United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 18, 2025 Decided September 22, 2026

No. 24-1259

OFFICE OF THE COMMISSIONER OF BASEBALL, ET AL.,
APPELLANTS

v.

LIBRARIAN OF CONGRESS, ET AL.,
APPELLEES

AMAZING FACTS, INC., ET AL.,
INTERVENORS

Consolidated with 24-1260

On Appeals of a Final Determination
of the Copyright Royalty Board

Elisabeth S. Theodore argued the cause for appellants Joint Sports Claimants. With her on the briefs were *Philip R. Hochberg*, *Jeremy W. Dutra*, *Daniel A. Cantor*, *Michael Kientzle*, and *Daniel R. Yablon*.

Ronald G. Dove, Jr. argued the cause for appellant Public Broadcasting Service. With him on the briefs were *Dustin Cho*, *Daniel G. Randolph*, and *Pierre Anquetil*.

Sonia M. Carson, Attorney, U.S. Department of Justice, argued the cause for appellees. With her on the brief were *Yaakov M. Roth*, Assistant Attorney General, and *Daniel Tenny*, Attorney.

Matthew J. MacLean argued the cause for intervenors Canadian Claimants Group, Commercial Television Claimants, Program Suppliers, and Settling Devotional Claimants. With him on the brief were *Jessica T. Nyman*, *Michael A. Warley*, *Caroline M. Block*, *Arnold P. Lutzker*, *Lawrence K. Satterfield*, *Victor J. Cosentino*, *Preetha Chakrabarti*, *Gregory O. Olaniran*, and *Lucy H. Plovnick*.

Philip R. Hochberg, *Jeremy W. Dutra*, *Daniel Cantor*, *Elisabeth S. Theodore*, *Michael Kientzle*, and *Daniel Yablon* were on the brief for intervenors Joint Sports Claimants.

Ronald G. Dove Jr., *Dustin Cho*, *Daniel G. Randolph*, and *Pierre Anquetil* were on the brief for intervenor Public Broadcasting Service.

Before: SRINIVASAN, *Chief Judge*, CHILDS, *Circuit Judge*, and ROGERS, *Senior Circuit Judge*.

Opinion for the Court filed by *Chief Judge* SRINIVASAN.

Opinion concurring in part and dissenting in part filed by *Senior Circuit Judge* ROGERS.

SRINIVASAN, *Chief Judge*: Section 111 of the Copyright Act establishes a compulsory licensing scheme under which cable television systems may distantly retransmit copyrighted broadcast programming in exchange for depositing statutory royalties into a common pool. The Act charges the Copyright Royalty Board with the arduous task of allocating that pool among the competing copyright claimants. This consolidated appeal concerns the allocation of the royalties collected for 2014 through 2017.

The appellants in this case—the Office of the Commissioner of Baseball and the Public Broadcasting Service—appear on behalf of two adversely positioned groups of copyright claimants. Although both challenge the Royalty Board's allocation of the statutory royalties, and both contend that the allocation was arbitrary and capricious and unsupported by the record in various ways, their arguments naturally differ since they are competing claimants to the same pool of collected fees.

We reject nearly all of appellants' challenges to the allocation of the royalty fund. The Board reasonably evaluated the two principal valuation methodologies and explained the adjustments it made to determine the relative marketplace value of the competing categories of broadcast programming. But the Board left unexplained the critical, final step that followed: how exactly it merged the results of those two methodologies to calculate the final allocation percentages among each claimant group. That final step determined the outcome we review, and yet we are unable to discern precisely how the Board arrived at the final allocation. We therefore vacate the final determination and remand for further explanation.

I.

A.

The Copyright Act balances two important principles: "ensuring the protection of intellectual property and encouraging the free flow of information." *Indep. Producers Grp. v. Libr. of Cong.* (*IPG I*), 792 F.3d 132, 135 (D.C. Cir. 2015) (citation omitted). The Act effectuates that balance in part by providing for the compulsory licensing of copyrighted material in certain situations. *See generally* 17 U.S.C. §§ 111–122. The compulsory licensing scheme at issue here permits cable systems to distantly retransmit television broadcast programming in exchange for a statutorily prescribed fee. *Id.* § 111. The classic use case is if a cable subscriber wants to watch programming broadcast elsewhere in the country—say the subscriber grew up in one community and moves far away from home but wants to continue watching her home team's games carried on a local broadcast station there.

Section 111 of the Copyright Act provides how the statutorily prescribed fees paid by cable systems to retransmit broadcast programming are calculated and pooled before they are ultimately redistributed among the copyright holders. Generally, a cable system pays a percentage of the "gross receipts paid by subscribers" over a six-month period for the "basic service of providing secondary transmissions of primary broadcast transmitters." *Id.* § 111(d)(1)(A), (E)–(F). The percentage increases with the number of distant signals the system retransmits—that is, signals carried "beyond the local service area of [the] primary transmitter." *Id.* § 111(d)(1)(B)(i). But even a system that carries no distant signals must pay at least the statutory minimum fee. *Id.* § 111(d)(1)(E)(ii), (F)(i). Cable systems deposit those fees with the Register of Copyrights. *Id.* § 111(d).

The Copyright Royalty Board is then responsible for determining how to distribute those fees among the appropriate copyright owners. *Id.* § 801(b)(3). Each July, any copyright owner (or their agents) claiming a share of that year's royalty fees must file a claim with the Board. *Id.* § 111(d)(4)(A); 37 C.F.R. § 360.2. If claimants agree on how to distribute the fees, the Board authorizes the Library of Congress to distribute them accordingly. 17 U.S.C. §§ 111(d)(4)(B)–(C), 801(b)(7). Absent such agreement, the Board "conduct[s] a proceeding to determine the distribution of royalty fees." *Id.* § 111(d)(4)(B).

That proceeding unfolds in two phases. In Phase I, claimants group themselves into categories based on the type of programming they own—such as sports, public television, or devotional (religious) shows—and the Board allocates the overall royalty pot among those categories according to their relative marketplace value. *See IPG I*, 792 F.3d at 135. In Phase II, the Board distributes each category's allocation among the individual copyright owners within that category. *See id.*; *see also* 37 C.F.R. § 351.1(b)(2)(ii)(C). Both phases are adversarial, trial-like proceedings in which the claimants conduct discovery and submit evidence, including testimony and other evidentiary materials.

At the conclusion of each phase, the Board issues a final determination allocating (Phase I) or distributing (Phase II) the contested portions of the royalty fund. *See* 17 U.S.C. § 803(c). The determination must be in writing, "supported by the written record," and "set forth the findings of fact relied on" by the Board. *Id.* § 803(c)(3). The Librarian of Congress then publishes the determination in the Federal Register and distributes the royalty fees. *Id.* § 803(c)(6). A claimant wishing to challenge the Board's determination may seek judicial review in this court within 30 days of its publication in the Federal Register. *Id.* § 803(d)(1).

B.

On March 20, 2023, the Board began the evidentiary proceedings to determine the allocation of the pool of royalty fees for cable retransmission for 2014 to 2017 among six claimant groups: Joint Sports Claimants (JSC); Public Television (PTV); Settling Devotional Claimants (SDC); Program Suppliers (PS); Canadian Claimants Group (CCG); and Commercial Television Claimants (CTV).

Over the course of the one-month proceeding, the Judges on the Board admitted hundreds of exhibits, heard live testimony from dozens of witnesses, and considered the claimant groups' competing evidence. *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. 54166, 54168 (June 28, 2024) (J.A. 448). As in prior proceedings, that evidence went to determine the "relative marketplace value" of each claimant's programming, a term the Judges have long understood to mean valuations "that simulate [relative] market valuations as if no compulsory license existed." *Id.* The Judges' task, in other words, is to construct a "hypothetical market" that approximates the relative values that would emerge in an unregulated marketplace. *Id.* (citation omitted).

Over time, claimants have developed different methods for modeling the hypothetical market. In recent decades, two approaches have predominated: regression analysis and constant-sum surveys. All six claimant groups in this proceeding relied on one of those two approaches in support of their allocation proposals.

Modeling the counterfactual free market proved uniquely challenging in this cycle. The advent of streaming services enabled viewers to access content without a cable subscription. Most significantly, the retransmission market experienced a "commercial earthquake" in the midst of the proceedings. *Id.*

at 54220 (J.A. 500). In 2015, WGNA—"by far the most distantly retransmitted channel," and the source of nearly all the sports programming available under the Section 111 licensing scheme—converted from a broadcast station to a cable network. *Id.* WGNA carried games of Chicago sports teams. WGNA's conversion from a broadcast station to a cable network took it out of the statutory licensing market. *See id.*

In light of those fundamentally changed circumstances, the Judges concluded that neither the regression analyses nor the survey evidence alone could adequately model the hypothetical market. They therefore treated both approaches as "useful" and "equally weighted" them in determining the relative marketplace value of each claimant group's programming. *Id.* at 54232 (J.A. 512).

1.

The Judges began by considering the claimants' competing regression analyses. Regression analysis is a "method of determining the relationship between two or more variables." *Id.* at 54218 (J.A. 498) (citation omitted). In this context, a regression examines the relationship between the programming that cable systems choose to retransmit and the royalties they pay, in an effort to "reveal[] preferences" about the relative value of different programming. *Id.* at 54266 (J.A. 546). The underlying idea is that a cable system's willingness to pay more to retransmit programming indicates that it places greater value on that programming. *See id.*

Several experts offered regression analyses, but the Judges ultimately relied on the analyses of PS's expert, Dr. Cleve Tyler. Dr. Tyler conducted numerous different analyses, two of which are relevant here. One analyzed data from all cable systems. The other, known as a "sensitivity test," analyzed data only from systems that paid more than the statutory minimum fee. The methodology underlying the two analyses was the same: estimating a cable system's willingness to pay for different types of programming by treating the statutory royalty rate as a measure of the value the system assigned to additional programming minutes.

The WGNA conversion, however, changed the usefulness of the two models. After WGNA's conversion to a cable network in 2015, many cable systems' gross receipts fell below the statutory minimum royalty fee. Some of those systems did not retransmit programming to the full extent permitted by the license their minimum fee purchased, while others paid the minimum fee without retransmitting any distant signals at all. That posed a problem for Dr. Tyler's regression, which sought to infer relative marketplace value from cable systems' revealed preferences—that is, from their decisions about which programming to retransmit. Those decisions are most informative when they reflect affirmative choices in response to changes in cost. A system that pays only the minimum fee and retransmits no distant signals, however, provides little observable behavior from which to infer its preferences among programming types. That limitation prompted Dr. Tyler to conduct the "sensitivity" regression that excluded cable systems that paid only the statutory minimum fee. Although he expressed some reservations about its economic premise, he considered the sensitivity test "reasonably robust" and "sufficiently reliable" to inform allocation of the 2014–2017 royalty fund. *Id.* at 54172 (J.A. 452).

The Judges concluded that the "dramatic increase in the number of minimum-fee-only" cable systems following WGNA's 2015 conversion rendered regression analyses that included those systems "less reliable and . . . [of] only very limited economic evidentiary weight." *Id.* at 54171, 54177 (J.A. 451, 457). They therefore adopted the model based on data from all cable systems for 2014, when minimum-fee-only systems were less prevalent, and switched to the sensitivity test for 2015 to 2017. They then made several additional adjustments to the regression to account for idiosyncrasies in particular claimants' circumstances, referred to as Adjustment A, Adjustment B, and Adjustment C.

Adjustment A. The first adjustment addressed an anomalous increase in CCG's allocation under the sensitivity test. Under Dr. Tyler's model using data from all cable systems, CCG's allocation rose from 6.5% in 2014 to 15.2% in 2017. Under the sensitivity test, it rose from 7.6% to 34.6% over the same period. The Judges attributed that difference to the distinctive characteristics of Canadian programming: its geographic availability is limited to cable systems within a 150-mile band below the U.S.–Canadian border, and its French-language content carries particular value in that region. *Id.* at 54229 (J.A. 509). Demand for that programming tended to cause cable systems in the region to pay above the minimum fee, causing CCG to be disproportionately represented in the sensitivity test. The Judges therefore reduced CCG's allocation by reverting to the model using data from all cable systems and distributing the difference proportionally among the remaining claimants. That adjustment increased JSC's annual allocation by about 0.25% and PTV's by between 1.64% and 3.71%, depending on the year.

Adjustment B. The second adjustment excluded data from "must-carry" broadcast stations that cable systems are statutorily compelled to carry. Federal law mandates that cable systems "carry the signals of qualified noncommercial educational television stations," and prohibits systems from receiving "monetary payment . . . in exchange." 47 U.S.C.

§ 535(a), (i)(1). The Judges reasoned that, because the regression was premised on a cable system's willingness to pay, programming that a system was obligated to carry could not reliably reveal associated preferences. *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54189–90 (J.A. 469–70).

The Judges nevertheless gave PTV an opportunity to show how must-carry stations could be incorporated into the regression without distorting the results. The Judges concluded, however, that PTV had failed to identify which stations were subject to must-carry requirements or offer a viable method for incorporating that data into the regression. Without that information, the Judges relied on unrebutted evidence from JSC's expert regarding the number of must-carry stations, reduced PTV's allocation by the corresponding percentage for each year, and recalculated the other claimants' shares accordingly. The adjustment reduced PTV's allocation by roughly 3% and increased JSC's allocation by a fraction of a percent.

Adjustment C. The third adjustment addressed a limited exception to the exclusion of minimum-fee cable systems from the sensitivity test. Although the test generally treated minimum-fee payments as uninformative of cable systems' economic preferences, PTV contended that cable systems paying only the minimum fee between 2015 and 2017 revealed a preference when they chose, after WGNA's conversion, to keep retransmitting PTV programming they had previously received alongside WGNA. The Judges agreed and adjusted PTV's allocation upward. The adjustment increased PTV's allocation to approximately 17% in 2015 (a 5.1% increase), 22% in 2016 (a 6.7% increase), and nearly 23% in 2017 (a 7.0% increase). The other claimants' allocations declined correspondingly, with JSC's falling by only tenths of a percentage point.

The table below shows the claimants' shares by year under the regressions, after incorporating the various adjustments to the regression results.

Table 1: Royalty Allocations Based on Dr. Tyler's Regression Analyses				
	2014	**2015**	**2016**	**2017**
CCG	6.55%	12.90%	13.00%	14.35%
CTV	11.38%	12.37%	15.94%	12.12%
PS	26.80%	44.87%	37.51%	40.39%
SDC	4.33%	10.62%	9.95%	9.54%
PTV	13.36%	16.96%	22.06%	22.98%
JSC	37.48%	2.30%	1.56%	0.61%

2.

The Judges next considered the other principal valuation methodology: survey evidence. A constant-sum survey elicits hypothetical valuation judgments by asking respondents to allocate a fixed pool of resources among competing options.

The Bortz Survey, one such survey, has been a mainstay of Section 111 royalty-distribution proceedings for decades. JSC commissioned Bortz Media to conduct the survey here, which asked hundreds of cable systems to "value the various types of non-network programming on the distant signals" they carried by "allocat[ing] a percentage of a finite dollar amount to each of the program categories." *Id.* at 54241 (J.A. 521) But the survey did not query cable systems that carried no distant signals or signals from only one programming category, on the theory that those systems could not provide comparative value judgments. Recognizing that this methodological choice biased the survey results downward for PTV and Canadian programming, the claimants proposed various adjustments.

In prior proceedings, the Judges addressed this issue by applying the "McLaughlin Adjustment," which assumed that cable systems carrying only PTV or Canadian programming would assign 100% of their value to that programming category. *Id.* at 54242 (J.A. 522). JSC did not advocate for the McLaughlin Adjustment here, instead proposing alternative adjustments. Relevant here, Adjustment One applied the McLaughlin Adjustment for 2014 but not for 2015–2017, on the theory that cable systems that took steps after WGNA's conversion to continue retransmitting PTV programming previously carried alongside WGNA would have assigned less than 100% of their value to that programming if surveyed after 2014. Although the Judges recognized limitations in the McLaughlin Adjustment, they nevertheless adopted it. The resulting allocations are shown in the table below.

Table 2: McLaughlin-Adjusted Bortz Survey Royalty Allocations				
	2014	**2015**	**2016**	**2017**
CCG	1.0%	1.8%	1.3%	1.2%
CTV	25.2%	19.2%	15.3%	17.2%
PS	21%	18.4%	17.8%	14.8%
SDC	5.4%	4.4%	5.0%	3.9%
PTV	8.4%	43.6%	48.4%	48.2%
JSC	39%	12.7%	12.2%	14.8%

3.

The Judges turned to allocating shares of the royalty fund with the assistance of the two valuation methodologies. Because Dr. Tyler's sensitivity test and the Bortz Survey produced a wide range of potentially reasonable allocations, the Judges sought to "reconcil[e] . . . these two useful (albeit imperfect) approaches" by weighting the regression and survey results for each claimant in each year according to the comparative utility of each of those results for the specific claimant category. *Id.* at 54256 (J.A. 536). So, for instance, the regression results might be given relatively greater weight for one claimant category but the survey results might be given relatively greater weight for another category. The Judges then adjusted the resulting shares proportionally to ensure that they totaled 100%.

After the evidentiary proceedings, the Judges sought additional evidence concerning the PBS–National Cable & Telecommunications Association (NCTA) agreement governing the carriage of certain PTV stations by cable systems. PTV submitted the agreements but moved for reconsideration on multiple grounds. On September 5, 2023, the Judges denied the motion as moot, concluding that the documents need not be entered into the record.

The following day, the Judges issued an initial determination setting forth each claimant group's percentage allocation of the 2014–2017 cable royalties. JSC and PTV both petitioned for rehearing. The Judges denied the petitions but corrected several undisputed arithmetic errors. In June 2024, the Judges issued a final determination allocating the funds among the six claimant groups:

Table 3: Final Royalty Allocations				
	2014	**2015**	**2016**	**2017**
CCG	**6.19%** *$13,976,255*	**14.59%** *$30,291,018*	**14.6%** *$30,311,780*	**15.77%** *$32,740,874*
CTV	**20.55%** *$46,399,360*	**19.78%** *$41,066,233*	**17.36%** *$36,041,952*	**17.5%** *$36,332,613*
PS	**21.21%** *$47,889,559*	**28.29%** *$58,734,264*	**25.53%** *$53,004,092*	**23.29%** *$48,353,517*
SDC	**4.85%** *$10,950,700*	**6.74%** *$13,993,246*	**7.01%** *$14,553,806*	**5.83%** *$12,103,950*
PTV	**11.07%** *$24,994,692*	**19.18%** *$39,820,544*	**24.78%** *$51,446,980*	**25.25%** *$52,422,770*
JSC	**36.13%** *$81,577,075*	**11.42%** *$23,709,625*	**10.72%** *$22,256,320*	**12.36%** *$25,661,205*

Both JSC and PTV promptly appealed the Board's Phase I allocation, and we consolidated the two cases. The four remaining claimant groups—SDC, PS, the CCG, and the CTV—intervened, as did JSC and PTV in the portions of the appeal initiated by the other.

II.

We review decisions of the Copyright Royalty Judges under the familiar standards of the Administrative Procedure Act (APA) to assess if their decision is arbitrary or capricious, contrary to law, or not based on substantial evidence. *See* 17 U.S.C. § 803(d)(3) (incorporating by reference 5 U.S.C. § 706). Our review is "highly deferential," *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 571 F.3d 69, 79 (D.C. Cir. 2009), and, in royalty-allocation proceedings, we ask only whether the Judges' allocations fall "within a zone of reasonableness," *Christian Broad. Network, Inc. v. Copyright Royalty Tribunal*, 720 F.2d 1295, 1304 (D.C. Cir. 1983) (citation omitted). The Judges must of course "make reasoned decisions supported by the written record before them," *Settling Devotional Claimants v. Copyright Royalty Bd.*, 797 F.3d 1106, 1121 (D.C. Cir. 2015), but perfection is not required. We have long upheld a "rough-justice approach" under which the agency may rely on "relevant and creditable methodological evidence, even if it [is] 'far from perfect.'" *Id.* (quoting *Nat'l Cable Television Ass'n, Inc. v. Copyright Royalty Tribunal*, 724 F.2d 176, 184 (D.C. Cir. 1983)).

Both JSC and PTV challenge how the royalty pie was divided, contending that the Judges' application of rough justice was far more rough than just. JSC and PTV, however, unsurprisingly perceive different flaws in the Judges' approach. We first consider JSC's challenges to the regression and survey analyses and then consider PTV's, neither of which we find persuasive. We last consider JSC's challenge to the final allocation based on a combination of those two inputs, which does persuade.

A.

JSC argues that the Judges' reliance on Dr. Tyler's regression analyses and the Bortz Survey was arbitrary and capricious in three ways.

1.

JSC begins by challenging the Judges' reliance on Dr. Tyler's sensitivity test on three grounds: (i) that it failed to accurately measure relative marketplace value of programming, (ii) that it drew from an unrepresentative dataset limited to the small minority of cable systems paying above the minimum fee, and (iii) that it produced implausible and statistically insignificant results that the Judges' adjustments only exacerbated. None succeeds.

a.

JSC contends that Dr. Tyler's regressions rest on an economically incoherent foundation, such that they are incapable of determining the relative marketplace value of each claimants' programming. Both regressions treated the statutory royalty rate per subscriber as the dependent variable and incremental programming minutes as the independent variable, with the regression purporting to "represent the incremental impact on the [statutory royalty rate] for each . . . minute." Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54198, 54225 (J.A. 478, 505) (citation omitted). In JSC's view, those variables cannot bear the weight the regressions place on them because the Judges' own findings establish that cable systems neither consider the statutory royalty rate nor the relative quantity of programming when selecting programming for retransmission. We are unpersuaded.

The statutory royalty rate was a reasonable dependent variable. The statutory formula does not vary a station's royalty rate based on the programming it carries: a station's rate is the same whether it carries mostly sports, religious programming, or something else. JSC therefore reasons that the rate reflects only how the statute treats the station, not the value cable systems place on its programming. But the regressions did not use the statutory rate as a measure of programming value. They instead measured whether cable systems were willing to incur higher royalty costs to carry more of particular types of programming. If cable systems valued all programming equally, one would expect the relationship between royalty costs and programming minutes to be uniform across all systems. Yet, the data showed otherwise. Based on nearly 20,000 observations and more than 2,000 unique pricing relationships, the regressions found substantial variation in the relationship between royalty costs and programming minutes. Had the regressions "merely mimick[ed] the statutory formula," OCB Br. 22, as JSC suggests, the variation would be difficult to explain.

The Judges understood that the regression was imperfect. Indeed, the Judges credited testimony that the "amount of money at issue regarding section 111 royalties is essentially *de minimis*" to cable systems. Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54177 (J.A. 457). But the fact that royalty costs did not drive cable systems' carriage decisions did not make those decisions irrelevant. The Judges reasonably concluded that cable systems' choices could still reveal their relative preferences. After all, the systems still had to decide which signals to retransmit, and those choices were the behavior from which the regression sought to infer relative value.

Nor was there anything arbitrary about the regressions' independent variable. If anything, minutes of programming by category are a natural, pertinent measure. Consider a cable system that consistently chooses a signal with twice as many minutes of sports programming over another with half as many. Why? The evident answer is that the system places greater value on sports. There is nothing arbitrary or capricious about drawing that inference. But even if the variable was less than perfect, the Judges did not overlook its limitations. They recognized that some categories may have value "not well-correlated with overall program minutes," *id.* at 54234 (J.A. 514), and they supplemented the model with the Bortz Survey to address that limitation. That is reasoned decisionmaking.

b.

JSC next objects that the Judges' reliance on the sensitivity test deprived it of fair notice. Because cable systems paying only the minimum fee constituted the lion's share of the data, JSC argues, excluding those systems left the regression resting on a small and unrepresentative subset of cable systems. Worse, JSC says, no expert proposed the test. Neither contention holds up.

Taking JSC's second contention first, its suggestion that it lacked fair notice of the sensitivity test because no expert proposed it is difficult to square with the record. One of the central issues in the proceeding was the "use of above-Minimum Fee evidence as a building block for the ascertainment of relative value." *Id.* at 54269 (J.A. 549). JSC itself had an expert undertake an additional regression to "separate[] out minimum fee systems from" Dr. Tyler's analysis, precisely to test his regression using all cable systems, putting the very distinction on which the sensitivity test turned squarely before the Judges. *Id.* at 54201 (J.A. 481). JSC cannot now claim surprise at a distinction its own expert drew. Nor would it matter if the Judges had gone beyond the parties' precise proposals. The Judges were not "strictly limited to choosing from among the proposals set forth by the parties" and could "modify proposals set forth by the parties, or [] suggest models of their own." *Johnson v. Copyright Royalty Bd.*, 969 F.3d 363, 381–82 (D.C. Cir. 2020). What matters is whether the claimants had notice of the methodology—not whether the Judges adopted the precise model a party preferred. Here, notice plainly existed.

The Judges reasonably determined that the sensitivity test focused on the cable systems whose behavior was most probative of willingness to pay—the very thing the regression sought to measure. As Dr. Tyler explained, the test "restrict[ed] the data to those [cable systems] in which we have the highest degree of confidence that the [system] is considering tradeoffs between different stations," thereby isolating genuine marketplace preferences rather than the inertia associated with paying only the statutory minimum. J.A. 216. JSC objects that those systems were not "representative of the larger universe of cable systems." OCB Br. 32. But the question was not whether these systems looked like the universe of cable systems; it was whether their behavior provided reliable evidence of a willingness to pay for additional programming. A cable system paying above the minimum fee may have differed from other systems precisely because it was the one making tradeoffs that revealed relative programming preferences. The Judges were entitled to credit Dr. Tyler's expert judgment that those data provided the most useful evidence of programming preferences.

c.

Finally, JSC contends that it makes no difference which regression model the Judges used because both the full-dataset regression and the sensitivity test yielded results that were "absurd" in substance and "often statistically insignificant." OCB Br. 33. The two models did not produce the sort of results JSC describes.

The results JSC labels "absurd" are not as implausible as it supposes. Consider sports programming. Dr. Tyler's sensitivity test found sports to be the least valuable programming category during 2015–2017 and suggested that its incremental value could be zero. *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54228 (J.A. 508). JSC responds that the result cannot be right because sports programming is plainly valuable, pointing to the Super Bowl, the World Series, and other marquee events. But no one disputes that. The question is not what sports are worth in the abstract; it is what the sports programming at issue here—which does not include the Super Bowl and World Series and other such events—was worth in the § 111 distant-retransmission market. As to that category of sports programming within the purview of the § 111 retransmission market, the marketplace evidence gives reason to think it was worth less than JSC suggests. After WGNA's conversion, cable systems retransmitted significantly less sports programming, even when adding another channel would have cost them nothing. The marketplace thus did not behave as though the sports programming at issue here was uniquely valuable.

The supposed absurdities in the Canadian and devotional programming results were no mystery to the Judges, either. The sensitivity test produced an anomalously high allocation for Canadian programming and exceptionally high per-minute values for devotional programming. *See id.* at 54257 (J.A. 537). But the Judges recognized why. They understood that Canadian programming's niche appeal, coupled with its relative scarcity, could cause it to tilt the sensitivity test. They likewise recognized that devotional programming is a category whose value "might not show up well in regressions." *Id.* They therefore did not treat the regression results as dispositive for either category. Infomercials involve the same story. True, the sensitivity test attributed value to infomercials—programming all parties agree has no real-world value. *See id.* at 54216 (J.A. 496). But infomercials were only one type of programming within the broader PS category, and the regression estimated relative values across broad programming categories based on observed carriage decisions. It did not, as JSC urges, purport to assign an intrinsic value to individual programs standing alone.

JSC's statistical objection is not without force, but it has less force than JSC submits. JSC contends that the sensitivity test produced "wide confidence intervals" such that many of the estimates were "statistically indistinguishable from each other." OCB Br. 37. It is true that the test could not establish that sports programming had positive value at any conventional confidence level. The Judges acknowledged as much, noting that the sports estimates for 2016 and 2017 turned positive only at the 55% level. *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54231 (J.A. 511). But that limitation did not make the regression useless, much less render the Judges' reliance on it arbitrary. The Judges' task was not to establish the relative marketplace value of each claimant with scientific certainty, but to make reasonable estimates from the evidence before them. The Judges reasonably found regression analysis useful for those purposes: it produced an estimate for each category, with the confidence interval reflecting the uncertainty surrounding each estimate. A wide interval made the estimate less precise, not useless. And in any event, we do "not attempt to decide the merits of the methodologies," sitting instead "as a panel of generalist judges," not "as a panel of statisticians." *AEP Texas N. Co. v. Surface Transp. Bd.*, 609 F.3d 432, 443 (D.C. Cir. 2010).

2.

JSC also challenges the Judges' use of the Bortz Survey. JSC itself chose the Bortz Survey, rather than a regression, as its preferred measure of the relative marketplace value of claimants' programming. The survey, as discussed, has a known limitation: it does not query cable systems that carry only a single programming category, because, in the survey's view, those executives would have no basis to offer "comparative value judgments." Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54240 (J.A. 520). The Judges have long addressed that limitation through the McLaughlin Adjustment, which assumes that cable systems retransmitting such programming "would assign a relative value to [such programming] of 100%." *Id.* at 54242 (J.A. 522). JSC concedes that an adjustment was necessary. It objects only to the one the Judges chose, contending that the McLaughlin Adjustment was arbitrary and that other alternatives were available. We disagree. The Judges reasonably used a longstanding adjustment to address a known limitation in JSC's own preferred methodology.

a.

JSC first takes issue with the Adjustment's assignment of a 100% valuation to PTV programming, some of which cable systems were required by law to carry. JSC sees an inconsistency with the Judges' recognition elsewhere that must-carry signals have no marketplace value, pointing in particular to the Judges' exclusion of must-carry signals in Adjustment B to the regression results.

The two adjustments, however, answer different questions. Adjustment B asks how much value a cable system would place on a signal if it were free to choose whether to carry it, and a carriage decision compelled by law tells us nothing about that. The McLaughlin Adjustment asks something else: who should get credit for the royalties paid by a system that carried only one claimant's programming? The Bortz Survey cannot answer that question for those systems because it does not sample cable systems that carried distant signals from only one category. Without an adjustment, their royalties would instead be apportioned based on the revealed preferences of systems that carried multiple categories—potentially giving a share to categories that the system itself did not carry. The McLaughlin Adjustment avoids that mismatch by assigning the royalties to the only category the system carried. It makes no claim about what that programming was worth. It claims only that the programming the system chose to carry was not worthless.

That most PTV-only cable systems paid only the minimum fee does not change the analysis. In a regression, the prevalence of minimum-fee systems matters because royalty payments serve as a measure of actual willingness to pay. The Bortz Survey works differently. It does not infer value from what systems actually paid: it involves "hypothetical" rather than "actual decisionmaking," *id.* at 54267 (J.A. 547) (emphases omitted), asking respondents to allocate a hypothetical budget to isolate relative value from the fee structure generating the payments. The minimum fee a system actually paid reveals little about how it would value programming in the hypothetical exercise.

JSC also contends that the WGNA conversion rendered the Adjustment unreliable. Pointing to the sharp increase in PTV-only cable systems after WGNA's conversion, JSC argues that the increase reflected not a greater valuation of PTV but simply the loss of WGNA. The Adjustment, though, does not rest on the premise that those systems suddenly came to value public television more highly. It rests on the same premise as before: that the programming a system continued to carry was not worthless. If anything, JSC's observation strengthens the case for the Adjustment. The larger the group of PTV-only cable systems, the more royalties the survey leaves to be apportioned by the preferences of systems carrying an entirely different mix of signals. And the record refutes the premise that PTV is valueless. Indeed, the Judges found that 44% of the PTV stations retransmitted by minimum-fee systems after the WGNA conversion had also been retransmitted before it, which they reasonably viewed as "persuasive evidence of ongoing marketplace value." *Id.* at 54230 (J.A. 510). The WGNA conversion thus changed which signals these systems carried, but it did not render worthless the programming they continued to carry.

b.

The Judges also acted well within their authority in rejecting JSC's proposed alternative adjustment. JSC's Adjustment One would have accepted the McLaughlin assumption that PTV-only cable systems should receive a 100% valuation before the WGNA conversion, while assigning cable systems that became PTV-only due to the conversion the valuation they had been given in the survey when WGNA had not yet converted. *Id.* at 54248–49 (J.A. 528–29). The Judges recognized that such an approach would "prevent[] the steep swings seen in the McLaughlin-adjusted results." *Id.* at 54249 (J.A. 529). But they reasonably rejected it because it "treat[ed] the class of new [PTV]-only [cable systems] differently from other [PTV]-only [cable systems], even though they clearly have not replaced WGNA with other distant signals." *Id.*

In effect, JSC's proposed adjustment was "attribut[ing] a portion of section 111 royalties according to the former existence of WGNA, even though WGNA no longer existed as a distant signal in 2015–2017." *Id.* The Judges reasonably saw two problems with that approach. Not only would it give claimant groups a windfall based on programming the relevant cable systems no longer carried, but it also had no natural stopping point. If the systems' 2014 preferences could determine their allocations for 2015–2017, there seemed to be nothing preventing those same preferences from governing later years. The Judges were required only to make a reasonable choice between the two alternatives and explain why, which they did.

B.

We now turn to PTV's challenge to the Judges' reliance on the regression and survey analyses.

1.

PTV contends that the Judges' reliance on Dr. Tyler's sensitivity test was arbitrary for three reasons: (i) it departed from the Judges' precedent without explanation, (ii) it contradicted both the evidence and nearly every expert's testimony that minimum-fee signals retain value, and (iii) it was applied inconsistently across claimants. Those objections to the Judges' use of the sensitivity test fare no better than JSC's.

a.

PTV's first objection is that the Judges departed from their own precedent on minimum-fee cable systems. In the 2010–2013 royalty proceeding, the Judges declined to exclude cable systems that paid only the minimum fee, reasoning that retransmission decisions remained "a function of choice, preference, and ranking" that revealed "the particular station contains programming that would increase marginal value." Distribution of Cable Royalty Funds, 84 Fed. Reg. 3552, 3568–69 (Feb. 12, 2019). This time, however, the Judges concluded that only above-minimum-fee cable systems "actually reveal[] their relative programming valuations" and are "pertinent to a regression analysis." *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54223 (J.A. 503). That change of tune, PTV says, came without explanation.

The statute requires the Judges to "act in accordance with" their "prior determinations and interpretations." 17 U.S.C. § 803(a)(1); *see IPG I*, 792 F.3d at 140. If the Judges choose to depart from that precedent, they must "acknowledge and explain any departure." *SNR Wireless LicenseCo, LLC v. FCC*, 868 F.3d 1021, 1029 (D.C. Cir. 2017). The Judges did so here.

The Judges' treatment of minimum-fee cable systems across cycles recognizes that those systems *can* reveal value, and whether they in fact do depends on the circumstances. In the 2010–2013 period, the Judges acknowledged that minimum-fee cable systems presented "no marginal royalty cost" and were "less informative" but found that their continued programming choices nonetheless revealed relative value. Distribution of Cable Royalty Funds, 84 Fed. Reg. at 3568–69, 3575. Here, by contrast, the post-WGNA landscape was "dramatically different." Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54222 (J.A. 502). Just over half of cable systems paid only the minimum fee in 2014; by 2016–2017 that figure reached 85%. And the new minimum-fee systems did not replace WGNA with other programming—they simply "defaulted to a binding minimum fee." *Id.* at 54225 (J.A. 505). Their choices therefore no longer revealed relative value, because they were no longer making meaningful choices. The Judges reasonably concluded that the revealed preferences of above-minimum-fee cable systems now "reflect[ed] 100% of the information regarding relative value." *Id.* at 54223 (J.A. 503).

The exclusion of minimum-fee cable systems was thus not a change in approach, but a response to changed data and circumstances. And "[w]e doubt that the change-in-position doctrine" is triggered when an agency responds to a fundamentally different situation. *Cboe Glob. Markets, Inc. v. SEC*, 155 F.4th 704, 717–18 (D.C. Cir. 2025).

b.

PTV contends that the exclusion of minimum-fee cable systems was arbitrary because the record undisputedly shows those signals have value. And by excluding them, PTV says, the Judges effectively assigned them "zero value." PBS Br. 34. But PTV's argument conflates "value" with what the regression measures. The question is not whether programming carried by minimum-fee systems has value; it is whether that value can be meaningfully captured in a regression designed to measure a cable system's incremental willingness to pay. For the reasons already given, *see* pp. 17–20, *supra*, the Judges reasonably concluded it could not. Excluding those systems from the regression was thus not a finding that their programming was worthless, but only that this tool could not measure its value.

PTV's reliance on an array of claimants' experts does not change the equation. True, every expert, including Dr. Tyler, acknowledged that minimum-fee retransmissions have some value and that excluding them "implicitly incorporate[s] the assumption that 'there is essentially no value associated with any of the minutes for the systems paying the minimum fee.'" J.A. 216, 392 (citation omitted). But the same experts recognized that, after the WGNA conversion, minimum-fee systems provided limited evidence of comparative preferences because those systems could carry additional signals without paying additional royalties, yet often chose not to do so. The experts thus gave the Judges little reason to treat these systems as offering useful regression data.

c.

PTV's final challenge concerning the sensitivity test is that even if the Judges could permissibly exclude minimum-fee cable systems, they applied that exclusion arbitrarily. Even accepting for the sake of argument PTV's characterization that the Judges afforded "zero value" to minimum-fee cable systems, PTV contends that the Judges later "walked that back" by crediting minimum-fee retransmissions for every claimant other than PTV. It points first to Adjustment A, which reverted to using Dr. Tyler's regression with data from all cable systems to correct inflated CCG allocations, and second to the Judges' heavy reliance on the Bortz Survey for other claimants, which itself incorporated minimum-fee cable systems.

The Judges incorporated minimum-fee cable systems through Adjustment A only because the sensitivity test overstated CCG's share, and reverting to Dr. Tyler's model with data from all cable systems corrected that distortion. That correction substantially reduced CCG's allocation and increased every other claimant's share, including PTV's—undermining any suggestion that the methodological choice arbitrarily disadvantaged PTV. The Bortz Survey poses no inconsistency either. Unlike the regression, which infers relative value from revealed preferences—what cable systems actually carried and paid for—the Bortz Survey asks what systems would pay for different types of programming. A minimum-fee cable system distorts the former because it severs the link between carriage and payment, but it does not necessarily distort the latter because systems remain free to express a relative valuation in the Bortz Survey. The Bortz Survey thus captures the preferences of minimum-fee systems that the regression could not reliably measure.

2.

PTV raises a second challenge to the Judges' use of Dr. Tyler's sensitivity test. As a reminder, Adjustment B excluded stations that cable systems were required to carry under the must-carry rules, disproportionately affecting PTV as a noncommercial public television broadcaster. PTV says the exclusion was arbitrary for three reasons: (i) it conflicted with the must-carry provisions and § 111's statutory framework, (ii) it ran contrary to the record, and (iii) it rested on a flawed method for identifying must-carry signals. None of those arguments holds up.

a.

PTV reads the § 111 compulsory licensing scheme to presume that must-carry signals have value. By way of brief background, the Federal Communications Commission (FCC) first adopted must-carry rules in 1965 to ensure that local broadcasters—whose programming cable systems had little economic incentive to carry—would nevertheless remain available to the public. *See Quincy Cable TV, Inc. v. FCC*, 768 F.2d 1434, 1441 (D.C. Cir. 1985). When Congress later enacted Section 111, it confirmed that local must-carry signals were *not* compensable. That changed only in 1992, when Congress extended must-carry obligations to certain distant noncommercial stations, and—because this expansion would otherwise impose unwanted copyright liability—required those stations to "indemnif[y] the cable operator for any increased copyright costs resulting from carriage of such signal." 47 U.S.C. § 535(i)(2).

PTV errs in its reading of that history. With respect to the indemnification clause, Congress required the distant noncommercial station—not the cable system—to bear the added copyright costs resulting from compulsory carriage. Why? Because the cable system had not chosen to incur those costs. Indeed, public television has supplied "precisely the type of programming [that] cable operators find economically unattractive." Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54186 (J.A. 466). Mandatory carriage, in other words, did not signify that the signal was worth what it cost to carry. And that is precisely why a regression designed to measure a cable system's willingness to *pay* for programming cannot draw much from a system that had no choice but to carry the station. The Judges reasonably operated on that understanding.

Contrary to PTV's suggestion, Congress did not make a determination that § 111 royalties applied to distant must-carry signals. Section 111 already required royalty payments for the carriage of distant signals, so when Congress later extended must-carry obligations to those same signals, they fell within § 111 by operation of the existing scheme. What Congress did not do was make any judgment about what that programming was worth. Congress addressed only who should bear the resulting costs, and the indemnification clause supplies the answer: the station. Whatever value must-carry programming might have, the statute tells us nothing about what it is.

b.

The record supports that conclusion. PTV points to regression analyses and Bortz Survey responses that, in its view, assign positive value to must-carry distant signals and thus contradict the Judges' contrary conclusion. But PTV asks considerably more of that evidence than it can bear.

The record indicates a consensus among multiple experts that "including [PTV] must-carry stations in the regression results in an overestimation of the value" of PTV content. *Id.* at 54188 (J.A. 468). PTV identifies one contrary expert opinion, but that opinion does not overcome that consensus or establish that the Judges were required to disregard the other evidence.

PTV's reliance on the Bortz Survey gets it no further. All the Bortz Survey asked was for a cable system to value PTV programming generally; it did not ask respondents to distinguish programming carried voluntarily from programming carried under legal compulsion. A respondent's valuation of PTV programming therefore says little about which programming that valuation reflects. It may reflect programming the system wanted, and it may also reflect programming the law required it to carry. The survey does not tell us which, and without that distinction, it cannot establish the value PTV claims.

c.

Once the Judges determined that must-carry signals should be omitted from the sensitivity test, they needed to determine how many retransmissions were subject to must-carry rules. They adopted the estimate of JSC's expert, R. Garrison Harvey, who concluded that 15.5% of distantly retransmitted PTV signals were subject to must-carry. *Id.* at 54185 (J.A. 465). PTV attacks that estimate on several fronts, contending that the Judges' reliance on it was arbitrary. It was not.

PTV first contends that Harvey's methodology was flawed and therefore "likely overcount[ed]" the number of retransmissions of PTV signals. PBS Br. 49. Even assuming Harvey misunderstood the relevant definitions and that misunderstanding caused some overcounting, PTV has not bridged the gap between finding possible error and finding arbitrariness in the Judges' reliance on it. PTV identifies not a single misidentified signal, much less how many signals Harvey misclassified or how materially any error affected his 15.5% estimate. Without that information, we would be left to speculate about whether the alleged error materially affected the estimate.

The Judges also found that PTV had failed to rebut Harvey's estimation by not providing evidence of the number of must-carry signals. PTV objects to the Judges' placing on it a burden to produce such evidence. But the Judges had already found Harvey had "made a prima facie case regarding the number of PTV stations that were must-carry." *Id.* at 54190 (J.A. 470). Only then did they consider PTV's failure to identify the must-carry signals it sought to include in the regression. And when relevant evidence is "peculiarly within [a party's] power" and the party "fails to produce [it], that failure gives rise to an inference that the evidence is unfavorable to him." *Huthnance v. District of Columbia*, 722 F.3d 371, 378 (D.C. Cir. 2013). The Judges reasonably concluded that PTV was a natural source of the relevant information here. The possibility that other parties might have reconstructed it from hundreds of nonparty cable systems does not eliminate the inference the Judges could reasonably draw from PTV's failure to produce it.

PTV's "double-counting" theory does not change our conclusion. PTV asserts that the Judges excluded must-carry signals twice—first when minimum-fee cable systems were removed under the sensitivity test, and again through the must-carry adjustment itself (Adjustment B). But the Judges anticipated that overlap and reduced Adjustment B accordingly, applying less than the full adjustment because some must-carry signals had already been accounted for in the minimum-fee exclusion. So, despite PTV's many arguments to the contrary, we see no reason to conclude that the Judges' treatment of must-carry signals was unreasonable.

3.

The final issue arises from the Judges' post-hearing order directing PTV to produce its carriage agreements with NCTA. Under a 2005 PBS–NCTA agreement, many of the "multicast" channels—additional channels that PTV stations began transmitting with digital television—were exempt from royalties. That agreement expired in 2016, meaning the same programming suddenly generated § 111 royalties even though the programming, carriage decisions, and viewer experience remained unchanged. That change prompted the Judges to assess whether the additional royalties reflected actual marketplace value or simply resulted from previously exempt programming becoming subject to royalties.

PTV had offered no evidence identifying how many stations were covered by the agreement, leaving a critical analytical gap. To resolve that gap, the Judges directed PTV, after the close of the record, to produce the 2005 and 2016 agreements. PTV contends that the request was arbitrary because carriage agreements are commonplace and no other claimant was required to produce theirs, and that the order violated due process by depriving PTV of a fair opportunity to contextualize the documents.

The Judges, though, sought the agreements for an understandable reason: PTV had relied on them. PTV argued that the multicast channels should factor into the relative-market-value analysis because those streams incurred royalties under the agreements. Yet PTV "did not produce either th[ese] agreement[s] or the number of entities bound by" them. Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54192 (J.A. 472). "Without any information," the Judges could not determine whether the agreements reflected "significant marketplace evidence" of the value of multicast programming or merely duplicated other PTV signals. *Id.*

None of this amounted to discriminatory treatment or denied PTV an opportunity to contextualize the agreement. The Judges sought the agreements from PTV because PTV—not the other claimants—had made them part of its valuation theory and was in possession of them. That other claimants might have entered into similar agreements does not make those agreements equally relevant to the theories they presented. Each claimant was free to choose its valuation theory and support it with whatever evidence it deemed appropriate; PTV chose to rely on these agreements. The order also afforded full notice and an opportunity to respond; the agreements were discussed extensively at the hearing by PTV's witnesses and on cross-examination but were never entered into the record. PTV identifies no basis to find the order arbitrary or the process constitutionally deficient.

C.

Having considered the two methodologies underlying the Judges' final determination, we now turn to how the Judges combined them—and to JSC's challenge to that process.

At the outset, the Judges found that no form of evidence—whether the regression analyses or the Bortz Survey—"translates directly into the allocation of the royalty fund shares needed for this determination." *Id.* at 54257 (J.A. 537). For instance, for at least some claimants, the McLaughlin Adjustment was "clearly off the mark," while for others, regression analysis's failure to capture the value of some programming was "a limitation on [its] applicability." *Id.* No single methodology, then, told the whole story.

The Judges therefore determined that "a synthesis of regression and survey results [wa]s necessary." *Id.*. Additionally, they weighted those inputs distinctly for each claimant, and for each year.

The table below shows the claimants' final allocations by year, with the regression allocation shown in the bottom left of each cell and the Bortz Survey allocation shown in the bottom right.

Table 4: Final Royalty Allocations with Regression Analysis & Bortz Survey

	2014	2015	2016	2017
CCG	**6.19%** *6.55%, 1.0%*	**14.59%** *12.90%, 1.8%*	**14.6%** *13.00%, 1.3%*	**15.77%** *14.35%, 1.2%*
CTV	**20.55%** *11.3%, 25.2%*	**19.78%** *12.37%, 19.2%*	**17.36%** *15.94%, 15.3%*	**17.5%** *12.12%, 17.2%*
PS	**21.21%** *26.6%, 21%*	**28.29%** *44.87%, 18.4%*	**25.53%** *37.51%, 17.8%*	**23.29%** *40.39%, 14.8%*
SDC	**4.85%** *4.33%, 5.4%*	**6.74%** *10.62%, 4.4%*	**7.01%** *9.95%, 5.0%*	**5.83%** *9.54%, 3.9%*
PTV	**11.07%** *13.36%, 8.4%*	**19.18%** *16.96%, 43.6%*	**24.78%** *22.06%, 48.4%*	**25.25%** *22.98%, 48.2%*
JSC	**36.13%** *37.48%, 39%*	**11.42%** *2.3%, 12.7%*	**10.72%** *1.56%, 12.2%*	**12.36%** *0.61%, 14.8%*

JSC contends that, even assuming the regression analysis and Bortz Survey were reasonable—as we have concluded they were—the Judges nonetheless combined them in an "unexplained and inexplicable way" that renders the final allocation arbitrary. We agree.

An agency must "adequately explain its result," *Pub. Citizen, Inc. v. FAA*, 988 F.2d 186, 197 (D.C. Cir. 1993), and "set forth its reasons for decision." *Amerijet Int'l., Inc. v. Pistole*, 753 F.3d 1343, 1350 (D.C. Cir. 2014). Put simply, an agency "must explain why it chose to do what it did . . . and conclusory statements will not do." *Id.* "[A]n agency's failure to do so constitutes arbitrary and capricious" action. *Id.* The Judges did not meet that standard here.

From the jump, the final allocations suggest anomalies that are not readily explainable. Consider JSC's 2014 allocation. The Judges said they "weighted heavily evidence from the Bortz Survey," yet JSC received 36.13% of the royalty fund—less than both the regression-based estimate (37.48%) and the Bortz Survey result (39%). Even the Government concedes that the Judges described the appropriate allocation as falling "near the midpoint range" of those two measures. Gov't Br. 64. Yet 36.13% falls below both. How, then, did the Judges get there? Neither the Judges nor the Government tells us.

Similar unexplained variations appear elsewhere. The Judges likewise said they "weighted heavily evidence from the Bortz Surveys" for both CTV and PS. *See* Distribution of Cable Royalty Funds, 89 Fed. Reg. at 54257 (J.A. 537). Yet the resulting allocations bear substantially different relationships to the underlying measures. For PS, the 2015 allocation of 28.29% fell roughly between the regression estimate (44.87%) and the Bortz Survey result (18.4%). For CTV, by contrast, the 2015 allocation of 19.78% was nearly identical to the Bortz Survey result of 19.2%. The Judges offered no explanation for why the same stated weighting produced such different results.

The pattern also continues across the 2015–2017 allocations for JSC, CTV, and PS. For those years, the Judges again said they "weighted *heavily*" the Bortz Survey. *Id.* (emphasis added). Yet the final allocations diverge from the survey results in different directions: PS's allocation was 8–10% higher than its survey result, CTV's was 0.5–2% higher, and JSC's was 2% lower. The record offers no explanation for why the same stated methodology would push two claimants above their survey results while pushing the third below it.

There are other seeming anomalies of that nature, but even putting those to the side, another fundamental problem concerns what happened next. The Judges needed to turn their assessments of the individual claimant groups into a final allocation totaling 100%. That final step, too, required a "reasonabl[e] explain[ation]." *FCC v. Prometheus Radio Project*, 592 U.S. 414, 423 (2021). Yet the Judges never explained how they did so. The final numbers sometimes depart substantially from the underlying regression and survey results, and we do not know whether a claimant's share was adjusted upward or downward to account for the shares assigned to the other groups—or, if so, how. Perhaps the Judges had a method for reconciling those individual assessments with the 100% total. If so, that method might explain the otherwise anomalous results. But the Judges never told us what it was.

We do not doubt that the Judges engaged in a "deep[] analysis" of the evidence for each claimant group, as the government maintains. *See* Gov't Br. 65. The Judges made numerous qualitative assessments of each model's relative strengths and weaknesses, but identifying the considerations that matter is not the same as explaining how those considerations led to the final numbers. What the Judges never explained is how those qualitative judgments translated into quantitative allocations. Did they average the results? Adjust them for particular factors? Apply some other type of weighting? The determination simply does not say.

Our court does not demand perfect clarity. We will uphold a determination "of less than ideal clarity" if "the agency's path may reasonably be discerned." *Bowman Transp. v. Ark.-Best Freight Sys.*, 419 U.S. 281, 286 (1974). But here, the path cannot reasonably be discerned. Without that path, we cannot tell whether the final allocations reflect reasoned decisionmaking or something else altogether. We therefore are constrained to vacate that portion of the royalty-allocation proceedings, i.e., the final determination. *See Settling Devotional Claimants*, 797 F.3d at 1122.

* * * * *

For the foregoing reasons, we vacate the Copyright Royalty Board's final determination and remand for further proceedings consistent with this opinion.

So ordered.

ROGERS, *Senior Circuit Judge*, concurring in part and dissenting in part: In this complex case, the court has purported to reject "nearly all" of appellants' challenges to the Copyright Royalty Board's Decision on the allocation of royalties in 2014 through 2017, *Distribution of Cable Royalty Funds*, 89 Fed. Reg. 54,166 (June 28, 2024) (hereinafter, "Final Determination"). Op. at 3. The court acknowledges that the Judges "made numerous qualitative assessments" of the strengths and weaknesses of each of the models that they chose to configure a hypothetical market in applying Section 111 of the Copyright Act, 17 U.S.C. § 111. *Id*. at 37. Further, the court acknowledges that the Judges "identif[ied] the considerations that matter." *Id*. But because the Judges "never explained [] how those qualitative judgments translated into quantitative allocations," the court vacates part of the Final Determination and remands to the Board for further proceedings "consistent with this opinion." *Id*. at 37–38.

For the following reasons I would vacate the Final Determination and remand this matter to the Royalty Board for further consideration. I write separately to explain why such vacatur is necessary and appropriate.

The Judges have explained how they defined the task before them, taking into account the effects of recent events, namely "the advent of streaming services," and WGNA's "conver[sion] from a broadcast station to a cable network." *Id.* at 6–7. The Judges also explained why and how they chose to rely on a "synthesis" of regression analysis and survey evidence to identify a hypothetical market, *e.g.*, *id.* at 7, and the several adjustments they made, *id.* at 9–10, and did not make, *id*. at 12. Then, in allocating the shares of royalty funds among the non-settling six claimant groups, in view of "a wide range of potentially reasonable allocations," *id*., the Judges used two valuation methodologies in a process the court describes as "weighting the regression and survey results for each claimant group in each year according to the *comparative utility of each* of those results for the specific claimant category." *Id*. at 12–13 (emphasis added). The court has not explained the italicized phrase nor have the Judges explained how much weight they accorded to each method or how they arrived at the final allocation of the royalty funds for each claimant group. *Id*. at 36. Lacking this key record information about the precise allocations that appellants challenge, the court must vacate the Final Determination and remand. That vacatur renders the court's present resolution of nearly all of appellants' challenges to the final allocations tentative, if not premature.

This court owes due deference to the Judges' analyses, *see id.* at 14–15 (citing 19 U.S.C. § 803 (incorporating by reference 5 U.S.C. § 706); *Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd.*, 571 F.3d 69, 79 (D.C. Cir. 2009)). Indeed in royalty-allocation proceedings, the court asks only whether the Judges' allocations fall "within a zone of reasonableness." *Christian Broad. Network, Inc. v. Copyright Royalty Tribunal*, 720 F.2d 1295, 1304 (D.C. Cir. 1983). But such judicial deference is due only where the Board's decisions can be determined to be reasonable based on the administrative record before it. *Settling Devotional Claimants v. Copyright Royalty Bd.*, 797 F.3d 1106, 1121 (D.C. Cir. 2015). Put otherwise, "[d]eference . . . does not mean blind obedience," *Garvey v. National Transportation Safety Board*, 190 F.3d 571, 580 (D.C. Cir. 1999), and the Board must inform the court of its reasoning supported by the administrative record underlying the Final Determination, *see* Op. at 5 (citing 17 U.S.C. § 803); *id.* at 35 (citing *Public Citizen, Inc. v. FAA*, 988 F.2d 286, 197 (D.C. Cir. 1993), and *Amerijet Int'l., Inc. v. Pistole*, 753 F.3d 1143, 1359 (D.C. Cir. 2014)). Here, the court has concluded that it lacks key information about how the Judges adjusted "their assessments of the individual claimant groups into a final allocation totaling 100%." *Id.* at 37; *see* Rehearing, 89 Fed. Reg. at 54,282. The Final Determination makes clear the interrelatedness of the underlying analyses. *See, e.g.*, 89 Fed. Reg. at 54,166 (defining allocation standard), 89 Fed. Reg. at 54,168 (subpart C). So a remand without vacatur would not suffice and vacatur is appropriate inasmuch it would not cause undue disruption in these Phase I proceedings as the Final Determination has yet to take effect and the deficiency is at the heart of appellants' challenges. *See Allied-Signal, Inc. v. U.S. Nuclear Regul. Comm'n*, 988 F.2d 146, 150–51 (D.C. Cir. 1993). Moreover, it is not unreasonable under the circumstances to expect that on remand the Judges may foresee a need for further explanation of the final allocations of the royalty funds in view of this court's responses to appellants' renewed challenges on appeal in order to avoid a future remand. Neither is it unreasonable to anticipate that appellants on remand may elaborate or clarify their challenges in view of both the Board's explanation of its final allocations and the court's views in this opinion. Nor at this point can the court conclude that any explanation of the allocations offered by the Board on remand would not affect the court's analyses of appellants' challenges to the Final Determination. After all, the court has yet to reject all of appellants' challenges on the merits, Op. at 3, and to reject some of appellants' challenges even now requires considerable deference to the Board's reasoning.

For instance, in view of the Tyler model's likely very small sample size, low confidence levels, and divergent results as compared with the survey, it may or may not have been reasonable, in view of the Board's unknown reasoning for the final allocations, to have substantially relied on the Tyler model, notwithstanding the other adjustments made by the Judges, particularly for the Public Television claimants and Canadian claimants. *See* 75 Fed. Reg. 57,063, 57,068 (Sept.

17, 2010) (cautioning that wide confidence intervals and large standard errors may call into doubt the "precision of the results" and cautioning against assigning "too much weight" to the "corroborative value" of such results). Although both claimants received adjustments to their royalty allocations to capture certain value not included in the regression data (Adjustment A and Adjustment C), these adjustments were not portrayed as intending to compensate for the shortcomings of the regressions.

The Judges recognized the shortcomings of the regression and survey data and concluded that a "synthesis of regression and survey results was necessary to arrive at the required allocations." 89 Fed. Reg. at 54,257. The Judges then stated which form of evidence weighed more or less heavily for to each claimant group. The two different methods, however, produced widely different results, and the reliability of the regression evidence was questionable. Yet the Judges never explained exactly how much weight they assigned each type of evidence for each group. For example, for Commercial Television Claimants the Judges concluded that the survey evidence "weighed heavily in making the allocation," while for the Program Suppliers the evidence "weighed more heavily than the regression evidence." The Joint Sports Claimants contend that the Judges acted arbitrarily at the allocation stage "by taking two defective allocations that produced wildly different results — the Tyler sensitivity test and the McLaughlin Adjustment — and combining them in an unexplained and inexplicable way." JSC Br. at 54. The Judges' determination does not explain the difference in its treatment of different claimant groups; indeed, they do not identify what weight was assigned to any such determination. On remand, the Judges may decide to expand upon their explanation.

Relatedly, the Judges have not explained why it was appropriate to combine evidence from two sources of data that do not corroborate each other because they produce such wide intervals of plausible results. (This contention overlaps with the Joint Sports Claimants' critiques of the Tyler model's robustness.) For example, switching from regression to survey data would increase the Joint Sports Claimants' share of the data from 0.61% to 14.8%, reduce the Canadian Claimant Group's share from 14.35% to 1.2%, and increase the Public Television's share from 22.98% to 48.2%. 89 Fed. Reg. at 54,230, 54,249. Although "the rough splitting of a difference between two fairly but not wholly satisfactory rate calculations is a familiar permissible technique," *Ass'n of Am. Publishers, Inc. v. Governors of U.S. Postal Serv.*, 485 F.2d 768, 773 (D.C. Cir. 1973), here the two approaches arguably do not produce fairly satisfactory rate calculations because of their significantly diverging outcomes. On remand the Judges may decide to provide a further explanation of their synthesis method for allocation.

To the extent the court's partial vacatur reflects a concern that the Board would understand vacatur of the Final Determination to call for redoing a substantial part of the allocation proceeding because of record omissions identified by the court, Op. at 36–37, it is unfounded. For example, according to *Heartland v. Leavitt*, 415 F.3d 24, 29–30 (D.C. Cir. 2005), on remand after vacatur the Board decides how it wishes to proceed, including reinstating the Final Determination or addressing only the record deficiencies identified by the court. The Board also may choose to take the opportunity on remand to bolster the record in support of its allocations among the claimant groups.

Moreover, it is unclear why the court, in the absence of a "critical," Op. at 3, part of the administrative record, namely the reasoning or methodology underlying the final royalty allocations among the claimant groups, would choose to finalize its conclusions much less limit appellants' opportunity to respond to the Board's likely reliance on additional portions of the administrative record or offer of further explanation on remand. This appeal has not proceeded on the theory that the Final Determination is severable such that no matter what the Board's explanation may be on remand, the court could only conclude the Final Allocations are reasonable. The court's reliance on *Settling Devotional Claimants*, 797 F.3d at 1122, in support of its partial vacatur, Op. at 38, is misplaced as that case involved Phase II allocations among members of a single claimant group, not the Phase I allocations among the non-settling claimant groups at issue here.

Accordingly, a remand with vacatur of the Final Determination is necessary and appropriate, and renders tentative, if not premature, the court's analysis of appellants' challenges to the royalty allocations among the claimant groups, and to the extent the court does not make this clear I respectfully dissent.