Public Radio and the Corporation for Public Broadcasting, on the other, for simulcast transmissions by public radio stations. See Digital Performance Right in Sound Recordings and Ephemeral Recordings, Final Rule, 85 FR 11857 (Feb. 28, 2020). The rates and terms governing transmissions and ephemeral recordings by the entities that are covered by that settlement agreement for the period 2021-2025 shall be as set forth in the agreement and codified at 37 CFR 380.30380.32 (subpart D).

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## 2. CBI/SoundExchange Settlement

The Judges have previously adopted the settlement agreement between SoundExchange, and College Broadcasters, Inc., for transmissions by Noncommercial Educational Webcasters (NEWs). See Digital Performance Right in Sound Recordings and Ephemeral Recordings, Final Rule, 85 FR 12745 (Mar. 4, 2020). The rates and terms governing transmissions and ephemeral recordings by NEWs for the period 2021-2025 shall be as set forth in the agreement and codified at 37 CFR 380.20-380.22 (subpart C).

## 3. All Other Noncommercial Webcasters

In accordance with the Judges' analysis supra, section V.B, the royalty rate for webcast transmissions by all other noncommercial webcasters during the 2021-2025 rate period shall be $\$ 1000$ annually for each station or channel for all webcast transmissions totaling not more than 159,140 Aggregate Tuning Hours (ATH) in a month, for each year in the rate term. In addition, if, in any month, a noncommercial webcaster makes total transmissions in excess of 159,140 ATH on any individual channel or station, the noncommercial webcaster shall pay per-performance royalty fees for the transmissions it makes on that channel or station in excess of 159,140 ATH at the rate of $\$ 0.0021$ per performance, as adjusted annually upward or downward to reflect changes in the CPI-U from the CPI-U published by BLS in November 2020.
4. Ephemeral Recording Rate

The royalty rate for ephemeral recordings under 17 U.S.C. 112(e) applicable to noncommercial webcasters shall be the same as the rate applicable to commercial webcasters; that is, royalties for ephemeral recordings shall be included within, and constitute $5 \%$ of, the royalties such webcasters pay for performances of sound recordings under section 114 of the Act.

## X. Conclusion

On the basis of the foregoing, the Judges propound the rates and terms described in this Determination. No participant having filed a timely petition for rehearing, the Judges have made no substantive alterations to the body of the Initial Determination. However, in accordance with the Judges' Order Granting Motion to Conform Regulations to Determination (Jun. 30, 2021), the Judges have modified the regulatory provisions in Exhibit A to add provisions concerning the use of account numbers that had been omitted from the provisions attached to the Initial Determination as the result of a clerical error. In addition, the Judges have corrected a clerical error in the heading to section VIII.E, supra, and various typographical, grammatical, citation, and punctuation errors throughout the Determination. The Register of Copyrights may review the Judges' Determination for legal error in resolving a material issue of substantive law under title 17, United States Code. The Librarian shall cause the Judges' Determination, and any correction thereto by the Register, to be published in the Federal Register no later than the conclusion of the 60 -day review period.

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Dated: July 22, 2021.
Jesse M. Feder,
Chief Copyright Royalty Judge.
Steve Ruwe,
Copyright Royalty Judge.
David R. Strickler,
Copyright Royalty Judge.
List of Subjects in 37 CFR Part 380
Copyright, Sound recordings.

## Final Regulations

In consideration of the foregoing, the Copyright Royalty Judges amend part 380 of title 37 of the Code of Federal Regulations as follows:

| PART 380-RATES | AND | TERMS FOR |  |
| :--- | :---: | :---: | ---: |
| TRANSMISSIONS | BY | ELIGIBLE |  |
| NONSUBSCRIPTION | SERVICES AND NEW |  |  |
| SUBSCRIPTION SERVICES AND FOR | THE |  |  |
| MAKING OF EPHEMERAL REPRODUCTIONS |  |  |  |
| TO FACILITATE THOSE TRANSMISSIONS |  |  |  |

- 1. The authority citation for part 380 continues to read as follows:

Authority: 17 U.S.C. 112(e), 114(f), 804(b)(3).
■ 2. Revise subpart A to read as follows:
Subpart A—Regulations of General Application

Sec.
380.1 Scope and compliance.
380.2 Making payment of royalty fees.
380.3 Delivering statements of account.
380.4 Distributing royalty fees.
380.5 Handling Confidential Information.
380.6 Auditing payments and distributions.
380.7 Definitions.

## § 380.1 Scope and compliance.

(a) Scope. Subparts A and B of this part codify rates and terms of royalty payments for the public performance of sound recordings in certain digital transmissions by certain Licensees in accordance with the applicable provisions of 17 U.S.C. 114 and for the making of Ephemeral Recordings by those Licensees in accordance with the provisions of 17 U.S.C. 112(e), during the period January 1, 2021, through December 31, 2025.
(b) Limited application of terms and definitions. The terms and definitions in subpart A of this part apply only to subpart B of this part, except as expressly adopted and applied in subpart C or subpart D of this part.
(c) Legal compliance. Licensees relying upon the statutory licenses set forth in 17 U.S.C. 112 (e) and 114 must comply with the requirements of this part and any other applicable regulations.
(d) Voluntary agreements. Notwithstanding the royalty rates and terms established in any subparts of this part, the rates and terms of any license agreements entered into by Copyright Owners and Licensees may apply in lieu of these rates and terms.

## § 380.2 Making payment of royalty fees.

(a) Payment to the Collective. A Licensee must make the royalty payments due under this part to SoundExchange, Inc., which is the Collective designated by the Copyright Royalty Board to collect and distribute royalties under this part.
(b) Monthly payments. A Licensee must make royalty payments on a monthly basis. Payments are due on or before the 45 th day after the end of the month in which the Licensee made Eligible Transmissions.
(c) Minimum payments. A Licensee must make any minimum annual payments due under subpart B of this part by January 31 of the applicable license year. A Licensee that as of January 31 of any year has not made any eligible nonsubscription transmissions, noninteractive digital audio transmissions as part of a new subscription service, or Ephemeral Recordings pursuant to the licenses in 17 U.S.C. 114 and/or 17 U.S.C. 112(e), but that begins making such transmissions after that date must make any payment due by the 45th day after the end of the month in which the Licensee commences making such transmissions.
(d) Late fees. A Licensee must pay a late fee for each payment and each Statement of Account that the Collective receives after the due date. The late fee is $1.5 \%$ (or the highest lawful rate, whichever is lower) of the late payment amount per month. The late fee for a late Statement of Account is $1.5 \%$ of the payment amount associated with the Statement of Account. Late fees accrue from the due date until the date that
the Collective receives the late payment or late Statement of Account.
(1) Waiver of late fees. The Collective may waive or lower late fees for immaterial or inadvertent failures of a Licensee to make a timely payment or submit a timely Statement of Account.
(2) Notice regarding noncompliant Statements of Account. If it is reasonably evident to the Collective that a timely-provided Statement of Account is materially noncompliant, the Collective must notify the Licensee within 90 days of discovery of the noncompliance.
(e) Use of account numbers. If the Collective notifies a Licensee of an account number to be used to identify its royalty payments for a particular service offering, the Licensee must include that account number on its check or check stub for any payment for that service offering made by check, in the identifying information for any payment for that service offering made by electronic transfer, in its statements of account for that service offering under § 380.4, and in the transmittal of its Reports of Use for that service offering under § 370.4 of this chapter.

## § 380.3 Delivering statements of account.

(a) Statements of Account. Any payment due under this part must be accompanied by a corresponding Statement of Account that must contain the following information:
(1) Such information as is necessary to calculate the accompanying royalty payment;
(2) The name, address, business title, telephone number, facsimile number (if any), electronic mail address (if any) and other contact information of the person to be contacted for information or questions concerning the content of the Statement of Account;
(3) The account number assigned to the Licensee by the Collective for the relevant service offering (if the Licensee has been notified of such account number by the Collective);
(4) The signature of:
(i) The Licensee or a duly authorized agent of Licensee;
(ii) A partner or delegate if the Licensee is a partnership; or (iii) An officer of the corporation if the Licensee is a corporation.
(5) The printed or typewritten name of the person signing the Statement of Account;
(6) If the Licensee is a partnership or corporation, the title or official position held in the partnership or corporation by the person signing the Statement of Account;
(7) A certification of the capacity of the person signing;
(8) The date of signature; and
(9) An attestation to the following effect: I, the undersigned owner/officer/ partner/agent of the Licensee have examined this Statement of Account and hereby state that it is true, accurate, and complete to my knowledge after reasonable due diligence and that it fairly presents, in all material respects, the liabilities of the Licensee pursuant to 17

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U.S.C. 112(e) and 114 and applicable regulations adopted under those sections.
(b) Certification. Licensee's Chief Financial Officer or, if Licensee does not have a Chief Financial Officer, a person authorized to sign Statements of Account for the Licensee must 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.

## § 380.4 Distributing royalty fees.

(a) Distribution of royalties. (1) The Collective must promptly distribute royalties received from Licensees to Copyright Owners and Performers that are entitled thereto, or to their designated agents. The Collective shall only be responsible for making distributions to those who provide the Collective with information as is necessary to identify and pay the correct recipient. The Collective must distribute royalties on a basis that values all performances by a Licensee equally based upon the information provided under the Reports of Use requirements for Licensees pursuant to § 370.4 of this chapter and this subpart.
(2) The Collective must use its best efforts to identify and locate copyright owners and featured artists in order to distribute royalties payable to them under sec. 112(e) or 114(d)(2) of title 17, United States Code, or both. Such efforts must include, but not be limited to, searches in Copyright Office public records and published directories of sound recording copyright owners.
(b) Unclaimed funds. If the Collective is unable to identify or locate a Copyright Owner or Performer who is entitled to receive a royalty distribution under this part, the Collective must retain the required payment in a segregated trust account for a period of three years from the date of the first distribution of royalties from the relevant payment by a Licensee. No claim to distribution shall be valid after the expiration of the three-year period. After expiration of this period, the Collective may apply the unclaimed funds to offset any costs deductible under 17 U.S.C. 114(g)(3).
(c) Retention of records. Licensees and the Collective shall keep books and records relating to payments and distributions of royalties for a period of not less than the prior three calendar years.
(d) Designation of the Collective. (1) The Judges designate SoundExchange, Inc., as the Collective to receive Statements of Account and royalty payments from Licensees and to distribute royalty payments to each Copyright Owner and Performer (or their respective designated agents) entitled to receive royalties under 17 U.S.C. 112 (e) or $114(\mathrm{~g})$.
(2) If SoundExchange, Inc. should dissolve or cease to be governed by a board consisting of equal numbers of representatives of Copyright Owners and Performers, then it shall be replaced for the applicable royalty term by a successor Collective according to the following procedure:
(i) The nine Copyright Owner representatives and the nine Performer representatives on the SoundExchange board as of the last day preceding SoundExchange's cessation or dissolution shall vote
by a majority to recommend that the Copyright Royalty Judges designate a successor and must file a petition with the Copyright Royalty Judges requesting that the Judges designate the named successor and setting forth the reasons therefor.
(ii) Within 30 days of receiving the petition, the Copyright Royalty Judges must issue an order designating the recommended Collective, unless the Judges find good cause not to make and publish the designation in the Federal Register.

## § 380.5 Handling Confidential Information.

(a) Definition. For purposes of this part, "Confidential Information" means the Statements of Account and any information contained therein, including the amount of royalty payments and the number of Performances, and any information pertaining to the Statements of Account reasonably designated as confidential by the party submitting the statement. Confidential Information does not include documents or information that at the time of delivery to the Collective is public knowledge. The party seeking information from the Collective based on a claim that the information sought is a matter of public knowledge shall have the burden of proving to the Collective that the requested information is in the public domain.
(b) Use of Confidential Information. The Collective may not use any Confidential Information for any purpose other than royalty collection and distribution and activities related directly thereto.
(c) Disclosure of Confidential Information. The Collective shall limit access to Confidential Information to:
(1) Those employees, agents, consultants, and independent contractors of the Collective, subject to an appropriate written confidentiality agreement, who are engaged in the collection and distribution of royalty payments hereunder and activities related directly thereto who require access to the Confidential Information for the purpose of performing their duties during the ordinary course of their work;
(2) A Qualified Auditor or outside counsel who is authorized to act on behalf of:
(i) The Collective with respect to verification of a Licensee's statement of account pursuant to this part; or
(ii) A Copyright Owner or Performer with respect to the verification of royalty distributions pursuant to this part;
(3) Copyright Owners and Performers, including their designated agents, whose works a Licensee used under the statutory licenses set forth in 17 U.S.C. 112(e) and 114 by the Licensee whose Confidential Information is being supplied, subject to an appropriate written confidentiality agreement, and including those employees, agents, consultants, and independent contractors of such Copyright Owners and Performers and their designated agents, subject to an appropriate written confidentiality agreement, who require access to the Confidential Information to perform their duties during the ordinary course of their work;
(4) Attorneys and other authorized agents of parties to proceedings under 17 U.S.C. 8, 112, 114, acting under an appropriate protective order.
(d) Safeguarding Confidential Information. The Collective and any person authorized to receive Confidential Information from the Collective must implement procedures to safeguard against unauthorized access to or dissemination of Confidential Information using a reasonable standard of care, but no less than the same degree of security that the recipient uses to protect its own Confidential Information or similarly sensitive information.

## § 380.6 Auditing payments and distributions.

(a) General. This section prescribes procedures by which any entity entitled to receive payment or distribution of royalties may verify payments or distributions by auditing the payor or distributor. The Collective may audit a Licensee's payments of royalties to the Collective, and a Copyright Owner or Performer may audit the Collective's distributions of royalties to the owner or performer. Nothing in this section shall preclude a verifying entity and the payor or distributor from agreeing to verification methods in addition to or different from those set forth in this section.
(b) Frequency of auditing. The verifying entity may conduct an audit of each licensee only once a year for any or all of the prior three calendar years. A verifying entity may not audit records for any calendar year more than once.
(c) Notice of intent to audit. The verifying entity must file with the Copyright Royalty Judges a notice
of intent to audit the payor or distributor, which notice the Judges must publish in the Federal Register within 30 days of the filing of the notice. Simultaneously with the filing of the notice, the verifying entity must deliver a copy to the payor or distributor.
(d) The audit. The audit must be conducted during regular business hours by a Qualified Auditor who is not retained on a contingency fee basis and is identified in the notice. The auditor shall determine the accuracy of royalty payments or distributions, including whether an underpayment or overpayment of royalties was made. An audit of books and records, including underlying paperwork, performed in the ordinary course of business according to generally accepted auditing standards by a Qualified Auditor, shall serve as an acceptable verification procedure for all parties with respect to the information that is within the scope of the audit.
(e) Access to third-party records for audit purposes. The payor or distributor must 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.
(f) Duty of auditor to consult. The auditor must produce a written report to the verifying entity. Before rendering the report, unless the auditor has a reasonable basis to suspect fraud on the part of the payor or distributor, the disclosure of which would, in the reasonable opinion of the auditor, prejudice any investigation of the suspected fraud, the auditor must review tentative written findings of the audit with the
appropriate agent or employee of the payor or distributor in order to remedy any factual errors and clarify any issues relating to the audit; Provided that an appropriate agent or employee of the payor or distributor reasonably cooperates with the auditor to remedy promptly any factual errors or clarify any issues raised by the audit. The auditor must include in the written report information concerning the cooperation or the lack thereof of the employee or agent.
(g) Audit results; underpayment or overpayment of royalties. If the auditor determines the payor or distributor underpaid royalties, the payor or distributor shall remit the amount of any underpayment determined by the auditor to the verifying entity, together with interest at the rate specified in $\S 380.2(\mathrm{~d})$. In the absence of mutuallyagreed payment terms, which may, but need not, include installment payments, the payor or distributor shall remit promptly to the verifying entity the entire amount of the underpayment determined by the auditor. If the auditor determines the payor or distributor overpaid royalties, however, the verifying entity shall not be required to remit the amount of any overpayment to the payor or distributor, and the payor or distributor shall not seek by any means to recoup, offset, or take a credit for the overpayment, unless the payor or distributor and the verifying entity have agreed otherwise.
(h) Paying the costs of the audit. The verifying entity must pay the cost of the verification procedure, unless the auditor determines that there was a net underpayment (i.e., underpayments less any overpayments) of $10 \%$ or more, in which case the
payor or distributor must bear the reasonable costs of the verification procedure, in addition to paying or distributing the amount of any underpayment.
(i) Retention of audit report. The verifying party must retain the report of the audit for a period of not less than three years from the date of issuance.

## $\S 380.7$ Definitions.

For purposes of this part, the following definitions apply:

Aggregate Tuning Hours (ATH) means the total hours of programming that the Licensee has transmitted during the relevant period to all listeners within the United States from all channels and stations that provide audio programming consisting, in whole or in part, of eligible nonsubscription transmissions or noninteractive digital audio transmissions as part of a new subscription service, less the actual running time of any sound recordings for which the Licensee has obtained direct licenses apart from 17 U.S.C. 114(d)(2) or which do not require a license under title 17, United States Code. By way of example, if a service transmitted one hour of programming containing Performances to 10 listeners, the service's ATH would equal 10 hours. If three minutes of that hour consisted of transmission of a directly licensed recording, the service's ATH would equal nine hours and 30 minutes (three minutes times 10 listeners creates a deduction of 30 minutes). As an additional example, if one listener listened to a service for 10 hours (and none of the recordings transmitted during that time was directly licensed), the service's ATH would equal 10 hours.

Collective means the collection and distribution organization that is designated by the Copyright Royalty Judges, and which, for the current rate period, is SoundExchange, Inc.

Commercial Webcaster means a Licensee, other than a Noncommercial Webcaster, Noncommercial Educational Webcaster, or Public Broadcaster, that makes Ephemeral Recordings and eligible digital audio transmissions of sound recordings pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114(d)(2).

Copyright Owners means sound recording copyright owners, and rights owners under 17 U.S.C. 1401(1)(2), who are entitled to royalty payments made under this part pursuant to the statutory licenses under 17 U.S.C. $112(\mathrm{e})$ and 114.

Digital audio transmission has the same meaning as in 17 U.S.C. 114(j).

Eligible nonsubscription transmission has the same meaning as in 17 U.S.C. 114(j).

Eligible Transmission means a subscription or nonsubscription transmission made by a Licensee that is subject to licensing under 17 U.S.C. 114(d)(2) and the payment of royalties under this part.

Ephemeral recording has the same meaning as in 17 U.S.C. 112.

Licensee means a Commercial Webcaster, a Noncommercial Webcaster, a Noncommercial Educational Webcaster, a Public Broadcaster, or any entity operating a noninteractive internet streaming service that has obtained a license under 17 U.S.C.

114 to make Eligible Transmissions and a license under 17 U.S.C. 112(e) to make Ephemeral Recordings to facilitate those Eligible Transmissions.

New subscription service has the same meaning as in 17 U.S.C. 114(j).

Noncommercial Educational Webcaster means a Noncommercial Educational Webcaster under subpart C of this part.

Noncommercial Webcaster has the same meaning as in 17 U.S.C. 114(f)(4)(E), but excludes a Noncommercial Educational Webcaster or Public Broadcaster.

Nonsubscription transmission has the same meaning as in 17 U.S.C. 114(j).

Payor means the entity required to make royalty payments to the Collective or the entity required to distribute royalty fees collected, depending on context. The Payor is: (1) A Licensee, in relation to the Collective; and (2) The Collective in relation to a Copyright Owner or Performer.

Performance means each instance in which any portion of a sound recording is publicly performed to a listener by means of a digital audio transmission (e.g., the delivery of any portion of a single track from a compact disc to one listener), but excludes the following:
(1) A performance of a sound recording that does not require a license (e.g., a sound recording that is not subject to protection under title 17, United States Code);
(2) A performance of a sound recording for which the service has previously obtained a license from the Copyright Owner of such sound recording; and
(3) An incidental performance that both:
(i) Makes no more than incidental use of sound recordings including, but not limited to, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events; and
(ii) Does not contain an entire sound recording, other than ambient music that is background at a public event, and does not feature a particular sound recording of more than thirty seconds (as in the case of a sound recording used as a theme song).

Performers means the independent administrators identified in 17 U.S.C. $114(\mathrm{~g})(2)(\mathrm{B})$ and (C) and the parties identified in 17 U.S.C. 114(g)(2)(D).

Public broadcaster means a Public Broadcaster under subpart D of this part.

Qualified auditor means an independent Certified Public Accountant licensed in the jurisdiction where it seeks to conduct a verification.

Subscription transmission has the same meaning as in 17 U.S.C. 114(j).

Transmission has the same meaning as in 17 U.S.C. 114(j)(15).

- 3. Revise subpart B to read as follows:


## Subpart B-Commercial Webcasters and Noncommercial Webcasters

## § 380.10 Royalty fees for the public performance of sound recordings and the making of ephemeral recordings.

(a) Royalty fees. For the year 2021, Licensees must pay royalty fees for all Eligible Transmissions of sound recordings at the following rates:
(1) Commercial webcasters. \$0.0026 per Performance for subscription services and $\$ 0.0021$ per Performance for nonsubscription services.
(2) Noncommercial webcasters. $\$ 1000$ per year for each channel or station and $\$ 0.0021$ per Performance for all digital audio transmissions in excess of 159,140 ATH in a month on a channel or station.
(b) Minimum fee. Licensees must pay the Collective a minimum fee of $\$ 1,000$ each year for each channel or station. The Collective must apply the fee to the Licensee's account as credit towards any additional royalty fees that Licensees may incur in the same year. The fee is payable for each individual channel and each individual station maintained or operated by the Licensee and making Eligible Transmissions during each calendar year or part of a calendar year during which it is a Licensee. The maximum aggregate minimum fee in any calendar year that a Commercial Webcaster must pay is $\$ 100,000$. The minimum fee is nonrefundable.
(c) Annual royalty fee adjustment. The Copyright Royalty Judges shall adjust the royalty fees each year
to reflect any changes occurring in the cost of living as determined by the most recent Consumer Price Index for All Urban Consumers (U.S. City Average, all items) (CPI-U) published by the Secretary of Labor before December 1 of the preceding year. The calculation of the rate for each year shall be cumulative based on a calculation of the percentage increase in the CPI-U from the CPI-U published in November, 2020 (260.229) and shall be made according to the following formulas: For subscription performances, $\left(1+\left(\mathrm{C}_{y}-260.229\right) / 260.229\right) \times \$ 0.0026$; for nonsubscription performances, $\left(1+\left(\mathrm{C}_{y}-\right.\right.$ 260.229)/260.229) $\times \$ 0.0021$; for performances by a noncommercial webcaster in excess of 159,140 ATH per month, $\left(1+\left(\mathrm{C}_{y}-260.229\right) / 260.229\right) \times \$ 0.0021$; where $\mathrm{C}_{\mathrm{y}}$ is the CPI-U published by the Secretary of Labor before December 1 of the preceding year. The adjusted rate shall be rounded to the nearest fourth decimal place. The Judges shall publish notice of the adjusted fees in the Federal Register at least 25 days before January 1. The adjusted fees shall be effective on January 1.
(d) Ephemeral recordings royalty fees; allocation between ephemeral recordings and performance royalty fees. The Collective must credit $5 \%$ of all royalty payments as payment for Ephemeral Recordings and credit the remaining $95 \%$ to section 114 royalties. All Ephemeral Recordings that a Licensee makes which are necessary and commercially reasonable for making noninteractive digital transmissions are included in the $5 \%$.

Dated: September 20, 2021.

## Jesse M. Feder,

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Chief Copyright Royalty Judge.
Approved by:
Carla D. Hayden,
Librarian of Congress.
[FR Doc. 2021-20621 Filed 10-26-21; 8:45 am] BILLING CODE 1410-72-P

# Finited States $\mathbb{C o u r t}$ of $\mathfrak{A p p e a l s}$ 

For The District of Columbia Circuit

Argued February 17, 2023 Decided July 28, 2023
No. 21-1243
National Religious Broadcasters
Noncommercial Music License Committee, AppelLant
v .
Copyright Royalty Board and Librarian of Congress, Appellees

Google LLC, et AL., InTERVENORS

Consolidated with 21-1244, 21-1245

On Appeals from a Final Determination of the Copyright Royalty Board

Samir Deger-Sen argued the cause for appellant National Association of Broadcasters. With him on the briefs were Joseph R. Wetzel, Andrew M. Gass, Sarang V. Damle, and Blake E. Stafford.

Karyn K. Ablin argued the cause and filed the briefs for appellant National Religious Broadcasters

Noncommercial Music License Committee. John J. Bursch, Rory T. Gray, and Erin M. Hawley entered appearances.

Matthew S. Hellman argued the cause and filed the briefs for appellant SoundExchange, Inc. Previn Warren entered an appearance.

Jennifer L. Utrecht, Attorney, U.S. Department of Justice, argued the cause for appellees. With her on the brief were Michael D. Granston, Deputy Assistant Attorney General, and Daniel Tenny, Attorney.

David P. Mattern argued the cause for intervenors Google LLC, et al. in support of appellees. With him on the brief were Sarang V. Damle, Blake E. Stafford, Kenneth L. Steinthal, Joseph R. Wetzel, Andrew M. Gass, Samir Deger-Sen, Joshua $N$. Mitchell, and Karyn K. Ablin. John J. Bursch, Jason B. Cunningham, Rory T. Gray, and Erin M. Hawley entered appearances.

Matthew S. Hellman was on the brief for intervenor SoundExchange, Inc. in support of appellees. Previn Warren entered an appearance.

Before: MILLETT, WILKINS, and PAN, Circuit Judges.

Opinion for the Court filed PER CURIAM.
Every five years, the Copyright Royalty Board (the "Board") issues a statutory license that establishes the terms and rates under which certain entities that stream copyrighted songs over the internet make royalty payments to the songs' copyright owners. The "webcasters" that are subject to the license are "noninteractive" - i.e., they stream
music without letting their listeners choose songs on demand. This appeal challenges on various grounds the Board's most recent noninteractive webcaster license Final Determination, covering calendar years 2021 through 2025. We sustain the Board's Final Determination in all respects.

The Copyright Act, 17 U.S.C. § 101 et seq., provides the statutory framework for regulating copyrights. Under that framework, a recorded song has two components with distinct rights: (1) the "musical work," which is the song's underlying composition (i.e., the lyrics and melody); and (2) the "sound recording," which is a recorded version of the song. See SoundExchange, Inc. v. Copyright Royalty Board, 904 F.3d 41, 46 (D.C. Cir. 2018).

Historically, the owner of a musical work had an exclusive right of public performance but the owner of a sound recording did not. SoundExchange, 904 F.3d at 46 . Thus, an FM radio station could broadcast a sound recording without permission from its copyright owner. But in 1995, Congress amended the Copyright Act to grant sound-recording owners the exclusive right of public performance "by means of a digital audio transmission." Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, § 2, 109 Stat. 336, 336 (codified at 17 U.S.C. § 106(6)). Under the amended statute, a webcaster cannot stream a sound recording without paying royalties to its copyright owner.

In defining the scope of this new right, Congress distinguished between webcasters (also known as "digital audio services") that are "interactive" and
"noninteractive." Interactive services let users choose the particular songs they want to listen to on demand, e.g., Spotify, while noninteractive services do not, e.g., Pandora. See 17 U.S.C. § 114(j)(7). Interactive webcasters must contract directly with copyright owners to obtain public performance rights for their sound recordings. Id. § 114(d)(2)(A)(i). By contrast, Congress tasked the Copyright Royalty Board with creating a compulsory license covering the use of sound recordings by all noninteractive webcasters. Id. $\S 114(f)(1)$. The license is "compulsory" because copyright owners cannot opt out of it unless they negotiate individual settlement agreements with noninteractive webcasters. Id. §§ 114(f)(1)-(2). Royalties under the compulsory license are paid to a "nonprofit collective," which distributes the funds to performing artists or other copyright owners. Id. § 114(g)(2). Meanwhile, traditional AM/FM radio, also known as terrestrial or over-the-air radio, still plays by the old rules: those radio stations pay no royalties to broadcast songs to listeners, and copyright owners instead treat $\mathrm{AM} / \mathrm{FM}$ radio as a promotional opportunity.

The Board must set the rates and terms of the compulsory license for noninteractive webcasters every five years. 17 U.S.C. § 114(f)(1)(A). Interested parties may negotiate settlement agreements amongst themselves to opt out of the compulsory license. Id. § 114(f)(2). If a particular record label and a webcaster negotiate a settlement agreement that sets terms for the webcaster's use of the record label's copyrighted sound recordings, that agreement controls instead of the Board's compulsory license. Non-settling parties are subject to the license, and the

Board holds an evidentiary proceeding to determine the applicable terms and rates under that license. SoundExchange, 904 F.3d at 46-47. Noninteractive webcasting produces hundreds of billions of streams per year, the vast majority of which are covered by the compulsory license rather than by a settlement.

Congress set forth instructions for the Board's compulsory license determinations in 17 U.S.C. § 114(f)(1)(B). The statute directs the Board to "distinguish among the different types of [webcasting] services then in operation" based on, among other factors, 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." Id. Applying that standard, the Board has previously distinguished between commercial and noncommercial webcasting services and between subscription-based and nonsubscription-based commercial services. See Determination of Royalty Rates and Terms for Ephemeral Recording and Webcasting Digital Performance of Sound Recordings (Web IV), 81 Fed. Reg. 26,316, 26,409 (May 2, 2016). For each different type of service, the Board must establish rates and terms that represent what "would have been negotiated in the marketplace between a willing buyer and a willing seller." 17 U.S.C. § 114(f)(1)(B). This is called the "willing buyer/willing seller" standard. SoundExchange, 904 F.3d at 56. In so doing, the Board must consider factors including the effect of the license's rates and terms on other sources of sound recording revenue, such as whether a service tends to boost or deflate interactive streaming royalties. 17 U.S.C. § 114(f)(1)(B)(i)(I). The Board may
also consider voluntary license agreements negotiated for comparable services as "benchmarks" that provide reference points in its analysis. SoundExchange, 904 F.3d at 47; see 17 U.S.C. § 114(f)(1)(B)(ii). And the Board's rates and terms must "include a minimum fee" that each webcaster must pay to use the compulsory license. 17 U.S.C. § 114(f)(1)(B). As we have made clear, "the statute does not require that the [hypothetical] market assumed by the [Board] achieve metaphysical perfection." Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Board (Intercollegiate II), 796 F.3d 111 (D.C. Cir. 2015).

This appeal concerns the Board's fifth noninteractive webcaster rate Final Determination, which set the rates and terms of the statutory license for calendar years 2021 through 2025. Determination of Rates and Terms for Digital Performance of Sound Recordings and Making of Ephemeral Copies To Facilitate Those Performances (Web V), 86 Fed. Reg. 59,452 (Oct. 27, 2021). The Board's previous four noninteractive webcaster rate determinations were reviewed and largely upheld by this court. See SoundExchange, 904 F.3d 41 (reviewing Web IV); Intercollegiate II, 796 F.3d 111 (reviewing Web III); Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Board (Intercollegiate I), 574 F.3d 748 (D.C. Cir. 2009) (reviewing Web II); Beethoven.com LLC v. Librarian of Cong., 394 F.3d 939 (D.C. Cir. 2005) (reviewing Web I). ${ }^{1}$

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The Web $V$ evidentiary hearing lasted from August 4, 2020, to September 9, 2020. Ten parties participated, including the appellants and intervenors in this consolidated case: (1) the National Association of Broadcasters (the "NAB"), an association of radio and television stations; (2) the National Religious Broadcasters Noncommercial Music License Committee (the "Committee"), an arm of a trade association that represents religious radio and television stations; (3) SoundExchange, Inc., a collective management organization that represents sound-recording copyright holders and artists; and (4) Google LLC, a technology company. The Board heard oral testimony from thirty-three witnesses and received written testimony from eight, which together included thirteen qualified experts. The Board admitted 748 exhibits into evidence, comprising more than 900,000 pages of documents. After the hearing, the parties submitted proposed findings and conclusions, and responses thereto, and made closing arguments on November 19, 2020. The Librarian of Congress published the Board's Final Determination on October 27, 2021.

In its Final Determination, the Board identified three relevant categories of webcasters: commercial subscription webcasters, commercial nonsubscription webcasters, and noncommercial webcasters. See Web $V$, 86 Fed. Reg. at 59,589. Commercial subscription

[^71]webcasters are services like Pandora Plus that collect payments from their listeners. See SoundExchange, 904 F.3d at 48. Commercial nonsubscription, i.e., "adsupported," webcasters are services like Free Pandora that collect payment from advertisers rather than listeners. See id. at 48, 58. Noncommercial webcasters are services owned by a government entity or a nonprofit, such as National Public Radio ("NPR") and certain religious webcasters. See Web V, 86 Fed. Reg. at 59,593; 17 U.S.C. § 114(f)(4)(E)(i). Besides noncommercial, educational, and public webcasters, all other webcasters are commercial. Web V, 86 Fed. Reg. at 59,592.

For all webcasters, the Board set a minimum fee of $\$ 1,000$ per channel or station. Web V, 86 Fed. Reg. at 59,589 . Commercial webcaster license fees were capped at $\$ 100,000$. Id. at 59,589 . Payment of the minimum fee grants a webcaster access to the compulsory license. See 17 U.S.C. § 114(f)(1)(B). Each licensee can have multiple channels, but with the $\$ 100,000$ cap, a large commercial webcaster licensee pays the minimum fee only for its first one hundred channels. This provision doubled the prior minimumfee payment-which was $\$ 500$ per channel and capped at $\$ 50,000$ per licensee. See Web IV, 81 Fed. Reg. at 26,409; Web III, 79 Fed. Reg. at 23,132.

Beyond the minimum fee, when setting royalty rates for all webcasters, the Board puts forward an amount to be paid "per performance." One copyrighted song heard by one listener is a performance. Web V, 86 Fed. Reg. at 59,593. So, for instance, if the Board set a royalty rate at $\$ 0.002$ per performance, and if a webcaster subject to that rate streamed two copyrighted songs to one thousand
listeners each, it would have to pay for two thousand performances, amounting to $\$ 4.00$ total.

For commercial subscription webcasters, the Board set a 2021 royalty rate of $\$ 0.0026$ per performance, adjusted annually for inflation. Web $V$, 86 Fed. Reg. at 59,589. For all commercial webcasters, the minimum fee of $\$ 1,000$ covers a service's first $\$ 1,000$ in royalty payments, id., or about 385,000 performances for commercial subscription webcasters in 2021.

For commercial nonsubscription webcasters, the Board set a 2021 royalty rate of $\$ 0.0021$ per performance, adjusted annually for inflation. Web $V$, 86 Fed. Reg. at 59,589 . The minimum fee of $\$ 1,000$ covered roughly 475,000 performances for commercial nonsubscription webcasters in 2021.

For noncommercial webcasters, the Board set a payment structure under which the webcaster receives a monthly allowance of 159,140 aggregate tuning hours ("ATH") by paying the minimum fee; and pays a 2021 royalty rate of $\$ 0.0021$ per performance above that threshold, adjusted annually for inflation-the same rate that applies to commercial nonsubscription webcasters. Web V, 86 Fed. Reg. at 59,589. ATH is, essentially, the cumulative time spent listening to copyrighted songs. See id. at 59,592. For instance, if 1,000 individuals each listened to one hour of copyrighted songs, that would amount to 1,000 ATH. See id.

Four aspects of the Board's decision are challenged on appeal. First, the NAB argues that the Board should have adopted its proposal to distinguish simulcasters from other commercial nonsubscription
webcasters. Simulcasters are traditional AM/FM stations that simultaneously stream their programming on the internet. The NAB sought a lower rate for those stations. Second, the NAB and the Committee (collectively, the "Services") argue that the Board should have rejected SoundExchange's proposal to double the minimum fee to $\$ 1,000$ per channel and $\$ 100,000$ per licensee. The Services proposed keeping the incumbent minimum fee structure instead. Third, the Committee argues that the Board should have set a lower rate for noncommercial webcasters, based on a settlement agreement between SoundExchange, NPR, and the Corporation for Public Broadcasting ("CPB") that the Committee proffered as a benchmark. And fourth, SoundExchange argues that the Board should have set a higher commercial nonsubscription rate, contending that the Board's rate is lower than copyright owners' opportunity costs.

The NAB, the Committee, and SoundExchange timely appealed the aforementioned aspects of the Board's Final Determination under 17 U.S.C. § 803(d)(1). SoundExchange intervened on behalf of the government in the appeals brought by the Services, while the Services and Google intervened on behalf of the government in SoundExchange's appeal.

II
We review the Board's rate determinations under Section 706 of the Administrative Procedure Act. See 17 U.S.C. § 803(d)(3). We uphold the results of the Board's proceedings "unless they are arbitrary, capricious, contrary to law, or not supported by substantial evidence." Intercollegiate I, 574 F.3d at 755. Our "[r]eview of administratively determined
rates is 'particularly deferential' because of their 'highly technical' nature." Id. (quoting East Ky. Power Coop. v. FERC, 489 F.3d 1299, 1306 (D.C. Cir. 2007)). Applying that standard, we sustain the Board's Final Determination against the appellants' challenges.

## III

## A

As an association of radio and television stations, the NAB represents hundreds of simulcasters nationwide. Its members range in size from larger broadcasters, such as iHeartMedia-a company operating around 850 radio stations-to smaller broadcasters, such as individuals operating only a handful of stations. Focusing on the three identified categories of webcasters, the NAB contests the Board's decision to place simulcasters in the broad commercial nonsubscription webcaster category, thus subjecting them to the same rate as what the NAB argues are fundamentally different custom radio services. Custom radio refers to services like Pandora, which allow users to skip songs and to "curate the listening experience." Web V, 86 Fed. Reg. at 59,547. By contrast, simulcasters are traditional AM/FM stations that simultaneously stream their programming on the internet without allowing for customization.

During the Board's proceedings, the NAB put forth a rate structure under which simulcasters would pay $\$ 0.0008$ per play, and other eligible commercial nonsubscription webcasters would pay $\$ 0.0016$ per play. If adopted, the Board would have distinguished simulcasters from other webcasters for the first time. Web V, 86 Fed. Reg. at 59,547.

According to the NAB, the Board's statutory obligation to distinguish between different services, see 17 U.S.C. § $114(\mathrm{f})(1)(\mathrm{B})$, required it to adopt this proposal because simulcasting is critically distinct from other types of commercial webcasting. As support, the NAB offered various voluntary agreements as benchmarks, including "[d]irect license agreements between sound recording rights owners and webcaster iHeart and license agreements for musical compositions between performing rights organizations and webcasters Pandora and iHeart." Web V, 86 Fed. Reg. at 59,547. Ultimately, the Board found that a new distinction was unwarranted based on the record, and more specifically, that "significant evidence" showed "simulcasters and other commercial webcasters compete in the same submarket and therefore should be subject to the same rate." Id. at 59,565.

A second point of contention arose regarding the statutorily mandated minimum fee. See 17 U.S.C. § 114(f)(1)(B). Having maintained the same $\$ 500$ minimum fee since 2006, the Board considered SoundExchange's proposal to double the fee to $\$ 1,000$ in order "at least to cover [its] administrative cost." Web V, 86 Fed. Reg. at 59,579 (internal quotation marks omitted). The Services collectively challenged SoundExchange's request, arguing that, because the fee is solely meant to cover "incremental administrative costs"-meaning fees associated with administering the webcasting licenseSoundExchange's average administrative cost was "irrelevant." Id. at 59,580 (emphasis omitted). In the Services' view, what the Board accepted as "average administrative cost" in fact encompasses

SoundExchange's "total costs," including fees unrelated to license administration. NAB Opening Br. 17-18 (emphasis omitted); see Committee Opening Br. 51-52. Thus, the Services asked the Board to adopt their narrower view of the minimum fee. But finding no statutory basis that supported it doing so, the Board rejected the Services' proposal and explained why the record justified doubling the minimum fee.

On appeal, the NAB advances a two-part theory, arguing the Board's determination is arbitrary, capricious, or otherwise contrary to law. First, the NAB challenges the Board's refusal to distinguish simulcasters from other nonsubscription commercial services as violating 17 U.S.C. § 114(f)(1)(B)'s plain language. It also argues that the Board's analysis justifying its decision was arbitrary and capricious. Second, the Services challenge the Board's decision to double the minimum fee in consideration of SoundExchange's average administrative costs.

Unpersuaded by either theory, we affirm both aspects of the Board's determination.

## 1

Looking first to the NAB's categorization-related arguments, we uphold the Board's determination, finding this record failed to establish that simulcasters warrant a different royalty rate than other commercial nonsubscription services. According to the NAB, the Board violated its statutory obligation to distinguish services when it acknowledged that simulcasters differ from custom radio, yet still subjected both groups to the same rate. After reviewing this record, however, we confirm that
the Board reasonably evaluated the NAB's differentiation evidence and appropriately exercised its discretion in declining to set a separate, lower rate for simulcasters.

Recall that the Board "shall distinguish among the different types of services then in operation" when "establish[ing] rates and terms that most clearly represent" what "would have been negotiated in the marketplace between a willing buyer and a willing seller." 17 U.S.C. § 114(f)(1)(B). The Copyright Act also instructs the Board to base its decision on criteria 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." Id.

Here, the Board satisfied 17 U.S.C. § 114(f)(1)(B) by maintaining the preexisting rate categories and distinguishing royalty rates for (1) commercial subscription services; (2) commercial nonsubscription services; and (3) noncommercial services. When setting rates, we have explained that the Board has discretion in determining what to use as a starting point, so long as it explains itself. Music Choice v. Copyright Royalty Board, 774 F.3d 1000, 1012 (D.C. Cir. 2014) (finding that the Board "did not err when [it] used the prevailing rate as the starting point of [its] analysis," given "the lack of creditable benchmarks in the record" and the Board's "reasoned explanation"). Furthermore, Section 114(f)(1)(B) contemplates the Board will "make adjustments to the prevailing rate" and also "consider prior determinations" in its decisionmaking. Music Choice, 774 F.3d at 1012 (internal quotation marks omitted).

The Board has never set a lower rate for simulcasters. So its decision not to here is not an "unexplained presumption in favor of uniform rates." NAB Opening Br. 29. Rather, the Board was justified in relying on its three preexisting rate category distinctions to at least determine a starting point. Web V, 86 Fed. Reg. at 59,547; see also Web I, 67 Fed. Reg. at 45,252 (adopting a single rate for commercial webcasters); Web II, 72 Fed. Reg. at 24,095 (refusing to establish a separate rate for simulcasters); Web IV, 81 Fed. Reg. at 26,323 (rejecting arguments for a separate simulcaster rate). It was thus up to the NAB to establish a record showing why, and how, this starting point should be altered to reflect the willing buyer/willing seller standard. See Web IV, 81 Fed. Reg. at 26,320 ("As the proponent of a rate structure that treats simulcasters as a separate class of webcasters, the NAB bears the burden of demonstrating not only that simulcasting differs from other forms of commercial webcasting, but also that it differs in ways that would cause willing buyers and willing sellers to agree to a lower royalty rate in the hypothetical market."); Web I, 67 Fed. Reg. at 45,254 (referring to "the burden of proof on the broadcasters to present evidence to distinguish between the direct transmission of their programs over the Internet and the retransmission of the same programming made by a third-party").

Our reasoning here also resolves the NAB's secondary challenges to the Board's decision, rejecting the new simulcast distinction. First, the NAB argues that the Board improperly made a presumption in favor of uniform rates, which required the NAB to present contrary evidence to rebut the

Board's presumption. The NAB asserts that the Board instead should have supported its decision with substantial evidence. This argument gets things backwards. The Board is allowed to consider its prior determinations, and the NAB failed to meet its burden to show this record warranted something different. Second, the NAB argues that the Board's analysis discussing competition between simulcasters and other commercial webcasters was "far too generalized to have any relevance" and rendered the determination arbitrary and capricious. NAB Opening Br. 37-40. We disagree because, as explained throughout this section, the Board appropriately exercised its discretion in finding the differentiation evidence failed to support a new simulcast rate category under the willing buyer/willing seller standard.

The Board reasonably declined to interpret the NAB's evidence as supporting a separate rate for simulcasters. The NAB presented benchmark agreements that it claimed were evidence that simulcasters should be subject to a lower rate than custom radio. The Board rejected the NAB's iHeart/Indie Agreements as benchmarks because they only covered "a small portion of the sound recordings performed by iHeart, and an even smaller portion of the entire market for simulcast, custom radio, and internet radio performances." Web $V$, 86 Fed. Reg. at 59,549 (emphasis added). The NAB also introduced survey evidence that it argued showed simulcasters should be subject to a lower rate. Importantly, the Board also declined to rely on the NAB's Hauser Survey-a survey intended to reveal the "percentage of respondents that, in the absence of
simulcasts, would consume content from" other alternative activities. Id. at 59,551. Doing so was permissible given the Board's concerns with the survey's design, such as its failure to include services like internet radio services covered by the statutory license. Id. at 59,563-59,565.

Nevertheless, the NAB insists that the differences between simulcasts and custom radio show the Board was required to distinguish a separate, simulcaster rate. But the Board acted reasonably in taking issue with the fact that "the bulk" of the NAB's evidence "regarding differentiated use of music versus non-music content" was limited to comparing simulcasts against custom radio services, when the NAB's proposal was to establish a simulcast rate separate from "the full scope of noninteractive webcasting[.]" Web V, 86 Fed. Reg. at 59,551 (emphasis added).

Critically, the NAB also failed to show that internet simulcasters constitute a distinct market segment. The absence of distinct market segmentation evidence is detrimental to the NAB's case because the statutory distinction requirement "mean[s] that distinct segments of webcasters-such as noncommercial services-receive their own rates and terms." SoundExchange, 904 F.3d at 47 (emphasis added). This emphasis on evidence of competition is rooted in the willing buyer/willing seller standard. It is unclear whether a willing buyer and a willing seller would agree to a new rate for a service, falling under a preexisting rate category, absent evidence showing that the service constitutes a distinct segment of webcasters. In SoundExchange, we shed light on the distinction requirement when
discussing how to determine if a service constitutes a distinct segment of webcasters. There, we affirmed the Board's decision to distinguish between ad-based and subscription-based services because the record showed each service "appeal[ed] to a different segment of the market[.]" Id. at 58. But the NAB never argues that any such market segmentation would actually result in a lower rate for simulcasters based on a rate that a willing buyer and a willing seller would accept.

Our SoundExchange decision also addressed the Board's prior determinations more generally and upheld the process through which it determines how to distinguish between services. 904 F.3d at 58-59. The Board's process began in Web II, when it established that "the key question in ascertaining the propriety of differentiation is whether the services occupy 'distinct segment[s]' of the market or instead compete for listeners." Id. at 58 (quoting Web II, 72 Fed. Reg. at 24,097-24,098). To answer this question, the Board assesses service competition by "examin[ing] whether the services compete with each other for listeners, or whether one service instead operate[d] in a submarket separate from and noncompetitive with the other[.]" Id. (internal quotation marks and citation omitted). And as for market segmentation, the Board considers various factors, "including whether comparable agreements have been negotiated in which one service paid a lower rate than the other." Id. In short, our precedent counsels that when evaluating categorization challenges under 17 U.S.C. § 114(f)(1)(B), we consider whether the record shows the Board reasonably distinguished between the "types of services then in
operation[,]" id., and established rates for each "distinct segment[,]" SoundExchange, 904 F.3d at 58, under the willing buyer/willing seller standard. See Intercollegiate II, 796 F.3d at 128 (emphasizing that the minimum fee distinction requirement applies to each "type of service," 17 U.S.C. § 114(f)(1)(B)—"not for each individual webcaster").

Instead of structuring its position around why simulcasters constitute a distinct segment of the market from all other commercial nonsubscription services, the NAB dedicated most of its argument to distinguishing simulcasters from a mere subset of other commercial webcasters-custom internet radio. In doing so, the NAB argued that the Board failed to justify its refusal to establish a separate rate for simulcasters despite its acknowledgment of certain differences between simulcasters and custom radio. But the NAB does not argue that simulcasting is different from commercial webcasting more generally-only that it differs from custom radio. There are other types of commercial webcasting that may not have the same features as custom radio, but the NAB does not argue that a willing buyer and a willing seller would agree to a lower rate for simulcasting than for any other types of commercial webcasting. Although such an argument could succeed if the record showed that willing buyers and willing sellers would agree to lower royalty rates for simulcasting than for other types of commercial webcasting, the NAB did not do so here. Moreover, we underscore the "technical nature" of rate determinations and find the NAB failed to meet its burden here. Intercollegiate II, 796 F .3 d at 127 (quoting Intercollegiate $I$, 574 F.3d at 755). We
acknowledge, however, that future records may warrant new rate category distinctions. SoundExchange, 904 F.3d at 58 (describing evidence appropriately distinguishing between ad-based and subscription-based services).

2
Together, the Services contest the minimum fee, arguing the Board erroneously raised the fee to account for costs other than the incremental cost of administering webcasting licenses. As explained below, we reject the Services' challenge and uphold the $\$ 1,000$ minimum fee as reasonable.

Although Congress requires the Board to establish a minimum fee for each service under 17 U.S.C. § $114(\mathrm{f})(1)(\mathrm{B})$, it never enumerated a list of specific costs that such a fee should cover. Starting in 2006, the Board has continuously maintained the annual minimum fee at $\$ 500$ for each channel, including an aggregate cap of $\$ 50,000$ per commercial webcaster. Here, the Board accepted SoundExchange's proposal to raise the minimum fee to $\$ 1,000$ per channel and raise the aggregate cap to $\$ 100,000$. In doing so, it reasonably relied upon three evidentiary findings.

Most importantly, the Board was persuaded by SoundExchange's evidence demonstrating an increase in its average administrative costs. SoundExchange calculated this increased average "by dividing its total administrative costs by its total number of licensees" and dividing that amount "by the estimated number of channels or stations per licensee." Web V, 86 Fed. Reg. at 59,582. This calculation revealed that SoundExchange's estimated
average administrative cost per channel "increased from approximately $\$ 1,900$ to approximately $\$ 4,448$ between 2013 and 2018, an increase of 2.34 times." Id. While acknowledging that this was an estimate, the Board concluded that the "relative increase in average administrative costs"- $134 \%$-"would yield a minimum fee of $\$ 1170[$,]" and noted that this amount exceeded SoundExchange's proposed $\$ 1000$ minimum fee. Id.

The other two points that the Board found supported increasing the minimum fee included: (1) a settlement between SoundExchange and College Broadcasters, Inc. ("CBI"), agreeing to a minimum fee of $\$ 750$ by 2025; and (2) inflation. As relevant here, the Board concluded that the CBI settlement generally indicated willing buyers and willing sellers would agree to a higher minimum fee. And to the second point, the record utilized the Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers to show that a minimum fee of $\$ 656.77$ would be necessary to account for general inflation since the minimum fee was set at $\$ 500$ in 2006. Web $V$, 86 Fed. Reg. at 59,583. The Board considered this evidence in finding that the record supported a "zone of reasonable minimum fees" from $\$ 656.77$ to $\$ 1,170$. $I d$. Ultimately, the Board adopted the proposed $\$ 1,000$ minimum fee because it was most persuaded by SoundExchange's average administrative cost evidence, and because the proposed fee fell within the reasonable zone. Id. at 59,583-59,584.

On appeal, the Services again contest the Board's consideration of SoundExchange's average administrative costs, arguing that the minimum fee
should be limited to the incremental cost of administering the webcasting license. We disagree.

The Services point to nothing in either the statutory scheme, or in the Board's prior determinations, that requires the Board to adopt such a restrictive view of 17 U.S.C. § 114(f)(1)(B). Indeed, the statute only instructs that the statutory rates and terms "shall include a minimum fee for each such type of service," and that such a fee will reflect the willing buyer/willing seller standard. Id. § 114(f)(1)(B); see Intercollegiate II, 796 F.3d at 128 ("[T]he Board must set a fee that both a willing buyer and a willing seller would negotiate, not just one that is acceptable to the buyer (the webcaster).") (emphasis omitted). And as the Board explained, it has consistently rejected the interpretations of the minimum fee as limited to incremental administrative costs. Web V, 86 Fed. Reg. at 59,581 ("To be sure, the Services have made that [incremental administrative costs] argument consistently since Web I. However, the Judges and their predecessors have never embraced it.").

Not only does the Services' minimum fee challenge lack support based on the statute, as well as from the Board's prior determinations, but the Services' position also conflicts with our precedent under which we have held that the minimum fee may reflect average-as opposed to incrementaladministrative costs. Intercollegiate II, 796 F.3d at 131 (noting that "the Board did not set the [minimum] fee based solely on SoundExchange's administrative costs" but also "relied on the evidence of industrywide average administrative cost"). In Intercollegiate II, we concluded that while "[e]vidence of average cost may not be perfect," nothing prohibited us from
upholding its use. Id. ("This court's task is 'only [to] assess the reasonableness of the [Board's] interpretation of the inherent ambiguity' in Congress' directive.") (quoting Intercollegiate I, 574 F.3d at 757). So too here.

The Services have demonstrated no reason to bar the Board's consideration of SoundExchange's increased average administrative cost, and the Board's determination comports with our precedent as well as with the Board's prior determinations. Given the evidence of (1) SoundExchange's estimated increase in average administrative cost, (2) a voluntary agreement to a higher minimum fee between SoundExchange and CBI, and (3) general inflation since 2006, we find the Board had substantial evidence to support its decision that a $\$ 1,000$ minimum fee reasonably satisfied the willing buyer/willing seller standard. Thus, we uphold the increased minimum fee.

## B

The Committee is the arm of a trade association that "represent[s] the interests of religious noncommercial radio stations in issues of music licensing." Committee Opening Br. v. "Many of the [radio] stations represented by the [Committee] simultaneously transmit their broadcast programming online" under the terms of the statutory license at issue in this appeal. Committee Opening Br. v. The Committee challenges the Board's rate determination for all noncommercial webcasters, including the nonprofit religious stations that are its members.

The Committee proposed two alternative rate structures that would have lowered the rates paid by noncommercial webcasters. Web V, 86 Fed. Reg. at 59,567. The Board, however, rejected the Committee's proposals and instead accepted SoundExchange's recommendation to essentially maintain the incumbent rate structure that had been in effect from 2006 to 2020. Id. at 59,579. In support of its decision, the Board noted that "SoundExchange relies on the same reasoning adopted by the Judges in webcasting proceedings going back to Web II to support its proposed rate structure." Id. at 59,573. The Board adopted that long-standing reasoning in the absence of "persuasive counterarguments" from the Committee. Id. at 59,573, 59,579.

Under the preexisting rate structure, a noncommercial webcast station paid the minimum fee to gain access to 159,140 ATH of monthly usage. See Web IV, 81 Fed. Reg. at 26,405-26,406. Above that usage threshold, noncommercial webcasters paid the same rates as commercial nonsubscription webcasters. See id. The Committee proposed alternative rates that (1) would have maintained the same usage allowance and minimum fee, while allowing noncommercial webcasters to pay one-third of the commercial rate for above-threshold usage; or (2) would have allowed certain Committee-designated noncommercial webcasters to pay a lump sum for an aggregate usage allowance. Web V, 86 Fed. Reg. at 59,567. ${ }^{2}$

2 The Committee's proposed rate structures for noncommercial webcasters were deemed "Alternative 1" and "Alternative 2." Web V, 86 Fed. Reg. at 59,567. Under

The Committee's rate proposals were based on a settlement agreement between NPR, CPB, and SoundExchange (the "NPR Agreement") that covered the years 2021 through 2025. The Committee sought to introduce the NPR Agreement as a benchmark to support its rate proposals for noncommercial webcasters. Web V, 86 Fed. Reg. at 59,567-59,569. But the Board rejected the NPR Agreement as a benchmark and rejected the Committee's rate proposals. The Board provided three primary reasons for its decision: (1) the Committee neglected to offer any expert testimony to establish that the NPR Agreement was "comparable" to a compulsory license for noncommercial webcasters; (2) the Committee's rate proposals failed to make adjustments for economically significant aspects of the NPR Agreement; and (3) one aspect of the Committee's proposal was based on dated information that the Board was statutorily barred from considering. See id. at 59,569-59,573.

[^72]On appeal, the Committee argues that the Board (1) violated the APA by arbitrarily and capriciously rejecting the NPR Agreement as a benchmark; (2) violated the APA by arbitrarily and capriciously setting the noncommercial webcaster royalty rate too high; and (3) violated the federal Religious Freedom Restoration Act ("RFRA"), 42 U.S.C. § 2000bb et seq., and the First Amendment by setting a rate that was less favorable to large, predominantly religious webcasters than the rate enjoyed by secular NPR affiliates under the NPR Agreement. ${ }^{3}$

We sustain the Board's rate determination for noncommercial webcasters and its rejection of the Committee's proposals.

## 1

The Board's decision to reject the NPR Agreement as a benchmark, as well as the Committee's rate proposals that were based on the NPR Agreement, was reasonable and supported by substantial evidence. We note that
appellants face[] an uphill battle in
challenging the Board's selection of its

[^73]benchmarks. We have repeatedly recognized that it is "within the discretion of the [Board] to assess evidence of an agreement's comparability and to decide whether to look to its rates and terms for guidance." The Board's "broad discretion" encompasses its selection or rejection of benchmarks, as well as its adjustment of benchmarks to "render them useful."

SoundExchange, 904 F.3d at 50-51 (first quoting Intercollegiate I, 574 F.3d at 759; then quoting Music Choice, 774 F.3d at 1009). Here, the Board properly exercised its discretion.

First, the Board reasonably concluded that the Committee presented insufficient evidence to establish the NPR Agreement's comparability to the compulsory license for noncommercial webcasters. In a benchmark analysis, the Board "may consider the rates and terms for comparable types of audio transmission services and comparable circumstances under voluntary license agreements." 17 U.S.C. § 114(f)(1)(B)(ii) (emphasis added). Yet, the Committee presented no expert testimony on comparability; it addressed the issue only in arguments made by its attorneys in post-hearing briefing. Web $V$, 86 Fed. Reg. at 59,570. Moreover, SoundExchange disputed whether the NPR Agreement was comparable. The Board reasonably decided that expert testimony was necessary to establish comparability. See id. Requiring expert testimony in this case was consistent with the "highly technical nature" of administrative rate determinations. SoundExchange, 904 F.3d at 50 (quoting Intercollegiate II, 796 F.3d at 127). Although the Committee argues that the Board
has never explicitly announced an expert-testimony requirement, that does not render the Board's decision in this case arbitrary, particularly where the Board has previously demanded expert testimony in an analogous situation. See Web IV, 81 Fed. Reg. at 26,327 (rejecting lay testimony and considering only expert testimony to determine whether to adjust a benchmark).

Second, the Board reasonably rejected the Committee's rate proposals due to their failure to account for economically significant aspects of the NPR Agreement. When a party derives a proposed rate from a benchmark agreement, it is required to account for economically significant, non-rate aspects of the benchmark. See SoundExchange, 904 F.3d at 47. For instance, if a benchmark contains a relatively low royalty rate but imposes other costs on webcasters, the rate derived from that benchmark should be adjusted upward to capture those costs. The Board properly placed the burden on the Committee to make the appropriate adjustments to its rate proposals derived from the NPR Agreement. See Music Choice, 774 F.3d at 1009 ("While the Judges might have made further adjustments to [a proponent's] benchmarks to render them useful, the Judges were not required to do so." (citation omitted)); see also id. at 1012 ("The Judges were under no obligation to salvage benchmarks they found to have fundamental problems."). The Board faulted the Committee for failing to account for the following aspects of the NPR Agreement that benefited one or both of the settling parties but were not reflected in the Committee's proposed rates: (1) the avoidance of litigation costs by the parties to the NPR Agreement;
(2) the value of NPR's advance, lump-sum payments to SoundExchange; and (3) NPR's consolidated reporting of data from individual stations to SoundExchange. See Web V, 86 Fed. Reg. at 59,570, $59,572-59,573$. The Board's determination that those adjustments were necessary to adequately capture the value of the Agreement reflected rational economic reasoning, even though the Board did not determine the precise amount by which each of these factors distorted the Agreement's pricing. ${ }^{4}$ The Committee argues that the Board acted contrary to agency precedent and the statutory scheme, but its citations are all inapposite. ${ }^{5}$

[^74]Third, the Board appropriately concluded that it was statutorily barred from considering the royalty rates contained in the "NPR Analysis," an internal SoundExchange document created in 2015. See Web $V, 86$ Fed. Reg. at 59,570-59,572. In the NPR Analysis, SoundExchange performed calculations using a royalty-rate structure that included perperformance payments at one-third the commercial rate. The Board found, however, that the rate structure came from an old settlement agreement negotiated pursuant to the Webcaster Settlement Act ("WSA") of 2009, Pub. L. No. 111-36, 123 Stat. 1926. See Web V, 86 Fed. Reg. at 59,572. The Board properly determined that it was statutorily barred from considering that rate structure under 17 U.S.C. § $114(\mathrm{f})(4)(\mathrm{C})$, which prohibits "admi[tting] as evidence or otherwise tak[ing] into account" the "provisions of any agreement entered into pursuant to [the WSA], including any rate structure * * * set forth therein." $I d$. The Committee argued that the Board could rely on the rate structure because the NPR Analysis was prepared for use in future, non-WSA settlement

[^75]negotiations. But the Board was not required to accept the Committee's inference that the rates were actually used in the non-WSA settlement agreement relied upon by the Committee. See Web V, 86 Fed. Reg. at 59,571 . We disagree with the Committee's contention that the Board's decision contradicted a binding opinion issued by the Register of Copyrights, as set forth in Scope of the Copyright Royalty Judges' Continuing Jurisdiction, 80 Fed. Reg. 58,300 (Sept. 28, 2015). Although the Register's opinion allows the Board to consider voluntary license agreements that incorporate WSA settlement terms, as well as the effect of the WSA on private-settlement negotiations, it does not require or even allow the Board to consider documents like the NPR Analysis. See id. at 58,305. The Register found that, if parties incorporate terms from their WSA settlements into subsequent agreements, those are fair game for the Board's consideration. But the NPR analysis does not fall into that category; it documents WSA rates that may have been used to propose terms for a subsequent agreement. It does not document any post-WSA terms. Without the NPR Analysis, the Committee lacked support for a discounted above-threshold rate for noncommercial webcasters, which became a critical flaw in its proposal.

We are unpersuaded by the Committee's argument that the Board arbitrarily and capriciously set the noncommercial webcaster rate. In the absence of acceptable benchmarks, the Board properly used the incumbent rate structure as the starting point in its analysis. See Music Choice, 774 F.3d at 1012 ("[G]iven the lack of creditable benchmarks in the
record, the Judges did not err when they used the prevailing rate as the starting point of their Section 801(b) analysis."). Moreover, substantial evidence supported the Board's decision to maintain the prevailing rate structure.

The incumbent rate structure originated in Web II. It reflected an "economic insight" that noncommercial webcasters that compete with the commercial market tend to be larger, so that size is "a 'proxy' for determining when a noncommercial webcaster poses a competitive threat[.]" Web V, 86 Fed. Reg. at 59,565-59,566 ("[L]arger noncommercial webcasters have the same or similar competitive impact in the marketplace as similarly sized commercial webcasters."). Because large noncommercial webcasters can divert listeners away from commercial webcasters, the Board found that copyright holders would not willingly license sound recordings to large noncommercial webcasters at a discount, because that would decrease overall royalty revenue by cannibalizing commercial royalty revenue. See Web II, 72 Fed. Reg. at 24,097-24,100. The noncommercial webcasters that exceed the ATH threshold tend to be larger ones, and they are charged the same rates as commercial webcasters for abovethreshold usage. In the instant rate-setting proceeding, the Board relied on expert testimony to conclude that the same competitive dynamics remained in effect and justified retaining the preexisting rate structure. See Web V, 86 Fed. Reg. at 59,575 (discussing testimony of Mr. Jon Orszag,

Professor Joseph Cordes, and Professor Richard Steinberg). ${ }^{6}$

The Board appropriately rejected the Committee's attempts to undermine the analysis that justified the previous rate structure. The Committee argued that cannibalization was unlikely because noncommercial webcasters' missions differed from those of commercial webcasters. But the Board reasonably declined to rely on the webcasters' motivations in evaluating market dynamics. See Web V, 86 Fed. Reg. at 59,575 ("The concerns about cannibalization that the Judges articulated in past webcasting proceedings focus on potential displacement in listenership from commercial to noncommercial webcasters and is independent of noncommercial webcasters' motivations."). Moreover, the Board permissibly relied on an "overlap study" and other evidence to reject the Committee's argument that noncommercial webcasting would not cannibalize commercial webcasters because they each offer different programming. The overlap study compared the songs played by commercial and noncommercial Christian Adult Contemporary radio stations. Id. at 59,576. It revealed that "commercial and noncommercial stations broadcasting in the Christian [Adult Contemporary] format play many of

[^76]the same songs." Id. ${ }^{7}$ The Board also pointed to competition between two Atlanta-based commercial and noncommercial religious radio stations. See id. at 59,575. ${ }^{8}$ The Board permissibly inferred from that evidence that noncommercial and commercial webcasters' programming did not differ enough that cannibalization was unlikely.

Finally, the Board reasonably rejected the Committee's argument that the incumbent rate structure failed to consider noncommercial webcasters' lower willingness to pay, thus violating the Copyright Act's willing buyer/willing seller standard. According to the Committee, the Board overlooked whether willing buyers would negotiate "above-threshold commercial-level rates," and

[^77]accounted for only what willing sellers would negotiate. Committee Opening Br. 40. That argument, however, unduly focuses on the abovethreshold rates without considering the entire rate structure. The Board noted that the minimum-fee rate structure gives noncommercial webcasters of all sizes a hefty discount through the monthly ATH allowance. See Web V, 86 Fed. Reg. at 59,566 (discussing testimony of Professor Catherine Tucker); id. at 59,574 (discussing effective discount for noncommercial webcasters). For instance, if the average copyrighted song is four minutes long, see id. at $59,570-59,571$, then 159,140 ATH per month would let a noncommercial webcaster play roughly 28.5 million performances in a year for the $\$ 1,000$ minimum fee. That same number of performances would cost a commercial subscription webcaster roughly $\$ 75,000$ and a commercial nonsubscription webcaster roughly $\$ 60,000$. Thus, the significant benefit conferred on noncommercial webcasters by their access to the ATH allowance takes account of their unwillingness to pay the same rates as commercial webcasters. The Board justifiably concluded that the incumbent rate structure adequately balanced noncommercial webcasters' lower willingness to pay with the risk of large noncommercial webcasters cannibalizing copyright owners' royalty revenue from commercial webcasters, thereby satisfying the willing buyer/willing seller standard. See id. at 59,573-59,574.

The Committee argues that the Board's rate determination violates the First Amendment's Free Exercise Clause and the federal RFRA, because the
terms that it adopts for noncommercial religious webcasters are less favorable than the terms enjoyed by NPR, a noncommercial secular webcaster. We disagree.

The Free Exercise Clause provides that "Congress shall make no law * * * prohibiting the free exercise" of religion. U.S. CONST. Amend. I. Under that clause, a government entity may not "burden] [a person's] sincere religious practice pursuant to a policy that is not 'neutral' or 'generally applicable"' unless the action is "narrowly tailored in pursuit of" a "compelling state interest." Kennedy v. Bremerton Sch. Dist., 142 S. Ct. 2407, 2422 (2022) (quoting Employment Div., Dep't of Hum. Res. of Ore. v. Smith, 494 U.S. 872, 881 (1990)). "But the First Amendment is not the only potential refuge for [a litigant's] religious claim-the RFRA offers religious exercise greater protection from intrusion by religion-neutral federal laws." Kaemmerling v. Lappin, 553 F.3d 669, 677 (D.C. Cir. 2008). Under the RFRA, federal government action cannot "substantially burden a person's exercise of religion even if the burden results from a rule of general applicability," unless it is "the least restrictive means of furthering [a] compelling governmental interest." 42 U.S.C. §§ 2000bb-1(a)-(b). The statute's protection reaches "any exercise of religion, whether or not compelled by, or central to, a system of religious belief." Id. § 2000cc-5(7)(A).

The Committee's RFRA and Free Exercise arguments are premised on a factual assertion that the rate for noncommercial webcasters under the compulsory license is higher than the rate enjoyed by NPR under the NPR Agreement. See Committee Opening Br. 53-54. But there is no record finding to
support that assertion. As we have explained, the Board reasonably rejected the NPR Agreement as a benchmark for noncommercial webcasters and faulted the Committee's proposals based on the NPR Agreement for failing to make necessary adjustments to account for economically significant features of the Agreement. The Board also appropriately refused to consider the NPR Analysis proffered by the Committee, thereby eliminating the evidence that enabled the Board to compare the above-threshold per-play royalty rates of the compulsory license with the NPR Agreement's lump-sum payments. The record therefore contains no basis for the Board, or this court, to effectively determine whether noncommercial webcasters subject to the compulsory license are paying higher rates than the NPR stations covered by the NPR Agreement. Without making that initial showing of unfavorable treatment of religious webcasters, the Committee cannot establish a violation of the RFRA or the First Amendment.

We note that the Committee's arguments are also problematic in other respects. For example, the Committee attempts to challenge the rates paid by the religious broadcasters that are members of its trade association, but the compulsory license applies to all noncommercial webcasters. Even if the abovethreshold noncommercial webcasters are "almost exclusively religious," as the Committee asserts, Committee Opening Br. 8, the Committee does not explain why it does not have to consider the overall rate structure, which applies to all noncommercial webcasters. Indeed, the Committee fails to cite any precedent that would give the Board the power to impose a statutory license that, like the Committee's

Alternative 2, would be available only to select members of a particular trade organization, rather than to a category of webcasters. See Web V, 86 Fed. Reg. at 59,567 . We are aware of none. Nor did the Committee argue to the Board that the religious broadcasters it represents form a distinct market segment for purposes of the 2021-2025 proceeding. We need not address that substantial and open question, given the absence of any factual basis to compare the rates at issue.
C

Finally, SoundExchange challenges as arbitrary and capricious the royalty rate the Board set for commercial, nonsubscription "ad-supported" webcasters, i.e., noninteractive streaming services like Free Pandora that collect payment from advertisers. Specifically, SoundExchange argues that the Board acted arbitrarily and capriciously by making an express finding that the opportunity cost for sellers was a particular value, but then adopting a royalty rate that falls below that opportunity cost without further explanation.

The very premise of SoundExchange's argument is wrong. The Board never found as fact the opportunity cost value on which SoundExchange hangs its argument. As a result, its arbitrary and capricious challenge fails before it even starts.

## 1

To understand SoundExchange's argument and the Board's conclusions, some background on the Board's analytical process for setting royalty rates.

The Board's statutory obligation is to "establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller." 17 U.S.C. § 114(f)(1)(B). The Board views this hypothetical market to be one that is "effectively competitive." SoundExchange, 904 F.3d at 56.

To determine rates under that standard, the Board has relied on various modes of economic analysis to best approximate the price at which a willing seller would sell and at which a willing buyer would buy. See Intercollegiate I, 574 F.3d at 757; Music Choice, 774 F.3d at 1010. One approach is to consider "the rates and terms negotiated for comparable services and 'comparable circumstances under voluntary license agreements." SoundExchange, 904 F.3d at 47 (quoting 17 U.S.C. § $114(\mathrm{f})(2)(\mathrm{B})$ ). To that end, parties in a proceeding may submit examples of voluntary license agreements that they argue are sufficiently analogous to inform the appropriate statutory royalty rate for adsupported, noninteractive services. Because those proposed benchmarks come from real-world markets that may not map perfectly onto the Board's hypothetical market, the parties commonly submit expert economic analyses with their proposed benchmarks that propose adjustments to account for any potential variance.

The Board then evaluates each license agreement's economic merits to determine which proposals, if any, could be a useful touchstone in setting the statutory rate. In some instances, the Board has accepted multiple proffered benchmarks, and used the array to establish a "zone of
reasonableness" into which the final rate should fall. Web III, 79 Fed. Reg. at 23,110-23,115.

Another approach the Board uses is economic modeling submitted by parties and their experts that are designed to produce an appropriate rate. These models often employ game theory to make and justify certain assumptions about the hypothetical market, comb relevant data to calculate inputs, and essentially solve for what parties contend is an appropriate royalty rate. See, e.g., Web V, 86 Fed. Reg. at 59,522-59,546 (Evaluation of Game Theoretic Modelling Evidence); Johnson v. Copyright Royalty Board, 969 F.3d 363, 372 (D.C. Cir. 2020) (discussing the Board's use of specific game theoretic model known as Shapley Analysis). ${ }^{9}$

In assessing economic models and their outputs, the Board evaluates a model's utility as well as its flaws, and decides whether a model can reasonably assist the Board's calculation of the statutory willing buyer/willing seller rate. See, e.g., Phonorecords III, 84 Fed. Reg. at 1947-1950.

[^78]In this case, the Board considered both benchmarking analyses and economic models utilizing game-theory concepts.

With respect to benchmarking analyses, the Board reviewed benchmarks submitted by SoundExchange, Pandora, and Google, along with supplemental submissions by the parties' experts. See Web V, 86 Fed. Reg. at 59,491-59,522. Making relevant adjustments, the Board found that both SoundExchange's and Pandora's analyses yielded a royalty rate of $\$ 0.0023$ per play, while Google's analysis yielded a rate of $\$ 0.0021$ per play. Id. at 59,589.

The Board also discussed the "Game Theoretic Modelling Evidence" submitted by SoundExchange through its expert, Professor Willig, and by the Services through their expert, Professor Shapiro. As relevant here, the Board evaluated Professor Willig's "Shapley Value Model," a game-theoretic model that focused on "how to apportion among the members of a multi-party bargaining group the surplus created by their productive cooperation with each other." Web V, 86 Fed. Reg. at 59,522 (internal quotation marks omitted). That is, when the parties get together and work out a deal, there is an independent value derived from that agreement that is greater than the sum of what every party could get on its own. The Willig model sought to divide up this surplus. The Willig model also assumed a small number of actors would get together to split up market share, presupposing a state of limited competition otherwise known as an oligopoly.

One of the inputs that the Willig model used was the "fallback value," or the money a record company could make with its repertoire through avenues beyond entering into a voluntary licensing agreement with the streaming services. Web $V, 86$ Fed. Reg. at 59,522 . That fallback value was the party's "opportunity cost": The party forgoes these alternative money-making options when it enters into a specific licensing agreement. "The opportunity cost of anything of value is what you must give up to get it[.]" Id. at 59,522 n. 220 (quoting JoHN QUIGGIN, Economics in Two Lessons: Why Markets Work So Well, And Why They Can Fail So Badly 15 (2019)) (internal quotation marks omitted). Because opportunity cost represents what a party gives up in taking a particular option, that opportunity cost necessarily sets a floor for the statutory rate under the willing buyer/willing seller standard. That is because no willing buyer or seller would agree to a rate below the cost borne for the choice made.

As part of its overall review of Professor Willig's model, the Board evaluated his opportunity cost figure, and found salient Professor Shapiro's criticism that the Willig model's opportunity cost input was artificially inflated. Web V, 86 Fed. Reg. at 59,53859,539 . As a result, the Board adjusted the Willig model estimate of the opportunity cost down, and recalculated a proposed royalty rate using that new number. Id. ${ }^{10}$

Even with those adjustments, however, the Board ultimately found that Professor Willig's model was

[^79]fatally flawed because it baked in certain oligopoly power of the major record labels. Oligopolies, of course, are not present in effectively competitive markets. So a model premised on oligopoly power by definition did not produce a royalty rate reflective of what a willing buyer and seller would agree to in an effectively competitive environment. As a result, the Board concluded that the Willig model and the rate it produced could only serve as a "limited guidepost" in determining a statutory royalty rate. Web $V$, 86 Fed. Reg. at 59,540 ("[T]he evidentiary record only allows the Judges to state with regard to the royalty rates they have determined [from Professor Willig's model] that those 2021 rates * * * exceed an effectively competitive rate by an indeterminate amount.").

The Board likewise rejected Professor Shapiro's game theoretic modeling. The Board found that "new evidence" Professor Shapiro relied on in his model was fundamentally flawed in multiple ways and some key information was absent. Web V, 86 Fed. Reg. at 59,540-59,546. Because the missing evidence was the "sine qua non" of Professor Shapiro's modelling, its absence made Professor Shapiro's models "unusable." Id. at 59,546.

Having found both game theoretic models to be fundamentally unsound, the Board determined that the separate benchmarking analyses submitted by the parties provided more reliable evidence of an appropriate royalty rate on this record, and that Google's proposed benchmark in particular was the most convincing. The Board emphasized that Google's benchmark provided "more granular, [record] labelspecific, analysis," as well as a more reliable application of adjustments to account for known
concerns, all of which ultimately lent more weight to Google's proposed rate. Web V, 86 Fed. Reg. at 59,589.

On that basis, the Board set the commercial adsupported, noninteractive royalty rate at Google's proposed adjusted benchmark of $\$ 0.0021$ per play. Web V, 86 Fed. Reg. at 59,589. In so finding, the Board noted that its chosen royalty rate was only slightly below that produced by Professor Willig's adjusted model, which served as a relevant, though quite limited, guidepost. That further buttressed the Board's judgment that its final royalty rate accurately reflected the willing buyer/willing seller standard in a hypothetical, effectively competitive market.

SoundExchange's entire argument is premised on the contention that the Board necessarily erred because it specifically adopted the Willig model's adjusted opportunity cost for the ad-supported, noninteractive market, and yet set a royalty rate that fell below that amount.

But the factual premise on which SoundExchange's argument rests is no fact at all. The Board never made a definitive finding that the true opportunity cost was the adjusted Willig value. In fact, the Board ultimately rejected the Willig model, and the game theoretic models more generally, for use in calculating the appropriate royalty rate, opportunity cost and all.

Remember, the Board rejected Professor Willig's opportunity cost figure as inflated. The Board then noted Professor Shapiro's proposed downward adjustment of the Willig model's number. The Board
took that into account and concluded that, " $[\mathrm{b}]$ ased on the foregoing adjustments accepted by the Judges, Professor Willig's opportunity cost calculation must be adjusted, as set forth [below in Figure 8]." Web V, 86 Fed. Reg. at 59,538.

SoundExchange argues that this one sentence renders the Board's entire rate-setting arbitrary and capricious. But all the Board said was that it accepted Professor Shapiro's specific adjustments to Professor Willig's calculations in the broader context of Professor Willig's game theoretic model. The Board did not go further and make a definitive determination that the adjusted Willig model number was, in fact, the actual opportunity cost for sellers that would govern the entire rate-setting procedure. Especially not since the Board ultimately abandoned altogether the use of economic models like Professors Shapiro's and Willig's as a reliable basis for calculating the royalty rate.

On top of that, the statement on which SoundExchange relies only addressed one of the Board's multiple critiques of the Willig model's initial opportunity cost calculation. The Board, for instance, repeatedly objected to Professor Willig's failure to factor opportunity benefits into his opportunity cost calculation. See Web V, 86 Fed. Reg. at 59,523, 59,537.

Notably, SoundExchange lodges no criticism of the Board's decision to use, instead, the benchmarking process to set the royalty rate. That benchmarking process itself accounted for opportunity cost, as the voluntary agreements naturally involve a party's own estimation of its opportunity cost. And the Board considered that

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opportunity cost where relevant in adjusting the benchmark proffered. See Web V, 86 Fed. Reg. at 59,496-59,497.

In sum, because the Board never found as fact that the opportunity cost input to Professor Willig's model, even as adjusted, represented the record companies' true opportunity cost, the Board's decision to set a royalty rate that was slightly below the Willig model's flawed opportunity-cost measure is neither here nor there. And so this court has no occasion to decide, as SoundExchange urges, whether it would, as a matter of law, violate the willing buyer/willing seller standard for the Board to set a royalty rate below some definitive measure of opportunity cost.

IV
For the foregoing reasons, we affirm the Final Determination of the Copyright Royalty Board.

So ordered.

# (fnited States $\mathbb{C o u r t}$ of $\mathfrak{A p p e a l s}$ 

## For The District of Columbia Circuit

No. 21-1243
September Term, 2022
Filed On: July 28, 2023

National Religious Broadcasters
Noncommercial Music License Committee, AppeLLANT
v.

Copyright Royalty Board and Librarian of Congress,

Appellees
Google LLC, ET AL.,
Intervenors

Consolidated with 21-1244, 21-1245

On Appeals from a Final Determination of the Copyright Royalty Board

Before: Millett, Wilkins, and Pan, Circuit Judges

## JUDGMENT

These causes came on to be heard on the record on appeal from a Final Determination of the Copyright

Royalty Board and were argued by counsel. On consideration thereof, it is
ORDERED and ADJUDGED that the Final Determination of the Copyright Royalty Board be affirmed, in accordance with the opinion of the court filed herein this date.

## Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk
BY: /s/
Daniel J. Reidy
Deputy Clerk
Date: July 28, 2023
Opinion Per Curiam

# (fnited States $\mathbb{C o u r t}$ of $\mathfrak{A p p e a l s}$ 

For The District of Columbia Circuit

No. 21-1243
September Term, 2023
LOC-86FR59452
Filed On: September 27, 2023
National Religious Broadcasters
Noncommercial Music License Committee, Appellant
v.

Copyright Royalty Board and Librarian of Congress, Appellees

Google LLC, et al., Intervenors

Consolidated with 21-1244, 21-1245
BEFORE: Srinivasan, Chief Judge; Henderson, Millett, Pillard, Wilkins, Katsas, Rao, Walker, Childs, Pan, and Garcia, Circuit Judge

## ORDER

Upon consideration of appellant's petition for rehearing en banc, and the absence of a request by any member of the court for a vote, it is

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ORDERED that the petition be denied.

## Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk
BY: /s/
Daniel J. Reidy
Deputy Clerk

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17 U.S.C. 106
Exclusive rights in copyrighted works
Subject to sections 107 through 122, the owner of copyright under this title has the exclusive rights to do and to authorize any of the following:
(1) to reproduce the copyrighted work in copies or phonorecords;
(2) to prepare derivative works based upon the copyrighted work;
(3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
(4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly;
(5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly; and
(6) in the case of sound recordings, to perform the copyrighted work publicly by means of a digital audio transmission.

## 17 U.S.C. 112(e) <br> Limitations on exclusive rights: Ephemeral recordings

*****
(e) Statutory license.--(1) A transmitting organization entitled to transmit to the public a performance of a sound recording under the limitation on exclusive rights specified by section 114(d)(1)(C)(iv) or under a statutory license in accordance with section 114(f) is entitled to a statutory license, under the conditions specified by this subsection, to make no more than 1 phonorecord of the sound recording (unless the terms and conditions of the statutory license allow for more), if the following conditions are satisfied:
(A) The phonorecord is retained and used solely by the transmitting organization that made it, and no further phonorecords are reproduced from it.
(B) The phonorecord is used solely for the transmitting organization's own transmissions originating in the United States under a statutory license in accordance with section 114(f) or the limitation on exclusive rights specified by section 114(d)(1)(C)(iv).
(C) Unless preserved exclusively for purposes of archival preservation, the phonorecord is destroyed within 6 months from the date the sound recording was first transmitted to the public using the phonorecord.
(D) Phonorecords of the sound recording have been distributed to the public under the authority of the copyright owner or the copyright owner authorizes the transmitting entity to transmit the sound
recording, and the transmitting entity makes the phonorecord under this subsection from a phonorecord lawfully made and acquired under the authority of the copyright owner.
(2) Notwithstanding any provision of the antitrust laws, any copyright owners of sound recordings and any transmitting organizations entitled to a statutory license under this subsection may negotiate and agree upon royalty rates and license terms and conditions for making phonorecords of such sound recordings under this section and the proportionate division of fees paid among copyright owners, and may designate common agents to negotiate, agree to, pay, or receive such royalty payments.
(3) Proceedings under chapter 8 shall determine reasonable rates and terms of royalty payments for the activities specified by paragraph (1) during the 5year period beginning on January 1 of the second year following the year in which the proceedings are to be commenced, or such other period as the parties may agree. Such rates shall include a minimum fee for each type of service offered by transmitting organizations. Any copyright owners of sound recordings or any transmitting organizations entitled to a statutory license under this subsection may submit to the Copyright Royalty Judges licenses covering such activities with respect to such sound recordings. The parties to each proceeding shall bear their own costs.
(4) The schedule of reasonable rates and terms determined by the Copyright Royalty Judges shall, subject to paragraph (5), be binding on all copyright owners of sound recordings and transmitting
organizations entitled to a statutory license under this subsection during the 5 -year period specified in paragraph (3), or such other period as the parties may agree. Such rates shall include a minimum fee for each type of service offered by transmitting organizations. The Copyright Royalty Judges shall establish rates that most clearly represent the fees that would have been negotiated in the marketplace between a willing buyer and a willing seller. In determining such rates and terms, the Copyright Royalty Judges shall base their decision on economic, competitive, and programming information presented by the parties, including--
(A) whether use of the service may substitute for or may promote the sales of phonorecords or otherwise interferes with or enhances the copyright owner's traditional streams of revenue; and
(B) the relative roles of the copyright owner and the transmitting organization in the copyrighted work and the service made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, and risk.

In establishing such rates and terms, the Copyright Royalty Judges may consider the rates and terms under voluntary license agreements described in paragraphs (2) and (3). The Copyright Royalty Judges shall also establish requirements by which copyright owners may receive reasonable notice of the use of their sound recordings under this section, and under which records of such use shall be kept and made
available by transmitting organizations entitled to obtain a statutory license under this subsection.
(5) License agreements voluntarily negotiated at any time between 1 or more copyright owners of sound recordings and 1 or more transmitting organizations entitled to obtain a statutory license under this subsection shall be given effect in lieu of any decision by the Librarian of Congress or determination by the Copyright Royalty Judges.
(6)(A) Any person who wishes to make a phonorecord of a sound recording under a statutory license in accordance with this subsection may do so without infringing the exclusive right of the copyright owner of the sound recording under section 106(1)--
(i) by complying with such notice requirements as the Copyright Royalty Judges shall prescribe by regulation and by paying royalty fees in accordance with this subsection; or
(ii) if such royalty fees have not been set, by agreeing to pay such royalty fees as shall be determined in accordance with this subsection.
(B) Any royalty payments in arrears shall be made on or before the 20th day of the month next succeeding the month in which the royalty fees are set.
(7) If a transmitting organization entitled to make a phonorecord under this subsection is prevented from making such phonorecord by reason of the application by the copyright owner of technical measures that prevent the reproduction of the sound recording, the copyright owner shall make available to the transmitting organization the necessary means for permitting the making of such phonorecord as

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permitted under this subsection, if it is technologically feasible and economically reasonable for the copyright owner to do so. If the copyright owner fails to do so in a timely manner in light of the transmitting organization's reasonable business requirements, the transmitting organization shall not be liable for a violation of section 1201(a)(1) of this title for engaging in such activities as are necessary to make such phonorecords as permitted under this subsection.
(8) Nothing in this subsection annuls, limits, impairs, or otherwise affects in any way the existence or value of any of the exclusive rights of the copyright owners in a sound recording, except as otherwise provided in this subsection, or in a musical work, including the exclusive rights to reproduce and distribute a sound recording or musical work, including by means of a digital phonorecord delivery, under sections 106(1), 106(3), and 115, and the right to perform publicly a sound recording or musical work, including by means of a digital audio transmission, under sections 106(4) and 106(6).

## 17 U.S.C. 114(d) \& (f) <br> Scope of exclusive rights in sound recordings

*     *         *             *                 * 

(d) Limitations on exclusive right.--Notwithstanding the provisions of section 106(6)--
(1) Exempt transmissions and retransmissions.--The performance of a sound recording publicly by means of a digital audio transmission, other than as a part of an interactive service, is not an infringement of section 106(6) if the performance is part of--
(A) a nonsubscription broadcast transmission;
(B) a retransmission of a nonsubscription broadcast transmission: Provided, That, in the case of a retransmission of a radio station's broadcast transmission--
(i) the radio station's broadcast transmission is not willfully or repeatedly retransmitted more than a radius of 150 miles from the site of the radio broadcast transmitter, however--
(I) the 150 mile limitation under this clause shall not apply when a nonsubscription broadcast transmission by a radio station licensed by the Federal Communications Commission is retransmitted on a nonsubscription basis by a terrestrial broadcast station, terrestrial translator, or terrestrial repeater licensed by the Federal Communications Commission; and
(II) in the case of a subscription retransmission of a nonsubscription broadcast retransmission covered by subclause (I), the 150 mile radius
shall be measured from the transmitter site of such broadcast retransmitter;
(ii) the retransmission is of radio station broadcast transmissions that are--
(I) obtained by the retransmitter over the air;
(II) not electronically processed by the retransmitter to deliver separate and discrete signals; and
(III) retransmitted only within the local communities served by the retransmitter;
(iii) the radio station's broadcast transmission was being retransmitted to cable systems (as defined in section $111(\mathrm{f})$ ) by a satellite carrier on January 1, 1995, and that retransmission was being retransmitted by cable systems as a separate and discrete signal, and the satellite carrier obtains the radio station's broadcast transmission in an analog format: Provided, That the broadcast transmission being retransmitted may embody the programming of no more than one radio station; or
(iv) the radio station's broadcast transmission is made by a noncommercial educational broadcast station funded on or after January 1, 1995, under section 396(k) of the Communications Act of 1934 (47 U.S.C. $396(\mathrm{k})$ ), consists solely of noncommercial educational and cultural radio programs, and the retransmission, whether or not simultaneous, is a nonsubscription terrestrial broadcast retransmission; or
(C) a transmission that comes within any of the following categories--
(i) a prior or simultaneous transmission incidental to an exempt transmission, such as a feed received by and then retransmitted by an exempt transmitter: Provided, That such incidental transmissions do not include any subscription transmission directly for reception by members of the public;
(ii) a transmission within a business establishment, confined to its premises or the immediately surrounding vicinity;
(iii) a retransmission by any retransmitter, including a multichannel video programming distributor as defined in section 602(12) of the Communications Act of 1934 (47 U.S.C. 522(12)), of a transmission by a transmitter licensed to publicly perform the sound recording as a part of that transmission, if the retransmission is simultaneous with the licensed transmission and authorized by the transmitter; or
(iv) a transmission to a business establishment for use in the ordinary course of its business: Provided, That the business recipient does not retransmit the transmission outside of its premises or the immediately surrounding vicinity, and that the transmission does not exceed the sound recording performance complement. Nothing in this clause shall limit the scope of the exemption in clause (ii).
(2) Statutory licensing of certain transmissions.--The performance of a sound recording publicly by means
of a subscription digital audio transmission not exempt under paragraph (1), an eligible nonsubscription transmission, or a transmission not exempt under paragraph (1) that is made by a preexisting satellite digital audio radio service shall be subject to statutory licensing, in accordance with subsection (f) if--
(A)(i) the transmission is not part of an interactive service;
(ii) except in the case of a transmission to a business establishment, the transmitting entity does not automatically and intentionally cause any device receiving the transmission to switch from one program channel to another; and
(iii) except as provided in section 1002(e), the transmission of the sound recording is accompanied, if technically feasible, by the information encoded in that sound recording, if any, by or under the authority of the copyright owner of that sound recording, that identifies the title of the sound recording, the featured recording artist who performs on the sound recording, and related information, including information concerning the underlying musical work and its writer;
(B) in the case of a subscription transmission not exempt under paragraph (1) that is made by a preexisting subscription service in the same transmission medium used by such service on July 31, 1998, or in the case of a transmission not exempt under paragraph (1) that is made by a preexisting satellite digital audio radio service--
(i) the transmission does not exceed the sound recording performance complement; and
(ii) the transmitting entity does not cause to be published by means of an advance program schedule or prior announcement the titles of the specific sound recordings or phonorecords embodying such sound recordings to be transmitted; and
(C) in the case of an eligible nonsubscription transmission or a subscription transmission not exempt under paragraph (1) that is made by a new subscription service or by a preexisting subscription service other than in the same transmission medium used by such service on July 31, 1998--
(i) the transmission does not exceed the sound recording performance complement, except that this requirement shall not apply in the case of a retransmission of a broadcast transmission if the retransmission is made by a transmitting entity that does not have the right or ability to control the programming of the broadcast station making the broadcast transmission, unless--
(I) the broadcast station makes broadcast transmissions--
(aa) in digital format that regularly exceed the sound recording performance complement; or
(bb) in analog format, a substantial portion of which, on a weekly basis, exceed the sound recording performance complement; and
(II) the sound recording copyright owner or its representative has notified the transmitting entity in writing that broadcast transmissions of the copyright owner's sound recordings exceed the sound recording performance complement as provided in this clause;
(ii) the transmitting entity does not cause to be published, or induce or facilitate the publication, by means of an advance program schedule or prior announcement, the titles of the specific sound recordings to be transmitted, the phonorecords embodying such sound recordings, or, other than for illustrative purposes, the names of the featured recording artists, except that this clause does not disqualify a transmitting entity that makes a prior announcement that a particular artist will be featured within an unspecified future time period, and in the case of a retransmission of a broadcast transmission by a transmitting entity that does not have the right or ability to control the programming of the broadcast transmission, the requirement of this clause shall not apply to a prior oral announcement by the broadcast station, or to an advance program schedule published, induced, or facilitated by the broadcast station, if the transmitting entity does not have actual knowledge and has not received written notice from the copyright owner or its representative that the broadcast station publishes or induces or facilitates the publication of such advance program schedule, or if such advance program schedule is a schedule of classical music programming published by the broadcast station in the same manner as
published by that broadcast station on or before September 30, 1998;
(iii) the transmission--
(I) is not part of an archived program of less than 5 hours duration;
(II) is not part of an archived program of 5 hours or greater in duration that is made available for a period exceeding 2 weeks;
(III) is not part of a continuous program which is of less than 3 hours duration; or
(IV) is not part of an identifiable program in which performances of sound recordings are rendered in a predetermined order, other than an archived or continuous program, that is transmitted at--
(aa) more than 3 times in any 2 -week period that have been publicly announced in advance, in the case of a program of less than 1 hour in duration, or
(bb) more than 4 times in any 2 -week period that have been publicly announced in advance, in the case of a program of 1 hour or more in duration, except that the requirement of this subclause shall not apply in the case of a retransmission of a broadcast transmission by a transmitting entity that does not have the right or ability to control the programming of the broadcast transmission, unless the transmitting entity is given notice in writing by the copyright owner of the sound recording that the broadcast station makes
broadcast transmissions that regularly violate such requirement;
(iv) the transmitting entity does not knowingly perform the sound recording, as part of a service that offers transmissions of visual images contemporaneously with transmissions of sound recordings, in a manner that is likely to cause confusion, to cause mistake, or to deceive, as to the affiliation, connection, or association of the copyright owner or featured recording artist with the transmitting entity or a particular product or service advertised by the transmitting entity, or as to the origin, sponsorship, or approval by the copyright owner or featured recording artist of the activities of the transmitting entity other than the performance of the sound recording itself;
(v) the transmitting entity cooperates to prevent, to the extent feasible without imposing substantial costs or burdens, a transmission recipient or any other person or entity from automatically scanning the transmitting entity's transmissions alone or together with transmissions by other transmitting entities in order to select a particular sound recording to be transmitted to the transmission recipient, except that the requirement of this clause shall not apply to a satellite digital audio service that is in operation, or that is licensed by the Federal Communications Commission, on or before July 31, 1998;
(vi) the transmitting entity takes no affirmative steps to cause or induce the making of a phonorecord by the transmission recipient, and if the technology used by the transmitting entity
enables the transmitting entity to limit the making by the transmission recipient of phonorecords of the transmission directly in a digital format, the transmitting entity sets such technology to limit such making of phonorecords to the extent permitted by such technology;
(vii) phonorecords of the sound recording have been distributed to the public under the authority of the copyright owner or the copyright owner authorizes the transmitting entity to transmit the sound recording, and the transmitting entity makes the transmission from a phonorecord lawfully made under the authority of the copyright owner, except that the requirement of this clause shall not apply to a retransmission of a broadcast transmission by a transmitting entity that does not have the right or ability to control the programming of the broadcast transmission, unless the transmitting entity is given notice in writing by the copyright owner of the sound recording that the broadcast station makes broadcast transmissions that regularly violate such requirement;
(viii) the transmitting entity accommodates and does not interfere with the transmission of technical measures that are widely used by sound recording copyright owners to identify or protect copyrighted works, and that are technically feasible of being transmitted by the transmitting entity without imposing substantial costs on the transmitting entity or resulting in perceptible aural or visual degradation of the digital signal, except that the requirement of this clause shall not apply to a satellite digital audio service that is in operation, or that is licensed under the authority of
the Federal Communications Commission, on or before July 31, 1998, to the extent that such service has designed, developed, or made commitments to procure equipment or technology that is not compatible with such technical measures before such technical measures are widely adopted by sound recording copyright owners; and
(ix) the transmitting entity identifies in textual data the sound recording during, but not before, the time it is performed, including the title of the sound recording, the title of the phonorecord embodying such sound recording, if any, and the featured recording artist, in a manner to permit it to be displayed to the transmission recipient by the device or technology intended for receiving the service provided by the transmitting entity, except that the obligation in this clause shall not take effect until 1 year after the date of the enactment of the Digital Millennium Copyright Act and shall not apply in the case of a retransmission of a broadcast transmission by a transmitting entity that does not have the right or ability to control the programming of the broadcast transmission, or in the case in which devices or technology intended for receiving the service provided by the transmitting entity that have the capability to display such textual data are not common in the marketplace.
(3) Licenses for transmissions by interactive services.-
(A) No interactive service shall be granted an exclusive license under section 106(6) for the performance of a sound recording publicly by means of digital audio transmission for a period in
excess of 12 months, except that with respect to an exclusive license granted to an interactive service by a licensor that holds the copyright to 1,000 or fewer sound recordings, the period of such license shall not exceed 24 months: Provided, however, That the grantee of such exclusive license shall be ineligible to receive another exclusive license for the performance of that sound recording for a period of 13 months from the expiration of the prior exclusive license.
(B) The limitation set forth in subparagraph (A) of this paragraph shall not apply if--
(i) the licensor has granted and there remain in effect licenses under section 106(6) for the public performance of sound recordings by means of digital audio transmission by at least 5 different interactive services: Provided, however, That each such license must be for a minimum of 10 percent of the copyrighted sound recordings owned by the licensor that have been licensed to interactive services, but in no event less than 50 sound recordings; or
(ii) the exclusive license is granted to perform publicly up to 45 seconds of a sound recording and the sole purpose of the performance is to promote the distribution or performance of that sound recording.
(C) Notwithstanding the grant of an exclusive or nonexclusive license of the right of public performance under section 106(6), an interactive service may not publicly perform a sound recording unless a license has been granted for the public performance of any copyrighted musical work
contained in the sound recording: Provided, That such license to publicly perform the copyrighted musical work may be granted either by a performing rights society representing the copyright owner or by the copyright owner.
(D) The performance of a sound recording by means of a retransmission of a digital audio transmission is not an infringement of section 106(6) if--
(i) the retransmission is of a transmission by an interactive service licensed to publicly perform the sound recording to a particular member of the public as part of that transmission; and
(ii) the retransmission is simultaneous with the licensed transmission, authorized by the transmitter, and limited to that particular member of the public intended by the interactive service to be the recipient of the transmission.
(E) For the purposes of this paragraph--
(i) a "licensor" shall include the licensing entity and any other entity under any material degree of common ownership, management, or control that owns copyrights in sound recordings; and
(ii) a "performing rights society" is an association or corporation that licenses the public performance of nondramatic musical works on behalf of the copyright owner, such as the American Society of Composers, Authors and Publishers, Broadcast Music, Inc., and SESAC, Inc.
(4) Rights not otherwise limited.--
(A) Except as expressly provided in this section, this section does not limit or impair the exclusive right to perform a sound recording publicly by means of a digital audio transmission under section 106(6).
(B) Nothing in this section annuls or limits in any way--
(i) the exclusive right to publicly perform a musical work, including by means of a digital audio transmission, under section 106(4);
(ii) the exclusive rights in a sound recording or the musical work embodied therein under sections 106(1), 106(2) and 106(3); or
(iii) any other rights under any other clause of section 106, or remedies available under this title, as such rights or remedies exist either before or after the date of enactment of the Digital Performance Right in Sound Recordings Act of 1995.
(C) Any limitations in this section on the exclusive right under section 106(6) apply only to the exclusive right under section 106(6) and not to any other exclusive rights under section 106. Nothing in this section shall be construed to annul, limit, impair or otherwise affect in any way the ability of the owner of a copyright in a sound recording to exercise the rights under sections 106(1), 106(2) and 106(3), or to obtain the remedies available under this title pursuant to such rights, as such rights and remedies exist either before or after the date of enactment of the Digital Performance Right in Sound Recordings Act of 1995.
*****
(f) Licenses for certain nonexempt transmissions.--
(1)(A) Proceedings under chapter 8 shall determine reasonable rates and terms of royalty payments for transmissions subject to statutory licensing under subsection (d)(2) during the 5 -year period beginning on January 1 of the second year following the year in which the proceedings are to be commenced pursuant to subparagraph (A) or (B) of section $804(\mathrm{~b})(3)$, as the case may be, or such other period as the parties may agree. The parties to each proceeding shall bear their own costs.
(B) The schedule of reasonable rates and terms determined by the Copyright Royalty Judges shall, subject to paragraph (2), be binding on all copyright owners of sound recordings and entities performing sound recordings affected by this paragraph during the 5 -year period specified in subparagraph (A), or such other period as the parties may agree. Such rates and terms shall distinguish among the different types of services then in operation and shall include a minimum fee for each such type of service, such differences to be based on criteria including 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. The Copyright Royalty Judges shall establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller. In determining such rates and terms, the Copyright Royalty Judges--
(i) shall base their decision on economic, competitive, and programming information presented by the parties, including--
(I) 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; and
(II) the relative roles of the copyright owner and the transmitting entity in the copyrighted work and the service made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, and risk; and
(ii) may consider the rates and terms for comparable types of audio transmission services and comparable circumstances under voluntary license agreements.
(C) The procedures under subparagraphs (A) and (B) shall also be initiated pursuant to a petition filed by any sound recording copyright owner or any transmitting entity indicating that a new type of service on which sound recordings are performed is or is about to become operational, for the purpose of determining reasonable terms and rates of royalty payments with respect to such new type of service for the period beginning with the inception of such new type of service and ending on the date on which the royalty rates and terms for eligible nonsubscription services and new subscription services, or preexisting subscription services and preexisting satellite digital audio radio services, as
the case may be, most recently determined under subparagraph (A) or (B) and chapter 8 expire, or such other period as the parties may agree.
(2) License agreements voluntarily negotiated at any time between 1 or more copyright owners of sound recordings and 1 or more entities performing sound recordings shall be given effect in lieu of any decision by the Librarian of Congress or determination by the Copyright Royalty Judges.
(3)(A) The Copyright Royalty Judges shall also establish requirements by which copyright owners may receive reasonable notice of the use of their sound recordings under this section, and under which records of such use shall be kept and made available by entities performing sound recordings. The notice and recordkeeping rules in effect on the day before the effective date of the Copyright Royalty and Distribution Reform Act of 2004 shall remain in effect unless and until new regulations are promulgated by the Copyright Royalty Judges. If new regulations are promulgated under this subparagraph, the Copyright Royalty Judges shall take into account the substance and effect of the rules in effect on the day before the effective date of the Copyright Royalty and Distribution Reform Act of 2004 and shall, to the extent practicable, avoid significant disruption of the functions of any designated agent authorized to collect and distribute royalty fees.
(B) Any person who wishes to perform a sound recording publicly by means of a transmission eligible for statutory licensing under this subsection may do so without infringing the
exclusive right of the copyright owner of the sound recording--
(i) by complying with such notice requirements as the Copyright Royalty Judges shall prescribe by regulation and by paying royalty fees in accordance with this subsection; or
(ii) if such royalty fees have not been set, by agreeing to pay such royalty fees as shall be determined in accordance with this subsection.
(C) Any royalty payments in arrears shall be made on or before the twentieth day of the month next succeeding the month in which the royalty fees are set.
(4)(A) Notwithstanding section 112(e) and the other provisions of this subsection, the receiving agent may enter into agreements for the reproduction and performance of sound recordings under section $112(\mathrm{e})$ and this section by any 1 or more commercial webcasters or noncommercial webcasters for a period of not more than 11 years beginning on January 1, 2005, that, once published in the Federal Register pursuant to subparagraph (B), shall be binding on all copyright owners of sound recordings and other persons entitled to payment under this section, in lieu of any determination by the Copyright Royalty Judges. Any such agreement for commercial webcasters may include provisions for payment of royalties on the basis of a percentage of revenue or expenses, or both, and include a minimum fee. Any such agreement may include other terms and conditions, including requirements by which copyright owners may receive notice of the use of their sound
recordings and under which records of such use shall be kept and made available by commercial webcasters or noncommercial webcasters. The receiving agent shall be under no obligation to negotiate any such agreement. The receiving agent shall have no obligation to any copyright owner of sound recordings or any other person entitled to payment under this section in negotiating any such agreement, and no liability to any copyright owner of sound recordings or any other person entitled to payment under this section for having entered into such agreement.
(B) The Copyright Office shall cause to be published in the Federal Register any agreement entered into pursuant to subparagraph (A). Such publication shall include a statement containing the substance of subparagraph (C). Such agreements shall not be included in the Code of Federal Regulations. Thereafter, the terms of such agreement shall be available, as an option, to any commercial webcaster or noncommercial webcaster meeting the eligibility conditions of such agreement.
(C) Neither subparagraph (A) nor any provisions of any agreement entered into pursuant to subparagraph (A), including any rate structure, fees, terms, conditions, or notice and recordkeeping requirements set forth therein, shall be admissible as evidence or otherwise taken into account in any administrative, judicial, or other government proceeding involving the setting or adjustment of the royalties payable for the public performance or reproduction in ephemeral phonorecords or copies of sound recordings, the determination of terms or
conditions related thereto, or the establishment of notice or recordkeeping requirements by the Copyright Royalty Judges under paragraph (3) or section $112(\mathrm{e})(4)$. It is the intent of Congress that any royalty rates, rate structure, definitions, terms, conditions, or notice and recordkeeping requirements, included in such agreements shall be considered as a compromise motivated by the unique business, economic and political circumstances of webcasters, copyright owners, and performers rather than as matters that would have been negotiated in the marketplace between a willing buyer and a willing seller, or otherwise meet the objectives set forth in section 801(b). This subparagraph shall not apply to the extent that the receiving agent and a webcaster that is party to an agreement entered into pursuant to subparagraph (A) expressly authorize the submission of the agreement in a proceeding under this subsection.
(D) Nothing in the Webcaster Settlement Act of 2008, the Webcaster Settlement Act of 2009, or any agreement entered into pursuant to subparagraph (A) shall be taken into account by the United States Court of Appeals for the District of Columbia Circuit in its review of the determination by the Copyright Royalty Judges of May 1, 2007, of rates and terms for the digital performance of sound recordings and ephemeral recordings, pursuant to sections 112 and 114.1
(E) As used in this paragraph--
(i) the term "noncommercial webcaster" means a webcaster that--
(I) is exempt from taxation under section 501 of the Internal Revenue Code of 1986 (26 U.S.C. 501);
(II) has applied in good faith to the Internal Revenue Service for exemption from taxation under section 501 of the Internal Revenue Code and has a commercially reasonable expectation that such exemption shall be granted; or
(III) is operated by a State or possession or any governmental entity or subordinate thereof, or by the United States or District of Columbia, for exclusively public purposes;
(ii) the term "receiving agent" shall have the meaning given that term in section 261.2 of title 37, Code of Federal Regulations, as published in the Federal Register on July 8, 2002; and
(iii) the term "webcaster" means a person or entity that has obtained a compulsory license under section 112 or 1142 and the implementing regulations therefor.
(F) The authority to make settlements pursuant to subparagraph (A) shall expire at 11:59 p.m. Eastern time on the 30th day after the date of the enactment of the Webcaster Settlement Act of 2009.
[(5) Redesignated (4)]

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## 17 U.S.C. 802(f)(1) <br> Copyright Royalty Judgeships; staff

(f) Independence of Copyright Royalty Judge.--
(1) In making determinations.--
(A) In general.--(i) Subject to subparagraph (B) and clause (ii) of this subparagraph, the Copyright Royalty Judges shall have full independence in making determinations concerning adjustments and determinations of copyright royalty rates and terms, the distribution of copyright royalties, the acceptance or rejection of royalty claims, rate adjustment petitions, and petitions to participate, and in issuing other rulings under this title, except that the Copyright Royalty Judges may consult with the Register of Copyrights on any matter other than a question of fact.
(ii) One or more Copyright Royalty Judges may, or by motion to the Copyright Royalty Judges, any participant in a proceeding may, request from the Register of Copyrights an interpretation of any material questions of substantive law that relate to the construction of provisions of this title and arise in the course of the proceeding. Any request for a written interpretation shall be in writing and on the record, and reasonable provision shall be made to permit participants in the proceeding to comment on the material questions of substantive law in a manner that minimizes duplication and delay. Except as provided in subparagraph (B), the Register of Copyrights shall deliver to the Copyright Royalty Judges a written response
within 14 days after the receipt of all briefs and comments from the participants. The Copyright Royalty Judges shall apply the legal interpretation embodied in the response of the Register of Copyrights if it is timely delivered, and the response shall be included in the record that accompanies the final determination. The authority under this clause shall not be construed to authorize the Register of Copyrights to provide an interpretation of questions of procedure before the Copyright Royalty Judges, the ultimate adjustments and determinations of copyright royalty rates and terms, the ultimate distribution of copyright royalties, or the acceptance or rejection of royalty claims, rate adjustment petitions, or petitions to participate in a proceeding.
(B) Novel questions.--(i) In any case in which a novel material question of substantive law concerning an interpretation of those provisions of this title that are the subject of the proceeding is presented, the Copyright Royalty Judges shall request a decision of the Register of Copyrights, in writing, to resolve such novel question. Reasonable provision shall be made for comment on such request by the participants in the proceeding, in such a way as to minimize duplication and delay. The Register of Copyrights shall transmit his or her decision to the Copyright Royalty Judges within 30 days after the Register of Copyrights receives all of the briefs or comments of the participants. Such decision shall be in writing and included by the Copyright Royalty Judges in the record that accompanies their final determination. If such a decision is timely delivered to the

Copyright Royalty Judges, the Copyright Royalty Judges shall apply the legal determinations embodied in the decision of the Register of Copyrights in resolving material questions of substantive law.
(ii) In clause (i), a "novel question of law" is a question of law that has not been determined in prior decisions, determinations, and rulings described in section 803(a).
(C) Consultation.--Notwithstanding the provisions of subparagraph (A), the Copyright Royalty Judges shall consult with the Register of Copyrights with respect to any determination or ruling that would require that any act be performed by the Copyright Office, and any such determination or ruling shall not be binding upon the Register of Copyrights.
(D) Review of legal conclusions by the Register of Copyrights.--The Register of Copyrights may review for legal error the resolution by the Copyright Royalty Judges of a material question of substantive law under this title that underlies or is contained in a final determination of the Copyright Royalty Judges. If the Register of Copyrights concludes, after taking into consideration the views of the participants in the proceeding, that any resolution reached by the Copyright Royalty Judges was in material error, the Register of Copyrights shall issue a written decision correcting such legal error, which shall be made part of the record of the proceeding. The Register of Copyrights shall issue such written decision not later than 60 days after the date on which the final determination by the Copyright Royalty Judges is
issued. Additionally, the Register of Copyrights shall cause to be published in the Federal Register such written decision, together with a specific identification of the legal conclusion of the Copyright Royalty Judges that is determined to be erroneous. As to conclusions of substantive law involving an interpretation of the statutory provisions of this title, the decision of the Register of Copyrights shall be binding as precedent upon the Copyright Royalty Judges in subsequent proceedings under this chapter. When a decision has been rendered pursuant to this subparagraph, the Register of Copyrights may, on the basis of and in accordance with such decision, intervene as of right in any appeal of a final determination of the Copyright Royalty Judges pursuant to section 803(d) in the United States Court of Appeals for the District of Columbia Circuit. If, prior to intervening in such an appeal, the Register of Copyrights gives notification to, and undertakes to consult with, the Attorney General with respect to such intervention, and the Attorney General fails, within a reasonable period after receiving such notification, to intervene in such appeal, the Register of Copyrights may intervene in such appeal in his or her own name by any attorney designated by the Register of Copyrights for such purpose. Intervention by the Register of Copyrights in his or her own name shall not preclude the Attorney General from intervening on behalf of the United States in such an appeal as may be otherwise provided or required by law.
(E) Effect on judicial review.--Nothing in this section shall be interpreted to alter the standard

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applied by a court in reviewing legal determinations involving an interpretation or construction of the provisions of this title or to affect the extent to which any construction or interpretation of the provisions of this title shall be accorded deference by a reviewing court.

# 17 U.S.C. 803(d)(1) <br> Proceedings of Copyright Royalty Judges 

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(d) Judicial review.--
(1) Appeal.--Any determination of the Copyright Royalty Judges under subsection (c) may, within 30 days after the publication of the determination in the Federal Register, be appealed, to the United States Court of Appeals for the District of Columbia Circuit, by any aggrieved participant in the proceeding under subsection (b)(2) who fully participated in the proceeding and who would be bound by the determination. Any participant that did not participate in a rehearing may not raise any issue that was the subject of that rehearing at any stage of judicial review of the hearing determination. If no appeal is brought within that 30-day period, the determination of the Copyright Royalty Judges shall be final, and the royalty fee or determination with respect to the distribution of fees, as the case may be, shall take effect as set forth in paragraph (2).

## 17 U.S.C. 804(b)(3) Institution of proceedings

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(b) Timing of proceedings.--
(1) Section 111 proceedings.--(A) A petition described in subsection (a) to initiate proceedings under section 801(b)(2) concerning the adjustment of royalty rates under section 111 to which subparagraph (A) or (D) of section 801(b)(2) applies may be filed during the year 2015 and in each subsequent fifth calendar year.
(B) In order to initiate proceedings under section 801(b)(2) concerning the adjustment of royalty rates under section 111 to which subparagraph (B) or (C) of section 801(b)(2) applies, within 12 months after an event described in either of those subsections, any owner or user of a copyrighted work whose royalty rates are specified by section 111, or by a rate established under this chapter before or after the enactment of the Copyright Royalty and Distribution Reform Act of 2004, may file a petition with the Copyright Royalty Judges declaring that the petitioner requests an adjustment of the rate. The Copyright Royalty Judges shall then proceed as set forth in subsection (a) of this section. Any change in royalty rates made under this chapter pursuant to this subparagraph may be reconsidered in the year 2015, and each fifth calendar year thereafter, in accordance with the provisions in section 801(b)(2)(B) or (C), as the case may be. A petition for adjustment of rates established by section $111(\mathrm{~d})(1)(\mathrm{B})$ as a result of a change in the rules and
regulations of the Federal Communications Commission shall set forth the change on which the petition is based.
(C) Any adjustment of royalty rates under section 111 shall take effect as of the first accounting period commencing after the publication of the determination of the Copyright Royalty Judges in the Federal Register, or on such other date as is specified in that determination.
(2) Certain section 112 proceedings.--Proceedings under this chapter shall be commenced in the year 2007 to determine reasonable terms and rates of royalty payments for the activities described in section $112(\mathrm{e})(1)$ relating to the limitation on exclusive rights specified by section 114(d)(1)(C)(iv), to become effective on January 1, 2009. Such proceedings shall be repeated in each subsequent fifth calendar year.
(3) Section 114 and corresponding 112
proceedings.--
(A) For eligible nonsubscription services and new subscription services.--Proceedings under this chapter shall be commenced as soon as practicable after the date of enactment of the Copyright Royalty and Distribution Reform Act of 2004 to determine reasonable terms and rates of royalty payments under sections 114 and 112 for the activities of eligible nonsubscription transmission services and new subscription services, to be effective for the period beginning on January 1, 2006, and ending on December 31, 2010. Such proceedings shall next be commenced in January 2009 to determine reasonable terms and rates of
royalty payments, to become effective on January 1, 2011. Thereafter, such proceedings shall be repeated in each subsequent fifth calendar year.
(B) For preexisting subscription and satellite digital audio radio services.--Proceedings under this chapter shall be commenced in January 2006 to determine reasonable terms and rates of royalty payments under sections 114 and 112 for the activities of preexisting subscription services, to be effective during the period beginning on January 1, 2008, and ending on December 31, 2012, and preexisting satellite digital audio radio services, to be effective during the period beginning on January 1, 2007, and ending on December 31, 2012. Such proceedings shall next be commenced in 2011 to determine reasonable terms and rates of royalty payments, to become effective on January 1, 2013. Thereafter, such proceedings shall be repeated in each subsequent fifth calendar year, except that-(i) with respect to preexisting subscription services, the terms and rates finally determined for the rate period ending on December 31, 2022, shall remain in effect through December 31, 2027, and there shall be no proceeding to determine terms and rates for preexisting subscription services for the period beginning on January 1, 2023, and ending on December 31, 2027; and" "1(ii) with respect to pre-existing satellite digital audio radio services, the terms and rates set forth by the Copyright Royalty Judges on December 14, 2017, in their initial determination for the rate period ending on December 31, 2022, shall be in effect through December 31, 2027, without any change based on a rehearing under section 803(c)(2) and without the
possibility of appeal under section 803(d), and there shall be no proceeding to determine terms and rates for preexisting satellite digital audio radio services for the period beginning on January 1, 2023, and ending on December 31, 2027.
(C)(i) Notwithstanding any other provision of this chapter, this subparagraph shall govern proceedings commenced pursuant to section $114(f)(1)(\mathrm{C})$ concerning new types of services.
(ii) Not later than 30 days after a petition to determine rates and terms for a new type of service is filed by any copyright owner of sound recordings, or such new type of service, indicating that such new type of service is or is about to become operational, the Copyright Royalty Judges shall issue a notice for a proceeding to determine rates and terms for such service.
(iii) The proceeding shall follow the schedule set forth in subsections (b), (c), and (d) of section 803, except that--
(I) the determination shall be issued by not later than 24 months after the publication of the notice under clause (ii); and
(II) the decision shall take effect as provided in subsections (c)(2) and (d)(2) of section 803 and section 114(f)(3)(B)(ii) and (C).
(iv) The rates and terms shall remain in effect for the period set forth in section $114(\mathrm{f})(1)(\mathrm{C})$.

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## 42 U.S.C. 2000bb-1

 Free exercise of religion protected(a) In general

Government shall not substantially burden a person's exercise of religion even if the burden results from a rule of general applicability, except as provided in subsection (b).
(b) Exception

Government may substantially burden a person's exercise of religion only if it demonstrates that application of the burden to the person--
(1) is in furtherance of a compelling governmental interest; and
(2) is the least restrictive means of furthering that compelling governmental interest.
(c) Judicial relief

A person whose religious exercise has been burdened in violation of this section may assert that violation as a claim or defense in a judicial proceeding and obtain appropriate relief against a government. Standing to assert a claim or defense under this section shall be governed by the general rules of standing under article III of the Constitution.

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## 42 U.S.C. 2000bb-2 Definitions

As used in this chapter--
(1) the term "government" includes a branch, department, agency, instrumentality, and official (or other person acting under color of law) of the United States, or of a covered entity;
(2) the term "covered entity" means the District of Columbia, the Commonwealth of Puerto Rico, and each territory and possession of the United States;
(3) the term "demonstrates" means meets the burdens of going forward with the evidence and of persuasion; and
(4) the term "exercise of religion" means religious exercise, as defined in section 2000cc-5 of this title.

## 42 U.S.C. 2000bb-3 Applicability

(a) In general

This chapter applies to all Federal law, and the implementation of that law, whether statutory or otherwise, and whether adopted before or after November 16, 1993.
(b) Rule of construction

Federal statutory law adopted after November 16, 1993, is subject to this chapter unless such law explicitly excludes such application by reference to this chapter.
(c) Religious belief unaffected

Nothing in this chapter shall be construed to authorize any government to burden any religious belief.

## 37 C.F.R. 380.2(a)

Making payment of royalty fees
(a) Payment to the Collective. A Licensee must make the royalty payments due under this part to SoundExchange, Inc., which is the Collective designated by the Copyright Royalty Board to collect and distribute royalties under this part.

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## 37 C.F.R. 380.7

Definitions
For purposes of this part, the following definitions apply:
Aggregate Tuning Hours (ATH) means the total hours of programming that the Licensee has transmitted during the relevant period to all listeners within the United States from all channels and stations that provide audio programming consisting, in whole or in part, of eligible nonsubscription transmissions or noninteractive digital audio transmissions as part of a new subscription service, less the actual running time of any sound recordings for which the Licensee has obtained direct licenses apart from 17 U.S.C. 114(d)(2) or which do not require a license under title 17, United States Code. By way of example, if a service transmitted one hour of programming containing Performances to 10 listeners, the service's ATH would equal 10 hours. If three minutes of that hour consisted of transmission of a directly-licensed recording, the service's ATH would equal nine hours and 30 minutes (three minutes times 10 listeners creates a deduction of 30 minutes). As an additional example, if one listener listened to a service for 10 hours (and none of the recordings transmitted during that time was directly licensed), the service's ATH would equal 10 hours.
Collective means the collection and distribution organization that is designated by the Copyright Royalty Judges, and which, for the current rate period, is SoundExchange, Inc.

Commercial Webcaster means a Licensee, other than a Noncommercial Webcaster, Noncommercial Educational Webcaster, or Public Broadcaster, that makes Ephemeral Recordings and eligible digital audio transmissions of sound recordings pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114(d)(2).
Copyright Owners means sound recording copyright owners, and rights owners under 17 U.S.C. 1401(1)(2), who are entitled to royalty payments made under this part pursuant to the statutory licenses under 17 U.S.C. 112(e) and 114.

Digital audio transmission has the same meaning as in 17 U.S.C. 114(j).

Eligible nonsubscription transmission has the same meaning as in 17 U.S.C. 114(j).
Eligible Transmission means a subscription or nonsubscription transmission made by a Licensee that is subject to licensing under 17 U.S.C. 114(d)(2) and the payment of royalties under this part.
Ephemeral recording has the same meaning as in 17 U.S.C. 112.

Licensee means a Commercial Webcaster, a Noncommercial Webcaster, a Noncommercial Educational Webcaster, a Public Broadcaster, or any entity operating a noninteractive internet streaming service that has obtained a license under 17 U.S.C. 114 to make Eligible Transmissions and a license under 17 U.S.C. 112(e) to make Ephemeral Recordings to facilitate those Eligible Transmissions.

New subscription service has the same meaning as in 17 U.S.C. 114(j).
Noncommercial Educational Webcaster means a Noncommercial Educational Webcaster under subpart C of this part.

Noncommercial Webcaster has the same meaning as in 17 U.S.C. 114(f)(4)(E), but excludes a Noncommercial Educational Webcaster or Public Broadcaster.

Nonsubscription transmission has the same meaning as in 17 U.S.C. 114(j).

Payor means the entity required to make royalty payments to the Collective or the entity required to distribute royalty fees collected, depending on context. The Payor is:
(1) A Licensee, in relation to the Collective; and
(2) The Collective in relation to a Copyright Owner or Performer.

Performance means each instance in which any portion of a sound recording is publicly performed to a listener by means of a digital audio transmission (e.g., the delivery of any portion of a single track from a compact disc to one listener), but excludes the following:
(1) A performance of a sound recording that does not require a license (e.g., a sound recording that is not subject to protection under title 17, United States Code);
(2) A performance of a sound recording for which the service has previously obtained a license from the Copyright Owner of such sound recording; and
(3) An incidental performance that both:
(i) Makes no more than incidental use of sound recordings including, but not limited to, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events; and
(ii) Does not contain an entire sound recording, other than ambient music that is background at a public event, and does not feature a particular sound recording of more than thirty seconds (as in the case of a sound recording used as a theme song).

Performers means the independent administrators identified in 17 U.S.C. $114(\mathrm{~g})(2)(\mathrm{B})$ and (C) and the parties identified in 17 U.S.C. 114(g)(2)(D).

Public broadcaster means a Public Broadcaster under subpart D of this part.

Qualified auditor means an independent Certified Public Accountant licensed in the jurisdiction where it seeks to conduct a verification.

Subscription transmission has the same meaning as in 17 U.S.C. 114(j).

Transmission has the same meaning as in 17 U.S.C. 114(j)(15).

## 37 C.F.R. 380.10 (2016) <br> Royalty fees for the public performance of sound recordings and the making of ephemeral recordings

(a) Royalty fees. For the year 2016, Licensees must pay royalty fees for all Eligible Transmissions of sound recordings at the following rates:
(1) Commercial Webcasters: $\$ 0.0022$ per performance for subscription services and $\$ 0.0017$ per performance for nonsubscription services.
(2) Noncommercial webcasters. $\$ 500$ per year for each channel or station and $\$ 0.0017$ per performance for all digital audio transmissions in excess of 159,140 ATH in a month on a channel or station.
(b) Minimum fee. Licensees must pay the Collective a minimum fee of $\$ 500$ each year for each channel or station. The Collective must apply the fee to the Licensee's account as credit towards any additional royalty fees that Licensees may incur in the same year. The fee is payable for each individual channel and each individual station maintained or operated by the Licensee and making Eligible Transmissions during each calendar year or part of a calendar year during which it is a Licensee. The maximum aggregate minimum fee in any calendar year that a Commercial Webcaster must pay is $\$ 50,000$. The minimum fee is nonrefundable.
(c) Annual royalty fee adjustment. The Copyright Royalty Judges shall adjust the royalty fees each year to reflect any changes occurring in the cost of living as determined by the most recent Consumer Price Index (for all consumers and for all items) (CPI-U)
published by the Secretary of Labor before December 1 of the preceding year. The adjusted rate shall be rounded to the nearest fourth decimal place. To account more accurately for cumulative changes in the CPI-U over the rate period, the calculation of the rate for each year shall be cumulative based on a calculation of the percentage increase in the CPI-U from the CPI-U published in November, 2015 (237.336), according to the formula (1 + (Сy - 237.336)/ 237.336) x R2016, where Cy is the CPI-U published by the Secretary of Labor before December 1 of the preceding year, and R2016 is the royalty rate for 2016 (i.e., $\$ 0.0022$ per subscription performance or $\$ 0.0017$ per nonsubscription performance). By way of example, if the CPI-U published in November 2016 is 242.083, the adjusted rate for nonsubscription services in 2017 will be computed as ( $1+(242.083-$ $237.336) / 237.336)$ x $\$ 0.0017$ and will equal $\$ 0.00173$ ( $\$ 0.0017$ when rounded to the nearest fourth decimal place). If the CPI-U published in November 2017 is 249.345, the rate for nonsubscription services for 2018 will be computed as $(1+(249.345-237.336) / 237.336)$ x $\$ 0.0017$ and will equal $\$ 0.00179$ ( $\$ 0.0018$ when rounded to the nearest fourth decimal place). The Judges shall publish notice of the adjusted fees in the Federal Register at least 25 days before January 1. The adjusted fees shall be effective on January 1.
(d) Ephemeral recordings royalty fees. The fee for all Ephemeral Recordings is part of the total fee payable under this section and constitutes $5 \%$ of it. All ephemeral recordings that a Licensee makes which are necessary and commercially reasonable for making noninteractive digital transmissions are included in the $5 \%$.

37 C.F.R. 380.10
Royalty fees for the public performance of sound recordings and the making of ephemeral recordings
(a) Royalty fees. For the year 2024, Licensees must pay royalty fees for all Eligible Transmissions of sound recordings at the following rates:
(1) Commercial webcasters: $\$ 0.0031$ per Performance for subscription services and $\$ 0.0025$ per Performance for nonsubscription services.
(2) Noncommercial webcasters: $\$ 1,000$ per year for each channel or station and $\$ 0.0025$ per Performance for all digital audio transmissions in excess of 159,140 ATH in a month on a channel or station.
(b) Minimum fee. Licensees must pay the Collective a minimum fee of $\$ 1,000$ each year for each channel or station. The Collective must apply the fee to the Licensee's account as credit towards any additional royalty fees that Licensees may incur in the same year. The fee is payable for each individual channel and each individual station maintained or operated by the Licensee and making Eligible Transmissions during each calendar year or part of a calendar year during which it is a Licensee. The maximum aggregate minimum fee in any calendar year that a Commercial Webcaster must pay is $\$ 100,000$. The minimum fee is nonrefundable.
(c) Annual royalty fee adjustment. The Copyright Royalty Judges shall adjust the royalty fees each year to reflect any changes occurring in the cost of living as determined by the most recent Consumer Price

Index for All Urban Consumers (U.S. City Average, all items) (CPI-U) published by the Secretary of Labor before December 1 of the preceding year. The calculation of the rate for each year shall be cumulative based on a calculation of the percentage increase in the CPI-U from the CPI-U published in November, 2020 (260.229) and shall be made according to the following formulas: For subscription performances, ( $1+(\mathrm{Cy}-260.229) / 260.229) \times \$ 0.0026$; for nonsubscription performances, ( $1+$ (Cy 260.229)/260.229) x $\$ 0.0021$; for performances by a noncommercial webcaster in excess of 159,140 ATH per month, $(1+(\mathrm{Cy}-260.229) / 260.229) \times \$ 0.0021$; where Cy is the CPI-U published by the Secretary of Labor before December 1 of the preceding year. The adjusted rate shall be rounded to the nearest fourth decimal place. The Judges shall publish notice of the adjusted fees in the Federal Register at least 25 days before January 1. The adjusted fees shall be effective on January 1.
(d) Ephemeral recordings royalty fees; allocation between ephemeral recordings and performance royalty fees. The Collective must credit $5 \%$ of all royalty payments as payment for Ephemeral Recordings and credit the remaining $95 \%$ to section 114 royalties. All Ephemeral Recordings that a Licensee makes which are necessary and commercially reasonable for making noninteractive digital transmissions are included in the $5 \%$.

730a
37 C.F.R. 380.30 Definitions

For purposes of this subpart, the following definitions apply:
Authorized website is any website operated by or on behalf of any Public Broadcaster that is accessed by website Users through a Uniform Resource Locator ("URL") owned by such Public Broadcaster and through which website Performances are made by such Public Broadcaster.

CPB is the Corporation for Public Broadcasting.
Music ATH is aggregate tuning hours of website Performances of sound recordings of musical works.

NPR is National Public Radio, Inc.
Originating Public Radio Station is a noncommercial terrestrial radio broadcast station that-
(1) Is licensed as such by the Federal Communications Commission;
(2) Originates programming and is not solely a repeater station;
(3) Is a member or affiliate of NPR, American Public Media, Public Radio International, or Public Radio Exchange, a member of the National Federation of Community Broadcasters, or another public radio station that is qualified to receive funding from CPB pursuant to its criteria;
(4) Qualifies as a "noncommercial webcaster" under 17 U.S.C. 114(f)(4)(E)(i); and
(5) Either-
(i) Offers website Performances only as part of the mission that entitles it to be exempt from taxation under section 501 of the Internal Revenue Code of 1986 (26 U.S.C. 501); or
(ii) In the case of a governmental entity (including a Native American Tribal governmental entity), is operated exclusively for public purposes.

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

Public Broadcasters are NPR, American Public Media, Public Radio International, and Public Radio Exchange, and up to 530 Originating Public Radio Stations as named by CPB. CPB shall notify SoundExchange annually of the eligible Originating Public Radio Stations to be considered Public Broadcasters per this definition (subject to the numerical limitations set forth in this definition). The number of Originating Public Radio Stations treated per this definition as Public Broadcasters shall not exceed 530 for a given year without SoundExchange's express written approval, except that CPB shall have the option to increase the number of Originating Public Radio Stations that may be considered Public Broadcasters as provided in § 380.31(c).

Side Channel is any internet-only program available on an Authorized website or an archived program on such Authorized website that, in either case, conforms to all applicable requirements under 17 U.S.C. 114.

Term is the period January 1, 2021, through December 31, 2025.

Website is a site located on the World Wide Web that can be located by a website User through a principal URL.

Website Performances are all public performances by means of digital audio transmissions of sound recordings, including the transmission of any portion of any sound recording, made through an Authorized website in accordance with all requirements of 17 U.S.C. 114, from servers used by a Public Broadcaster (provided that the Public Broadcaster controls the content of all materials transmitted by the server), or by a contractor authorized pursuant to $\S 380.31(\mathrm{f})$, that consist of either the retransmission of a Public Broadcaster's over-the-air terrestrial radio programming or the digital transmission of nonsubscription Side Channels that are programmed and controlled by the Public Broadcaster; provided, however, that a Public Broadcaster may limit access to an Authorized website, or a portion thereof, or any content made available thereon or functionality thereof, solely to website Users who are contributing members of a Public Broadcaster. This term does not include digital audio transmissions made by any other means.

Website Users are all those who access or receive website Performances or who access any Authorized website.

37 C.F.R. 380.31
Royalty fees for the public performance of sound recordings and for ephemeral recordings
(a) Royalty rates. The total license fee for all website Performances by Public Broadcasters during each year of the Term, up to the total Music ATH set forth in paragraphs (a)(1) through (5) of this section for the relevant calendar year, and Ephemeral Recordings made by Public Broadcasters solely to facilitate such website Performances, shall be \$800,000 (the "License Fee"), unless additional payments are required as described in paragraph (c) of this section. The total Music ATH limits are:
(1) 2021: 360,000,000;
(2) 2022: 370,000,000;
(3) 2023: 380,000,000;
(4) 2024: 390,000,000; and
(5) 2025: 400,000,000.
(b) Calculation of License Fee. It is understood that the License Fee includes:
(1) An annual minimum fee for each Public Broadcaster for each year during the Term;
(2) Additional usage fees for certain Public Broadcasters; and
(3) A discount that reflects the administrative convenience to the Collective (for purposes of this subpart, the term "Collective" refers to SoundExchange, Inc.) of receiving annual lump sum payments that cover a large number of
separate entities, as well as the protection from bad debt that arises from being paid in advance.
(c) Increase in Public Broadcasters. If the total number of Originating Public Radio Stations that wish to make website Performances in any calendar year exceeds the number of such Originating Public Radio Stations considered Public Broadcasters in the relevant year, and the excess Originating Public Radio Stations do not wish to pay royalties for such website Performances apart from this subpart, CPB may elect by written notice to the Collective to increase the number of Originating Public Radio Stations considered Public Broadcasters in the relevant year effective as of the date of the notice. To the extent of any such elections, CPB shall make an additional payment to the Collective for each calendar year or part thereof it elects to have an additional Originating Public Radio Station considered a Public Broadcaster, in the amount of the annual minimum fee applicable to Noncommercial Webcasters under subpart B of this part for each additional Originating Public Radio Station per year. Such payment shall accompany the notice electing to have an additional Originating Public Radio Station considered a Public Broadcaster.
(d) Allocation between ephemeral recordings and performance royalty fees. The Collective must credit $5 \%$ of all royalty payments as payment for Ephemeral Recordings and credit the remaining $95 \%$ to section 114 royalties. All Ephemeral Recordings that a Licensee makes which are necessary and commercially reasonable for making noninteractive digital transmissions are included in the $5 \%$.
(e) Effect of non-performance by any Public Broadcaster. In the event that any Public Broadcaster violates any of the material provisions of 17 U.S.C. $112(\mathrm{e})$ or 114 or this subpart that it is required to perform, the remedies of the Collective shall be specific to that Public Broadcaster only, and shall include, without limitation, termination of that Public Broadcaster's right to be treated as a Public Broadcaster per this paragraph (e) upon written notice to CPB. The Collective and Copyright Owners also shall have whatever rights may be available to them against that Public Broadcaster under applicable law. The Collective's remedies for such a breach or failure by an individual Public Broadcaster shall not include termination of the rights of other Public Broadcasters to be treated as Public Broadcasters per this paragraph (e), except that if CPB fails to pay the License Fee or otherwise fails to perform any of the material provisions of this subpart, or such a breach or failure by a Public Broadcaster results from CPB's inducement, and CPB does not cure such breach or failure within 30 days after receiving notice thereof from the Collective, then the Collective may terminate the right of all Public Broadcasters to be treated as Public Broadcasters per this paragraph (e) upon written notice to CPB. In such a case, a prorated portion of the License Fee for the remainder of the Term (to the extent paid by CPB) shall, after deduction of any damages payable to the Collective by virtue of the breach or failure, be credited to statutory royalty obligations of Public Broadcasters to the Collective for the Term as specified by CPB.
(f) Use of contractors. The right to rely on this subpart is limited to Public Broadcasters, except that a Public Broadcaster may employ the services of a third Person to provide the technical services and equipment necessary to deliver website Performances on behalf of such Public Broadcaster, but only through an Authorized website. Any agreement between a Public Broadcaster and any third Person for such services shall:
(1) Obligate such third Person to provide all such services in accordance with all applicable provisions of the statutory licenses and this subpart;
(2) Specify that such third Person shall have no right to make website Performances or any other performances or Ephemeral Recordings on its own behalf or on behalf of any Person or entity other than a Public Broadcaster through the Public Broadcaster's Authorized website by virtue of its services for the Public Broadcaster, including in the case of Ephemeral Recordings, pre-encoding or otherwise establishing a library of sound recordings that it offers to a Public Broadcaster or others for purposes of making performances, but instead must obtain all necessary licenses from the Collective, the copyright owner or another duly authorized Person, as the case may be;
(3) Specify that such third Person shall have no right to grant any sublicenses under the statutory licenses; and
(4) Provide that the Collective is an intended thirdparty beneficiary of all such obligations with the right to enforce a breach thereof against such third Person.

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37 C.F.R. 380.32

## Terms for making payment of royalty fees and statements of account

(a) Payment to the Collective. CPB shall pay the License Fee to the Collective in five equal installments of $\$ 800,000$ each, which shall be due December 31, 2020, and annually thereafter through December 31, 2024.
(b) Reporting. CPB and Public Broadcasters shall submit reports of use and other information concerning website Performances as agreed upon with the Collective.
(c) Terms in general. Subject to the provisions of this subpart, terms governing late fees, distribution of royalties by the Collective, unclaimed funds, record retention requirements, treatment of Licensees' confidential information, audit of royalty payments and distributions, and any definitions for applicable terms not defined in this subpart shall be those set forth in subpart A of this part.


[^0]:    ${ }^{255}$ When asked by the Judges why he included this language in his WDT, Professor Willig testified: I'm not sure that that's what I had in mind with those words. Rather, that it had been produced recently relative to the timing of the submission by me, and it was produced for these proceedings, and I didn't mean, as I recall, unless there's something that I'm forgetting, which is always possible, that the LRS data were actually created just for these proceedings as opposed to produced for these hearings. . . . I may have had some evidence of the specialization of the purpose, but I don't recall that now. But what I surely meant was, at least, that the production was for these hearings. And I'm well aware that LRS is something that Sirius had been preparing for its own purposes going back years . . . . So I don't remember whether it was really produced specifically for these purposes . . . 8/5/20 Tr. 366-67 (Willig) (emphasis added). The Judges find this response equivocal at best, and incomprehensible at worst.

[^1]:    ${ }^{257}$ And as explained infra, the Judges' adoption of certain of Professor Shapiro's itemized critiques of Professor Willig's data applications essentially equates the rates generated by Professor Willig's reliance on the Scenario 2 data and Professor Shapiro's reliance on LRS data.

[^2]:    ${ }^{258}$ The impact of these adjustments on the royalty estimates generated by Professor Willig's Shapley Value Model, together with the impact of the adjustments to Professor Willig's opportunity cost calculations, is set forth infra.

[^3]:    ${ }^{263}$ Professor Willig attempted to add new testimony at the hearing regarding what he asserted was an unrelated but offsetting error made by Professor Shapiro in his calculations of these particular opportunity costs that, combined with Professor Willig's admitted error, generated a higher opportunity cost of $\$[$ REDACTED ] for this category. However, Pandora's counsel interposed a prompt objection, arguing that this proffered testimony would constitute "new analysis . . . that's out of bounds." SoundExchange's counsel did not respond when Pandora's counsel asserted this objection, and, after a scheduled 15 minute midafternoon recess, SoundExchange's counsel proceeded to question Professor Willig on other matters. The Judges then, sua sponte, afforded SoundExchange's counsel an opportunity to respond to the objection by Pandora's counsel that had prevented Professor Willig from testifying on this topic before the recess, so that the Judges could decide whether to sustain or overrule the objection raised by Pandora's counsel. However, SoundExchange's counsel declined to address the objection, claiming (incorrectly) that the testimony that was the subject of the objection "is already in the record." 8/5/20 Tr. 50405; 514-15 (colloquy). Thus, no such testimony regarding an alleged offset as to Professor Shapiro's physical opportunity cost correction (accepted by Professor Willig) is in the record. (In SX PFFCL बT 635-636, SoundExchange attempts to rely on counsel's own analysis of the record to substitute for the missing testimony by Professor Willig on this subject. That is plainly unacceptable.).

[^4]:    264 As explained above, according to Professor Willig, the weighted average per consumer is $\$$ [REDACTED] per month. However, as corrected by Professor Shapiro and credited by the Judges, the properly weighted average monthly spending for these products in the Scenario 2 analysis is $\$$ [REDACTED] per month.

[^5]:    ${ }^{265}$ Professor Shapiro acknowledges that the data in the "Share of Ear" survey is sufficient only to render his estimates informed approximations, because that survey [REDACTED]. However, Professor Shapiro believes this latter point makes his approximation more favorable to SoundExchange, because he posits that Pandora Premium subscribers listen to more songs than Pandora Plus subscribers (apparently because their willingness to pay a higher subscription price reveals their relatively greater preference to listen to songs). Thus, because the switching subscriber group in the survey includes such increased listening, their switching decisions would be greater than the switching behavior of Pandora Plus subscribers alone, raising the reported diversion ratio for these three products, raising the calculated opportunity cost and, accordingly, increasing the proposed royalty rate for subscription services derived by Professor Willig's Shapley Value Model. Id. at 85 n.210. The Judges acknowledge these limitations in the Share of Ear survey, but they agree with Professor Shapiro that these issues are insufficient to reject his criticisms based on that survey's data.

[^6]:    ${ }^{266}$ People who would choose instead to substitute (in whole or part) listening to their already-owned CDs, Vinyl and Digital Downloads would not necessarily purchase new quantities of these three products, but because that potential behavior is ignored in Professor Shapiro's analysis here, the opportunity cost is skewed higher by his decision to ignore such consumer behavior in this context. (However, Professor Shapiro does attempt to adjust for the additional purchases by switchers who also switch by listening to their existing collections of these three products, as discussed below.)

[^7]:    ${ }^{268}$ See Ferraro and Taylor, supra, at 7 ("An avoided benefit is a cost, and an avoided cost is a benefit. Thus, the opportunity cost . . . is . . . the net benefit forgone.") (emphasis added).

[^8]:    ${ }^{269}$ The NAB did not label $\mathbb{\|} \mid 136 \mathrm{n} .34$ of its PFFCL as a conclusion of law. See NAB PFFCL at 1 n.1. However, the parties' labeling of separate portions of their post-hearing filings as proposed "findings of fact" or "conclusions of law" does not prevent the Judges from independently considering whether a particular proposal is either factual or legal, based upon the substance of the proposal. Indeed, because these submissions are merely proposals, neither the substance nor labeling of the submissions by the parties is binding on the Judges. Here, the NAB specifically argues that it would not be "legally appropriate" for the Judges to offset the complementary oligopoly effect based on the lack of a "legally recognized public performance right for terrestrial radio play of sound recordings." NAB PFFCL © 136 n. 34 (emphasis added). Clearly, as a matter of substance, this assertion is a proposed legal conclusion.
    ${ }^{270}$ SoundExchange neither responded substantively to this legal argument in its post-hearing Reply to the NAB, nor during closing arguments that followed the submission of the Proposed Findings of Fact and Conclusions of Law. See 11/19/20 Tr. 6062 et seq. (closing arguments).

[^9]:    ${ }^{271}$ In an attempt to find data consistent with his opportunity cost derived from the Zauberman Survey and other surveys in this proceeding, Professor Willig considered listening information generated by the Edison Research "Share of Ear" survey. Willig WDT ¢f 56-60 \& app. F. However, on cross-examination, Professor Willig admitted that "it's absolutely my view that the [S]hare of the [E]ar study is not nearly as well founded for this

[^10]:    purpose . . . . [I]n many ways it's really not really comparably informative for the issue at hand . . . ." 8/10/20 Tr. 1100 (Willig); see also Leonard WRT ๆ| 23-29 (explaining that "royalty calculations based on the 'Share of Ear' survey are flawed" because, inter alia, they "ignore[ ] that some users already have subscriptions and already own CD/Vinyl/Digital Downloads [so that] [p]lays diverted to these options would not represent an opportunity cost to SoundExchange."). When both the proponent of survey evidence and the adversary decline to endorse its usefulness, the Judges will not consider that evidence as confirmation of other surveys, and the Judges place no weight on data generated by the Share of the Ear survey.

[^11]:    ${ }^{272}$ Professor Shapiro does not propose that the Judges utilize the foregoing royalty rates he calculates as the statutory royalty rates. See Shapiro WRT at 60.
    ${ }^{273}$ As noted supra, note 247, Professor Willig also utilizes a N-I-N Model as a sensitivity check to his Shapley Value results. The Services assert, correctly, that the opportunity cost, profit margin and "Must Have" inputs Professor Willig utilizes in his $\mathrm{N}-\mathrm{I}-\mathrm{N}$ Model are identical to the inputs he utilizes in his Shapley Value Model. Services RPFFCL © 693 (incorporating by reference the Services' critiques of Professor Willig's Shapley Value Model). Similarly, the Judges' consideration of the inputs in Professor Willig's Shapley Value, supra, are equally applicable to his N-I-N Model, and reduce his proposed royalty rates to the same extent.

[^12]:    ${ }^{274}$ For the ad-supported rate, $\$$ [REDACTED] $\times$ [REDACTED] $=$ $\$[$ REDACTED $]$ (rounded to $\$[$ REDACTED]). For the subscription rate, $\$[$ REDACTED] $\times$ [REDACTED] $=$ $\$[$ REDACTED] (rounded to $\$$ [REDACTED]).

[^13]:    ${ }^{275}$ As explained in Web $I V$, such promises and threats can result in the absence of actual steering, as all record companies agree to reduce their rates in order to avoid being "steered against." Web IV, 81 FR at 26366.

[^14]:    ${ }^{276}$ The record does not reflect whether any Shapley Value Model even could address the impact of steering, but it is clear that Professor Willig's modeling does not. As explained in Web IV, supra, the function of steering is a redistribution of value to adjust for complementary oligopoly power, whereas the characteristic function establishes the maximum value of the coalition.
    ${ }^{277}$ More particularly, the Judges do not find that the effective competition adjustments applied to the benchmark and ratioequivalency rates discussed elsewhere in this Determination, particularly those based on steering, can be logically applied to Professor Willig's Shapley Value-derived rate. See 8/6/20 Tr. 777-79, 8/10/20 Tr. 1077-78 (Willig) (acknowledging he did not conduct an analysis based on steering because steering-based competition among the Majors would be inconsistent with the maximization of the "characteristic function," i.e., the maximization of the surplus the bargaining parties can obtain within his Shapley Value Model); see also 8/26/20 Tr. 3921 (Shapiro) ("none of our models have steering . . . .").

[^15]:    ${ }^{280}$ In a two-player negotiation, the solution to the model is based on assumptions by each party regarding the negotiating strategy of the counterparty. In the $\mathrm{N}-\mathrm{I}-\mathrm{N}$ model, this concept is expanded to account for the expected outcomes in multiple twoplayer bargaining. Allan Collard- Wexler et al., "Nash-in-Nash" Bargaining: A Microfoundation for Applied Work, 127 J. Pol. Econ. 163, 165-166 (2019).
    ${ }^{281}$ For the difference between such a "noncooperative" model and a "cooperative" model such as Professor Willig's Shapley Value Model, see supra note 215. Professor Shapiro opines that a "noncooperative" model better describes the bilateral negotiations hypothesized by the willing buyer/willing seller standard than the "cooperative" model invoked by Professor Willig, which is better suited for examining the behavior of "coalitions" of participants. Id. 2817-18 (Shapiro).

[^16]:    ${ }^{284}$ To be included in either the LSE treatment or control groups, users must have listened to Pandora's ad-supported radio product during the experimental period, and were not included if they did not satisfy that criterion. See 9/1/20 Tr. 4902- 03 (Reiley).

[^17]:    ${ }^{285}$ The figures are probabilistic, because they were derived from a survey of Pandora ad-supported listeners, rather than from the entire population of such listeners. Dr. Reiley testified that the LSE survey size was sufficient to produce, for the listening hour reported effects, $95 \%$ confidence intervals that would be no wider than $+/-5 \%$ for [REDACTED], and no wider than $+/-0.5 \%$ for [REDACTED]. Reiley WDT I 18. Accordingly, in the results displayed in Figure 2 in the accompanying text, the point estimates are shown by the dots, and horizontal lines indicating the width of the $95 \%$ confidence intervals.

[^18]:    ${ }^{286}$ In a pre-hearing Motion, the Judges disallowed Pandora from using the cumulative results of the six month survey, because Dr. Reiley's testimony regarding the final three months of the survey should have been included in his direct testimony, or in timely filed amended direct testimony, rather than in his written rebuttal testimony. However, the Judges admitted Dr. Reiley's rebuttal testimony for the narrower purpose of attempting to rebut SoundExchange's position that the Judges should deem all three Majors to be "Must Haves" for noninteractive services. To be clear, the Judges do not consider the cumulative (six months) data for any affirmative purpose.

[^19]:    ${ }^{287}$ The absence of disclosure to the treatment group of the loss of access to the repertoire of a record company is inconsistent with if not antithetical to, the idea of modeling the hypothetical market in a manner consistent with "effective competition." As Professor Shapiro concedes, if a Major is blacked-out on Pandora, listeners have lost what economists describe as "access value." 8/19/20 Tr. 2709 (Shapiro). But without disclosure of that lost value, the diminished access is not known to listeners (unless they learn of the lost access from some other source, as posited by SoundExchange). This informational deficiency is important. One of the necessary conditions for a market to be effective is the absence of asymmetric information. See Clifford

[^20]:    ${ }^{288}$ Pandora also casts doubt on whether any "third party has any reliable method for reaching the vast majority of Pandora users." Services RPFFCL ब 860. Although this, too, is speculation, it is noteworthy in that Pandora is specifically making the general asymmetric information point the Judges made supra-arguing in essence that it has superior information that prevents third parties from providing customers of information regarding the service they are accessing. This argument hardly supports a finding that the LSEs reflect a real world market that would be effectively competitive.
    ${ }^{289}$ See Uskali Ma"ki, Models are Experiments, Experiments are Models, 12 J. Econ. Methodology 303, 306 (2005) ("experimental systems . . . are artificially designed and constructed substitute systems, controlled mini-worlds that are directly examined in order to indirectly generate information about the . . . world outside the laboratory-such as economic systems and behavior . . . . [S]uch experimental systems are . . . material models of aspects of the rest of the world.") (emphasis added).

[^21]:    ${ }^{290}$ Pandora also emphasizes that [REDACTED]. However, the record reflects no basis for the Judges to apply the circumstances surrounding the launching of a new form of music distribution to the overall noninteractive market. Similarly, the Judges give little weight to SoundExchange's reliance on the specific example of [REDACTED]. See SX PFFCL I 862; Services RPFFCL $\mathbb{\|} 862$.

[^22]:    ${ }^{291}$ Turning off the Premium Access feature apparently would have represented a degrading of the ad-supported service that listeners might notice, interfered with Pandora's attempt to market its premium product to these ad-supported listeners and perhaps even violated its agreements with its licensors (Pandora does not say). But Pandora's desire to maintain the Premium Access feature for the treatment groups underscores its inability (or unwillingness) to construct a sufficiently probative experiment given the nature of the ad-supported service.

[^23]:    292 "Miscellaneous provider tracks" are recordings that have not yet been identified as covered by Pandora's current direct license agreements but are nonetheless played by Pandora "because of the long history of user data associated with those tracks" (i.e., they are popular tracks). Reiley WDT 【 28.

[^24]:    ${ }^{294}$ Professor Reiley responded to this criticism，but his testimony in that regard is unclear．However，he did report on the minimal level of exposure these participants received of the suppressed labels after they had upgraded．Reiley WRT 【 19.

[^25]:    ${ }^{295}$ Indeed, given Dr. Reiley's acknowledgement that Pandora has engaged in few longer-term experiments, and did not identify any other such experiments, it is equally true that the ad-load and steering experiments may be the "worst" comparators available. In any event, the concept of "better' or "worse" comparators is meaningless- the experiments are simply inapposite and cannot support Pandora's attempt to establish credible long-term effects arising from the LSEs.

[^26]:    ${ }^{296}$ Thus, the Judges disagree with Pandora that Professor Shapiro's discarding of the [REDACTED] data-leaving the LSEs with lost listening data from but one Major ([REDACTED]-is similar to the Judge's reliance of industry data from fewer than all three Majors. See Services RPFFCL - 953. Here, Dr. Reiley and Professor Shapiro constructed an experimental world and established its parameters. When those parameters produced an anomalous result, they discarded it, thereby revising their own experiment. That treatment by a party of data in conflict with the position it advocates resembles a cherry-picking of data, and is quite distinguishable from the Judge's reliance on real world data from less than all industry participants as probative of the workings of a market.

[^27]:    ${ }_{297}$ And, as noted elsewhere in this Determination, for the same reasons, the Judges find that the likely real-world disclosuresfrom multiple interested sources-of an interactive service's blacking-out of a Major would cause a rapid collapse of the interactive service as well ([REDACTED]).

[^28]:    ${ }^{299}$ See Shapiro WRT at 63-64. The external effect is that Major "A" must consider the possibility that agreements between Major "B" and/or "C," on the one hand, and the noninteractive service, on the other, could result in Major "A's" inability to enter into a license agreement with that noninteractive service unless Major "A" reduced its royalty demand in order to avoid being the "odd man out." But, each Major would be in the same position during negotiations, so each Major has the incentive to avoid this "contract externality" by proposing a lower rate than it would in the absence of this bargaining uncertainty.

[^29]:    300 The Librarian also rejected arguments that broadcasters who stream their own radio broadcasts should be treated differently from third parties who stream the same broadcasts. Id. at 45254.

[^30]:    ${ }^{301} 17$ U.S.C. $114(\mathrm{~g})(2)$ requires that SoundExchange distribute $50 \%$ of collected license fees to the copyright owner of a sound recording, $45 \%$ to recording artist or artists featured on such sound recording, and the remaining $5 \%$ to independent administrator that represents non featured musicians and vocalists who have performed on sound recordings.

[^31]:    302 The iHeart/Indie Agreements include substantially similar language indicating that the relevant label "[REDACTED]." All but one of the iHeart/Indie Agreements, the [REDACTED] Agreement, Trial Ex. 2027, went on to clarify that "[REDACTED]" See, e.g., [REDACTED] Agreement, Trial Ex. 2013 \| 4b.

[^32]:    ${ }^{303}$ The Radio Music License Committee represents the interests of the commercial radio industry on music licensing matters.

[^33]:    ${ }^{304}$ While Dr. Leonard's analysis of the iHeart/ Indie Agreements offered adjustments that considered allocating various levels of revenue [REDACTED]. The Judges would need further evidence to determine whether and the extent to which, as an economic matter, [REDACTED] should be treated as compensation for simulcasting, in contrast to custom webcasting.

[^34]:    ${ }^{306}$ The question presentation included informing respondents that they may click a link to review the definitions for "Live AM/FM radio broadcasts through a radio" "Live AM/FM radio broadcasts over the internet" "Satellite radio (SiriusXM)" "Ondemand music streaming services" "Not-on-demand music streaming services". See, e.g. Hauser WDT app. D-11.

[^35]:    ${ }^{307}$ The Judges are less troubled that the time estimate questions in the Hauser survey may be unduly confusing or that any confusion caused would unduly skew the overall results of the survey.

[^36]:    ${ }^{310}$ SoundExchange's minimum fee proposals are discussed infra, section VI. SoundExchange's proposed rates for commercial webcasters are discussed supra, section IV.

[^37]:    ${ }^{311}(24$ hrs. $\times 365$ days 218 users $) \div 12$ mos. $=159,140 \mathrm{ATH} / \mathrm{mo}$.

[^38]:    ${ }^{312}$ The five noncommercial webcasters paying the most royalties for excess usage were [REDACTED]. Tucker WDT © 166.

[^39]:    ${ }^{314}$ The Judges' procedural rules permit filing of an amended rate proposal at any time up to, and including, the filing of proposed findings and conclusions. See 37 CFR 351.4(b)(3). The NRBNMLC's revised rate proposal was thus timely under the rules.

[^40]:    ${ }^{317}$ In his WDT, Professor Steinberg cites RIAA's offer in Web I to set a noncommercial rate at one-third the commercial rate as evidence to support a per-play rate at that level for performances in excess of an ATH threshold-a structure that corresponds with NRBNMLC's Alternative 1 rate proposal. See Steinberg WDT ๆ 61. NRBNMLC does not refer to this element of Professor Steinberg's written testimony in its proposed findings, nor did Professor Steinberg refer to it in his oral testimony. The Judges deem this argument to have been abandoned in favor of Professor Steinberg's use of the 2019 NPR/CPB Agreement to support NRBNMLC's rate proposal. To the extent that NRBNMLC does maintain that argument, the Judges find Professor Steinberg's reliance on a rejected proposal made in the course of litigation two decades ago to be unpersuasive. Professor Cordes, in his WDT, offers the SoundExchange-CBI settlement for the Web IV rate period as a benchmark. Again, the Judges deem this argument to have been abandoned by NRBNMLC in favor of reliance on Professor Steinberg's use of the more recent 2019 NPR/CPB agreement as a benchmark. To the extent that NRBNMLC does maintain the CBI Web $I V$ settlement as a benchmark, the Judges note that the practical effect of the Web IV CBI settlement was to replicate the rate structure generally applicable to noncommercial webcasters under the Web IV determination. As the Judges noted in Web IV, although the parties to the settlement left the royalty rate for noncommercial educational webcasters (NEWs) undefined (NEWs that exceed the 159,140 ATH threshold are simply no longer eligible for the settlement rate), both parties were aware of SoundExchange's rate proposal for noncommercial webcasters that the Judges ultimately adopted. See Web IV, 81 FR at 26394. The Judges find Professor Cordes' assertion that both parties could have considered the agreement as effectively being a flat rate to be unreasonable and not credible. See Cordes WDT © 36.

[^41]:    ${ }^{318}$ See supra note 313 and accompanying text.

[^42]:    ${ }^{319}$ Professor Steinberg views that rate as an upper bound of reasonable rates, arguing the rate "may be a little high; that is, higher rates than we would see in a . . . willing buyer/willing seller framework with the religious non-commercial stations because they don't have access to government money." Id. at 4040 (Steinberg).
    ${ }^{320}$ The [REDACTED] Analysis was admitted into evidence as Trial Ex. 3022.
    ${ }^{321}$ Professor Steinberg analyzed the [REDACTED] Analysis in his written rebuttal testimony because NRBNMLC received the document in discovery after the submission of his written direct testimony. See Steinberg WRT © \| $1,3$.

[^43]:    ${ }^{324}$ As with NRBNMLC's contrary assertions, see supra note 313 and accompanying text, these contentions are in the form of arguments of counsel, rather than expert testimony.

[^44]:    ${ }^{325}$ See, e.g., Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, 78 FR 23054, 23058 (Apr. 17, 2013) ("a benchmark market should involve the same buyers and sellers for the same rights") (SDARS II).

[^45]:    326 The "[REDACTED]" spreadsheet in the [REDACTED] Analysis workbook does not shed any additional light on the question. The "[REDACTED]" are cryptic at best and appear to consist primarily of a [REDACTED]. The Judges draw no inferences one way or the other from the [REDACTED] spreadsheet.

[^46]:    ${ }^{327}$ See supra section V.B.1.c.i.

[^47]:    ${ }^{328}$ Congress enacted three Webcaster Settlement Acts: the Small Webcaster Settlement Act of 2002, Public Law 107-321, 116 Stat. 2780 (Dec. 4, 2002); the Webcaster Settlement Act of 2008, Public Law 110-435, 122 Stat. 4974 (Oct. 16, 2008); and the Webcaster Settlement Act of 2009, Public Law 111-36, 123 Stat. 1926 (Jun. 30, 2009).

[^48]:    ${ }^{329}$ Professor Steinberg refers to labels in the CPB/NPR Analysis that mention "NCW-WSA," but does not explain what the acronym means. See Steinberg WRT ๆ 6 n.10.

[^49]:    ${ }^{331}$ See supra, section V.A.1.b.

[^50]:    332 The Judges note, in this regard, that NRBNMLC's Alternative 1 rate proposal also includes a tranche of performances up to an ATH threshold that do not require payment of per-performance royalties, thus lowering the effective average rate for all noncommercial webcasters. Presumably, the NRBNMLC proposal would not include this effective discount if it were meaningless to noncommercial webcasters.

[^51]:    ${ }^{334}$ Professor Cordes acknowledged in his written testimony that he did not perform any empirical analysis of the relative price elasticities of commercial and noncommercial webcasters. See Cordes WDT I 24. Nor did he address in his oral testimony the incentives (or disincentives) for record companies to differentiate

[^52]:    335 NRBNMLC disputes Mr. Orszag's conclusion, arguing that Prazor's listenership is too small to constitute a competitive threat to Sirius XM. See NRBNLC PFFCL © 211. The Judges agree that, while Mr. Orszag's example shows that competition

[^53]:    between Prazor and Sirius XM is possible, it is de minimis at present.

[^54]:    ${ }^{336}$ Prior to the evidentiary hearing, NRBNMLC sought to exclude the overlap study, together with references to the study in Mr. Ploeger's and Mr. Orszag's testimony, on grounds that Mr. Ploeger, "lacks both (a) the expertise necessary to determine and direct how the study should have been conducted and (b) basic factual knowledge regarding Mediabase, Massarsky Consulting, and the study's design and implementation." NRBNMLC Motion to Strike Written Rebuttal Testimony (WRT) of Travis Ploeger and Jonathan Orszag relating to Mediabase Study, at 3-4 (Mar. 11, 2020). The Judges denied the motion, concluding "the Mediabase playlist database is the type of third-party commercial data source that industry participants rely on and that the Judges have relied upon in past proceedings when presented by lay witnesses." Order Denying NRBNMLC Motion to Strike, at 3 (Apr. 2, 2020). The Judges noted, however, that NRBNMLC raised legitimate questions concerning alleged deficiencies in Massarsky Consulting's methodology for selecting the subset of data presented in the study and Mr. Ploeger's alleged lack of knowledge about that methodology. Id. The Judges found those alleged deficiencies go to the weight rather than the admissibility of the study. Id.

[^55]:    ${ }^{337}$ NRBNMLC is critical of the fact that Mr．Ploeger，in his deposition，was unable to describe the technical process by which Massarsky Consulting carried out the random selection of stations．See NRBNMLC PFFCL © 236．NRBNMLC does not controvert SoundExchange＇s assertion that the selection was random，and the Judges accept that assertion．The particular method by which the random selection took place is unimportant．

[^56]:    ${ }^{339}$ See supra note 317 and accompanying text.
    ${ }^{340}$ See supra, section V.B.1.
    ${ }^{341}$ In light of the Judges' rejection of the NRBNMLC rate proposal, they need not address SoundExchange's contention that they lack authority to adopt NRBNMLC's Alternative 2. See SX PFFCL 【 $\mathbb{\|}$ 1518-1520; supra, section V.A.2.c.

[^57]:    ${ }^{342}$ See infra, section IX.C.2.
    ${ }^{343}$ The Judges set the minimum fee infra, section VI.
    ${ }^{344}$ See supra, sections V.A.1.a and V.A.2.a.

[^58]:    ${ }^{345}$ Five percent of the minimum fee is allocated to ephemeral recordings. See 37 CFR 380.10(d).
    ${ }_{346}$ The $\$ 500$ minimum fee applies only to NRBNMLC's "Alternative 1" rate proposal. NRBNMLC's "Alternative 2" employs a flat annual payment that includes minimum fees and

[^59]:    usage payments for multiple stations. See NRBNMLC Rate Proposal ex. A at 12.

[^60]:    ${ }^{347}$ Under the Web I rate structure, nonsubscription commercial webcasters paid $\$ 0.0007$ per performance, plus an additional $8.8 \%$ for ephemeral recordings. Mr. Bender used the combined royalty of $\$ 0.0007616$ (i.e., $0.0007 \times 1.088$ ) in his calculations. See Bender WDT 944.

[^61]:    ${ }_{348}$ The minimum fee selected by the CARP was the lowest minimum fee found in the benchmarks put before the panel. See $i d$. The CARP reasoned that a "sophisticated and experienced negotiator . . . would not negotiate a minimum fee that would expose it to a loss." Id. The Services point out, correctly, that the Librarian referred to "the incremental cost of licensing" in a separate passage. See Services RPFFCL © 1536. Elsewhere, including the passage quoted in the text, the Librarian refers merely to "costs for administering the license."

[^62]:    349 While the regulations do not cap minimum fees for noncommercial licensees, no noncommercial licensee has more than 100 channels or stations. See Ploeger WRT © 9 n.2.

[^63]:    ${ }^{350}$ See Historical Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, all items, by month, https://www.bls.gov/cpi/tables/ supplemental-files/historical-cpi-u-202101.pdf (last visited May 24, 2021). The Judges take official notice of these publicly available government data.

[^64]:    ${ }^{351}$ SoundExchange and the Services are generally on the same page regarding ephemeral recordings, except as to the question whether the right to make ephemeral recordings has independent economic value. Compare SX PFFCL © 1570 (and sources cited therein) ("ephemeral copies have economic value to services that publicly perform sound recordings because these services cannot, as a practical matter, properly function without those copies") with Services RPFFCL © 1570 (and sources cited therein) ("While the Services do not dispute that ephemeral recording right is frequently needed, it does not have independent economic value."). The Judges need not (and do not) resolve this largely academic question to determine an ephemeral recordings rate.

[^65]:    ${ }^{353}$ The Judges also adopt several of the proposed changes that are merely technical, structural, or conforming amendments to the regulations.

[^66]:    ${ }^{354}$ See 37 CFR 382.7(g).

[^67]:    ${ }_{355}$ The proposed three-year period is not in dispute. See 17 U.S.C. 507(b). The three-year period for the unclaimed funds term (in then § 260.7) was adopted on June 18, 2003, and remains based in the statute, 17 U.S.C. 507(b). See 68 FR 36469.

[^68]:    ${ }^{356}$ If the NAB had presented evidence of some other index that it demonstrated was more closely aligned with price changes in the music services, the Judges could have considered such an index as an alternative to the CPI-U. However, the NAB did not present such evidence, leaving the Judges with a choice between a five-year freeze on the statutory rates or an extension tied to a reasonable index. The Judges find that rates adjusted based on

[^69]:    ${ }^{358}$ The $\$ 0.0026$ rate is also supported by the Judges' finding that Professor Willig's Shapley Model-derived rates serve only as limited guideposts, indicating that effectively competitive rates generated via a Shapley Value Model would be less than $\$ 0.0028$ per play for subscription services. When "the Judges are confronted with evidence that, standing alone, is not itself wholly sufficient, they may rely on that evidence "to guide the determination," i.e., by using it as a "guide post" when considering the application of more compelling evidence. SDARS II, 78 FR at 23063, 23066 (emphasis added).
    ${ }^{359}$ No other party that addressed the ad-supported rate issue objected to the Judges making the same CPI-U adjustment, to bring older economic data more current, as the Judges did in Web IV.

[^70]:    1 For the underlying Board determinations, see Web IV, 81 Fed. Reg. 26,316; Determination of Royalty Rates for Digital Performance Right in Sound Recordings and Ephemeral

[^71]:    Recordings (Web III), 79 Fed. Reg. 23,102 (April 25, 2014); Digital Performance Right in Sound Recordings and Ephemeral Recordings (Web II), 72 Fed. Reg. 24,084 (May 1, 2007); Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings (Web I), 67 Fed. Reg. 45,240 (July 8, 2002).

[^72]:    Alternative 1, noncommercial webcasters would pay an annual minimum fee of $\$ 500$ that would entitle them to $1,909,680$ ATH of usage per year. For usage above that threshold, noncommercial webcasters would pay one-third of the rate for commercial webcasters for the same type of transmission (subscription versus nonsubscription). Under Alternative 2, the Committee would pay a flat annual fee of $\$ 1.2$ million to SoundExchange, for a group of up to 795 noncommercial religious radio stations designated by the Committee. Those stations would have an aggregate usage cap of 540 million ATH in 2021, increasing by 15 million ATH per year. The proposal set no terms for usage above that cap. Meanwhile, stations not designated for inclusion in that group would be subject to the terms of Alternative 1. Id.

[^73]:    ${ }^{3}$ The Committee also joined the NAB's challenge to the Board's minimum fee, and essentially relied on the NAB's briefing and oral argument. Its only additional argument was that the Board should have adjusted the $\$ 500$ minimum fee for inflation from 2020 rather than from 2006, because the $\$ 500$ figure was last set in 2020. That argument did not affect the Board's ultimate determination of the minimum fee. See Web $V$, 86 Fed. Reg. at 59,583 (using the inflation-adjusted minimum fee as a lower bound of the "zone of reasonable minimum fees" and relying primarily on SoundExchange's rising administrative costs to set a new minimum fee). The NAB's proposal to maintain the lower minimum fee is addressed Part III.A, supra.

[^74]:    ${ }^{4}$ See Web V, 86 Fed. Reg. at 59,570 ("[S]ettlement agreements, unlike voluntary agreements reached outside the context of litigation, are not 'free from trade-offs motivated by litigation cost, as distinguished from the underlying economics of the transaction." (quoting Determination of Royalty Rates and Terms for Making and Distributing Phonorecords (Phonorecords III), 84 Fed. Reg. 1918, 1935 (Feb. 5, 2019))); id. at 59,572 (The NPR Agreement's "rate reflects * * * [a] discount that reflects the administrative convenience to [SoundExchange] of receiving annual lump sum payments that cover a large number of separate entities, as well as the protection from bad debt that arises from being paid in advance."); id. at 59,573 ("The record reflects that consolidated reporting has value to SoundExchange. * * * '[O]ne of the things that NPR does is it collects together the messy data of the individual stations and reports it as part of the agreement." (quoting 8/17/20 Tr. 2232 (Professor Catherine Tucker))).
    ${ }^{5}$ For example, the Committee misstates that Board precedent required SoundExchange to make the necessary adjustments. Although Web IV required the challenger of an "otherwise proper and reasonable benchmark" to quantify further proposed adjustments, Web IV, 81 Fed. Reg. at 26,387, that case is distinguishable because the NPR Agreement was not an "otherwise proper and reasonable" benchmark. Moreover, the

[^75]:    Committee notes that Web $I V$ accepted a settlement-based benchmark without litigation cost adjustments; but Web IV accepted that benchmark only as "support for some elements of SoundExchange's rate proposal" and "not for the proposed rate for usage beyond the ATH threshold," id. at 26,394 (emphasis added), which is exactly what the Committee attempted here. The Committee's remaining citations, see Committee Opening Br. 29-32, are similarly off point. See Web III, 79 Fed. Reg. at 23,123-23,124; Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services (SDARS II), 78 Fed. Reg. 23,054, 23,068-23,069 (April 17, 2013); Digital Millennium Copyright Act, Pub. L. No. 105-304, § 405, 112 Stat. 2860, 2895-2896 (1998); 17 U.S.C. § 801(b)(7)(A).

[^76]:    ${ }^{6}$ The Committee's argument that this expert testimony is mere "ipse dixit" that cannot constitute substantial evidence to maintain the incumbent rate, Committee Opening Br . 40, understates the Board's reasoned analysis of the expert testimony and overlooks our precedent allowing the Board to start with the incumbent rate in the absence of a suitable benchmark. See Web V, 86 Fed. Reg. at 59,575-59,578; Music Choice, 774 F.3d at 1012.

[^77]:    ${ }^{7}$ The Committee argues that the overlap study should not have been admitted under $37 \mathrm{CFR} \S 351.10(\mathrm{e})$. As an initial matter, it is unclear whether the Committee actually moved to exclude the study, or only the testimony of SoundExchange's witnesses about the study. See Committee Mot. to Strike Test. Written Rebuttal Test. Related to Mediabase Study. In any event, the Board reasonably concluded that both the study and the witnesses' testimony were admissible. See Order Denying Committee Mot. to Strike 2-3 (noting that the study simply compiled data "that industry participants rely on and that the Judges have relied upon in past proceedings when presented by lay witnesses," and relying on the Board's discretion to admit hearsay testimony from witnesses about such data).
    8 The Committee's arguments against this evidence are meritless. Contrary to the Committee's suggestions, an expert witness need not have "first-hand knowledge of the asserted facts," Committee Opening Br . 50, to testify about an issue, and the evidence fell well within the proper scope of rebuttal. Moreover, the Board expressly acknowledged the anecdotal nature of the evidence and treated it with appropriate restraint. See Web V, 86 Fed. Reg. at 59,575.

[^78]:    9 Game theory "uses equations to model the behavior of decisionmakers whose choices affect one another." Peter H. Huang, Strategic Behavior and the Law, 36 Jurimetrics J. 99, 100 (1995) (quoting Rob Norton, A New Tool to Help Managers, Fortune, May 30, 1994, at 136). Most relevant here, game theory can help model the likely, hypothetical behavior of both negotiating buyers and sellers in an effectively competitive market.

[^79]:    10 The precise numbers are sealed as proprietary commercial information.

