UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

THOMAS LAUMANN, ROBERT SILVER, GARRETT TRAUB, and DAVID DILLON, representing themselves and all other similarly situated,

Plaintiffs,

V.

NATIONAL HOCKEY LEAGUE, et al.

Defendants.

FERNANDA GARBER, MARC LERNER, DEREK RASMUSSEN, ROBERT SILVER, GARRETT TRAUB, and PETER HERMAN, representing themselves and all other similarly situated,

Plaintiffs,

V.

OFFICE OF THE COMMISSIONER OF BASEBALL, et al.

Defendants.

12-cv-1817 (SAS)

ECF Case

FILED UNDER SEAL

12-cv-3704 (SAS)

ECF Case

FILED UNDER SEAL

CORRECTED
MEMORANDUM OF LAW IN SUPPORT OF DEFENDANTS' JOINT
MOTION TO EXCLUDE OPINIONS AND TESTIMONY
OF PLAINTIFFS' EXPERT, DR. ROGER NOLL

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PRELIMINARY STATEMENT

The opinions offered by Plaintiffs' expert, Dr. Noll, on class-wide injury fail to satisfy the *Daubert* standard for three independent reasons.

First, Dr. Noll's model does not fit the undisputed economic relationships between teams and their Leagues. His model treats teams as being completely independent from their Leagues. In reality, however, the Leagues operate as joint ventures of their constituent teams. The teams share revenues from their joint products, including their out-of-market packages ("OMPs"). Dr. Noll's model, however, fails to incorporate standard modeling conventions that would reflect this shared economic interest. Dr. Noll's model thus shows only that if completely independent competitors entered the market selling the exact same live game content in competition against the Leagues—and that all else is held constant—the resulting competition would tend to drive the price of the League packages down. His model thus does not "fit" the facts of this case, which is a quintessential methodological defect under *Joiner*.

Second, Dr. Noll concedes that he fails to model the bargaining that necessarily would take place in the but-for-world ("BFW"). Dr. Noll fails to model this bargaining even though he admits that if the home television territories ("HTTs") were eliminated today, there would need to be substantial, protracted renegotiation of the interrelated and interdependent contracts that exist throughout the supply chain. Yet, Dr. Noll chose not to model or analyze the bargaining that would have to take place between and among the teams, RSNs, MVPDs, national broadcasters, and Leagues. (*See*, *e.g.*, Noll Tr. 15:4-11.) Modeling the bargaining among suppliers was the fundamental contribution to economic science of the peer-reviewed academic paper by Gregory S. Crawford & Ali Yurukoglu ("C&Y") on which Dr. Noll claims to have based his damages model. (*Id.* 262:25-263:5.) Dr. Noll skipped that crucial step. As Dr. Pakes (an economic modeling expert who supervised the thesis by Dr. Yurukoglu that was the

¹ Dr. Noll models the impact of potential competition between individual teams and their Leagues with respect to selling rights to the identical games (e.g., competition between the Yankees and MLB in selling rights to Yankees' games).

foundation for the C&Y Article) will attest, the failure to model bargaining that will necessarily impact BFW outcomes is a fundamental *methodological* flaw that deprives Dr. Noll's pricing predictions of any scientific value. In particular, that omission leaves Dr. Noll's model in "disequilibrium," meaning that industry participants have profit-maximizing incentives to change their behavior from that which is assumed in the model.

To understand why this critical omission defeats the reliability of Dr. Noll's analysis, it is important to understand how Dr. Noll reaches his conclusion that lower prices would exist in the BFW. Dr. Noll's opinions as to common impact depend on (i) the Leagues continuing to offer the existing OMPs in their current form, but without blackouts, i.e., including both the out-of-market and in-market games ("BFW League Packages"); (ii) RSNs continuing to provide their feeds to the Leagues for use in the BFW League Packages, free of charge, even though the BFW League Packages would compete with the RSN's distribution of the same games both in-market and out-of-market; and (iii) the price of the League BFW Package being equal to or less than the price of the OMP in the actual world.

Recognizing that he needs some foundation for his critical decision not to model the bargaining that would be necessary to reach these assumed contracting terms in the BFW, Dr. Noll asserts that his analysis shows that it would be "profitable"—by which he means a non-zero level of profit—for all actors to perform in this manner in the BFW. But this conclusion fails to fit relevant economic facts, and contravenes the fundamental economic principle that models must assume that economic actors will act to *maximize* profits, not just obtain a profit above zero. It would be economically irrational for the RSNs in this case to cannibalize their revenues —as Dr. Noll says they would—by continuing to provide free game feeds so that the Leagues can broadcast the same game at the same time to the same audiences. Even Dr. Noll recognizes that the RSNs' current exclusivity within HTTs is what makes it possible for them to permit the Leagues to broadcast the same content for free outside of that HTT. (Noll Tr. 59:8-12.) Further, his own analysis confirms that, in the absence of HTTs, it would be *more profitable* for some teams and RSNs to cease participating in BFW League Packages (*see id.* 184:3-10), and Dr. Noll

does not and cannot explain why they would be unable to do so. Indeed, Dr. Noll admits that multiple RSNs owned by the same parent (such as the 22 RSNs owned/operated by 21st Century Fox ("21CF")) would have bargaining power with which they could incent teams to dissolve the OMPs or abolish the current requirement of providing feeds for free. (*Id.* 398:12-21.) Under these circumstances, Dr. Noll's failure to model the bargaining, including by analyzing the industry participants' profit-maximizing strategies (as opposed to Dr. Noll's <u>assumed</u> outcomes), is a serious methodological defect.

Third, Dr. Noll's model is defective in how he purports to measure "demand." Although he purports to have measured demand based on viewership data, in fact Dr. Noll's model produces the same estimate of damages irrespective of what viewership data is entered into the model. This is because the results of his model are not derived from viewership data at all, but rather are driven by certain flawed assertions and assumptions concerning market shares and marginal costs. As further evidence of Dr. Noll's failure to base his opinions on empirical or factual evidence, even the ranking of team prices predicted by his model are completely *random*. As Dr. Noll admitted in his deposition, if the "random seed generator" in his model had an impact on price—which it does—this would be a methodological problem.

In sum, Dr. Noll's model fails to account for the acknowledged relationship between Leagues and their teams even in the actual world; fails to include the critical supply-side bargaining component that would be necessary to offer any useful opinion as to BFW outcomes; and employs a demand-side model that is divorced from the viewership data upon which Dr. Noll purports to rely and, predictably, produces facially absurd results. While such a model may provide a shortcut to help Plaintiffs meet their burden of proving class-wide injury, it constitutes precisely the type of flawed analysis that *Daubert* and *Joiner* do not allow.

STATEMENT OF FACTS

A. The C&Y Model

Dr. Noll purports to have created a variation of a model set forth in a recent paper by C&Y, titled, *The Welfare Effects of Bundling in Multichannel Television Markets*, 102(2) Am. Econ.

Rev. 643 (April 2012) ("C&Y Article"). That paper sought to analyze the potential effects of unbundling the sale of cable channels on the prices that consumers pay for cable television. In the C&Y model, bundles are no longer available, and consumers instead must purchase channels on an à la carte basis. On the supply-side, the authors developed a method of simulating how the change in distribution from bundled packages to à la carte offerings would be effectuated. Specifically, they modeled (and calculated) the effect on consumer welfare resulting from the bargaining that would take place between content providers and MVPDs based on each actor's profit maximizing incentives in a world without bundles (i.e., the BFW). This simulation of how bargaining would take place on the supply-side was the novel portion of the model and is the reason this paper has had such an impact on economic literature. (Pakes ¶ 18.) As the authors pointed out, "the central innovation of our model is accounting for the change in distributors' input costs that result from bargaining between content and distribution in an a' la carte world." (C&Y Article at 644.) The article found that a likely result of such bargaining would be a doubling of input costs that could lead to higher prices.² On the demand-side, to measure consumers' willingness to pay for cable channels, the authors used robust data stemming from actual choices made by consumers—i.e., data reflecting consumers' decisions regarding what cable packages to purchase, the specific cable channels included in those packages, and the prices consumers paid for the packages.

B. Dr. Noll's Original Report

In his original report, Dr. Noll attempted to create a variation of the C&Y model. However, unlike C&Y (which attempted to model competition between <u>different</u> channels when unbundled), Dr. Noll did not undertake to model competition between different teams or different RSNs. Instead, he attempted to model competition between individual teams and their respective League in selling viewing rights to the <u>same</u> games—e.g., what would happen if one

² C&Y Article at 643 ("We estimate that negotiated input costs rise by 103.0 percent under a la carte. These higher costs offset consumer benefits from purchasing individual channels.")

team's fans could purchase the rights to view the same game feeds from either the team (through its RSN) or from the League (through a League BFW Package).

The most fundamental point for this motion is that Dr. Noll's analysis does not fit the salient economic facts on either the supply or demand side of the BFW. On the supply-side, Dr. Noll did no modeling (or analysis of profit-maximizing options of the relevant economic actors) whatsoever. Dr. Noll instead assumed that nothing would change on the supply-side other than that individual teams would distribute their games nationally in competition with the BFW League Packages and that the Leagues would distribute their OMPs within what had previously been each team's HTT. (Plts. Class Cert. Mem. at 16 n.10.) Dr. Noll thus also assumed that the BFW League Packages (with every team's games) would exist in the BFW and would compete against the offerings of every individual team. (Noll at 101 ("[T]he published model assumes that an à la carte package of unbundled channels fully replaces the bundle. I assume that MLB and the NHL continue to offer the bundled package of out-of-market games. . . . Thus, the league packages become a competitor of the unbundled, stand-alone channels.").)

Critically, Dr. Noll's model also assumes that all the RSNs would produce all the games of all the teams in the BFW. And he assumes that all teams and their RSNs would have been able to reach carriage deals with MVPDs to distribute their games on an à la carte basis nationwide in the BFW, even though that is fundamentally inconsistent with how RSNs are distributed in the actual world—i.e., on a tiered-service basis with other channels. He further assumes that the League-wide packages would be priced to compete with the team's stand-alone packages, as if they were being offered by an independent third-party rather than by a joint venture of the individual teams; and he assumes that every team package would be priced independently even though there are several major RSN owners (e.g., 21CF and Comcast) that own multiple RSNs and, therefore, control the telecast rights with multiple teams.

Finally, Dr. Noll attempts to model demand using data solely from the purchase decisions of only certain purchasers of the OMPs. For the demand for NHL hockey games, he purports to use a portion of consumer purchases of NHL GameCenter LIVE for the 2011-12 season. For the

demand for MLB games, he purports to use MLB.TV data from the 2012 season. He does not use data relating to any other viewing or purchasing decisions. In fact, as discussed below, it turns out that the prices generated by his model are not based on viewing data at all.

C. Dr. Noll's Supplemental Report

Dr. Noll made extensive changes to his analysis and to his model in his Supplemental Report that accompanied Plaintiffs' class certification papers.³ The model itself was substantially rewritten (i.e., recoded) and produced materially different results. For example, in his Original Report, he predicted the NHL would offer its League BFW Package for \$62.88 (Noll Ex. 8B) and that MLB would offer its League BFW Package for \$47.05 (Noll Ex. 8A). In his Supplemental Report, he now predicts the NHL will offer the same product for \$121.48 (Noll Supp. Ex. 5B), and MLB will offer its product for \$119.90 (Noll Supp. Ex. 5A).⁴ The prices for individual team packages in both Leagues change as well. In his Original Report, he predicts the New York Islanders would price their package at \$32.59. (Noll. Ex. 8B.) In his Supplemental Report, he now predicts a price of \$57.29. (Noll Supp. Ex. 5B.) Similarly, Dr. Noll revised the predicted price for the Miami Marlins' hypothetical offering from \$24.34 to \$54.60 (Noll Ex. 8A; Noll Supp. Ex. 5A.) The variation in one team's pricing relative to another team's pricing also changed. For example, in his Original Report, he predicted that out of 30 teams the New York Islanders would have the 22nd most expensive team package. (Noll Ex. 8B.) In his Supplemental Report, he predicts that the Islanders would have the most expensive team

³ While Dr. Noll implied that he had "revised" his model in light of newly available data, none of the data was "new." It has been in Plaintiffs' possession since long before Dr. Noll submitted his original declaration in opposition to Defendants' motion for summary judgment.

Obscuring the change in results, Dr. Noll switched from reporting prices on an annual basis in his Original Report to monthly prices in his Supplemental Report. Per footnotes 1 and 3 to Exhibit 1 of his Supplemental Report, monthly NHL prices need to be multiplied by 6.05 to convert them to annual prices and monthly MLB prices need to be multiplied by 5.98 to convert them to annual prices.

package. (Noll Supp. Ex. 5B.)⁵

Dr. Noll's Supplemental Report, like his Original Report, fails to model or analyze the bargaining that necessarily would take place on the supply-side. In lieu of a bargaining model, Dr. Noll instead adds to his Supplemental Report an "incentives" analysis to explain why he believes the Leagues would offer OMPs in the BFW in competition against team packages (or why the teams would allow the Leagues to do so without changes to any other aspects of the joint venture and the telecast rights structure). He opines that his model shows that "overall industry profits" would be higher in the BFW if the Leagues offered the packages. (Noll Supp. at 39.)

Significantly, Dr. Noll's "analysis" of industry profits assumes that the RSNs would continue to produce all the games, the RSNs would continue to provide the feeds to the Leagues and do so for free, the Leagues would elect to compete against their teams on price, and all the RSNs would seek and obtain à la carte carriage on MVPDs across the country.

D. Dr. Noll's Deposition

In his deposition, Dr. Noll clarified that his model and conclusions hinge upon two assumptions: that in the BFW, the League OMPs would exist but without local blackouts (*see*, *e.g.*, Noll Tr. 228:11-13) and that the Leagues' "rule[s would be] unchanged about providing the feed free to the league bundle." (*Id.* at 80:3-13.) As to the reasonableness of these assumptions, Dr. Noll admitted that "[s]ome teams will be better off not participating in the national bundle" and explained that they participate in the bundle "only because it's required" under the current rules. (*Id.* at 96:11-18.) He also admitted that BFW League Packages "wouldn't exist" if, for example, the Yankees charged high prices "per subscriber to the league to include the feed

⁵ By any objective measure, the Islanders are not one of the more popular NHL teams. They rank among the lowest teams in the NHL in terms of arena attendance. Similarly, Dr. Noll's Supplemental Report predicts that the Miami Marlins' package would be the most expensive, while the New York Yankees' package would be the 12th most expensive. By any objective measure, including by viewership data in this case, the Miami Marlins are not one of the most popular MLB teams, and the Yankees rank as one of the two most popular MLB teams.

within the league" package. (*Id.* at 184:3-10.) But Dr. Noll could not explain why in the BFW the more popular teams would not just sell their feeds for more money outside of the OMPs. (*See id.* at 93-95; 136-38.) He conceded that "in most circumstances, it is the case that the profit-maximizing way to sell rights is exclusive." (*Id.* at 222:11-18.)

Equally important, Dr. Noll admits that he did not perform any economic analysis to show why the "rules" underlying his model (e.g., the requirement that feeds be shared for free) would exist in the BFW or why the teams (and their respective rights holders) would not consider them inseparable from the HTTs. For example, when asked if he "look[ed] at any particular RSN or group of RSNs and ask[ed] the question or model[ed whether they would make] the feeds even available to the league in the but-for world," Dr. Noll conceded that he "did [not] analyze that, whether it was individually rational for RSNs to continue to do what they do." (*Id*. 69:2-16.) Similarly, he did not analyze whether sub-bundles (e.g., bundles of a subset of team broadcasts, such as all teams broadcast on a 21CF RSN) would exist or what effect those sub-bundles would have on the existence or structure of BFW League Packages. (*Id*. at 135:10-136:2 ("[O]bviously all conceivable combinations of teams into sub-bundles we haven't examined."))

Although his report contains a list of prices for à la carte team channels that are calculated down to the penny (and offers no price analysis on any other basis), Dr. Noll testified that he is not predicting that there actually will be à la carte distribution of individual RSN feeds. He acknowledges that à la carte distribution would be inconsistent with how MVPDs sell channels—and have always sold RSNs—to consumers. For example, he testified that his model produces "implicit prices that consumers are going to pay but . . . those implicit prices can be part of a bundle. . . . [I]t doesn't mean that it's actually going to be offered à la carte by the MVPD." (*Id.* at 153:17-23.) As he further explained, his model does not in fact attempt to show how MVPDs will offer RSN feeds in the BFW:

A: [T]he way RSNs now are offered is part of the -- either part of the Extended Basic or part of a sports package. And we're not addressing the question how that would happen [in the but-for world]. We don't model how the MVPDs are going to offer it. We just model what the price to the consumer is, either just direct

price to the consumer if it's stand-alone, or the indirect price by virtue of what it adds to the amount the consumer is going to pay for their bundled product.

Q: And is it your view that that's not an important question to address?

A: Oh, I think it's an important question for an RSN to address, because in negotiations between networks and MVPDs, part of the negotiation is, what tier am I going to be on, and how does my -- how does my rights fee depend on which tier? And they negotiate that result. But in terms of what the -- you know, what I'm basically doing is saying the existing system of allocation of RSNs is going to be basically the same. That's the implicit assumption in the model."

(*Id.* at 159:12-160:17 (emphasis added).)

Finally, Dr. Noll's deposition testimony reveals key assumptions that he makes about marginal costs that, as it turns out, drive his damages calculation. Dr. Noll testified that he assumed that marginal costs for each team to distribute its games nationally were 1/30th of the costs of its respective League, yet he admitted that he did not have data to "determine whether or not that's an accurate assumption" and he did not "take any steps to investigate it." (*Id.* at 316:1-12.) Dr. Noll "agree[d] that if the league and the teams had the same marginal cost . . . that the stand-alone packages actually might not even be profitable, viable, or have demand." (*Id.* at 323:20-24.)

ARGUMENT

Rule 702 of the Federal Rules of Evidence, which governs the admissibility of expert testimony, requires that an expert's proffered opinions be both relevant and reliable:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. In *Daubert*, the Supreme Court examined the requirements of Rule 702 and held that district courts must "ensur[e] that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand" before admitting such evidence. *Daubert v*.

Merrell Dow Pharm., Inc., 509 U.S. 579, 597 (1993); see also Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141 (1999) (holding that Daubert's gatekeeping obligation applies to all expert testimony).

Significantly, under Rule 702, plaintiffs bear the burden of showing by a preponderance of the evidence that Dr. Noll's opinions satisfy these standards. *See United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007); *see also Daubert*, 509 U.S. at 592 n.10; Fed. R. Evid. 702, Advisory Committee Notes (stating that "the admissibility of all expert testimony is governed by the principles of Rule 104(a)" and thus the proponent has the burden of establishing that the pertinent admissibility requirements are met by a "preponderance of the evidence").

In assessing reliability, the court "should consider the indicia of reliability identified in Rule 702, namely, (1) that the testimony is grounded on sufficient facts or data; (2) that the testimony is the product of reliable principles and methods; and (3) that the witness has applied the principles and methods reliably to the facts of the case." *Amorgianos v. Nat'l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002) (internal quotation marks omitted). These requirements apply to all aspects of the expert's work; as the Second Circuit explained, "[I]t is critical that an expert's analysis be reliable *at every step.*" *Id.* at 267 (emphasis added).

As shown below, Dr. Noll's opinions related to class certification fail to satisfy all three of these standards and therefore should be excluded.

I. DR. NOLL ADMITS THAT LEAGUES AND TEAMS ARE NOT INDEPENDENT, YET RUNS HIS MODEL AS IF THEY WERE

As a threshold matter, before even considering what a BFW without HTTs would look like, a model must first accurately incorporate the material elements of the actual world that would remain unchanged in the BFW. *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *Amorgianos*, 303 F.3d at 265. Dr. Noll's model fails to satisfy even this basic criterion. Dr. Noll has modeled the Leagues as though they are wholly independent of their constituent teams, such that they would be motivated to compete against each other on price without reference to their joint interests. This assumption of complete independence is central to the competitive interplay that

produces Dr. Noll's BFW prices. (Pakes ¶¶ 52, 56.) However, when properly modeled as *joint* ventures under basic modeling standards, the prices of the League packages go *up* in the BFW. (Pakes ¶¶ 57-61.)

This is a fundamental failure to employ a methodology that fits the facts of the case at hand. Dr. Noll has constructed his model in the same manner as if he was asked to model what would happen if HBO was required to provide the broadcast rights to all of its original programming to an independent competing network for free and that competing network was then allowed to sell all of HBO's shows to consumers à la carte in competition against HBO. As one would suspect, the model shows that such competition with an independent entity selling the exact same programming à la carte likely would lead HBO to lower the price of its network. But, here, it is not disputed that the Leagues and their teams are not completely independent entities. Indeed, in his Original Report, Dr. Noll acknowledged that, "MLB and the NHL, as joint ventures of the teams in a league, should not be regarded as setting prices in competition with individual teams in each team's home market." (Noll at 85.) Further, in his Supplemental Report, Dr. Noll affirmatively argues that the teams have a profit interest in the League packages. (Noll Supp. at 39.) Dr. Noll also emphasized this joint profit-maximizing interest many times during his deposition. (See, e.g., Noll Tr. 57:7-12; 78:2-11; 86:7-19; 93:11-95:8; 104:7-105:16.)

This basic methodological flaw is separate and apart from any consideration of what would happen in a BFW without HTTs; what actions the various actors likely would take in such a world; or whether Dr. Noll or Dr. Ordover has used a more appropriate methodology for analyzing what likely would occur. Regardless of which of the many possible BFWs the Court considers the most plausible, there is an appropriate way to model the economic interactions of members of a joint venture—and Dr. Noll failed to follow those fundamental protocols. Thus, the indisputable record creates a quintessential "fit" problem under *Joiner*, which renders Dr. Noll's model scientifically unreliable. Moreover, when properly modeled as a joint venture, it actually proves that certain class members (who prefer the League packages) would be harmed in the BFW. (Pakes ¶ 57-61.)

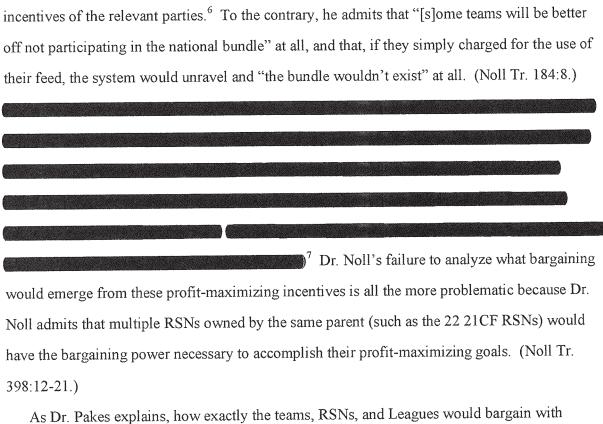
II. DR. NOLL'S MODEL IS INADMISSIBLE BECAUSE IT OMITS THE REQUISITE MODELING OF SUPPLY-SIDE BARGAINING IN THE BFW

A. Dr. Noll's Failure To Model Supply-Side Bargaining is a Methodological Flaw

There is no dispute that Dr. Noll does not attempt to simulate the bargaining that would necessarily take place throughout the supply chain in the BFW—even though Dr. Noll admits that there would be substantial, protracted bargaining in the BFW and that, at a minimum, rights fees and carriage fees would need to be renegotiated. (Noll Tr. 360.)

Yet, Dr. Noll concludes that (without modeling the bargaining he concedes would take place) he can still opine that the Leagues would distribute the packages in the BFW in competition against their own teams duplicate offerings of the same feeds. He bases this conclusion entirely on his assertion that in a BFW without HTTs the Leagues could still make a profit offering OMPs with all else remaining constant. (Noll Supp. 38.) Dr. Noll concedes, however, that he has conducted none of the economic analysis necessary to determine whether actors could achieve, through bargaining, *more profitable* alternatives. In essence, he concludes that because the actors could all make \$1, there is no need for him to analyze whether any of them could have bargained for a different BFW in which it could have made \$10.

Consider, for example, Dr. Noll's assumption that the teams in the Leagues, acting as a joint venture, would seek to maintain the present-day requirement that RSNs provide their game feeds to their League for free to be sold in BFW League Packages in competition against the teams' (and their RSNs') own products. Dr. Noll admits that this current requirement is a product of the HTT broadcast structure that would not exist in the BFW. (Noll Tr. 59:3-12.) This is because, in the current world, territorial exclusivity means that the RSNs' and the OMPs' feeds of the same games are never directly competing against each other for the same audience. Critically, Dr. Noll admits that his assumption that this requirement would continue is not the product of either modeling or any economic analysis about likely outcomes based on the profit-maximizing



As Dr. Pakes explains, how exactly the teams, RSNs, and Leagues would bargain with respect to the OMPs—including whether such packages would be offered at all, whether individual teams would elect to participate, and whether those RSNs would charge a fee for the use of their feed—are just a few of numerous interrelated issues that would be reassessed and negotiated in the BFW. (Pakes ¶ 51-55; see also 14; Bettman ¶ 8-15; Brosnan ¶ 5, 9, 17-19; Bowman ¶ 3, 6-25; Krolik ¶ 16-17.) These issues would, in turn, necessarily impact what products are produced, how they are distributed, and how they are priced. Other

⁶ Nor is Dr. Noll's assumption required by Plaintiffs' requested relief in this case, which seeks only that this Court strike down HTTs, and does not require that teams and RSNs have to give their feed to the Leagues for free or that every RSN has to offer broadcasts a' la carte nationally.

⁷ Dr. Noll's approach is inconsistent with the C&Y model and sound econometric science for the additional reason that he did not test the robustness of his conclusions. In comparison, C&Y dedicated an entire section of their paper and an online appendix to testing the robustness of their conclusions, explaining that "it is important to have confidence that this fundamental conclusion [i.e., the effect on consumer welfare] is robust and not sensitive to particular assumptions underlying the model, estimation, or counterfactual simulations." (C&Y Article at 679-80.)

types of bargaining that would need to take place and that would materially impact BFW prices include:

Leagues/Teams vs. RSNs: In the current world, the RSNs purchase from the teams the exclusive distribution rights for most of that team's regular season games in the team's HTT. Based on the express understanding and condition that it will be the exclusive provider of the telecasts for that team's games to MVPDs, the RSN produces the games at its expense, provides the feeds to the Leagues' OMPs for free, and pays the team a rights fee. (Crumb ¶ 4, 6-9; Brosnan ¶ 6-10; Bowman ¶ 10; Thus, issues that would need to be bargained between each team and its RSN in the BFW include: how many games each RSN would commit to produce when it is not receiving exclusive rights; what distribution rights the RSN would be willing to pay for in the BFW (national or just local, streaming or just television rights); whether the RSN would agree to allow the League to use its feed in League-wide packages; and, if so, on what terms and for how much money.

Bettman ¶ 15; Brosnan ¶ 25-33; Bowman ¶ 3-10, 13-14;

RSNs vs. MVPDs: In the current world, RSNs possess the exclusive distribution rights to their teams within their HTT and use those rights to negotiate for carriage on local MVPDs. Issues that would need to be bargained between each RSN and each MVPD in the BFW include: what carriage fees MVPDs would be willing to pay when RSNs no longer have the ability to provide exclusive game content; what carriage fees MVPDs would be willing to pay for RSNs that carry the games of non-local teams; whether MVPDs would be willing to afford broad-tier distribution for RSN channels that are no longer exclusive; the geographic scope of distribution MVPDs would be willing to afford RSNs where their product is no longer exclusive; whether MVPDs would consent to the RSNs streaming games over the Internet and whether RSNs would seek to stream products without authentication if this results in loss of MVPD distribution.

Brosnan ¶¶ 2, 12-14, 20-22, 34-38; Bowman ¶¶ 3, 13-14;

As Dr. Pakes attests, Dr. Noll's failure to model—or even analyze—these aspects of the BFW in relation to the profit-maximizing incentives of the various economic actors violates one of the fundamental tenets of structural modeling—identifying an appropriately defined equilibrium point. In modeling interactive behavior where one agent's actions affect other agents' profits, an "equilibrium" exists when there is a "resting point" where each agent will go forward with the assumed model because, given the actions of the other agents, each agent's profits are maximized. As Dr. Pakes describes in more detail, Dr. Noll's model is demonstrably not in equilibrium because, given Dr. Noll's own assumptions, certain teams (or their respective RSN rights holder) could make more profits if they elected not to participate in the BFW League Packages. As a matter of standard modeling methodology, the failure of his model to reach a defined equilibrium point renders its pricing predictions invalid. (Pakes ¶26, 28-50.)

Finally, because Dr. Noll materially deviates from the methodology applied in the C&Y Article, he cannot claim to be relying upon a methodology that has been peer-reviewed or accepted within the scientific community. In fact, the C&Y Article undermines Dr. Noll's analysis. It underscores both that it is possible to model the bargaining that would take place in the BFW, and that it is critical to do so because unbundling of television programming can lead to higher prices. Dr. Noll simply eschews that element of the model, and offers no peer-reviewed or otherwise reliable methodology in its place. *See, e.g., SEC v. Tourre*, 950 F. Supp. 2d 666, 674 (S.D.N.Y. 2013) (holding that a court should determine "whether the theory or methodology can be (and has been) tested, whether it has been subjected to peer review and publication, what its known or potential rate of error is, and whether it is a generally accepted methodology or theory."); *Am. Honda Motor Co. v. Allen*, 600 F.3d 813, 818 (7th Cir. 2010) (rejecting expert testimony where there was no indication that analysis had been generally accepted by anyone other than the expert).

B. The Lack of Foundation For Dr. Noll's Assumptions and Serious Analytical Gaps in His Analysis Render His Methodology Scientifically Unreliable

An expert's opinions also must "fit" the facts of the case. See Gen. Elec. Co. v. Joiner, 522

U.S. 136, 146 (1997). Indeed, "nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert." *Id.* Rather, "[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." *Id.* Accordingly, "when an expert opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached, *Daubert* and Rule 702 mandate the exclusion of that unreliable opinion testimony." *Amorgianos*, 303 F. 3d at 266; *accord Ruggiero v. Warner-Lambert Co.*, 424 F.3d 249, 253 (2d Cir. 2005). An expert cannot meet the *Daubert* standard by assuming away market complexities that complicate his or her economic analysis and asking the court to take his word as sufficient support for his conclusions. *See, e.g., In re Methyl Tertiary Butyl Ether (MTBE) Prods. Liab. Litig.*, 593 F. Supp. 2d 549, 562 (S.D.N.Y 2008) (Scheindlin, J.) (citation omitted) (excluding testimony where the expert offered an "insightful, even an inspired, hunch" that was not supported by "scientific rigor"). Here, there is no dispute that Dr. Noll has failed to model the bargaining that would take place in the BFW and that is the central innovation of the model he emulated.

For modeling bargaining between the RSNs and teams, Dr. Noll offers no explanation or excuse for his failure to perform that modeling beyond his "profitability" assertions which, as explained above, have no bearing on what would happen in the BFW because they fail to account for profit-maximizing alternatives. For modeling bargaining between RSNs and MVPDs, Dr. Noll testified that such modeling was not necessary in this case because the bargaining would be irrelevant to the BFW prices he is attempting to predict, and that therefore he could proceed to a Bertrand pricing analysis of horizontal competition between teams (or their rights holders) and their respective League with respect to the sale of RSN channels and BFW League Packages. ⁸ He makes that assertion based on the unsupported (and as explained below,

⁸ Dr. Noll's use of the Bertrand model of competition—without coupling it with a control group methodology—is an unproved method for proving common impact for class certification purposes. See Daniel L. Rubinfeld, Econometric Issues in Antitrust Analysis, 166 J. INST. & (cont'd)

factually unsupportable) assumption that, in his words, MVPDs have no market power and are essentially irrelevant to the analysis. (Noll Tr. 134:1-19; 281:16-282:9.) This post-hoc rationalization lacks foundation and is based on just the type of analytical gap that mandates exclusion of Dr. Noll's opinions.

First, Dr. Noll admits that he has done no modeling or analysis that would lead to the conclusion that bargaining involving the MVPDs would be irrelevant to the outcome. (Id. at 189-190.) His excuse is based on the assumption that the "Internet" represents an adequate, alternative distribution channel. Putting aside that Dr. Noll admits he has not modeled that claim and that he does not think it has been so for the entire class period, he simply ignores that the games are produced by RSNs, and RSNs are cable channels that have 24/7 programming that in some cases include multiple baseball and hockey teams, and in most cases include not just NHL and/or MLB games, but other professional and amateur sports and related shoulder programming. (Feeney ¶ 7; Biard ¶¶ 10-11.)

(cont'd from previous page)

THEORETICAL ECON. 62, 68-69 n.10, 71 (2010) (explaining that, although "[t]he Bertrand pricing assumption is standard in existing models" used in merger simulations, the Bertrand demand model cannot "give accurate predictions of the price effects of a merger" where the merger "change[s] the nature of the strategic interaction among firms"); Dennis W. Carlton, Use and Misuse of Empirical Methods in the Economics of Antitrust, CPI ANTITRUST CHRON., Mar. 2011, at 1, 9 (noting that the procedure of "specify[ing] a model of competition such as Bertrand . . . is typically not followed in non-merger antitrust cases"). Given the complexity of this market and distribution chain, it is a highly unusual approach to assess economic damages in antitrust litigation. (Ordover at ¶ 72 & n.86.) In fact, Dr. Noll has never applied a Bertrand model without also relying on a control group methodology to calculate economic damages, (id.), and Dr. Noll has admitted that his analysis in the eBooks case differs in this material way (Noll. Tr. at 286:7-290:5).

Second, there is an analytic gap underlying Dr. Noll's assumption that MVPDs have no bargaining power. It is based on an unsupported assertion regarding how products are currently produced and distributed rather than how they would have been or could be produced and distributed in the BFW after the extensive bargaining that Dr. Noll concedes would need to take place. Dr. Noll conducts no analysis as to the bargaining power each economic actor would have in a BFW with no territorial restraints. For example, while he assumes that RSNs would have all the leverage, it is not clear what role, if any, they would have in the BFW given that RSNs are by definition "regional" and fundamentally a by-product of the current video rights and distribution structure. Indeed, in a world with no territorial limitations, popular clubs seeking national distribution could exercise leverage by threatening to negotiate deals directly with national networks or major MVPDs. (Noll Tr. 77:6-80:13.) As Dr. Pakes attests, for all of these reasons and more, simulating the bargaining that would take place is a necessary element of the model when products are distributed through an intermediary, such as an MVPD. (Pakes ¶ 28.)

Dr. Noll's failure to consider the role of MVPDs also led to an equally fundamental error in how he models the costs of distribution. There are two "markups" in the sale of telecast rights following the licensing of games by a team: one earned by the RSN on its sale to the MVPD and a second markup by the MVPD when it sells the programming as part of a bundled service to its subscribers. (Feeney ¶ 11.) These markups are a necessary part of doing business, because if

With respect to the National Football League, which does not have exclusive broadcast territories, RSNs have no role in the distribution of games whatsoever. All television distribution of NFL games is through either (i) national network deals negotiated by the league or (ii) DIRECTV, which sells Sunday Ticket (the NFL's bundled package of non-local games, which is priced higher than either the NHL's or MLB's out-of-market packages).

¹⁰ Even setting aside MVPDs, there is still bargaining that would need to take place between RSNs and teams that Dr. Noll needs to, but does not model. As explained above, RSNs have the same bargaining incentive not to compete against a duplicate League feed of the same game at the same time regardless of whether they distribute their product through MVPDs or the Internet.

there were no markups, the firms would not earn the returns necessary to justify their fixed (and sunk) costs. Yet, Dr. Noll's model includes only a single markup. The fact that his model does not even account for how products are currently distributed, much less the changes that would necessarily occur in the BFW, is further proof that his model is unscientific and unreliable. (Pakes ¶¶ 29-40.)¹¹

III. DR. NOLL'S MODEL IS UNCONNECTED TO VIEWERSHIP DATA

Turning to the demand side, Dr. Noll enthusiastically (and misleadingly) purports to embrace the C&Y model, asserting over and over again that demand in the model is based on highly complex analysis of viewership data as in C&Y. Such assertions are found in both of Dr. Noll's reports¹² and were repeated throughout his deposition. For example, Dr. Noll testified:

- "[W]e use the data, and it's in my report, about the thing that's most relevant to this case, which is the way people allocate their viewing time across teams." (Noll Tr. 51:9-12.)
- "[T]hat's what the model does with regard to viewing . . . it does explicitly model that differences . . . in popularity of teams as measured by viewing time." (*Id.* at 52:11-14.)
- "The prices and profits are derived from the distribution of viewing behavior and the prices of the -- of the end product. It's not based on the . . . margin between price and marginal cost." (*Id.* at 182:9-13.)

What we now know, however, as explained by Dr. McFadden, is that viewership data plays no role at all in driving prices in Dr. Noll's model—i.e., the model "proves" the same level of injury *irrespective of what viewership data is input in the model*, including extreme scenarios where there would be no BFW competition between individual team packages and BFW League Packages and should therefore result in no injury. (McFadden ¶¶ 17-24.)

This demonstrates that the Internet stand-alone channels that RSNs will supposedly market directly to consumers would not be competitive substitutes for stand-alone television channels in the BFW. (Pakes ¶¶ 44-48.)

¹² See Noll 25, 32, Ex. 1.

What actually drives Dr. Noll's model are assumptions lacking factual or economic foundation. In the end, it is not surprising that his model, which is not tied to real-world data, produces results that either do not comport with marketplace reality or (as Dr. McFadden demonstrates) are facially absurd—all dispositive evidence of a model that is unscientific and unreliable.

A. Guiding Legal Principles

In assessing this aspect of Dr. Noll's model, there are several established legal principles that come into play. First, a model is facially defective for assessing injury in fact at the class certification stage if it shows injury where there should be none. In re Rail Freight Fuel Surcharge Antitrust Litigation, 725 F.3d 244 (D.C. Cir. 2013), is instructive. On interlocutory appeal, the D.C. Circuit vacated the district court's grant of class certification because the district court had not taken a "hard look" at the model proffered by the plaintiffs' expert. Id. at 255. The plaintiffs' expert offered econometric analysis to "quantify the injury in fact to all class members attributable to the defendants' collusive conduct." Id. at 252. The defendants argued that the "model yielded false positives with respect to legacy shippers" and therefore was not reliable proof of common impact and damages. Id. at 253. The D.C. Circuit agreed, holding that it was "not enough to submit a questionable model whose unsubstantiated claims cannot be refuted through a priori analysis." Id. at 254. As the court concluded, "[n]o damages model, no predominance, no class certification." Id. at 253 (emphasis added). Second, a model is defective under Daubert if it is based on facts that lack foundation in the record. Third, a model is unreliable under Daubert if it cannot approximate the real world or otherwise renders results that do not comport with marketplace reality. See, e.g., Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp., 103 F. Supp. 2d 268, 283 (S.D.N.Y. 2000) (excluding expert opinion premised on the counterfactual assertion that plaintiff would not make any non-infringing sales in the BFW and that the defendant would have made all sales in the relevant market in the BFW).

As described below, and in more detail in the accompanying declaration of Dr. McFadden, Dr. Noll's model suffers from all of these fundamental methodological defects.

B. Dr. Noll's Model Shows Injury Where There Should Be None

There are 62 equations in Dr. Noll's model, 60 of which are complex analyses of viewership data (presumably done in conjunction with the C&Y authors). If properly designed, these equations should show injury and damages only where the viewership data demonstrates that consumers would consider both League packages and individual team packages as attractive alternatives; absent such competition, there would be no downward pressure on prices and the model should show no injury.

Yet, as Dr. McFadden demonstrates, Dr. Noll's model shows injury even when viewership data is input that, by design, implies that consumers do not view the League and team packages as close competitors. Thus, Dr. Noll's model produces essentially the same injury and damages even when input with data hypothesizing that all fans want to watch only a single team or data hypothesizing that all fans want to watch every single team in an equal amount—scenarios in which there should be no injury at all. (McFadden ¶ 19-24.) This, alone, proves that Dr. Noll's model is *not actually based on viewership data at all*. In turn, it confirms that the prices returned by Dr. Noll's model, for all of its demand equations, has nothing to do with projected consumer demand in the BFW and is therefore completely useless as a "supply and demand" model.

C. Dr. Noll's Model is Actually Built Upon Simplistic, Unreliable Assumptions and Manipulations Having Nothing To Do with Viewership Data

Instead of viewership data, what drives Dr. Noll's model is (i) a counterfactual assumption that the teams are all fully *independent* of their League (discussed above), (ii) randomly assigned price sensitivities, (iii) a methodologically baseless means of calculating market shares, and (iv) counterfactual (and assumed) marginal costs figures for the Leagues and teams.

1. BFW Team Prices Are Random in the Model

While Dr. Noll's model purports to "predict" BFW team prices, this, too, lacks any foundation in real-world facts and thus fails to demonstrate the required "fit" under *Daubert*.

As Dr. McFadden explains, the BFW team prices in Dr. Noll's model are ranked <u>arbitrarily</u>. The model assigns the fans of each team a randomly-generated sensitivity to price. (McFadden

¶¶ 28-31.) This means that if the model were "run" thirty times each team would be expected to have the highest price once, the second highest price once, etc. Even Dr. Noll admitted in his deposition that if a "random seed generator" had an impact on price—which it does—this would be a problem. (Noll Tr. 297-98) ("Yes. If you -- if -- if that were the case, you'd have to figure out why it was so, because there's probably something wrong elsewhere in the code or in the model."). ¹³

2. Dr. Noll's Calculation of Market Shares is Not Based on Scientific Methodology

Apart from erroneously treating teams as independent competitors, another factor that actually drives Dr. Noll's model is the purported market share of the current League packages. To calculate market shares, Dr. Noll uses as a numerator the number of consumers that purchased each League's OMPs, uses as a denominator the average number of households that watched each sport's championship finals/series (i.e, the World Series and Stanley Cup), and then presumes that the entire "markets" of baseball and hockey fans have the same preferences as those who purchased the Leagues' OMPs. As Dr. McFadden explains, this has nothing to do with any methodology for calculating market shares in C&Y. Nor does it at all reflect the current state of economic science for determining the preference parameters of viewers.

3. The Main Driver of Dr. Noll's Model is Arbitrary Marginal Cost Assumptions

As it turns out, and as explained by Dr. McFadden, the main driver of Dr. Noll's model is marginal cost assumptions that have been plugged into the model. (McFadden ¶¶ 32-35.)

This also means that Dr. Noll ignores meaningful differences among baseball and hockey fans in terms of price sensitivity and fan dedication to teams that are a key component of what drives prices in the real world. For example, a die-hard fan of a single team (like the class representatives) could be willing to pay as much or more for a single RSN of his favorite team than a casual follower of "no hitters" or similar events would be willing to pay for a League-wide bundle. This is why it is critical to model demand based on actual data. It also demonstrates why the conclusions that Dr. Noll purports to advance as to class-wide injury, which are based on assumptions and speculation, are ultimately meaningless and of no help to the Court in determining whether the requirements of Rule 23 have been satisfied.

Specifically, Dr. McFadden explains how the main driver of average BFW team telecast prices in the model is the arbitrary assumption that the BFW marginal cost of every team to produce and distribute its own games nationally is 1/30th of the cost to the Leagues to produce and distribute the Leagues' OMPs. Dr. Noll admitted that this assumption is not based on any data or documents that were produced in this case or any standard economic methodology for determining BFW marginal costs. (Noll Tr. 316:1-12 (claiming that he did not have data to "determine whether or not that's an accurate assumption" and he did not "take any steps to investigate it.").)

Yet, these costs are the predominant determinant of the prices that the model sets for individual teams. (McFadden ¶ 32-35.) In fact, if one chooses a different assumption of team marginal cost in the BFW—e.g., that it approximates the League's marginal cost—that causes BFW team prices to more closely approximate the BFW League Package price. This is not only nonsensical, but demonstrates that Dr. Noll's BFW team prices are more sensitive to his unsupported marginal cost assumptions than any analysis about consumer demand. Given the importance of this assumption to his analysis, Dr. McFadden explains that Dr. Noll should have conducted an actual analysis of marginal costs to determine appropriate values rather than make an undocumented and unjustified assertion.

D. Dr. Noll's Model Does Not Reflect Real-World Viewership

Dr. Noll's model also suffers from methodological flaws in how it purports to measure viewer preferences from the available data. Dr. Noll ignores much of the data that he has in his possession regarding viewer preferences, makes massive and unjustified extrapolations regarding viewing preferences of those for whom he has no data, and engages in the "double counting" of viewing time.

1. Dr. Noll's Model Ignores Available Data and Relies on Unjustified Extrapolations

Unlike the C&Y approach, Dr. Noll does not consider variation in the price of the Leagues'

OMPs across consumers in the data. Prices do vary across consumers, with of GameCenter

LIVE subscribers, of MLB.TV subscribers, and of DirecTV subscribers paying a price different from the one assigned by Dr. Noll. (McFadden ¶ 38.) He chooses not to make use of this feature of the data, however, and instead assumes that all consumers pay the same price. Hence, he is unable to estimate sensitivity to price directly using his data.

Dr. Noll then uses his simplified data relating to those who bought a League OMP to make predictions for the entire population of viewers of the sport he is analyzing. (McFadden ¶¶ 25, 27.) He does this by extrapolating the tastes of viewers who did not purchase a League OMP from the tastes of viewers who did purchase a League OMP. In fact, two-thirds of the viewers who Dr. Noll predicts would buy any type of package in the BFW are viewers about whom he has no data on whatsoever. (McFadden ¶ 25 n.9.) The only information on the tastes of these viewers that Dr. Noll has is that they did not buy a League OMP in the actual world.

Similarly, Dr. Noll also asserts that his estimate of "the percentage overcharge for DirecTV Extra Innings could be applied to" the products that he did not model—namely, Comcast's offering of NHL Center Ice and MLB Extra Innings, and DIRECTV's offering of NHL Center Ice. (Noll Supp. at 7-8.) Yet, Dr. Noll has provided no basis to conclude that his estimate could validly be applied to other, different products.¹⁴

2. Dr. Noll's Model Double Counts Viewing Time

The market that Dr. Noll models differs from the market modeled in the C&Y Article in that

Yet another example of Noll's reliance on unsound extrapolations is his model's time budget T input variable—which measures the total time that viewers have available for viewing sports and all other activities. Dr. Noll improperly calibrated this variable for an unrealistic amount of time in the MLB.TV model and, without any basis, assigned different values to TV and internet consumer. For MLB.TV, Dr. Noll assigned the T variable a value of approximately 6,110 hours. (Noll Tr. 336-339.) Not only does this assumed value exceed the amount of time in MLB's regular season by about 1,700 hours, (Noll Supp. Ex. 1A, n.1), but it also lacks any sound basis. In comparison, Dr. Noll assigns the T variable a value of 1,174 hours in the DirecTV MLB model. (Noll Tr. 336-339.) Thus, consumers in his model that watch baseball on TV spend significantly less time awake (about 3 hours per day) than people that watch baseball on the internet (about 16 hours per day). Confronted with the inconsistency, Dr. Noll admitted that "[i]t's a higher number than it should be" and that "[t]hey should have been consistent . . . it's just the way the table was constructed was just wrong, and no one noticed it." (Id.)

each "program" includes two teams, which Dr. Noll treats as two channels. Dr. Noll fails to make the necessary adjustments to account for this material difference. Instead, he simply "double counts" viewing time by counting both the home and away team channels for hours spent watching each game (e.g., a Rangers fan watching a Rangers/Bruins game for one hour is credited with spending one hour watching the Rangers channel and one hour watching the Bruins channel). As Dr. McFadden explains, Dr. Noll's simplistic approach constitutes a methodological flaw in his model's "first-order" conditions. This flaw, compounded by basic calculus errors, renders the model incapable of capturing accurate measurements of a fan's utility maximization for individual teams. (McFadden ¶¶44-48.)

E. Dr. Noll's Model Generates Absurd Results—Definitive Evidence of Unreliability

Finally, it also is basic economic science that if a model produces facially counterfactual or absurd results, it is unreliable. *See Lippe v. Bairnco Corp.*, 288 B.R. 678, 686 (S.D.N.Y. 2003) (citing *Boucher v. U.S. Suzuki Motor Corp.*, 73 F.3d 18, 21 (2d Cir. 1996)), *aff'd*, 99 F. App'x 274 (2d Cir. 2004). Dr. Noll's model also (predictably given all the methodological flaws discussed above) is easily exposed to such an analysis. For example:

- Dr. Noll's model predicts that fans would buy team packages even if they were significantly *more expensive* than BFW League Packages containing the same games plus the games of every other team (McFadden ¶¶52-54);
- Dr. Noll's model generates nearly identical simulated market shares of consumers choosing between the BFW League Packages and an à la carte channel of their *least* favorite team (McFadden ¶¶ 50-51);
- Dr. Noll's model concludes that the New York Islanders and the Miami Marlins could charge the most for their individual team packages in their respective Leagues. (McFadden ¶ 31);

In sum, from the demand side, just as on the supply-side, Dr. Noll's model is a classic example of work that has no scientific reliability for the task at hand.

CONCLUSION

For the foregoing reasons, Dr. Noll's opinions should be excluded from the Court's consideration of Plaintiffs' motion for class certification.

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