UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
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THOMAS LAUMANN, ROBERT SILVER,
GARRETT TRAUB, and DAVID DILLON,
representing themselves and all
others similarly situated,

Plaintiffs,

v. 12 CV 1817(SAS)

NATIONAL HOCKEY LEAGUE, et al.,

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

Plaintiffs,

v. 12 CV 3704(SAS)

OFFICE OF THE COMMISSIONER OF
BASEBALL, et al.,

Defendants.
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New York, N.Y.
March 19, 2015
10:00 a.m.

Before:

HON. SHIRA A. SCHEINDLIN,

District Judge

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(In open court)

THE COURT: Good morning. We are ready for the rebuttal testimony?

MR. DUBNER: Yes, your Honor.

ROGER NOLL,

THE COURT: You understand you are still under oath.

THE WITNESS: Yes.

THE COURT: OK, good.

DIRECT EXAMINATION

BY MR. DUBNER:

Q. Dr. Noll, I would like to start with something that Dr. Pakes and Dr. McFadden both said yesterday. They criticized you for making predictions about people who may be in the market to buy the league packages but didn't buy them in the data you had. Do you consider that an apt criticism?

A. No, it has no relationship to reality of the economic research on doing structural models.

Q. Are structural models and GMM often used to make predictions about people who are not in the observable data?

A. One of the major reasons you do structural models is to be able to predict what is going to happen, if there is a change in the products or a change in competition in the market. And of course if a product has never been in the market, or if there has never been competition in a market, a structural model is literally the only thing you can do to analyze that circumstance.

Q. Could you give us an example in the academic literature of a structural model being used to make predictions about people who were not in the observable data?

A. Well, for starters it would be hard to name a model that didn't. All right? One of Professor McFadden's most important papers predicts the demand for the Bay Area Rapid Transit System, which was the subway before it was built. The Crawford and Yurukoglu paper, one of their results is that when you unbundle cable television channels, some people subscribe to cable television who wouldn't otherwise have subscribed. And then there is the Berry Levinsohn and Pakes paper on automobiles, which has the same phenomenon; it's trying to estimate the demand for automobiles and the function of attributes for the entire population, not just those who have bought automobiles.

Q. Let's talk about that paper for a moment. Dr. Noll, did you prepare slides to aid your testimony today?

A. Yes, I did.

Q. So, Dr. Pakes's paper that you just referred to, in that paper how many purchases occurred?

A. The average annual purchase of automobiles at the time of this data sample was 10.6 million. It would vary around that some, but that was roughly the size of the market at the time of his data set.

Q. And how big did Dr. Pakes and his coauthors conclude the potential market was?

A. It was over a hundred million. It was basically all households in the United States were the potential market.

Q. And did he make predictions about what consumers in that potential market would do?

A. Yes. One of the objectives of the paper was to predict the demand for automobiles that combined characteristics in new ways, and so that requires examining whether the creation of those automobiles would bring new consumers into the market.

THE COURT: So, he knew nothing about that other 89.4 percent of people other than they lived in the United States.

THE WITNESS: Well, yes. It's not that he knew nothing. All he knew was those are the people who aren't buying the automobiles that are here today. So, that's information.

THE COURT: That's true. But that's all he knew about them. He didn't know about their tastes, their preferences, and whether they even drove.

THE WITNESS: That's right.

THE COURT: Or licenses or anything.

THE WITNESS: Exactly. And the purpose of his model was to try to figure out what they would do if they were offered a new choice set.

THE COURT: As I said, the only thing he knew about them is that they hadn't purchased.

THE WITNESS: That's exactly right.

Q. And did he have general demographic data about the United States generally?

A. Yes, that's right. He starts off with a survey of 37,500 people, collects not only their interests in automobiles but also their demographic characteristics, and then blows that up to the entire population.

Q. So, did he have actual transactional data?

A. No. These are survey responses to questions about their preferences with regard to automobiles, plus other questions.

THE COURT: Wait. Survey people were actually purchasers, no?

THE WITNESS: The survey people were just people in a random survey, yeah.

THE COURT: But they had been actual purchasers.

THE WITNESS: Yes.

THE COURT: Yes. OK.

THE WITNESS: Well, everybody eventually purchases an automobile, yes.

MR. DUBNER: You're in New York; it's not entirely true.

THE WITNESS: I keep forgetting about New York even though I'm here, that's right.

Q. And did he have any general background demographic data about the rest of the population?

A. Well, yes, he has the census data and things like that, yes. You have background data about the entire population. What you don't have is preference data about the entire population. And you take your sample and try to extrapolate the preferences of the whole population based on the sample.

THE COURT: That's what I'm saying, the big group he doesn't know how much they drive, if they have licenses, if they bought a car in the last five years. Those are the things he doesn't know.

THE WITNESS: No. And that's not a criticism. That's the point.

THE COURT: I understand.

THE WITNESS: I'm not criticizing. He did exactly the right thing.

Q. Is this generally considered a reliable paper?

A. Well, yes, it is an important paper, but economists don't use legal terminology like reliability. Yes, it is regarded as a paper, and if you want to do research like this, you need to take into account the results of this paper.

Q. And how does that compare to what you did in your model in this case?

A. It's precisely the same idea. We're trying to estimate the demand for these stand-alone channels not in and of itself but because we want to see what the presence of those would do to the demand for existing product, namely the league-wide bundles. So, we are constructing samples of consumers who are going to be in the market, first of all, because single stand-alone channels are offered and, secondly, because the single stand-alone channels will drive down the price of the league bundle and therefore bring new people into the market for that product.

Q. Now, Dr. McFadden said yesterday that there are standard and objective measures that are used to determine how close a model fits the data. What did you understand him to be referring to?

A. Yes, it is the case that there are standard measures to determine the reliability or quality of an econometric model, and that's what he was referring to, I think. I can't tell what's in his mind because he wasn't clear. But there is a set of standard indicators of the quality of the regression model, and in particular a GMM model, that one uses to determine whether you've got something that passes the hee haw test, as we say, something you would show to the person next door because it's interesting.

Q. And what are some of those measures?

A. Well, those are the ones I have already talked about, namely the fit of the equation and its ability to predict the data you already observed. It has to be able to fit the data you have. And that means good predictions of the data that

were used in the construction of the model, such as the moments, being able to recover the moments, and being able to in general explain away those moments when the equation you get has good measures of fit and a standard error of the variable you are predicting is low.
Q. And did you report the standard error and the fit of the moments?
A. Yes.
Q. And what did they show?
A. They showed this is a good model; it actually has high measures of statistical fit overall to all the data.
Q. Did any of defendants' experts yesterday report any standard objective measures that they claim showed your model falling short?
A. No. What instead they did is pick a couple of things that they thought were bad. So, they reported -- you know, you could predict a lot of things with this data. You could use it to predict any number of things that either exist now or could hypothetically exist in a future world, and they picked a few things, a handful of things, that they didn't like.
Q. Let's look at one example of how defendants claimed your model didn't fit the data. Dr. McFadden presented these bar charts, is that right?
A. Yes, he did.
Q. What do these measure?

A. This is a count of the number of people who ever watch a channel as in the actual data versus in the sample data, the predicted data. So, this basically is a story let's predict how many people are ever going to watch the Yankees channel and compare that with the actual number who actually watch the Yankees channel.

Q. And in your mind is there a more meaningful measure than just the raw number of viewers who watch each channel?

A. Well, this is not the way you would test the reliability of the model. Remember, that the reliability of the model is the moment, the ability to predict the moments. And the moments are of viewing time. That is to say what you would want to know is if the avatars in Dr. McFadden's world are representative of the real world, then they should be able to predict viewing time. We know that they don't predict the number of subscribers because the assumption in the model -- which is explained in my report -- is that everybody whose utility for a given channel is below the utility of doing other things will be automatically assumed not to be in the market for that channel. That was the principle that we used to decide who was a one RSN person, who was a two RSN person, etc. So, we assigned zero viewing time to the people who we knew would fall below that threshold. But in order to fall below that threshold you had to have very small viewing time of that channel. It had to be like something we talked about before, something you watch for a minute or an hour, something like that, over an entire season.

So, the ability of the model to predict should be evaluated on the basis of the ability to predict viewing time, not whether a bunch of subscribers who spent very little time watching that channel, whether your number is zero or two minutes. That's not a valid way to test the validity of the model.

Q. And would this chart look different if it represented viewing time rather than number of people who watched the channel?

A. Yes, it would reproduce the fit of the predictions on the moments, and this is the chart that does that.

Q. And could you explain what this chart shows?

A. Yes, it shows the same thing that Dr. McFadden showed, only now it's the predicted versus actual viewing times of all these channels, where some of them are a little higher and some of them are a little lower. But, as you can see this would be standard for a model. You don't predict hardly anything completely perfectly, but the errors are really small compared to the actual value.

Q. Let's move to the next thing. A few times now defendants highlighted one particular --

THE COURT: I'm sorry, I don't understand the purple.

THE WITNESS: OK. Some of the blues are going to go above the red, and some of the blues are going to go below the red. So, you can see the reds peeking over --

THE COURT: OK. Thank you.

Q. A few times now defendants highlighted one particular result they thought was implausible. That was the slide from Dr. Ordover's supplemental declaration about more fans with favorite teams buying the bundle than fans without favorite teams.

A. Yes.

Q. You explained on Tuesday why you thought this result was entirely plausible, right?

A. Yes.

Q. And briefly can you explain, just repeat what that was.

A. The basic story is that the decision to buy the bundle versus the single channel is based in part the degree to which one channel can substitute for another. The fewer RSNs you actually care about, the less are you a beneficiary of competition. All right? Because you really only are interested in one or two channels. So, how much competition is going on among the other 28 or 29 channels isn't very important to you.

For the multi-channel viewers the availability of multiple channels is important to you because you regard the channels as closer substitutes than the average person.

Remember, in this group of people who watch more than two channels regularly, we only have about a third or less than a third, about 30 percent or so of the total sample. So, this is a group of people who are at the extreme, the upper tail of the sample in terms of the degree to which they view channels as substitutes. And if that's the case, then they are going to be more price sensitive to the whole range of prices in the whole sample than somebody who is just a single RSN person.

THE COURT: I'm sorry. I'd like to understand, but I don't understand why you know that they are more price sensitive.

THE WITNESS: No, the result of the model is that they're more price sensitive, and here is the reason:

Suppose you are a Yankees fan. You couldn't care less what the price of the Houston Astros channel is. Right? You are going to buy the Yankees -- you're pretty price sensitive to it. All right? Now instead suppose you're someone who just likes baseball and you don't care whether it's the Houston Astros or the New York Yankees. You are more likely to look at the relative price of those two to decide which channel to subscribe to.

THE COURT: That's true if I was going to choose between two stand-alones, I might care.

THE WITNESS: Or three or four.

THE COURT: But for the multi-channel I can see all the games all the time, no?

THE WITNESS: That's right. But the point is the additional variant -- Professor McFadden referred to this as diversity, the value of diversity, that the attribute of these multi-channel fans is that they really don't care very much which team they're watching.

THE COURT: That's true.

THE WITNESS: And so because they don't care very much, they're more sensitive to price among the channels, because, you know, they can get the bundle for $20, or they can get an individual channel for $6, and that's a big difference compared to the value they would assign to diversity. And if all they really care about is just watching a baseball game every night and they don't care which team it is, then that price competition between the single channels and the bundle and the price competition among the single channels is going to be more important to them.

THE COURT: OK, thank you.

Q. Now, Dr. McFadden and Dr. Ordover suggested that you were wrong about the interpretation, the explanation you just gave. I think based on what was Exhibit 5 in Dr. Ordover's second supplemental declaration, where he reported the set price as equal and show the same effect, why doesn't this show in your mind that your explanation about price sensitivity is wrong?

A. Well, the reason that it's wrong -- the thing that's intriguing is Dr. McFadden is the one who prevetted Dr.

Ordover's results, and so it's a bit weird because he didn't explain where they come from. The core fact about the slide he put on the board is not just how it distributes itself but also what the total number of people who subscribe to anything is. And the more you increase the price of the stand-alone bundle --

THE COURT: Stand alone bundle?

A. Excuse me, that was a bad stupid choice of words. You got me. The stand-alone channel. The more you increase the price of the stand-alone channels, then the more likely these guys are going to buy nothing. All right? And that's in fact what the data show, that you lose a third of the multi-channel viewers by raising the price.

Now, you still get this very strange result. So, the next point is why do you get this strange result. And, remember, Dr. McFadden was talking about the sort of terminology and the mathematical assumptions. This is where they come into play.

Every demand equation you estimate will have weird properties when the price is really high relative to anything that could plausibly occur in the market. Like if you assume a linear demand curve, there is going to be a price at which demand becomes negative. All right? If I estimate a linear demand curve for Hondas, I'm going to find that if the price goes to a million dollars for a Honda, all the consumers in the country are predicted to go into the business of making Hondas. They have a negative demand which means they bring stuff, they make it themselves. Right? Now that's obviously implausible and can't happen. Likewise, if I make an assumption like in a logistic model, which is a curvature where the demand curve never hits -- demand never hits zero, that means that at a price of a million dollars there are still people out there buying Hondas.

Dr. McFadden is absolutely right, that's a mathematical property of the model I estimated, which is a conditional logit demand model, but it's a property of every logit model. It's a property of Dr. Pakes' model. It's a property of Professor McFadden's model predicting the demand for BART.

So, it is just a consequence of extreme values in a functional form that was not picked to deal with extreme values. It was picked because it would do well; it would fit the data well in plausible ranges of prices.

Q. How could you go about testing whether you're right or whether defendants' experts are right on this point?

A. About the price sensitivity point, or about the prediction between bundle customers versus stand-alone customers? There are two issues here. One is price sensitivity, and the other is how they distribute themselves.

Q. About either.

A. OK. Basically we can go back to what I testified about initially, which is that what the demand relationship actually looks like depends on the restrictions you place on the coefficients in the utility function. And there are two ways to go about this, as what Professor McFadden calls the mathematical mumbo jumbo and what I call simply the choice of functional form.

You can restrict the logit error, the random component of demand for the channels for which predicted usage is extremely low -- which we did in the RSN one and the RSN two case -- you can just look at the multi-channel viewers, and every time their viewing time fell below some threshold you just assigned them zero as the utility derived from that channel, so you take that out of their choice set. That's the first way to do it.

The second way to do it is you can jiggle the coefficient on the general utility from watching baseball, which is one of the terms in the model. It doesn't have anything to do with time or anything; it just has to do with having access to it.

THE COURT: Well, let me just follow up on that. Before we talked about the person who just likes to watch the game, and you said they don't really care about the teams, they just like the game, so they're going to go for the cheaper one. So, if somebody is selling their team for $6 a month, they're going to take that one because they get to watch baseball.

THE WITNESS: Right.

THE COURT: But what if what they really like in watching baseball is the variety of watching all the different teams?

THE WITNESS: Yes.

THE COURT: Then wouldn't they go back to the package?

THE WITNESS: This gets to this issue of there is a coefficient in the regression, in the utility function, that picks that up. All right? And as you recall in my testimony, we have more parameters in the model than we can identify, we can actually estimate, so we actually make an assumption about that one, and we make the assumption that takes the lowest possible value, and the reason we do that is if you pick higher values you get bigger damages.

THE COURT: I see.

THE WITNESS: And we don't have a principled reason for picking a higher number. Like in the Crawford and Yurukoglu paper the value of that parameter they pick is something like three or four. We pick one. If we pick three or four, the damages would be higher.

THE COURT: Do you have any basis of picking one over three or four, or just to be conservative?

THE WITNESS: No. We don't have -- we can't identify that parameter with the data we have.

THE COURT: I see.

THE WITNESS: If we have more data, we can identify that parameter.

THE COURT: So you just pick the lowest number to be conservative.

THE WITNESS: Right. And if we raised it, we would get different answers, we would get more intense competition between the stand-alone channels and the bundle, and get a lower predicted price of the bundle, but we can't justify that, so we didn't do it.

THE COURT: OK.

Q. So, Dr. Noll, I'm going to put up a board that defendants used during Dr. Pakes' examination. I am not sure you can see it from where you are sitting.

A. Yes.

Q. It had these four points and then a conclusion on it. He said these were all flaws with your model, and he claimed that you had never responded to any of them. I'd like to walk through them one by one.

Let's start with the first one, that you ignored supply side bargaining. First, is it true that you never responded to this criticism before?

A. No, this is in every report I've written. Why we don't do this is in every report I wrote.

Q. So, briefly to repeat it -- well, first, did you ignore the bargaining that would occur amongst buyers?

A. No, that was one of the very first -- the very first decision about the model was how are we going to model the supply side. That was the very first thing we decided. So, you consider all of the various ways to do it and decide based on the circumstance which is the one that is most likely as a theoretical matter to replicate the behavior in this market. So, we picked one based on what we thought was a realistic way to model this market.

THE COURT: Did you model the bargaining? What did you do with the bargaining?

THE WITNESS: Every single way of characterizing the supply side involves a bargaining. For our model's purposes the model itself doesn't have to predict the wholesale prices of things, because we are assuming that they're nondistorting. That's why I go through all the agreements, to see what do the contract forms actually look like.

If I wanted to build a model -- like suppose we decide that the way they're going to slide these contracts is a share of revenue instead of a per-subscriber fee.

THE COURT: Wait. Could you tell me between who and whom you are talking about now? Between a team and an RSN, or an RSN and an MVPD? Who?

THE WITNESS: We can do everything. We can do team versus an RSN, although that's irrelevant in the Internet.

It's also irrelevant in the single channel thing because teams could do it themselves. So, if the team didn't like the bargain it got from the RSN, it already owns the feed, the feed is already being distributed nationally, it could sell it itself, but we could include that possibility.

THE COURT: You could but you didn't.

THE WITNESS: Let me tell you why. It's not in the model because it doesn't matter; it doesn't affect the results. Remember, the goal of the model is to predict the price of the bundle. That's the goal.

THE COURT: Right, that's true.

THE WITNESS: And if the nature of the agreements between a buyer and a seller in these intermediate markets doesn't affect that final price, then you don't have to model it. If an issue in this case hinged on how much the teams were paid by the RSNs, for example --

THE COURT: OK.

THE WITNESS: -- then we with estimate it.

THE COURT: Fine. Let's move on from RSN to MVPD.

THE WITNESS: Same thing. Here the issue about what is the plausible kind of contract that would arise under a condition of serious double marginalization is something you actually think about, and you say, OK, when serious double marginalization --

THE COURT: Well, I'm getting rid of double because you didn't bother with the first.

THE WITNESS: No.

THE COURT: No, no, wait a minute. Hold on. If there is no marginalization -- if that's what it's called -- between the team and RSN -- I'm not worried about double -- but now let's talk between the RSN and the MVPD.

THE WITNESS: The story there is to make the same assumption, that if the RSN and the MVPD have a contract form that in a single channel world causes serious double marginalization, we know they can switch to another contract form that either has much less or none. And one that has much less is simple revenue sharing, which is what single channel guys do; if they don't do fixed fee, they do revenue sharing. They say you passed 60 percent of your revenue, which we already observed in some of the contracts that have been discovered in this case. So, that's the point, if I wanted to answer the question what share of retail revenue would go to the RSN, I could --

THE COURT: From the MVPD?

THE WITNESS: Between the RSN and the MVPD.

THE COURT: OK.

THE WITNESS: What share of the MVPD's retail revenue from that stand-alone channel would go to the RSN, I would need another model, and I could estimate it, but it wouldn't affect the retail price. That's the point. All right? Unless there is a reason to do it that affects the retail price, there is no point in complicating the model to do it. All right? And that's explained in every report, why don't we do it.

THE COURT: I think the real question for this hearing is: If C&Y did it, and it was central to their analysis, and in fact it changed the outcome of the analysis, how come it mattered there but it doesn't matter here? That's what I need to understand.

THE WITNESS: The significant contribution of Crawford and Yurukoglu's paper is that it succeeded for the first time including this kind of bargaining in a model. It's a technical point; it isn't specific to the industry.

The actual result of the paper that unbundling has no significant effect on consumer welfare is not its important contribution, because that's contested. That's still contested. There are people who disagree with them about that conclusion.

What they did that's extremely important -- and I am very proud of Greg for having been a coauthor of this paper -- is that they introduced a whole new dimension to the ability of applied economists to address this question by putting the bargaining into the model. They have not yet, or nobody yet has switched the nature of the bargain to revenue sharing or fixed fee. And that's what you would have to do to get a really great perfect answer to the question should the FCC require unbundling.

Greg's original dissertation was on another FCC rule which is the FCC adopted a rule of a price cap on cable television on a per-channel basis, and he addressed the question does that increase consumer welfare. And that's actually the first paper that ever applied GMM to the study of cable television, and that's a terrific paper too. The demand side is Greg's result. And what he did is he didn't have the supply side model; he got his paper published in the RAND Journal --

THE COURT: But that was a different paper, an earlier paper.

THE WITNESS: -- which Ariel Pakes edits. Yes. Ariel Pakes was an editor of the RAND Journal, and Greg's paper is in the RAND Journal, and it didn't have a supply slide.

THE COURT: Sure. But that is a different paper. That's not what we are calling the C&Y paper.

THE WITNESS: No, but the demand side of the C&Y paper is derived from that paper.

THE COURT: I understand that. But we are talking about supply side and whether you had to include the bargaining component.

THE WITNESS: And my opinion is that I do not because it wouldn't be -- I'm not examining the replacement of bundles by unbundled channels. Instead -- Crawford and Yurukoglu --

THE COURT: I got that.

THE WITNESS: I'm doing something different, and in the case that I'm doing it I have a series of relatively homogenous channels that are substitutes for each other, and it wouldn't make sense to do it in my context.

THE COURT: OK.

Q. Dr. Pakes said yesterday that Crawford and Yurukoglu didn't model bargaining between content suppliers like teams and content distributors like RSNs because it wouldn't make any difference. Is that analogous to what you just described doing here?

A. Yes. It's not just teams. Remember, sports is a tiny fraction of what they do, it's ESPN and Fox basically. Almost no channels available produce their own programming; they buy it from other people. So, there is a contractual issue between program content suppliers like leagues and teams and the channels that carry their program content, such as A&E or Oprah network or whatever. There is a contract relationship there. And, yes, they decided not to model it, and the reason they decided not to model it is because they looked at it and decided it wasn't important, and the reason they decided it wasn't important is the same reason I decided it's not important.

Q. Is your understanding of Dr. Pakes' criticism that if your facts are right, your model is wrong; or is it that your facts

are wrong?
A. I don't know, because he doesn't confront the explanation I give for it; he just says because Crawford and Yurukoglu did it, you should do it. He doesn't address my reasons for saying that I did it; he just ignores them and says because they did it, you should do it.
Q. And you mentioned Dr. Crawford's dissertation, and I know Dr. Pakes mentioned that he was Dr. Yurukoglu's dissertation advisor. Did you have any similar role with Dr. Crawford's dissertation?
A. Yes, I was one of Dr. Crawford's Ph.D. advisors. He took my courses as a graduate student. He was in my seminars as a graduate student, and he's a personal friend; I have known him forever. I've known him since he was a graduate student.
Q. And on that dissertation in particular?
A. Yeah, I was one of his advisors. I wasn't his principal advisor, Tim Bresnahan was, but I was his secondary advisor.
Q. So, let's move on to Dr. Pakes' second concern. His second concern -- well, actually would you prefer to go to the next one or --
A. Yes, I would prefer to do the joint ventures next, because it's a natural walking point to get to multi products.
Q. OK. So this critique is that you ignored the incentives of teams and leagues as joint venturers. First, have you responded to this criticism?

A. Yes. Again, I have explained why the assumption of joint ventures -- whether it's in the Pakes report, or whether it's in the Ordover report about his feed fee analysis -- why that amounts to collusive pricing, because it's using the joint venture to coordinate the prices of the bundle with the prices of the stand-alone channels. And my assumption is that the entity that sells the bundle is organized in a way to be separate.

Joint ventures among horizontal competitors are supposed to be set up in a way that they have independent pricing so that they don't undermine the competition among the joint venturers.

Q. And did you ignore joint venture incentives?

A. I assumed that they were not being followed by the pricing of the bundle, that MLB.com was pricing the bundle as a stand-alone product, not using it as a mechanism to coordinate with the pricing of the stand-alone channels.

Q. And how did leagues' interest in central revenue and revenue sharing fit into that assumption?

A. Well, part of what the joint venture does relative to teams is transfer money from local revenue or team revenue to central revenue. And as everybody has noted, the central revenue is shared equally, the local revenue varies enormously according to the popularity of the team, which depends primarily on the size and wealth of the market in which its located, but it also depends on the size of the broadcast area which is a historical accident. Cities on the East Coast tend to have smaller markets, broadcast markets, than cities in the West because of the history of how baseball franchises and hockey franchises were founded.

Q. You mentioned both Dr. Pakes and also Dr. Ordover's analysis. How does his analysis have the same problem?

A. Well, they both have this problem that the behavior of the league bundle is to sacrifice its own profits for the purpose of helping the individual stand-alone channels make more profits. And so that's price coordination.

No matter what words you use to describe it, you could call it a joint venture, you could call it multi-product pricing, you can call it anything you want, but it's still price coordination between horizontal competitors.

THE COURT: And who is doing that? Which of the models is doing it that way?

THE WITNESS: Ordover and Pakes assume that you have coordinated pricing, and I assume you don't.

THE COURT: All right. Coordinated between the bundle and all the stand-alones. They're thinking it's all -- that's the point of multi-product is when you sell one it affects the other, you sell the other, it affects --

THE WITNESS: You are way ahead of me, but you're absolutely right.

THE COURT: I wish to God.

THE WITNESS: That's why I didn't do joint venture first.

THE COURT: All right.

Q. Well, let's move on to multi-product pricing.

A. Yes.

Q. Dr. Pakes mentioned both multi-product pricing and MVPD markup and said you ignored them and never responded. Have you responded to these criticisms?

A. Yes, I have, and it's the same story. I didn't use the word multi-product pricing; I used the word instead collusion. Because this is the ultimate step.

You know, he puts the label DirectTV on it, but that's not what actually he is doing. Whether it's DirectTV or anybody else, he is envisioning a world in which a single monopolist sells everything, all the channels, and then what is the monopoly profit maximizing price for selling all the products? He is assuming away any competitive constraint or any constraint on the extent to which you might collude. If it were DirectTV doing it -- what you are implicitly assuming --

THE COURT: So, in other words, it's the same MVPD that is selling the stand-alones and the bundle, and if they are coordinating the prices --

THE WITNESS: Right. So, if it's DirectTV, what you are assuming is DirectTV has an exclusive license to all baseball, and they get to price everything.

THE COURT: Right. The stand-alones and the multi.

THE WITNESS: Yes. Now, it could be DirectTV, and you could say, you know, OK, DirectTV, we're making you the baseball-wide monopolist, or it could be the baseball executive committee. It doesn't really matter who it is. It's still monopoly pricing of all the horizontally competing products.

Q. And then the second half of this, MVPD markup, did you ignore that?

A. Of course not. The MVPD markup per se is not in the model. What's in the model instead is the division of the surplus between the marginal cost of the channel and the retail value.

So, it is not the case that we're ignoring MVPD markups; it's just that the division of the revenues and the profit margins of each of the people along the horizontal chain we are not including in the model because our assumptions about how these markets work is just different than his, and our assumptions are these don't matter, these markups along the way don't matter.

THE COURT: I'm not understanding again. The MVPD, how is it making money from the retail sales?

THE WITNESS: Because remember we're maximizing joint profits. Joint profits are price times quantity minus costs for everybody. So, the retail price quantity is the revenue, and then the sum of all the costs along the way is the cost, and what is left over is the excess of revenues over costs.

THE COURT: And that goes to the MVPD.

THE WITNESS: Well, initially it goes to the MVPD, but then the revenue sharing contracts or the fixed fee contracts cause it to pass it along.

THE COURT: So that's their markup.

THE WITNESS: Yes.

THE COURT: So it is there.

THE WITNESS: It's there, but what is not there is the word.

THE COURT: Right. I mean they have to make a dollar, they have to make money.

THE WITNESS: Of course. That's what the bargaining is all about. That's why there is bargaining, you know, in every model, between DirectTV and whoever sells them the content, probably the team and Major League Baseball. All right? There is bargaining, and nobody excepts the bargain that doesn't recover their costs.

THE COURT: And then some. Everybody needs to make money.

THE WITNESS: Exactly.

MR. DUBNER: We seem to have lost our slide.

THE COURT: Yes.

MR. DUBNER: If you could give us one moment.

THE COURT: OK. Because there was a nice picture of

New York or some city.

MR. DUBNER: Could we take a very short recess?

THE COURT: Yes, but let's not move around during it. We will just call it a pause. It's a pause, not a recess.

(Pause)

THE COURT: There we are.

MR. DUBNER: Here we go. We're back on.

THE COURT: OK, the pause has ended.

MR. DUBNER: Thank you for bearing with us.

Q. I believe we were just talking about markup.

A. Yeah. And we're done.

Q. In your model all of the actors, the MVPDs, etc., they are making a profit, correct?

A. Yes, they are. There wouldn't be any possibility for any kind of a bargain if they weren't. No one agrees to something where they can't at least recover their costs.

Q. And what do the current profit margins in the industry tell you about whether that's plausible?

A. Well, all of the players in this industry have high margins, so there isn't any issue here. I mean, the place where you would worry about it most, which is the one that I examined, was whether the bundle would continue to exist. That is the most legitimate concern because its revenues are relatively low and its market penetration is relatively low. So, that one is explicitly tested.

But in the case of DirectTV, and Comcast, and the regional sports networks, and Major League Baseball, they all have extremely high margins.

Q. And related to this Dr. Pakes mentioned fixed costs. Did you deal with fixed costs in your declarations and your model?

A. Well, again we were getting at what the cost of actually adding these products are, and we had some cost data from the NHL and MLB about their costs. Right? We know that these channels are already being distributed in the bundle and a stand-alone with blackouts.

THE COURT: These channels are being distributed in the bundles?

THE WITNESS: They are being distributed both in the bundle and as stand-alone channels with the games blacked out. So that means the amount of revenue over marginal costs with the blackouts is already sufficient to cover their costs. Eliminating the blackouts is actually a savings because it eliminates some of the cost of offering the product.

So if the current set of products are profitable for all entities, then you don't have to worry, you are reducing the total profits by introducing competition, but you're not causing anything to become unviable. And in particular the one that would be most threatened would be the bundle, and we checked the individual RSNs and the bundle, and we found that those are all still profitable given the cost data that we have, and so we don't have to worry about that anymore.

Q. And Dr. Pakes specifically mentioned I think DirectTV satellites and Comcast's cable lines. Do you consider those a meaningful example?

A. Meaningful examples of what?

THE COURT: He said they were very expensive, satellites cost a lot of money, and we have to make money to pay for the satellite.

A. That's absolutely right, and that's part of what their revenues cover. It's not marginal with respect to markups. Markup refers to the price minus the variable cost, the cost that depends on quantity. And the cost of the satellite system, the cost of the cable system does not hinge on whether you decide not to black out a game on the Yankees channel. Those costs are already being borne through the current system.

Q. And you assumed that all of the costs to the bundle were marginal costs rather than fixed costs, at least in your early declarations?

A. Well, not all but close to all. I mean the reality is the data they provided us does not allow us accurately to estimate marginal cost. We do the best we can with the data they have. And I think we end up attributing about 50 to 70 percent of the costs they produced for us to marginal costs and the rest to fixed costs. And we checked, and sure enough they all covered their fixed costs.

Q. And why is that a conservative assumption to attribute less to fixed costs than might be the case?
A. The lower marginal -- this is why they objected to my original way of doing it -- the lower marginal costs are, the more intense the price competition is between the stand-alone channels and the league bundle, and hence the lower the price of the league bundle and the higher the damages.
Q. OK. Let's go to Dr. Pakes' last criticism. He argued that your model lacks equilibrium and specifically that the Yankees would have incentive to deviate. Have you responded to this criticism previously?
A. Yes. In fact it's discussed at length in one of my reports.
Q. And so his specific point or example was that the Yankees could leave the bundle and every team would profit. Why don't you consider that an apt criticism?
A. The reason is that one of the properties of these kinds of joint operations is that it's likely to be the case that individuals who are part of the cooperative have an incentive to not cooperate. And the Yankees in particular as the most valuable team in the league contribute a lot more to the revenue of the bundle than their 1/30th share of the profits, and so they have the highest incentive to deviate, and that's true even today. We have calculated -- and it's in my report -- I calculated that in the current league bundle, if we

apply the arguments that both Dr. Pakes and Dr. Ordover made, the Yankees currently have an incentive quote to defect from the bundle.

THE COURT: But it's the second half that confused me. So, if they did defect, you conclude that all the teams make more money? I mean that seems odd.

THE WITNESS: Remember that the model is not -- they say they all make more money, but --

THE COURT: Who says that?

THE WITNESS: -- that's not actually what happens.

THE COURT: Well, who says that?

THE WITNESS: Their experts say that.

THE COURT: Oh, their experts, applying your model.

THE WITNESS: Because what happens is the reason the Yankees defect is because if they defect and nothing else happens, the Yankees make more money.

THE COURT: Well, yes, the Yankees do. I understand that. But what about the other teams?

THE WITNESS: Well, then you are left with 29.

THE COURT: Correct.

THE WITNESS: And the best team among the 29 defects, and then the next one defects, and then the next one defects. And when you're left, when it's all done, when all the dust clears you are left with no bundle. And we know the bundle is profitable. That is to say if they collaborate, the equilibrium is either no bundle at all or a bundle that has everybody in it by rule. The reason you have a rule that you must participate in the bundle is because the bundle would unravel if it weren't for the agreement, just like the national broadcasting contract would unravel.

THE COURT: Let's back up. The criticism is of the model, that the model is not economically sound, so to speak. So, they're saying one way they're showing that is -- and I may have this wrong -- but if the Yankees were to be able to defect, and they did, all the other teams would make more money, and they say that doesn't make sense, so it shows the model is flawed. And I'm only here to care about whether the model is flawed.

THE WITNESS: In order to test that -- and that's what I said they say -- you have to reestimate the entire model with assumptions about how the demand for the bundle changed because it was a bundle of 29 instead of 30. You couldn't start with the parameters of the current model. And that's point one.

Point two --

THE COURT: Wait. So, are you saying the equilibrium test that they are trying it apply doesn't apply? Is that what you're saying?

THE WITNESS: Well, as both Dr. Ordover and Dr. Pakes say, they actually aren't estimating an equilibrium; they're just showing that there is an incentive to deviate.

THE COURT: That's exactly what I just asked you, that their alleged test for equilibrium you would argue is the wrong test.

THE WITNESS: Right.

THE COURT: OK.

THE WITNESS: What they're saying is that there is an incentive, holding constant things in the model they shouldn't hold constant; there is an incentive for a team to deviate. And I agree there is an incentive. Even if we recalibrate the model there is an incentive.

But the problem is that is always true of collaborations, that in a world in which there is revenue sharing, it's always the case that the most valuable member of the collaboration doesn't have a private incentive to participate.

THE COURT: But it's not my concern. My concern is the model and whether the model is flawed. And the attack was that the model somehow is defective because it doesn't reach an equilibrium. And your answer, I guess, is, well, this really isn't part of the model; the rule is they are going to all stay in the bundle to do the 1/30th revenue share and even if it's not economically in their best interests. That's the way it is. Did you hear what I just said?

THE WITNESS: Not quite.

THE COURT: You didn't hear it, or you don't agree?

THE WITNESS: The answer is it's close to that but it's not quite. The reason they have rules is because they have regarded in their collective interests to collaborate even though they know --

THE COURT: -- that it's not in their economic self interest.

THE WITNESS: Once they do it they would all have an incentive not to do it, but they would still agree to do it because it's in their collective interests to do so, yes.

THE COURT: Right.

Q. Dr. Noll, do you understand this Yankees deviation scenario to be a criticism of your model or a criticism of your assumption that the league would retain the rule that requires all clubs to participate in the bundle?

A. I think they want to take their results to the next point and say the league would change the rule. Because they can't really defend the deviation as real in the current rule. What would have to happen is the rule at the league level about making the feeds available, and participation and all of that, and the contractual relations the league has with Comcast and DirectTV, and indeed MLB.tv, those relationships would all have to disappear. So, it's not that they just change the rule about the use of live feeds, but they would also have to cancel the contract they have and all this stuff, or rewrite them at least.

So, what they are really saying is that the whole panopoly of rules that affect national distribution of broadcasting over the Internet and through MVPDs, that whole set of policies and rules and practices would have to change.

You know, they do not take into account at all why the leagues do this. All right? Why is it the case that leagues have rules that restrict the bad behavior of individual teams? They simply don't address that question. Their assumption is a very narrow one: If it's a profit to defect in this case, that means if every team has an incentive to unravel the bundle, then they'll do it.

Q. So based on what you heard yesterday, doctor, can you summarize your disagreements with Dr. Pakes regarding this case?

A. Well, with Dr. Pakes the key issue is what constitutes a realistic way to model the relationships between teams and leagues on the one hand and the television industry on the other. It is mostly about MVPD relationships, that most of the criticisms they have the internal modeling assumptions do not apply when the issue is should teams be able to have their own independent websites and stream their games. That has nothing to do with most of the criticisms.

Some of the criticisms -- for the most part these criticisms are only about the DirectTV model -- because we have a DirectTV model of Major League Baseball and nothing else because of data limitations -- and they are about that. And the nature of these disagreements is economists have a number of theories of how imperfectly competitive markets work, and which theory you ought to apply in a particular market setting depends on the institutions and facts of that market.

It's not the case that there is a single best model of the supply side in oligopolistic product differentiated markets that always works. And in particular in this case you simply cannot ignore, A, the existing contract forms that they use, and, B, the rules of the league for how they engage in the collective activity and why they do it. And that's what they do, they ignore both of those.

Q. And do you understand Dr. Pakes to be challenging your assumptions about how the industry works or about given your assumptions whether you model them incorrectly?

A. I think he is basically disagreeing with me about the appropriate supply side of the model, but that constitutes a lack of connection between what I said about the institutions and the existing agreements and what he says. He actually -- you know, he is not debating it on the grounds of what are do institutions and agreements say is the appropriate model. It's more along the lines I think this is the right model, and he is ignoring basically my reasons for it and saying, well, you didn't do what they did, therefore it's wrong.

Q. Now, you mentioned a moment ago the limitations of the data, and I know defendants sometimes criticized you for making assumptions where you didn't have data. I want to run through some criticisms that defendants made, and I'm going to ask you the same question for each.

Could you have addressed this criticism with the data that you had?

A. No. In fact, this is dealt with in every report about the single most important piece of information I would like to have is more data about price. And you can't take one year of data for the Internet -- in the case of the National Hockey League -- or one year of data about DirectTV plus the Internet for Major League Baseball and get any price variation.

The price variation that exists in the data is not of the form that enables you to do a better job of identifying the relationship, the responsiveness of demand to price. So, the single most important additional data that would improve the model is more information about pricing, that would enable you to put price moments as one of the things that explains demand directly into the model instead of the way we do it, which is just normalize it.

Q. And in the absence of that data, did you make an assumption that you believe was reasonable on the issue of price?

A. Yes.

Q. That you would use that data for?

A. Yes. And what we did is we inferred the demand curve from

the data on marginal cost, using the equilibrium pricing theory of a firm with market power, and so that's how we got the demand relationship. I frankly do not know any other way to do it than to do it that way.
Q. And if you got the data, you would be able to and would refine your model to try and do it another way? Is that right?
A. Exactly.
Q. Let's go to the second one: Not modeling internet MVPD competition.
A. Yes.
Q. What kind of data would allow you to do that?
A. Well, in the case of hockey you would have to have some MVPD data. In the case of baseball we have DirectTV and Internet data for one year. But what you need there is intertemporal variability in response to intertemporal differences in other things. So, the way to model the competitive process is to have more than one observation of what happens in a year for DirectTV plus the Internet. Then, in addition to that, it doesn't make any sense at all to say that the only competition going on to DirectTV is the Internet, because obviously it's competing with Comcast, and it competes literally everywhere Comcast is present, it competes with Comcast. So you would need the Comcast data not only to measure Comcast versus DirectTV competition but also competition between MVPDs and the Internet.

Q. And what data did Comcast produce in this case?
A. They produced data for a short period of time in someplace in Pennsylvania. It wasn't enough to use for any purpose.
Q. And then let's go to the last one: Not modeling in-market revenues. What data would you need to do that?
A. You would need the same data we have for the bundle for the in-market RSNs. You would need information about how many subscribers they have, how much viewing they have and what their prices were. We have some of that information but nowhere near enough to incorporate that in the model.
Q. Dr. McFadden suggested that you should have done a survey. What do you think of that suggestion?
A. Well, again I responded to this in one of my reports. In this case the sample size would have to be huge, because first of all the product we are observing is only bought by one half of one percent. If you are going to do a survey to address a problem in the automobile industry --
Q. And if I can just clarify one thing, they are one half of one percent of what?
A. Of all households. So, you know, you can do surveys over the Internet, or you can do surveys by making telephone calls. The sample size you would have to get to find the one half of one percent that was large enough so you could take into account the variations across the 72 baseball markets, the variations across the viewing times of particular teams, would

be astronomical. You would have to have a sample size in the millions. So, it's just a completely implausible proposal for this particular problem.

Q. And finally let's turn to a couple of things Dr. Ordover talked about. First he repeatedly described the league rules requiring clubs to provide access to their feeds as giving it away for free. Is that an accurate characterization?

A. No. What he means by giving it away for free is it is not a per-subscriber fee. Obviously they are not giving it away for free because they get 1/30th of the profits. It's just the form the price takes.

This is simply a verbal attempt to make a false characterization. You know, to say they're giving it away for free because they don't charge a per-subscriber fee would apply to Major League Baseball's contract with DirectTV because that contract is not a per-subscriber fee, so therefore they're giving it away for free even though they get millions from it.

THE COURT: Is the only revenue the 1/30th share when the team subscribes to the bundle?

THE WITNESS: Yeah.

THE COURT: That's it. OK.

Q. Is Dr. Ordover correct that it's unheard of for teams to in his words give away the product for free if it results in a league product and a team product competing in the same area?

A. No. Again, there are several examples, including DirectTV and the National Hockey League, where there are certain areas in-market that DirectTV is allowed to include NHL broadcasts in its bundle.

(Continued on next page)

Q. And then let's talk about Dr. Ordover's experiment where he had teams sequentially raise the feed fee by one cent. He described that as a bargaining model. Do you agree with that characterization?

A. No, it's not. It has nothing to do with bargaining. Indeed, he said it's like Crawford and Yurukoglu and then he cites another paper about bargaining between HMOs and hospitals. There's no relationship between what he does and bargaining models.

What he's doing is much more like what Professor Pakes did on Yankees deviations. He's testing whether if you did this, they would benefit or not. And then it has this additional property, they actually coordinate, because one team raises by one cent and another team raises by 1 cent. Every time that one-cent increase happens, the league bundle makes less money, but it does so because the individual team makes more, so that's not a bargain. Bargains aren't I'll give you still more because I love you. Bargains are people who have competing interests trying to divide a surplus, so it's not bargaining. And then they all stop at the same place, that's collusion.

Q. And is his method standard in any area of the literature?

A. I have never seen anything like that in my life. I don't know where he got that from, but I've never seen it. And it's certainly not in any of the papers he cites.

Q. Thank you, Dr. Noll.

MR. DUBNER: Your Honor, I'll reserve the last few minutes I have in case we have any redirect.

THE COURT: Okay. You did stop seven minutes early by my time. He had an hour and five minutes and he started at five after, so he stopped seven minutes early. But because we have a breather a little bit, I thought we would take just a five-minute recess if we could, just five. I know it's hard to get everybody back in five, but I'd like it.

(Recess)

(In open court)

THE COURT: Ms. Wilkinson.

CROSS-EXAMINATION

BY MS. WILKINSON:

Q. Dr. Noll, one of the criticisms of your model was that you didn't put in enough data about the potential purchasers and their preferences, right? You understand that's one of the criticisms?

A. One of the criticisms is that people who do not buy anything today are not explicitly modeled.

Q. And Dr. McFadden is basically saying you didn't create a proper demand side of the model, right, the people who want the products, right?

A. I don't think that's exactly -- I don't think it's the nature of the model. I think it's the details of how it was done, how it was estimated that he's criticizing, but whatever it is, it is.

Q. And you said that what you did was just like what Dr. Pakes did in his article called BLP, right?

A. No. I said the most recent BLP article. I was referring to the 2004 article in the Journal of Political Economy.

Q. And in BLP, I put that article in front of you, right?

A. No. You put something from 1999 in front of me. This is the voluntary exports paper. The one I was referring to was the microdata paper.

Q. Did your counsel provide that? Do we have that?

A. This was cited in my report and it's cited by professor -- I think Professor Pakes. Your experts cite it, so this is one of the papers that's cited in the expert report, and it's not this one, it's not voluntary export restraints. I think I says something about microdata.

Q. Okay. I think I have that one, too.

MS. WILKINSON: Your Honor, I only have one other copy of that one. Can I give it to him?

A. Sure.

Q. Is this the one you're referring to, Dr. Noll?

A. Yes.

Q. Okay. And in this survey, let's talk about -- and this model -- the differences between what you did and Dr. Pakes, okay?

A. Okay.
Q. Dr. Pakes has census data and you do not?
A. He uses demographic.
Q. It's yes or no, Dr. Noll. A simple question, yes or no?
A. Yes, demographic data from the census. The census is more than --
Q. I didn't ask -- did you have census data? Yes or no?
A. I did not use the census data in my model and he did, yes.
Q. Dr. Pakes had demographic data; you did not?
A. Well, that's the data from the census; yes.
Q. Dr. Noll, you did not have demographic --
THE COURT: He agreed with you. He did not because he didn't use census data.
Q. And you suggest and Dr. Pakes had a survey and you did not do a survey, right?
A. He did a survey.
THE COURT: And you did not?
THE WITNESS: And I did not do a survey.
Q. Let's look at the numbers. You suggested that what you did was similar in response to our criticism that you used a very small dataset, yet you predicted that 44 percent of those 12.7 million viewers of the World Series would buy some out-of-pocket product in your but-for-world, didn't you?
A. Yes, I did.
Q. And that was only based on DirecTV and MLB Internet if we

talk about MLB?
A. That's correct.
Q. So you didn't account for Time Warner?
A. Didn't account for Comcast and anything else, yes.
Q. Any of those. And so you took, get my numbers right, you took 12.7 million as your beginning dataset, right?
A. Yes. I did not use all households. I only used a subset of them.
Q. And Dr. Pakes took 100 million, right?
A. Yes. He used all households and I did not.
Q. Okay. And you predicted 43 percent would become purchasers out of that dataset, right?
A. Of the 12-some million who watch the World Series, yes.
Q. At least 43 because you didn't account for any of the other MVPDs?
A. That's correct.
Q. So that's the minimum?
A. Yes.
Q. And that meant that you would have an additional 5.4 million purchasers, right, that's the number, 43 percent?
A. I don't remember the exact percentage.
Q. 5.4 million is 43 percent --
A. If you say so. I don't remember the exact percent.
Q. And you can take a look at the chart table one in Dr. Pakes' chart to make sure I have my numbers right, but

Dr. Pakes started with 100 million people and he only predicted .0762 percent of the market would become purchasers, didn't he?
A. That's correct, because he -- his model was all households.

Q. I didn't ask for your explanation, Dr. Noll. I just asked you a question, right? And that means he only predicted that 33,659 people would be purchasers, right?
A. I don't remember the facts about how many people he predicted to be purchasers, no.

THE COURT: But certainly a much smaller percentage than you're talking about. You were 43 percent and he's at you said .04?

MS. WILKINSON: .0762 percent.

THE COURT: Right versus 43 percent in yours as to who would become purchasers.

THE WITNESS: That's not comparing apples and oranges, but yet.

THE COURT: I know you're rushing because we have a 30-minute deadline, but if I give you two of them, I could get my question answered, so I do want to know why, so I'll give her two more.

THE WITNESS: This was -- remember in my direct testimony why I used such a low number of potential market, if I do what Dr. Pakes did and expand the potential market to 100 million, the damages go way up.

MS. WILKINSON: Your Honor, I can't hear him. I'm sorry, Dr. Noll.

THE WITNESS: I'm sorry.

BY MS. WILKINSON:

Q. It's for her Honor. You can turn to her, just speak up.

THE COURT: No, I got that. He said if he used 100 million, the damages would go way up.

A. Yeah, I had to find -- Dr. Pakes did not have to find a principal way to answer the question that was said before about he didn't take into account people in New York don't buy cars, he didn't have to worry about that problem. I have to worry about it because if I assume the market, the total market size is, say, everybody who subscribes to MVPDs, all right, that was the very first thing I thought of: Let's pretend it's 88 percent of all households. If you do that, the damages estimate goes way up, and I think it's unrealistic.

So I tried to identify what fraction of the population actually has an intense interest in baseball and hockey. He did not attempt to identify the fraction of the population that is likely to buy an automobile next year. And it's not a flaw; it's just a difference. That's all.

Q. According to you, it's just a difference not a flaw, right?

A. His is not a flaw; mine is not a flaw. We are trying to answer different problems -- different questions and we have different problems.

Q. Dr. Noll, you said that it would be impractical -- it would have been impractical for you to do a survey in this case, right?
A. That's correct.
Q. Are you familiar with conjoining analysis?
A. Yes, I am.
Q. And when you do a conjoin analysis, you take a small survey to start it, don't you? You don't need a big survey, do you?
A. Yes, you do if the question is complex. Conjoint reduces the sample size, but it doesn't cause it to be small. It depends on the nature of the problem.
Q. Conjoint analysis are done all the time by companies trying to introduce new products to see what people will like and what they will purchase, don't they?
A. Yes, they are, and the size of the sample depends on the complexity of the problem.
Q. Some of those times, you have people who -- the product doesn't exist, so you don't have anyone out there who has ever purchased the product?
A. Of course. That's the --
Q. Right?
A. It is absolutely true that you can get information about the introduction of new products by doing surveys and conjoint surveys --
Q. You don't to have a sample --

THE COURT: Let him finish the answer.

A. Conjoint surveys -- conjoint analysis on a series of partial and overlapping surveys is the main benefit of a conjoint analysis and a survey that feeds into it is not that it reduces the sample size; it reduces the length of the survey for the individual so it comes down to a reasonable amount of time.

I've actually done this, so I sort of know what I'm talking about. And we did it in the case of DirecTV -- excuse me -- of Satellite XM and Sirius XM tried to estimate how many consumers they could have.

Q. The point is, you don't need to start with a set of people who already made a purchase to survey people and then use that as the basis for your conjoint analysis, which does this choice prediction, right, by doing 10,000 draws or how many draws for each person and it produces a huge number of predictions that you use -- that someone can use to actually give some predictions about what people will do if a new product is introduced to the market, right?

A. The --

Q. Yes or no?

A. The answer is, in this context, you're mischaracterizing how you do a conjoint analysis.

Q. I didn't ask you this context.

A. You're mischaracterizing, so I can't answer yes to the invention of a technique that doesn't exist.

THE COURT: If he can't answer yes or no, then that's his answer.

Q. I'm not asking you about in this particular context. I said generally isn't that what is done: You take a survey sample and you ask people about their preferences and it can be a product that never existed, you put the information into a conjoint analysis, it runs a very complicated mathematical analysis predicting draws from one choice and trying to predict what millions of people will do. And then you can get data to suggest what people might do if that product was introduced.

Isn't that true?

A. That is absolutely true, and what I said earlier about it would take a huge sample size is right.

Q. You did not say anything about that in any of your declarations to give us any basis to say why it was too big. You didn't give us any explanation in your reports, did you?

A. Yes, I did. There's the four -- remember Dr. McFadden proposing 435 different categories of fans? Well, he dropped that as soon as I said why that was silly and it's for this very reason.

Q. You were talking about actual fans. I'm talking about doing a survey of a relatively small group of people using conjoint analysis.

THE COURT: I think he answered you as to the general way of doing it. So you have gotten the answer for general. He wants to distinguish the specific and the general. Okay.

Q. Let's take a look at the explanation I think you gave yesterday and now today for why your model produces what we were calling absurd results to see what one fan and two fan and multi-team fans purchase under your model. Can we take a look at slide one.

This is what Dr. Ordover's analysis showed and you don't dispute the math. You just explained why it happened, right?

A. I don't dispute the math here; no.

Q. And let's look at what you said yesterday, which is you said it was because --

THE COURT: I don't think he testified yesterday, did he?

THE WITNESS: No.

MS. WILKINSON: I'm sorry, your Honor. Tuesday.

THE COURT: Okay.

MS. WILKINSON: Thank you.

Q. On March 17, Dr. Noll, you said that it was because you knew that the multi-team people are most price sensitive, right? Did you say that or not?

A. I didn't say I know. I was giving an explanation for the nature of the fans in the data, yes. I was talking about the model itself and the data and the estimated utility functions.

Q. You're not suggesting that the model actually knows or shows you that multi-team fans are most price sensitive, are you?

A. The model actually does show they are price sensitive, yes. I mean -- whether it's true or not, I don't know that it's true, but that's what the model says. The model has the result that they are price sensitive.

Q. Well, this original data that we were talking about -- go back, please, one slide -- wasn't trying to show whether they were price sensitive; it was just trying to show what they actually purchased if they become purchasers, right?

A. No, that's true, but Dr. McFadden yesterday criticize me -- my answer as saying that if they are more price sensitive, you might expect this result. He then made the assertion that they weren't because it holds, according to something else Dr. Ordover did, and so that today I was talking about that. But I was responding to the criticism by Dr. McFadden of my claim that the multi-channel people are price sensitive.

THE COURT: And really the question that I'm hearing in this cross-examination is how does this model determine that they're more price sensitive than others? How does this model do that?

THE WITNESS: You can see it in the -- how small changes in price would affect the number of people who buy things; that's how you do it. That's what it means to say price sensitive. Hold the price of one thing constant and do small variations on the other price.

THE COURT: I realize that, but how do we know this subset of people, the multi-team fans, are more price sensitive than the other two groups?

THE WITNESS: We don't know it in a fundamental sense of we asked them all.

THE COURT: Right.

THE WITNESS: We know it because the model of their demand behavior come -- kicks out that result, so it's a fact of the model.

THE COURT: I know, and they're saying that's why the model is flawed.

THE WITNESS: Yes, I know, I know. That's what I'm saying. But to me, the finding here is I was explaining what the cause of it is, and one of the causes of it is that they're price sensitive. Then there's another cause that I also explained.

Q. I think I just heard you tell her Honor that a small change in price causes a big change, and that's how you know it's price sensitive, right?

A. No, I didn't say -- I said that the way you determine the extent of price sensitivity is you look at a small change in price and what it does in terms of quantity, yes, that's the method and when --

Q. Did you do that in this model?
A. Did I?
Q. Did you run the model that way?
A. No, I did not in my reports estimate price sensitivity of any specific type of fan; no.
Q. So you don't have any data that our experts could look at that you provided in the report that her Honor can turn to to show that you ran a test of the model and actually can prove that this group of purchasers are price sensitive, do you?
A. No, I used -- I used your data to show that they were price sensitive, not mine. This came in just before the original hearing date and so I didn't have time -- even if I had done something, I couldn't have testified to it because it wasn't in my report.
Q. Where is it?
A. No, I said even if I --
Q. Where is it? You said you ran the test recently.
THE COURT: No, he said he didn't.
A. No, that's not what I said.
Q. So, you don't know? Then how can you know from looking at our -- you said you looked at our data?
A. Your people have run a version of the test that's not right, but they have run one; and it shows price sensitivity despite the fact that it's not right.
Q. Which one?

A. Ordover.

Q. Which one of Dr. Ordover's tests?

A. It's some tables in Ordover's report about assuming differences in prices and seeing what happens.

And it shows his -- it's -- as I say, it's sort of bogus because he assumes that the price of the standalone channels equals the price of the bundle, but that table shows a 1/3 reduction in the number of multichannel viewers who subscribe at all to anything if you change the price.

Q. So okay, let me get clear what you're saying. You're saying that he ran a test you don't think is great but it's good enough for you to say that the multi-team fans are price sensitive, right?

A. Yes. The test he ran actually underestimates the extent of price sensitivity, but still it shows that if you had that price change, you'd have 1/3 of the people dropping out.

Q. So if we knew what to look for in this multi-fan 99 percent to 1 percent, if we held the price constant, what do these numbers change to?

A. I don't remember, but --

Q. Is it a big change?

A. Those are not the numbers I was testifying about. What I was testifying about was the total number of people among the multi-team fans who subscribe at all. So it's -- 99 and 1 percent are percentages of a number which is the number who subscribe. And that number who subscribe, if you'd raise the price of the standalone channels to the price of league bundle, it falls by a third. Those are percentages of a base. And it's misleading to look at percentages of the base without taking into account that the base changed, and that's what happened.

Q. You're talking about between who might purchase and who actually does purchase. And you're saying here a bigger percentage purchase and when you change the price, a smaller percentage purchases?

A. Yes, 1/3 dropout.

Q. But once those drop out, then everybody should become a bundle package price purchaser, the people who are left purchase, even though it's a smaller number because they're no longer price sensitive and they like multi-teams, they should purchase the package, shouldn't they?

A. Well, you'd have to recalibrate the model to do that. That's why I say the calculation Professor Ordover does isn't right because the prices that you're testing are not -- this gets into the issue of the shape of the demand curve outside of the range of plausible data.

Q. So your model isn't calibrated properly to show this price sensitivity, because if it did, it would show, even with a smaller group, everyone -- it should show everyone in the multi-team category becomes a package purchaser, right?

A. Wrong.

Q. Okay. Let's take a look at what it does show. Let's show slide number three. This is what you're talking about. And what Dr. Ordover found is when he used your price, not a price that he produced, the price your model says the package will cost in the but-for-world, right?

A. Yes.

Q. Is that the price --

A. He took the existing model and plugged in a set of different prices assuming that the same model can be used to test that.

Q. Dr. Noll, he took the bundle price you predict $20.05, that's your number in your but-for-world, is it not or is it?

A. He took the bundle price --

Q. Is it --

THE COURT: That's your package price?

THE WITNESS: Yes.

A. He took the bundle price that was predicted.

THE COURT: Hold on, folks. No more question right now.

It's your package price?

THE WITNESS: He takes the equilibrium bundle price.

THE COURT: Yours?

THE WITNESS: Yes, out of my analysis.

Q. So he kept the bundle price exactly the same as your model had it when it predicted what will happen in the but-for-world. He did not change that, did he? Just a bundle price --

A. Yes, yes.

THE COURT: He just said that; he didn't change it.

A. How many times do I have to say yes?

Q. Enough so it's clear.

So then he took the standalones and he made those the same price as your but-for-world package price to see whether it was -- that was the problem, right, that it was people were price sensitive? That's what he did, right?

A. That's what he did with respect to price, but it doesn't answer the question are they price sensitive. So you can't -- I have to answer yes to the first and no to the second.

Q. And what he showed was your model still comes out where almost everybody, even when you get rid of the people who no longer want to purchase because of the price and you get rid of the people who might be price sensitive, as you call it, still almost every single multi-team fan purchases the standalone under your model?

THE COURT: I have to understand your question. And the standalone is the same price as the bundle in the question you just asked?

MS. WILKINSON: Yes.

THE COURT: They're both $20.05?

MS. WILKINSON: Yes, your Honor.

THE COURT: So despite the exact same price under his model, Dr. Noll's model, you're saying they all flock to the standalone.

MS. WILKINSON: The remaining purchasers, because it's a smaller percentage --

THE COURT: They all flock to the standalone.

MS. WILKINSON: So that's us saying that we're not that price sensitive; I really like my multiple teams.

THE COURT: Yes, and I still purchase the standalone.

Why would they do that? If the price is the same and you already reduced the set of people, getting rid of the people who are price sensitive, now you have this hypothetical of the same price on the left side of this chart and the right side of the chart, why would the multi-team fans rush to the standalone at that point?

THE WITNESS: He's taking advantage of the functional form of something I was talking about earlier. What you would actually need to do if this was the test you wanted to run with that big of a price change is recalibrate the model so it could have these prices in it. That's why I said the right way to do this is to look for small changes.

The model is going to be much more accurate at producing small changes around the actual equilibrium prices than it is to going to be predicting big changes that causes the relative prices to differ from anything that could plausibly exist.

THE COURT: What you're saying really is this hypothesis makes no sense in your model.

THE WITNESS: Yeah. You wouldn't use the model as he used it to ask the question --

THE COURT: -- if you're going to have the same price.

THE WITNESS: You'd do it a different way than he did it. That's right.

Q. The same exact problems happens when you look at the NHL data, doesn't it?

A. I don't think it's the problem the results are the same. No to problem; yes to results.

Q. Same results. And Dr. McFadden, who is the modeling expert, isn't he?

A. The?

Q. He's a modeling expert and you're not a discrete choice --

A. He's an expert about this -- about random coefficient logit models, yes, he is the --

Q. That's what this is.

A. Yes, but it doesn't come -- the model, the results that are not coming about speak for that reason. That's why it's weird to ask the question the way you did.

Dr. McFadden is a great economist and he knows more about conditional logit models than anybody else in the planet, and this really has nothing to do with that.

Q. Well, it does, because he said what it really is, it's the logit error itself; it has nothing to do with price sensitivity. He says you used a model that you shouldn't have used to ask this question, right?

A. Yes, he said that, but that conclusion is wrong. We have the same explanation. That's why I said in my rebuttal that it does -- one of the things, it's not the only thing, but one of the things that drives is it a logit error when you get outside the range of the plausible prices.

Q. Dr. Noll, you sat and answered questions to your counsel and said it was price sensitivity. That's what you said all during your direct. And what Dr. McFadden said yesterday, let's take the quote at page five, Dr. McFadden said price sensitivity absolutely cannot be the explanation, it's logically impossible within Dr. Noll's model construction, and he is the modeling expert, but he agrees with us that it also has nothing to do -- you didn't go back and look at the real world. It doesn't have any common sense. That's what he says.

A. Well, he's wrong, all right? The price sensitivity is there and the logit error is there as I just testified to in the direct examination.

Q. Let's take a look at what Dr. McFadden says about that. He doesn't say it's about anything to do with price sensitivity. He says it's a consequence of using the logit model in a situation where it is quite inappropriate to use. He's the modeling expert, not you, and he's saying it's inappropriate because of this error for you to use the model that you did.

Isn't that what he said?

A. He said it and he's wrong.

Q. And he describes this red bus/blue bus problem, right?

A. Yes.

Q. And you don't disagree that that is a problem with your model where it's --

A. The red bus/blue bus problem is not a problem of the model. The problem of the model is, in fact, in certain circumstances, the logit error is driving results or is affecting -- I shouldn't say driving -- it is one of the factors producing results. The right way to say it is the thing that introduces heterogeneity in consumer behavior. And that's why I said in my direct examination one of the ways to change the results that is going to make this look better, if you cared about it is, to make assumptions that reduce the effect of the logit error. I just got through testifying to that.

Q. Logit error causes the problem because what you did is you set the model as you either want the bundle or you want a standalone. You either want the bus, right, or the car. And then what you did is, you made the standalone for the two-team RSN fans and the three team or more have another bus and another bus and another bus.

Can I finish?

A. That's absolutely an incorrect characterization of what I did.

Q. So when the choice is being made by the model, it's not a real person, when the choice is being made by a model, they get to choose either the bundle or 29 versions of the bus, 29 versions of the standalone. And just by random error, which is what logit error is, you're more likely to pick the standalone when each time you get 29 of the same and one only differentiated product; that's what's happening, and this is a commonly known error in this model, isn't it?

A. It's not an error for what I'm trying to do. That's the point. It's not necessarily a problem.

Q. Dr. McFadden --

THE COURT: Let's go back to basics. What are you trying to do?

THE WITNESS: What I'm trying to do is estimate the price of the bundle.

THE COURT: The price of the bundle.

THE WITNESS: And what -- how the model behaves in conditions when -- that you impose upon it that don't reflect the conditions of the data itself, when you're pushing it into territory that the more you push it away from what the equilibrium of the model is and what the data tell you, the more these functional form assumptions affect the result. And that's why, yes, we know how to make that go away on this particular result.

The way we make -- and, remember, I got this a week before the original hearing date. The way you make it go away is what I said before: You give people fewer choices. So you use the same criteria I used to pick RS -- the one RSN guy and the two RSN guy, I used that exact same approach to zero-out some of the choices of the multiple RSN people. I do that. And secondly, I increase the weight on baseball in general or hockey in general.

If I do those two things, I can make this go away, and what you're going to get if I do that is implausible results in other dimensions because this is all attempting to correct for something that doesn't really matter, all right?

THE COURT: And it doesn't, according to you, affect the price in the bundle?

THE WITNESS: Yes -- well, no.

THE COURT: No?

THE WITNESS: If I do these corrections, the price of the bundle is going to fall even more and damages are going to be even higher to a level I find implausible.

Q. Dr. Noll, the idea of a logit model having this problem, whether you call it an error, it's a known limitation of this model, isn't it?

A. It is a known consequence of using it and it's true of all logit models no matter what they are that if you push them to the point of where the logit error is having a big affect on estimating prices and quantities, then, in fact, for that particular thing you're trying to predict, you get an inefficient prediction, but you don't get an inefficient prediction for everything you try to use the model for.

Q. Isn't your whole model supposed to be predicting if you have standalones and the package what will be their prices because you'll have competition, people choosing either a standalone or another standalone or a package, right?

A. Yes, and the degree of competition is at issue here. And the way I would propose to fix the model to cause it to go away would intensify the competition, not reduce it.

Q. So before you ever used this logit model, you knew that it had this limitation, didn't you?

A. I knew this was an issue of logit and -- of course. And so I don't want this to happen around the equilibrium bundle price for the bundle; I don't want the logit error to be driving it. And one of the reasons it made sense to go to the one RSN and two RSN case, what I also got criticized for, one of the reasons to do that is it reduced the sensitivity of the bundle price to the logit error.

Q. And you never disclosed in any of your reports to anyone that this would cause this result, that it had this limitation and it could affect the price of the bundle and the standalone that you're predicting?

A. Well, I discussed logit errors and I discussed why two -- why the multiple RSN model gets a better result. I don't have a discussion in my report about logit error because everybody knows it. This is like having a discussion about why do we assume demand curves are negatively sloped? Everybody who uses logit models knows this. So I didn't understand -- I didn't give a primer on the nature of logit demand models in my report because you can buy one in any textbook.

Q. Your entire model is premised on profit maximizing decisions, right, that people will profit-maximize the teams and the league independently, right?

A. That's correct.

Q. So you don't account for any altruism or kind of the best decision for the league. In your model, the league is a direct competitor with every RSN, right, or every team?

A. Yes. The place where the altruism or something else besides straight profit maximization occurs is in the making of the league rules, not in the behavior of the MLB.TV once they get into the TV/internet business.

Q. So nothing in your model takes into account anything other than the economics of if I'm looking out for my interests as a team and the league, as the competitor, is looking out for their interests, what will be the prices with competition introduced, correct?

A. I think so. That didn't completely make sense to me, but I think that's right. Yeah.

Q. And when you looked at your model, you said adding the package when the standalones are now out in the marketplace was additive to the industry-wide profits, right?

A. That's correct.

Q. You did not say whether each team would be more profitable by itself, right, with the package or not?

A. No. I did not say whether each team would be more profitable of the package, no.

Q. And you also never calculated whether if each team charged a fee on its own independently and the bundle price went up and they got the 1/30th, that they can make even more money than the numbers you showed in your report, correct?

A. I didn't understand the question.

Q. All right. Your model shows the teams put their standalones out, they give their feed away for free, the league on its own sells the bundle and then the league gives back 1/30th to each team, right; isn't that where your prices come from, your profit analysis of whether it's additive to keep the package around?

A. The issue of the profitability of the league bundle is assume the territorial rights are lifted and everybody --

Q. That's what I said, the standalones are out in the market.

A. They're already there, and then you ask the question if we, to that, add the league bundle, is it profitable to add that?

Yes.

Q. Is it profitable?

You never looked to see if it was more profitable to keep the bundle and let each team charge its own per-subscriber fee to the league, did you?

A. No, of course not because that's implausible. Yeah, that's why I didn't do it. I explained why I didn't do it.

Q. You could have modeled that, couldn't you?

A. You can model anything. I don't disagree with --

Q. And if you were just looking at profit maximizing, that would have been more profit maximizing than what you produced if it turned out everybody did better on their own, wouldn't it?

A. It's more profit maximizing to coordinate your pricing than to price independently.

Q. And you can't tell the Court that you have given the analysis that shows that each team with the bundle charging a subscriber fee, which would raise the price of the bundle, and getting the 1/30th, would make even more money than the numbers you produced? You can't tell her that that's not true, can you?

A. I -- I didn't disagree with the results that Professor Pakes and Professor Ordover got; instead, I explained why they got them and what it means in terms of the modeling assumptions.

Q. So there's no modeling assumptions. The only difference is you assumed that the league would continue to require they are now a competitor with the teams?
A. They already are.
Q. No. You assumed -- they're joint venture now. You assumed they would not act like a joint venture in the but-for-world you told your Honor that a few minutes ago, and you assumed that they would still require a zero feed even though everyone would make less money; they could keep the bundle in place under Dr. Ordover's analysis, they could all have the standalones, everyone would still get the bundle, they would get their 1/30th, and they would all make more money. And you can't say that that won't happen in the but-for-world?
A. I could say that what -- if you think the but-for-world would operate as Dr. Ordover and Professor Pakes said, then indeed what they said might lead to more profits, but, remember, neither of one of them calculated an equilibrium.
Q. Dr. Noll, you didn't do any of the --
A. They didn't calculate an equilibrium. They didn't calculate the equilibrium. I can't answer the question what would happen to profits because all they did is look at a deviation.
Q. We're asking you, Dr. Noll, you didn't do that? You didn't do any of that analysis, did you?
A. No, because I don't believe it's valid.

THE COURT: I want to hear the end of that sentence. No because what?

THE WITNESS: It's not valid. It requires coordination of prices among horizontal competitors, so I didn't model collusion.

Q. No, no, no. Dr. Ordover -- you tried to confuse the Court with this all along. Dr. Ordover, did two analyses: He did Section IV and Section VI.

MR. DUBNER: Objection to that characterization, your Honor.

THE COURT: Well, I am confused, so go ahead.

MS. WILKINSON: It's not your fault, your Honor.

Q. Dr. Ordover did a Section IV analysis where there wasn't any coordination or joint venture activity and a Section VI, didn't he?

A. There's coordination in both; they're just a different amount.

Q. In Section IV, there is no coordination --

THE COURT: Apparently, you disagree on that.

Q. You think there was coordination in Section IV?

A. Yes.

Q. Where is there coordination?

A. It's the mechanism for analyzing the problem. It's one cent, one cent, one cent independently.

Q. It's independent.

A. Yes, but there's dependence. When you raise it by one cent, the league is sacrificing profits to give it to the team. And you bargain -- a bargaining model does not predict that if you have the current division of profits between two entities that you could increase the fraction given to one and he makes more money at the expense of another, that's not a new plausible equilibrium. Equilibria have to be found by things that increase the welfare of both sides. And the only way he can get that result is by assuming that in each bilateral bargain the league takes into account the profitability of the standalone fee.

Q. No, no, no, Dr. Noll. Don't try and mislead the Court.

MR. DUBNER: Objection, your Honor.

THE COURT: Sustained, sustained.

MS. WILKINSON: I'm sorry, your Honor.

THE COURT: Although he's disagreeing with you, he's not necessarily trying to mislead me.

BY MS. WILKINSON:

Q. Let's start with what Dr. Ordover did. If you assume every team independently negotiates and decides on its own to charge 17 cents, they could do that, right, to the league? That could theoretically happen, couldn't it?

A. No, it couldn't theoretically happen that they would all get the same fee. We know that in every line of business they do independently, they get different amounts in revenue.

There's no reason to believe that 17 cents apiece across every team in the league could be attained in anything other than collusion. That's the only way you could ever get there.

Q. Let's assume that everyone gets one cent different?

A. Everybody gets one cent can only happen if there's collusion. It wouldn't be the case that's in any sense equilibrium of a bargain.

Q. Dr. Noll, start with one team because it's easy. If the Yankees are bargaining with the league, they can come up with a price for the fee, right, for their fee?

A. They could.

Q. And then the Mets could go in the room the next day and they could bargain for their fee, right?

A. They could.

Q. Let's assume one charges 17 cents and one charges 18 cents, okay?

A. Okay.

Q. And then the league has to pay that so they raise the price of the package, right, and then at the end, they take all the package profits and they distribute it evenly, right?

A. That's correct.

Q. If everybody makes more money there --

A. Not everybody does; the league makes less. The league bundle makes less and the individual teams make more.

Q. No, no, no.

A. Yes, yes, yes.

Q. Dr. Ordover's analysis showed everybody made more money.

THE COURT: Including the league?

A. No, it did not show that.

MS. WILKINSON: The league is just the 1/30th, your Honor. That's all the teams care about.

Q. They care about, right, their 1/30th, but they all get their subscriber fee, right.

A. I think you have exactly characterized the difference between us; that you think it's perfectly fine for a standalone joint venture to act in a way that attempts to maximize the horizontal competitors' joint profits. That's fine. I don't think that's a legitimate way to model it; your experts do.

Q. Are you saying it's unlawful?

A. I don't know whether it's unlawful. I'm simply saying I believe that it's illegitimate as a economist to have cooperative price-setting among horizontal competitors as the way you try to figure out damages in an antitrust case. I think that's not cricket.

Q. So when you heard Dr. Pakes say the way to account for that is each team goes into the room, as I was just saying, and then the league hires a consultant and decides on its own how to price, that's totally legitimate? That happens in the real world all the time?

A. The assumption I'm making is the league makes independent

pricing decisions from both inputs and outputs from the individual teams; yes.
Q. So that wouldn't be collusive.
A. Well, that's what your guy who runs MLB.tv says happens. That's why we have revenue-sharing that causes teams to want to deviate. We have a whole bunch of institutions in place that are more consistent with my view than your view.
THE COURT: Time really is about up.
MS. WILKINSON: Can I ask one more area because it agrees to this?
THE COURT: Sure.
Q. Your saying our view is different than the real world. The YES Network that shows the Yankees is available out-of-market today, isn't it?
A. Yes.
Q. And it is on a tier, right, a sports tier?
A. Yes.
Q. And it charges the MVPDs a per-subscriber price, doesn't it?
A. Yes, it does.
Q. And so, that is above their marginal cost?
THE COURT: Who is "their"?
Q. The MVPDs, that's a mark-up, right?
A. I don't -- there's too many pronouns.
THE COURT: Yes, I agree.

A. The MVPD has a price it pays to the Yankees for YES Network that enters into their, what, the marginal cost of the subscriber?
Q. Yes. Let's start down the chain. The Yankees charge a per-subscriber fee to the MVPDs and that is above their marginal cost, right?
A. Above the Yankees' marginal cost, yes. The marginal cost for distributing it is basically zero.
Q. That's a profit for them, that's a mark-up?
A. A little tiny profit.
Q. A little mark-up?
A. A little tiny one.
Q. And then, when the RSN goes to the MVPD, right, and the MVPD then turns to sell it to the customer, they have a mark-up, don't they?
A. Yes. They all do have mark-ups; yes.
Q. So we know what goes on in the real world today in the out-of-market. We know there's a subscriber fee. And you've told us I think throughout this hearing that there's no way in the but-for-world that that pricing would occur in the but-for-world, right?
A. No. I said it won't occur in the but-for-world when there's double marginalization.
Q. That is double marginalization that I just described.
A. No, it's not. No, it's not.

THE COURT: Okay. Why is it not?

THE WITNESS: Double marginalization is monopoly profits. The YES Network doesn't have monopoly power in markets where it doesn't broadcast Yankees games. It's just one of the many 500 channels on television and they don't have market power. If they had Yankees games, then they would have market power, but they don't.

Q. When -- in your but-for-world, those games are actually just blacked out out-of-market right now, right?

A. They're blacked out. And, moreover, the subscriber fee the YES Network charges is not a cost on the quantity of YES; it's a cost on the quantity of the cable system, so it's not a price that is the incremental revenue from just the YES Network. It's the whole network, the whole incremental network in the tier -- the revenue of the tier.

Q. Dr. Noll, in your but-for-world, all YES has to do is turn on the game because it's already available on its --

A. Virtually zero marginal cost, yes.

Q. And they're going to still charge a per-subscriber fee?

A. Yes, and I'm not allowed to say what the fee is but it's tiny.

Q. But it's still positive for each?

A. It's still positive; yes.

Q. It doesn't matter. They get -- and you think they're going to charge more than that once they actually provide the games,

don't you?
A. A lot more. That's why double marginalization becomes important. Right now it's not.
Q. Right. And you said -- and these are the last two questions to clarify what you said I think in the last two days -- you said that when the restrictions are lifted, all those blackouts, right, will be gone, which means the YES broadcast will be on the standalone in Tampa when it's playing Tampa, right?
A. Well, I said the nature of the model is that.
Q. I'm asking you then.
A. You could change the model easily.
THE COURT: I understand. With the blackouts gone and they're in Tampa, the game of the Yankees, the YES Network will show the game?
THE WITNESS: Except for in-market. Inside the New York -- except for New York, inside New York.
THE COURT: We're not talking in-market. We're talking out-of-market.
THE WITNESS: It would be blacked out inside New York in the bundle.
THE COURT: I know. We're not talking about in-market. We're talking out-of-market in Tampa.
THE WITNESS: Yes.
Q. And they would show on their standalone -- so they would

only have -- they would be able to show their game against Tampa in Tampa?

THE COURT: In Tampa, yes.

A. That's what the model assumes, although you could easily change it.

Q. And on the same package that's available, the YES feed would also be available, right, to show that Tampa/Yankees game?

A. Yes.

THE COURT: In the bundle.

Q. So there's no content or game exclusivity either on the package or in the standalone in your but-for-world because you can see the game from the visiting feed either on the package or in-market standalone -- out-of-market standalone, right?

A. Yes, that's correct; that's the way the model is now.

MS. WILKINSON: That's all I have, your Honor.

THE COURT: Seven minutes, please.

REDIRECT EXAMINATION

BY MR. DUBNER:

Q. First, Dr. Noll, the last thing Ms. Wilkinson was talking about was that YES has a subscriber fee.

How does tiering affect her contention that that supports the defendants' claim?

A. If you pay X cents per member of a tier, that's not the same as X cents per subscriber to that channel. So the -- by broadening the base of the fee received, you reduce the double marginalization effect. That's why in bundles, in bundled cable offerings, whether it's extended basic or an expanded sports tier that has 15 or 20 channels on it, a per-subscriber fee for the entire bundle is much less double marginalization than if you just charged a per-subscriber fee for the incremental subscribers that were due to that channel.

In the case of the Yankees network, if you look at how many people subscribe to the cable television system and among those, how many subscribe to sports tier, they're getting paid for a whole lot of people who didn't subscribe because of their network, and that's operates like a fixed fee, that there's a charge to DirecTV for all the people in the sports tier who didn't subscribe to the sports tier because the Yankees were there. Plus, then they get that incremental really small fee, also at times the additional subscribers that came into existence because they were there.

Q. And if all of the out-of-market RSNs in the but-for-world had a fee structure of this sort, would that lead to the kind of results that Dr. Pakes finds?

A. No.

Q. Now, all of Ms. Wilkinson's questions about the Yankees and Mets bargaining were premised on the league deciding to pay teams to get their telecasts, is that right?

A. Yes.

Q. Are you aware of any example of a league paying teams for IP occurring in any sport?

A. Only in the sense that it's already done, which is, they don't pay them a rights fee. They pay them a revenue share or -- excuse me -- a profit share, that it is the case that leagues pay -- it's so silly to say they get it for free because they don't. They get a profit share.

What they don't get is a fee that would interfere with the pricing and make the pricing inefficient. That's what they don't get.

Q. Ms. Wilkinson also said that there were no modeling assumptions in Dr. Ordover's and Dr. Pakes' experiments; is that correct?

A. No. There are modeling assumptions.

Q. Let's go back to the price sensitivity issue briefly.

A. Yes.

Q. How would you test whether the results that they put up on the screen are actually a mis-prediction or that your interpretation is right?

A. What you would do is, you'd just get more data and you'd do the things I said about. The first thing is, you'd get more data so that instead of normalizing this one coefficient in the model, which is the same thing that Crawford and Yurukoglu normalized, instead of normalizing it, you'd estimate it. And then secondly, you'd make some changes in -- that are like the one RSN and two RSN cases. You'd eliminate from the choice set some of the channels for the multichannel viewers. And you would get more information on price, which is the single-most important thing you'd do, so you'd get variation in price that would enable you to calibrate better price sensitivity. Those are the three things you would do.

Q. And what statistical objective measures would you look at to determine which was the better version?

A. Exactly what I used, which is your ability to predict the moments; that is to say it's -- the measures that you would use to say is this a good equation would still be did it predict the moments, did it have a high explanatory power, does it have a low standard error of estimate for the thing you're trying to estimate, which is the price of the bundle. It's still the same set of criteria you would use to say is this model reliable.

Q. And one final thing, very quickly, the first thing that was brought up on cross was BLP 2004. Do you claim you did the same thing as they did in that paper?

A. No, not at all. I think it's a good paper. I was being positive about it, not negative.

(Continued on next page)

Q. And why didn't you use census data here?
A. Because we are not at the stage where we can actually use it and employ it effectively. We need more variation to do this. That is a useful and wonderful idea as soon as we get more data.

THE COURT: But why didn't you do a survey with small numbers?

THE WITNESS: Because a small number can't answer the question we're after. The dimensionality of the problem is too great.

Just think about how you would do the survey. Now if you did it like Professor Pakes did in his most recent paper what you would do is you would do a survey of say DirectTV subscribers or MLB Internet subscribers, and you would ask them hypothetical questions about what they might do. But that still isn't going to answer the criticism I got, which is but there is this huge number of people out there who are not in the market, and almost all the action in your model comes from adding more people. If you think about what happens when you reduce price, you get a whole bunch of other people coming into the market, and that's exactly what we predict, is that there is price sensitivity, so, if, A, the single channels are available cheap, and, B, the bundle price goes down, the number of people who subscribe goes way up. And there is no way on a survey on DirectTV people you get any more information about these other people than we already have. What you instead have to do is a survey that gets those more people if you want to answer that criticism.

THE COURT: You could do surveys of nonsubscribers, people who aren't already subscribing.

THE WITNESS: But the numbers of parameters we have to estimate is 66, and we have all of these buckets, people who want the Yankees, people who want the Dodgers, people who want the Cubs, and all those people, adding them all together currently, half of one percent of all the households subscribe. So just to find one subscriber we have to interview 200 people. All right?

And unless you have a significant number of subscribers in the sample, you don't know how to link -- you don't have enough data to link the existing subscribers to the nonsubscribers. So your sample size is driven by the necessity to have enough subscribers in the sample that you can estimate 66 parameters.

Q. And the only other question I was going to ask was why a conjoint analysis wouldn't solve this problem.

I don't know if your Honor thinks that's clear already.

THE COURT: Go ahead. I think that's what I was trying to ask, but go ahead.

Q. So why wouldn't conjoint analysis work?

A. Here is what conjoint analysis does. You have 20 different things that people might buy, and if you try to design a survey, if I try to find out which of all of these 20 you might want, the survey takes forever and people lose interest. The survey research says if you try to take more than ten or 15 minutes with a single subject, you are going to get nonsense answers. So, what you do is you give people a very restricted choice, you give them a choice between two or three things, and then you vary what they can choose among consumers, and take other information so you can expand the prediction of what they would do if they faced all 20 from a series of surveys of what they would do if they could only do three or four. And that's what conjoint analysis does.

MR. DUBNER: Thank you.

THE COURT: All right. Thank you, Dr. Noll.

THE WITNESS: On the dot.

THE COURT: So, we have finished the evidentiary or live evidentiary portion of this hearing. I think the closing arguments will be helpful to the court, and we agreed that we would start at 1:30, and the time would be split one hour for plaintiffs and one for defendants. What we didn't discuss was the order of those summations and which makes sense and why.

Usually I hear last from the person who has the burden of proof on the issue. So this is interesting because the burden of proof on the Daubert challenge is probably on the defense, right? Or wrong? And the burden of proof on class cert is on the plaintiff.

MR. DUBNER: I would actually love the burden of proof on a Daubert challenge to be on defendants, but it is actually --

THE COURT: They're both with you. So, you should go last if they're both with you. The defense would sum up first for an hour, and then you would. OK. All right. Good. See you at 1:30.

(Luncheon recess)

(Continued on next page)

AFTERNOON SESSION

1:30 p.m.

THE COURT: Please be seated. Mr. Keyte, are you going to do the whole hour?

MR. KEYTE: No, I'm just going to do the Daubert for about a half hour, and then Mr. Burke will address the class issues.

THE COURT: Good, all right.

MR. KEYTE: First, your Honor, I'd just like to thank you and the clerks for your patience. This has been very dense material, very complex, and we know it's very hard to follow.

THE COURT: We only hope you can tell how hard we have been working.

MR. KEYTE: And we keep very much in mind for this motion that your Honor has highlighted several times that the issues are solely about methodology and fit.

THE COURT: Yes.

MR. KEYTE: It's not who is right or wrong or how they apply something and what's the output, but it's methodology and fit. But it goes to specific fields in question, which is structural modeling discussed by Dr. Pakes, and this demand estimation with logit and GMM, which is Dr. McFadden.

Now, I want to be clear we are not saying that Dr. Noll is not a highly qualified industrial organization economist, but at the same time this is not about the field of sports or sports broadcasting. That's just the backdrop for these two other econometric fields.

So with all that came in, I'm really going to focus on the highlights. And I first wanted to just very briefly go over the principles of modeling, which is slide one, for these two fields. Now, there was some kind of back-and-forth around the edges of these, but these are the basic principles of modeling: It must capture the relevant and important characteristics of the industry; the actual world must be consistent with the observed data; a model must be in equilibrium. I will address the falsifiability tests that Dr. McFadden focused on. And it must not produce absurd results. There is a debate on what is absurd and what's not, but we certainly had some counterintuitive results that became part of the topic.

I would like to start just to simplify in blocks -- let's start on the supply side with Dr. Pakes. He laid out in great details what he believed were the significant methodological flaws in Dr. Noll's model. I would first like to look back at an exhibit he used, which is kind of what C&Y did looking at this supply chain, and then he compared that to what Dr. Noll's model does in that same supply chain. And what we really see -- and probably the most striking thing that Dr. Pakes testified about -- is that the MVPDs are completely out of the entire market structure in this structural model on the supply side. He leaves them completely out.

Now, at first in the history of this kind of expert debate, Dr. Noll said this was because of Internet competition. That was in his first and second report, that that is removing any kind of bargaining leverage that an MVPD has. Now, we know that's not really the case in the real world, but most importantly in terms of methodology he offers no economic evidence, no quantitative analysis, cross elasticity or any other study, that says that the Internet is taking away bargaining leverage from the MVPDs. It probably is close to a classic example of an ipse dixit assertion when it comes to methodology.

Now, he next later really argued that the RSNs and MVPDs would want to avoid double marginalization and strike completely different deals than they have now. Now, the interesting thing in Dr. Noll's rebuttal testimony, when he was talking about the league's rules, he said that you have to start with the contract. He was talking about the league rules, and he said you can't ignore the existing contract forms they use. Well, let's take that same point and apply that to the RSNs and MVPDs. You can't ignore -- we agree you can't ignore the existing contract forms they use. But this is precisely what he proposes to do. And as Dr. Pakes explained, this would require a very significant amount of bargaining between the RSNs and the MVPDs, and that when you are changing the structure of the industry in this fundamental way, you must model that. That is what structural modeling is about.

So that is the state of play: They are on a pay per-subscriber basis, and you must model that shift that he suggests to something else. Our experts say it won't shift. But the methodological point, your Honor, is that you have to model that. And that's Dr. Pakes' expert opinion.

That is not the only bargain that was not modeled. We know in C&Y it's an academic paper, they might focus on one thing. This is real life, and we are talking about a supply chain where Dr. Noll admitted everything would be rebargained at every level, and he just assumes that it will work itself out because there is money to be made. But the fact is he didn't model any of that. And, in particular, he didn't model what the profit maximizing options would be among any party for any of these bargains. He didn't model what their leverage is or is not in any of these particular bargains that necessarily would have to occur. And, as a matter of methodology -- and we will get to -- his model just doesn't fit the industry in the "but for" world that he is addressing.

Another aspect of what he did not model that is really undisputed is that there would be multi-product pricing -- there has been, and it's been modeled for 20 years he said, Dr. Pakes said -- and that there will be multi-product pricing in the "but for" world. And Dr. Noll in his deposition made this very clear himself when he was talking about RSNs. And he is talking about RSNs in this instance being the person that will have control; it's their product that they offer to the MVPDs and directly over the Internet.

Now, the interesting thing that Dr. Noll said in rebuttal is, well, this is all wrapped up in collusion. Well, of course not. An RSN cannot collude with itself.

THE COURT: He wasn't talking about the RSN at that point; he was talking about the MVPDs for sure. There is no doubt in my mind that's what he was talking about at that moment.

MR. KEYTE: OK. And even with respect to the MVPDs, again they have multiple products that they own and control.

THE COURT: Right.

MR. KEYTE: The point is collusion is no answer where you are talking about somebody -- in this case the RSN or in the MVPD -- where it's their product and they're just controlling, they are distributing their product one place or another, and it's a multi-product pricing situation.

Again, from a methodological standpoint -- because remember Dr. Noll said I don't really dispute the economics of this -- from a methodological standpoint you have to address it, you have to model it, and he doesn't.

Another thing he did not model is the leagues as joint ventures. The premise of his Bertrand model by design, by definition, is that they're completely independent. It is part of the Bertrand model that they're not connected in any way. So, it's not a joint venture model, it's just the opposite, Bertrand is where they are not connected in any way. And he understood in his deposition that you certainly would agree that these are not independent competitors -- in other words, they are a joint venture -- which is what your model assumes. And so he is not modeling a joint venture even though he knows it's a joint venture. Under his model he treats them as independent competitors when they are not.

Now, again his response --

THE COURT: Well, are you sure of that? Because I thought he distinguished between the stand-alones and the bundle. With respect to the bundle he understood they were not competing, they were all going to agree to the revenue sharing split. With respect to stand-alones that was a different issue. And with respect to competition between stand-alones and bundles, the RSN and the teams knew what they were going to get out of the bundle.

MR. KEYTE: Yes it's kind of stepping back to a broader structure of the industry structure. They still do after -- in the "but for" world they are still part of a joint venture. They have a relationship within a joint venture context.

THE COURT: But yes and no. Even now -- even now the

Yankees are part of the league and therefore the bundle, but they also sell the YES Network.

MR. KEYTE: Yes. And that is part of --

THE COURT: That's a joint venture, the YES Network?

MR. KEYTE: No, the participation in the package is part of the joint venture relationship. That's the simple point. The Bertrand model does not accommodate that because it doesn't take into account the economic interdependence. That's the simple point. And Dr. Pakes addressed that point.

Again, Dr. Noll's response to why, he didn't disagree with what was addressed by the other experts on the incentives when you have that joint venture relationship, but his response was, well, that would be collusion so I'm not going to address it. And I kept hearing that, and I kept thinking of cases that said, well, you are an economist, your job is not to suggest what the legal situation is, what the "but for" world would be for some future case; it's just to do the economics. And so I think the --

THE COURT: And you fault him for not assuming a collusive practice that he knows or believes is illegal. I mean he wasn't going to make that assumption if he believed you can't collude on price setting.

MR. KEYTE: No, I only fault him for not sticking in a sense to the economic incentives and what they turn out to be. It's for others to argue whether that --

THE COURT: He said he refused to make an assumption that he believed could not happen in any world.

MR. KEYTE: And that's fine. And then he has to also agree that he did not model the joint venture context of the "but for" world.

Now, with respect to Dr. McFadden -- let's move to the demand side -- he covered a lot of flaws -- they're very sophisticated -- and he concluded in his words that the model at the end of the day is junk science. And I know that's used --

THE COURT: Who conceded that?

MR. KEYTE: No, he said that.

THE COURT: Who?

MR. KEYTE: Dr. McFadden. And, you know, that is words that are out there in economics; it's not a personal attack. But it is just what he thought of the model. And he starts really by trying to describe to the court what Dr. Noll is doing to build up in a sense this synthetic consumer, an avatar, which for four percent you know something about them because they participate in the package, and 96 percent you don't know anything about them.

Now, one thing, the four percent you also don't know --

THE COURT: Well, he knew something about them, I thought.

MR. KEYTE: That they bought their package.

THE COURT: No, not the 96 percent.

MR. KEYTE: The four percent.

THE COURT: No, but the 96 percent you know something about them too.

MR. KEYTE: Well, you know they watched the World Series --

THE COURT: -- and didn't buy the package. Correct. So, you know two things about them.

MR. KEYTE: Exactly, your Honor.

With respect to the four percent, one thing you don't know -- which is important -- you don't know the price sensitivity of that four percent. He said he didn't have any information on that. And C&Y, for example, did. And he pretty much, other than those two things, said he really didn't know anything about the 96 percent. So, the question becomes as a matter of methodology how do you fill that gap.

Now, Dr. McFadden testified that in his expert experience over the years, as you would do in marketing, you fill it with very specific surveys, not some general surveys. You get down to what do you like and why; if I change this, what would you do; very specific surveys designed to get to the question of how would consumers behave in response to prices or other attributes of the product being sold.

Now, Dr. Noll said this is too hard, it would take too much time. Well, Dr. McFadden said we do this all the time; it is the methodology in discrete choice modeling when you don't have this information. And that happens all of the time.

And to some extent here -- because you are already focused on Major League Baseball and hockey fans -- you know, it is a narrow group to start, and you can obviously use many survey techniques, but the key point methodologically is he didn't try, he didn't do it, and Dr. McFadden says it's standard in the industry.

So, what happens? What do you fill that void with? Well, you fill it with some DNA which is very sparse. Dr. Noll talked about in his many equations, first it was 62 moment conditions, which is really only two per team, and the rest is filled essentially with math, you know, what happens when the model runs in math.

So, the second model -- before we got to the third with the three groups -- the second model was tested for falsifiability, and it just failed because the whole thing with the scales you would put different data into it, and it just kept spitting out the same result, and that really led to the third model.

And here is the interesting thing about the third model: Noll said he devised a third model where in his words he would impose, impose a limitation on what people wanted. And that really is not part of this type of modeling. You don't impose tastes.

THE COURT: Well, you limit choice though. You could limit choice. I think even in the questioning of him he said, look, I could reduce it from 29 teams to three; I can set up to limit choice; I don't need to give them 31 choices.

MR. KEYTE: You can certainly limit choice. But what Dr. McFadden made clear is you have to be very, very careful -- and it really applies very much in this case -- when you start removing what the actual data shows about somebody's interests. And I was used as the example, where I might have a favorite team but I like to go look at scores, I like to go look at what is going on in some other games. That may have some limited time, but it's really, really valuable to me. And so that makes me more of a package purchaser; that's the natural consequence of that.

THE COURT: Well, you fall in group three, the multi-team. No? No, no, I mean you would say. You would say.

MR. KEYTE: You would think.

THE COURT: You would say that.

MR. KEYTE: I would say that, absolutely. And I would say you can frankly raise prices for me because I'm going to stay in that group because I like those options.

But what Dr. Noll does -- as Dr. McFadden said to kind of fix some of the problems of having that void just there -- is he what is called zeros out the utility of having those choices. And Dr. McFadden says you just don't do that when you're trying to understand, in a sense you're trying to measure and build a model around those varied choices. And so this is where you're frankly headed down the road of creating an avatar that you've limited their choices, then all that is left is what happens to the model, which we'll get to. And that's been a run's end to frankly the very counterintuitive result of the 99 percent one, which we talked about at length.

Now, Dr. Noll acknowledged that this was because of the so-called logit error -- you have heard about it over and over again -- which arises when preferences in stated utilities are not known. And you create more of these when you start defining, imposing limited tastes of what you do know, and that becomes more expansive. And, as we've heard, Dr. Noll said the result was driven by these group three consumers who cared only about price. And we just heard that earlier today.

THE COURT: Well, he said they were more price sensitive.

MR. KEYTE: More price sensitive, precisely. They're more or the most price sensitive.

THE COURT: Right.

MR. KEYTE: And then this really turned into a very interesting kind of debate about that question. First Dr. Ordover showed a slide that said, well, they're not price sensitive, and that was at the dollar amount that was in the package. And then even in response today we ran another model and it's not price sensitive even at a lower price, even at a very much, much lower price of 7.51. It doesn't change.

MR. DIVER: Is this new?

MR. KEYTE: This is in response to just what happened today.

MR. LANGER: This is not even in the record, your Honor.

THE COURT: Yes, it was in the record. No, no, he was asked if it was exactly the same price, the stand-alone and the league package. But, no, no, the league package price in particular was $20 and whatever cents, but the stand-alone price he predicted was 7.51. So all they are doing is making a slide saying if the stand-alone and the league were equally cheap instead of equally expensive, that's all. But the same price.

MR. KEYTE: And more or less it's the same result for the same reason.

Now, Dr. McFadden who is the Nobel laureate in this area came in and explained that the result is actually driven by math assumptions within the logit model itself; it has nothing to do with consumer sensitivity to price or any kind of real consumer behavior; and he explained actually that Noll cannot correct that because his model in fact can't be driven just by price because he imposed preferences other than price in his three categories. So, by the design of the model it can't be completely driven by price at all. The design of the model is to focus --

THE COURT: Well, if you have three different results within any one result there is no preference. In other words, you have the result for one team people, the result for two, and there is no preference within the group.

MR. KEYTE: And even as Dr. Noll testified, you don't set up different price sensitivity in the model to the three groups. That's not in there.

THE COURT: I know, he said the model produced that result.

MR. KEYTE: It produced that result.

THE COURT: Right.

MR. KEYTE: And so Dr. McFadden explained in great detail, and we spent a lot of time, and essentially what we say in these slides, these avatars, they have to take the bus, and the bus is the math problem that creates this one percent because there are so many buses versus cars that the math will naturally create this problem -- again, as Dr. McFadden explained -- where you don't have a lot of preferences really being measured because as in most models, C and Y and others, you don't have this problem because there is a robust number of preferences being measured and this problem doesn't exist. In this one it's a big void that's filled with nothing but this math DNA, and it does this, and this is what you get.

Now, I think this is a very, very important point. Dr. Noll admitted essentially that Dr. McFadden is the leading expert on the planet on this model, this very model. He won a Nobel Prize for developing this field, the logit modeling with this inherent math problem. So, when Dr. Noll says, no, they're just price sensitive, and Dr. McFadden says it has nothing to do with any actual consumer's sensitivity or not, it's just inherent in the model, I think respectfully I would go with the Nobel laureate.

THE COURT: I think that's a poor argument. I'm sorry you made it. That's just saying defer to the guy who won the Nobel Prize. I can't do that, and I have never done that. I have had other Nobel Prize winners here, and sometimes they win, and sometimes they lose. I can't do it just because he won the prize.

MR. KEYTE: I'm sorry if that implied that.

THE COURT: It did.

MR. KEYTE: It's not because he won the prize; it's that this is the work that he has been doing for 50 years.

THE COURT: I understand he's an expert in choice theory and he understands the mechanism of choice. That's what he said he did. He knows how to model choice, I get that.

MR. KEYTE: And I would say it is undisputed -- and I think Dr. Noll would agree -- that it is the math that drives this result. So, let's go --

THE COURT: There is no doubt about it, that's what Dr. Noll did say, he said it comes from running the model, the result comes from running the model. He said I didn't do it; the model when it's run produces that result.

MR. KEYTE: Exactly. And it produces that result because you don't know enough about other consumers to see how they would actually behave in response to any kind of prices, which is, you know, what the other two slides show.

And, by the way, there was this suggestion that Dr. Noll said if I just wanted to watch any team, I would just watch one team and then watch who they play, and that can make me, even if I like a lot of teams, and I'm really price sensitive --

THE COURT: No, what he said is if you like the game -- that's what he describes as the multi-team viewer and he really just likes the game -- and if the stand-alone is cheaper and you can watch a game every night, it doesn't matter that one of those teams is always whoever, Boston or New York, it doesn't matter, you would get to watch baseball.

So, if it's cheaper compared to the package, why wouldn't you go with the single? And after a while I began to understand that point of view. The problem is that during the cross-examination you said what if the price isn't different, why would you then pick a stand-alone? And I have trouble with that.

MR. KEYTE: Exactly. And the other point that I think becomes obvious is if you really just like the sport, and you want to watch some games, you watch your local RSN, play everybody, and you don't buy the package at all.

THE COURT: Well, that's what he said.

MR. KEYTE: No, you don't buy the package.

THE COURT: I know that. You buy the stand-alone.

MR. KEYTE: You don't buy anything.

THE COURT: Oh, you don't buy anything. Can you watch every night if you don't buy anything?

MR. KEYTE: Sure, you have your local RSN with the baseball, and they play other teams. And you buy your cable. You don't buy a separate package at all.

THE COURT: No, OK. But you do have to spend money to watch every night.

MR. KEYTE: Sure, it's just different. It's not going out and buying a monthly package. You are doing what you probably already buy.

THE COURT: You're buying your monthly cable package. But, for example, the Yankees are a big part of those cable packages we are told; they attract people to that package.

MR. KEYTE: Absolutely. But take me, the fan -- and now I'm not the die hard Yankees fan who likes other things -- I just like baseball, I'll watch the Yankees, and they will play a bunch of other teams, I will pay my cable bill, but I'm not interested in the package at all, which has implications for a model where I'm supposed to be the one interest in the package just to watch the game.

So I'd like to go back to the basic testing. Dr. McFadden explained that with these discrete choice models the data should match very closely. That's the whole point of all this discussion of General Measure of Moments and GMM, that it should much very closely. And he showed that with the three categories it doesn't match closely. And then another slide on how many RSNs, it doesn't match closely. And the plaintiffs' response is basically they put in a new slide today. And one thing of course, if you recall, it actually doesn't match really closely; it has a little bit of ups and downs, and so it doesn't actually meet that "match closely" criteria.

THE COURT: It may depend on how you define closely.

MR. KEYTE: It was closer for sure. But the most important thing is that to get to that result they had to basically change the actual data of what consumers did. They essentially said let's take away those consumers that watch other games, other RSNs, for only a few minutes or some cut-off. Well, as a matter of methodology the whole point of this GMM approach is to match your model with the data that is there.

THE COURT: They're not really watching another game.

I mean if you flip your channel for a second to get to another channel. That's what he was mentioning. That was an example. You're on your way to your channel, you trip over another baseball game, you happen to note the score; you haven't really watched another game.

MR. KEYTE: I believe I heard a couple minutes or an hour.

THE COURT: Well, I never knew a baseball game to end in an hour.

MR. KEYTE: Well, this is a very important point, your Honor.

THE COURT: It is. All I'm saying is they are not watching another game, that's for sure. They may be watching a score, maybe they're watching a part of a game. They are certainly not watching a game.

MR. KEYTE: Yeah, it goes back to who are we taking about. We are talking about consumers that have a wide variety of tastes, and the consumer that wants to just watch in on some games, who was very interested in the package, the only way they can try to make this match better is really to get rid of those consumers, and that as a matter of methodology is not what this entire area is about. You're supposed to have the model replicate what is actually going on, not change what is going on so it can try to fit the model.

THE COURT: I think the assumption is would you buy a package if it was three times more just so you could check in on the score.

MR. KEYTE: Right. He is assuming away -- essentially he is assuming by zeroing out -- he is assuming that I will give up those choices.

THE COURT: Well, those moments.

MR. KEYTE: Those moments to buy something lower. But as a matter of methodology you don't change the actual facts to fit your model; you model the actual facts, and then --

THE COURT: But you can't model let's say a hundred different viewer tastes. You do have to get them into some categories that you can work with. You can't work with a hundred different types of viewers, those who watch for 30 seconds, those who watch for one minute, those who watch --

MR. KEYTE: Actually in this area they have thousands of parameters.

THE COURT: Different characteristics?

MR. KEYTE: Yes, this is what they do. This is why it's a big black box and there are a lot of things that go on for hours, because there are hundreds and potentially thousands of parameters and different consumer arrangements. So here we are just talking about getting rid of some minutes or hours so that I can make my model fit. And as a matter of methodology that's a flaw.

So, we have the final conclusions of Dr. Pakes and Dr.

McFadden in terms of reliability. You heard it over and over again, and so you know that.

But going back to methodology and fit, I think it's useful for the court to divide those into two categories: Methodology and fit. The cases do. This is obviously the Daubert statement about that.

So, the next slide is a little busy but I think it's important. I'm not going to go through it all. We just collected, your Honor, the methodological flaws in Dr. Noll's model. So these are the ones that fit into in a sense why the model as a matter of methodology is not reliable under the science of these very two specific areas.

And then the second one really goes more to the joiner issue of fit. Even if you can get past the first one, it still has to fit the industry you're modeling. And so we also collected these, your Honor, because each one of them, each one of them have serious fit problems.

So, the bottom line is that our position is of course that Noll's model lacks the rigger outside in the academic community and, therefore, it should not be acceptable in the court.

THE COURT: Thank you.

Mr. Burke?

MR. BURKE: Good afternoon, your Honor. Once again I share Mr. Keyte's thanks to you and your clerks for all your attention and efforts in this complicated matter.

I'm going to cover in the time I have some issues that just relate to the classic class certification issue as opposed to Daubert, four basic points.

First, we are going to cover the fact that there is a fundamental disconnect between plaintiffs' theory of the case and Dr. Noll's model. That by itself can resolve this.

Secondly, we're going to briefly review the fact that there is evidence that there is winners and losers in the "but for" world. We're going to talk about Dr. Noll's efforts to refute that, which really ultimately almost all of them fall back on the claim that we're introducing collusion or double marginalization. That's essentially where everything boils down.

And then finally I will just point out that all of the points that Mr. Keyte has made with respect to Daubert also apply to class certification. The standard is different for class certification, the burden is on the plaintiffs to prove by a preponderance of the evidence they can show common impact. And all of the deficiencies that Mr. Keyte has identified apply to that class certification analysis too.

So first we went through this a little bit in the opening. Ms. Wilkinson showed this slide.

THE COURT: I know, but we probably shouldn't waste time on that, because they disavowed this as a goal that they're seeking compensation for. It's sort of a background fact, but I remember asking Mr. Diver at the outset of the hearing are you still pressing for relief for that conduct, and he said no.

MR. BURKE: I guess I will just say that's not clear to us, your Honor.

THE COURT: Still not clear?

Mr. Diver, did you not answer my question and say you are not seeking relief based on that content?

MR. DIVER: That's correct.

THE COURT: All right, so now it's clear to you.

MR. BURKE: So, this is totally out of the case? We're not going to have any liability?

THE COURT: Yes, it's totally out of the case as to conduct for which they are seeking relief. The facts are not out of the case; the facts may lead to other facts. But they are not seeking relief based on that conduct.

MR. DIVER: We are not seeking damages based on --

THE COURT: I said relief. Well, all right, maybe injunctive relief.

MR. BURKE: We can't get a straight answer out of Mr. Diver.

THE COURT: Well you did. He's not seeking damages. He may be seeking injunctive relief -- we'll hear from him -- but not damages.

MR. BURKE: And I don't think there is a basis then to certify an injunctive class either here, because there is still a disconnect between the model. There is no other way to prove there is a class impact unless you got this model.

Dr. Noll has said that he is not including -- he is still including blackouts. So, that is the disconnect that we feel is still present here.

The second disconnect is content exclusivity. Plaintiffs claim that they're not challenging content exclusivity. We have explained really what drives the outcome is the right side of this schematic. You have two companies, two separate economic actors, selling the same product in competition with each other. It's as if, your Honor --

THE COURT: No, they're not totally separate. We have been round and round on that too. To some extent they are and to some extent they're not. After all, the league package is then shared equally with 30 teams. The teams are on the left, the league is on the right, but they share revenue.

MR. BURKE: Well, Dr. Noll's model assumes they act totally independently.

THE COURT: I understand they act independently. I'm just he kept saying it's ridiculous to call it free feed; it's not free feed; they are paid 1/30th on the back end and they know it. It's not free.

MR. BURKE: Well, here is the thing, your Honor. If you were selling your house, and then you let someone sell the exact same house in competition with you, but they said I will give you 1/30th of what I can sell your house for, that's going to drive down the price of your house, and you are going to get 1/30th of nothing. That's what they're doing.

THE COURT: I don't think that's the least bit analogous respectfully, but OK.

MR. BURKE: They are selling the same thing in competition. That's what drives the damages that Dr. Noll found.

THE COURT: But the teams wouldn't make a dollar if they weren't a league. There need to be teams, there needs to be a league, there need to be competition. You can't compare it to the sale of a house.

MR. BURKE: It's the same intellectual property being sold. Again, just to be clear, that is what drives Dr. Noll's result. It's the fact that in a very almost unheard of situation you have two companies who are acting independently -- he posits must be acting independently --

THE COURT: I'm not going to argue with you longer, but I was always taught when the judge doesn't see it your way, move to the next point.

MR. BURKE: Let's go to the 1/30th point. So, what is the consequence of Dr. Noll's model? What happens is the consumption of the league package goes way down, and fewer people purchase it, so actually the amount of money to be shared declines substantially, so teams actually get paid less. In the real world --

THE COURT: They are not looking for much money from that source.

MR. BURKE: But they are supposed to be compensated for the use of their intellectual property.

THE COURT: I understand, but they don't really care how much. That's not their major revenue. They get their big revenue from the national games, the stand-alone, everything else. They don't expect much money out of this 1/30th.

MR. BURKE: OK. But then here is why they should. Because the team selling this product in competition -- the league selling this product in competition with the teams drives down the money that the teams can make. In a world where there was no out-of-market package they could charge much more for this. The fact that the out-of-market package --

THE COURT: They could charge much more for what?

MR. BURKE: For their stand-alone feeds. So, it's that competition again between the league package and what the teams are doing that drives down what the teams can make on their stand-alone package. So that's why I think Dr. Ordover's testimony was they would charge a per-subscriber fee, and here is the reason.

THE COURT: I'm sorry. They?

MR. BURKE: I'm sorry. The teams. Why would the teams charge a per-subscriber fee? Because they're losing subscribers to the league. There is an opportunity cost. Every time the league sells a package, that means the team is not. So that's why if you are selling your input to a rival, you are going to charge a per-unit fee to that rival to compensate you for that diversion.

It's actually just the same point that Dr. Pakes made with respect to multi-product pricing. You take into account when you are pricing something that diversion, that lost sale. The 1/30th doesn't have any relationship to that. That's why it's very important to realize that that's how the teams would behave if they were actually competing with the league. They wouldn't be getting back enough of that -- that 1/30th, as you say, it's very tiny, and it wouldn't compensate them for that diverted lost sale.

I thought it was interesting that today I think for the first time -- at least we hadn't heard it before -- that Dr. Noll said the compensation is the 1/30th. I think all along we had understood that there was just no compensation, but maybe I missed it. But I think it's interesting what Dr. Noll testified himself when he was asked about this 1/30th in his deposition. He said that it's close enough to zero that for modeling purposes we're ignoring it.

So, in Dr. Noll's own analysis he thought that 1/30th was so tiny he actually ignored it. It's nowhere in his model. But I find it surprising today that we learned that that actually is how teams are being compensated. So this is another fundamental --

THE COURT: By the league for the feed.

MR. BURKE: Correct. So again if I can get anything across to your Honor, it's that diversion point, that being paid 1/30th doesn't compensate you for that lost sale when the league package takes away a sale from the teams.

So, I don't want to belabor this because we have heard a lot about this and there is limited time. There has been a lot of evidence about winners and losers, and I think Dr. Ordover had presented this analysis that showed in the "but for" world prices would be higher.

In addition, Dr. Pakes showed a number of analyses, if you will recall, where he said if you change stern assumptions about Dr. Noll's model, it changes the results.

So, for example, he showed the analysis where if you got multi-product pricing, if an MVPD like DirectTV thinks I'm not going to treat these 30 products as if they're all separate, I'm going to again think about how they interrelate with each other, how one sale diverts from another, that's going to result again in the league package being more expensive. And then for all of those analyses Dr. Pakes did he showed that if you made those corrections the price of the league package would go up.

Now, I think it's really important here -- and we heard it this morning from Dr. Noll -- is this: "I didn't disagree with the results that Dr. Ordover and Pakes got." That's what he said on the stand this morning. He doesn't disagree with the mathematics. He doesn't disagree that that's profit maximizing behavior, that they would actually do that. His only answer is two things: Collusion and double marginalization. His position is, yeah, those things are profit maximizing, but they're collusion.

Now, I think with all due respect it's your Honor's decision about what is collusion and what isn't collusion, not an economist's, but I think all of our economists we did ask that question of.

We asked Dr. Pakes, and his view was, no, it's not collusion for a joint venture to take into account the interests of its owners or for the owners of a joint venture to have influence over the actions of the venturer. And that actually is good law. We think that goes back to BMI, ASCAP, all the old cases that say if you have to come together to create a new product, that you can influence the pricing of that product. Just like the ASCAP and BMI licenses, you couldn't create those licenses unless you had a joint venture in the first place. And the members of that joint venture have a legitimate interest in deciding how that pricing is going to be set.

Dr. Noll doesn't agree with that law, that Supreme Court precedent, but with all due respect I think the law controls, not necessarily Dr. Noll's view of what is appropriate.

Again, Dr. Ordover also talked about this in his testimony saying that what he was modeling was bilateral negotiations, not collusion. It was a sequential set of bilateral negotiations, but that's the only way to do this kind of analysis.

So, I think it's very important at the end of the day it's your Honor's view that matters here about what is collusive and what isn't, but we don't think the analyses are collusive.

And I guess one thing that we would say is that we think Dr. Noll and the plaintiffs have been kind of contradictory about what counts as collusive or not. Now, the plaintiffs call Dr. Ordover's actions collusive. They say Dr. Ordover's model maximizes the joint profits of the league and the RSN. His model, in other words, is simply a Bertrand model with collusion instead of competition.

Yes plaintiffs and Dr. Noll do exactly the same thing. They use the exact same language to describe what they're doing. Mr. Diver says in his opening, "What Dr. Noll has done is make the assumption that the defendants would choose the price that maximizes their joint profits."

Dr. Noll testified, "As profit-oriented businesses, they would continue the league-wide business because it's jointly profitable for them to do."

So, Dr. Noll and the plaintiffs say it's OK to jointly profit maximize when it helps their case, but when it doesn't help their case it's collusion.

THE COURT: That's certainly not the first quote. It says the defendants would choose the price that maximizes their joint profits. That's the defendants.

MR. BURKE: Right. But he's describing what they would do in the --

THE COURT: So you can't count that statement. He's not supporting that. The other statement is his, and I think the "they" there is the teams and the league.

MR. BURKE: Yeah. What he is talking about in that second statement is whether there would be an out-of-market package. So you recall Dr. Noll does an analysis where he says let's assume a world where there is no out-of-market package and let's assume a world where there is an out-of-market package. And he compares industry profits under one scenario and the other. He doesn't look about whether it's profitable for any particular member of the industry. He says we're just going to look at overall industry profits, as to whether that's profit maximizing or not. So it's OK.

THE COURT: He didn't say -- well, I'm not going to argue with you. He is simply saying the league would continue the league-wide business because it's good for all the teams in the league to do that. That's how I read that sentence, but we don't know.

MR. BURKE: Well, I think it's not just good for the league.

THE COURT: And therefore good for the teams.

MR. BURKE: Well, actually, look, to be honest, your Honor, we agree with that analysis. We think Dr. Noll and Mr. Diver were right that it is appropriate to do that.

THE COURT: Mr. Diver didn't say that. Take him out of it. He said the defendants would choose to.

MR. BURKE: We think it's fine to look at overall industry profits. That's exactly what Dr. Pakes and Dr. Ordover do in their analysis.

So, the problem is that the plaintiffs and Dr. Noll move and shift depending on what's convenient here. And we think it's actually fine for there to be joint profit maximization -- or to look at joint profits -- but you can't have it both ways.

Finally -- I'm not sure how much time is left -- our favorite topic.

THE COURT: Lots of time, 12 minutes.

MR. BURKE: Oh, my gosh. Our favorite subject is double marginalization. So, we have heard a lot about this, and I think we just thought let's look at a contract. We actually haven't done a lot of this in the context of this case. Here is a contract for an RSN, between an MVPD and an RSN. And what do we see? We say there is an in-market feed. A monthly license fee is equal to the number of service subscribers times the monthly rate. So it is a per subscriber rate. What do we see in little Roman three? "Further, for each out-of-market service subscriber, affiliate" -- that's the cable company -- "will pay network a monthly license fee equal to the numbers of subscribers times the rate, a per-subscriber fee."

So, actually this is pretty close to what we are talking about. You have an RSN selling its product out-of-market. Now today the games are actually blacked out but they're still paid a few pennies because people like to watch the shoulder programming.

So, this is the real world. Dr. Noll said we're introducing double marginalization, but there is a margin charge already, there is a per-subscriber fee already. This is not collusive. It's not these things are treated kind of interchangeably, the collusion point and the double marginalization point. There is nothing collusive about having these per-subscriber fees.

We obviously asked the experts about this. This is

Dr. Pakes. Does marginalization occur in RSN distribution by MVPDs in the actual world? The answer is yes, at least if you believe Yurukoglu and Crawford.

And you will recall that Dr. Pakes testified that there is a newer article by Y&C which actually talks specifically about RSN distribution. So, the first article was about all kinds of contents, of CNN, ESPN, and Fox and etc. The new article is specific to RSN distribution, and that article finds double marginalization.

THE COURT: I thought that article wasn't in evidence.

MR. BURKE: Well, I mean Dr. Pakes testified to it. I'm not sure --

THE COURT: Really? Then I'm misremembering. I thought there was one that I said he couldn't talk about.

MR. BURKE: I think that was one of his supplemental analyses. He had withdrawn an exhibit, and he was talking about why he withdrew that exhibit, but the article itself I think is part of the record.

THE COURT: I'm not sure about that.

MR. DIVER: We certainly never put the article in the record.

THE COURT: Yeah, I didn't think so.

MR. DIVER: And there is an issue with that too. There are several editions of it. It's a working paper, not a published paper, so it's not a definitive version.

THE COURT: That's my memory, that it wasn't in evidence.

MR. PARIS: Just for clarification, the article is cited in his declaration, and there was never an objection to it, your Honor.

MR. BURKE: So, I mean we will be happy to clear that up, but I think it's quite clear that the people that Dr. Noll considers to be the gold standard, from whom he derives his work, believe that there is double marginalization both with respect to the traditional cable networks and also specifically with respect to RSNs.

And let's finish up with our favorite economists C&Y. There is a lot of stuff here, but this actually was shown to Dr. Pakes, and I think this actually settles the issue.

The first sentence is actually Dr. Noll's point. It's a lot of complicated stuff, but I think what he is saying linear input costs -- linear pricing means per unit pricing, per-subscriber fee. So linear pricing is double marginalization. He says it's true that people will sometimes try to get rid of double marginalization by using fixed transfers. But then Y&C go on to say when there is downstream competition, however, commitment to linear contracts is one way of avoiding the dissipation of profit due to such competition.

What is that? Multi-product pricing. You have to take into account when you are using multiple kinds of channels of distribution that they're going to take sales from each other. If you charge all those people a zero marginal cost, they're going to drive down the prices and then you're not going to make any profit. So, that's why when you've got multiple channels of distribution you charge a margin. You use linear pricing to control a chain of distribution. That's what Dr. Ordover was saying. That's what Dr. Pakes is saying. That's what C&Y say as well. They are the people that Dr. Noll relied upon, yet he ignores their analysis and does not apply this.

Finally, your Honor, I would just point out that the points that were raised by Dr. Pakes and Dr. McFadden continue to apply here with respect to class certification. This is the classic quote from Rail Freight: "No damages model, no predominance, no class certification."

I don't know if we have any time left. We were going to reserve a little time for Mr. Paris to speak about the (b)(2) issue.

THE COURT: Yes, we have nine minutes.

MR. BURKE: OK. I guess I didn't know we had that much time, your Honor.

THE COURT: Yes.

MR. PARIS: Thank you, your Honor. You asked a question of Mr. Diver at the beginning of his opening as to whether they could satisfy the (b)(2) standard without showing class-wide injury, and the answer to that is they can't.

There is a case pretty much directly on point on this issue from the Southern District of New York, a decision by Judge Cote in an antitrust case called Freeland v. AT&T. I put the relevant quote up on the screen and it's cited in the brief.

Basically what happened there is Judge Cote threw out the expert analysis by the plaintiff, and there was no methodology by which they could prove class-wide injury, and finding that they would have to establish an element of liability individually, and she said there was no way to establish class-wide injunction. So, that is one reason why they cannot establish the (b)(2) standard.

There is another reason why they cannot establish the (b)(2) standard, which is that the class is composed of former subscribers. And we see this in Dukes. The Supreme Court held that one of the reasons why the class that reached the Supreme Court in Dukes was overturned was that half of the members of that class were composed of former employees of Walmart, and they had no claim to injunctive relief, so class-wide injunctive relief wasn't viable.

And other courts have also --

THE COURT: So, you're saying there are no current subscribers who are class representatives?

MR. PARIS: It's a mix. It's a mix. And we are going to look at that evidence.

So the Dukes holding has been applied in consumer cases. This is a Mercedes case that we quoted that said Where there is a mix of former owners of vehicles and the current owners, you also can't have a (b)(2) class because they are not all entitled to injunctive relief which is forward looking.

And what's the evidence in this case? These are just among the class representatives. We have a mix of current purchasers and former purchasers; they're asking for -- in our case we have three out of the four class representatives in each of the Internet class and television class are actually former purchasers. And the reasons they have given in their deposition for not purchasing the class actually don't have anything to do with the territorial restraints at issue.

And I don't necessarily have time to go through this in detail, but if you just look at Mr. Lerner, what he said is he represents or wants to represent the MLB Internet class, and he purchased it for one season in 2011, and then he switched to watching Extra Innings on TV, which is a different proposed class, and that's bought by his wife -- and we actually resolved that in an arbitration issue, a different issue -- and he did that because of quality reasons. So, he never went back to Dot TV, he never bought it since 2011.

Mr. Traub made the opposite decision. He moved from television, which is the proposed class, to the Internet because it has features he likes better.

Mr. Silver used to buy CenterIce from DirectTV.

THE COURT: No, this one relates directly to the territorial problem. He says I can always watch the home feed which I prefer. So that's blackout related.

MR. PARIS: But it's not related to the territorial blackouts. Actually DirectTV -- he is talking about his local, the local channel, which in that case wasn't carried on Comcast -- or wasn't carried on DirectTV because DirectTV and Comcast hadn't reached an agreement on it. It wasn't a blackout that's being challenged in this case. So, when he switched to Comcast he said, well, I didn't buy the package because I wanted to see what their selection of games was, and I was traveling a lot and so I didn't buy it then. And then he said, well, the next season I didn't buy it because I had a medical issue and I couldn't focus on television because of the pain killers I was on, and then I didn't buy it again at the moment I deposed him. And as far as we know he hasn't bought it still. He's not entitled to injunctive relief because he is not showing any imminent injury, and so on.

So, that's the status of the current class reps just like the former employees in Dukes.

Now we also have evidence that's in the record of the fact that people leave the television platforms as well as the Internet platforms just in general, they stop buying DirectTV service, and they stop buying Comcast service. DirectTV reports a figure called churn which is the number of people that actually leave DirectTV. This one and a half percent rate that's in our annual report reflects the number that leave every single month, so about 18 percent a year. We have seven years of class, and every year of the 20 million DirectTV subscribers, 18 percent leave our platform every year. The same happens with Comcast. That reflects that since the beginning of the class period in 2008 two and a half million television customers have left.

THE COURT: And they are not replaced with new ones? Is that a net loss?

MR. PARIS: No, it's not. Well, for the Comcast it is a net loss. For DirectTV, they are replaced with new ones. But the point is this evidence shows a continual change-over in the subscriber base.

And in response to this evidence, there is nothing from the plaintiffs that show that every single member of the proposed national classes is entitled to injunctive relief, because they would benefit from this injunction. It's their burden, and the court is required to conduct a rigorous analysis that they have satisfied these burdens, and they haven't.

What they have said is that the plaintiffs might go back into the market and buy again. And that's not what the court is supposed to be asking the question. The Supreme Court in Dukes did not ask, well, like the plaintiffs that are former employees become reemployed at Walmart. They didn't do that because you need to make the decision now based on the facts that are in front of you, and you can't -- well you shouldn't certified a (b)(2) class on this evidence.

THE COURT: Thank you.

MR. PARIS: Thank you.

THE COURT: All right. Plaintiffs.

(Continued on next page)

THE COURT: All right. Plaintiffs.

MR. DIVER: I, too, thank your Honor and the Court for having the patience to deal with some of these issues.

The first issue I guess I will address is Mr. Paris' issue on the (b)(2) class. I have to admit I was somewhat surprised by his argument that former subscribers are not members of the class at all.

THE COURT: Of the injunctive class?

MR. DIVER: Of the injunctive class. Well, they're members of the damaged class obviously. And this is an issue that has been briefed and, frankly, resolved by the Court in the past. They made exactly the same argument with respect to standing to seek injunctive relief for the same plaintiffs, okay. So the issue is not whether we can prove that they will in fact purchase something in the future. They are participants in this market. They are likely to buy baseball and hockey programming in the future. And they will certainly be benefited by having more choices at lower prices, all of them, which is the relief that they seek. So it's just simply not the case that the former subscriber issue -- I think I referred to the briefing on this issue. I think both in the class certification briefing it's addressed. It was addressed in summary judgment. And I think it was addressed on the 12(b)(6) issue.

I do want to kind of back up and try to address the question more generally of how the damages model fits into the theory of the case, which I think goes to your question about this. Defendants have said on a number of occasions that no damages model, no impact, no class, and I want to show you why that's simply not true.

The plaintiffs are challenging the territorial restraints and monopolization of out-of-market distribution of its programming. As in any antitrust case, the effects of this are broad, but the effects directly felt by the class members are also broad. The clearest and most direct effect of it is to deny market choices to the class members.

Again, these are all people who have purchased not only baseball and hockey programming, but full league package baseball and hockey programming. They are all people who are at that sort of high end of interest in the sport. The second main cause, and, indeed, one of the main purposes, is to raise the prices of local sports programming, local RSN programming. And third, but only third, the effect is to raise the prices of the out-of-market packages.

Turning to the first issue --

THE COURT: Which is what the model of Dr. Noll's goes to. So, are you going to tell me if you were to lose, and you certainly hope you don't, you'd only lose number three but you'd still have one and two without Dr. Noll's model?

MR. DIVER: That's correct.

Now, plaintiffs have made clear in their briefing throughout, they have made clear in the summary judgment briefing, in the class certification briefing, Dr. Noll testified as to this, that one of the primary effects is the loss of market choice the consumers face. Plaintiffs have never denied it.

THE COURT: You mean defendants? Defendants you mean?

MR. DIVER: Defendants, they simply ignored it. I want to show you a quote from your Honor's opinion in the 12(b)(6) opinion. It specifically says reduced customer choice and increased prices when they are the result of anticompetitive practice constitute antitrust injury, and it cites the *Brantley* case.

THE COURT: Well, it doesn't cite to it; it's a full quote. It quotes *Brantley*.

MR. DIVER: Exactly. And it quotes that "reduced choice (due to the inability to purchase *à la carte* programming) is antitrust injury."

The Court there found that there wasn't antitrust -- there wasn't anticompetitive conduct but it said if there's conduct, then this constitutes antitrust impact, and that was the holding of your Honor. We have repeated this again and again, and the defendants have simply ignored it.

The second effect is to raise the prices of RSN programming. Now, it's true that not everybody pays for RSN but most people in the class pay for RSN programming and most people are charged a higher price because of it. In fact, it's not really in dispute. The defendants have never argued that the price -- that the costs of RSN programming are not raised by their practices. Their central defense is to say that they need that programming to have increased value in order to create certain other benefits, but the fact that the prices are raised is not a disputed issue.

THE COURT: I'm sorry. Which prices are raised?

MR. DIVER: The local, in-market RSN prices and the affect on people who subscribe to their cable as a result of this. You can't pick up the paper without reading a new story about how the cost of sports programming is going through the roof and driving up the price of cable bundles. That's exactly what's going on here, and they're not denying that it happened. They're saying it's justified for some other reasons; but if they're wrong and it is a violation, then the impact is theirs, in the price --

THE COURT: Your opponent just discussed the in-market situation whether you were challenging in-market restrictions, but I think you said no; but I guess this is not in-market restriction you're talking about.

MR. DIVER: Some history may be helpful here. As your Honor will recall in the original complaint, these rights fees were not only a part of the relief sought; the class included anybody who paid elevated prices through their Comcast or DirecTV, not any cable television system.

And your Honor ruled that while this was, in fact, an injury that resulted from the alleged conspiracy, that these plaintiffs are not efficient enforcers under the Associated General Contractor's rule and, therefore, those plaintiffs were dismissed from the case, but you specifically allowed that the remaining subscribers, so television could continue to assert those claims. So what we have done, and we have been consistent, is that we're continuing to assert that this is antitrust injury, but we're not seeking to calculate the actual amount, okay. So we're going to seek relief for it, but only prospectively.

THE COURT: Injunctive relief?

MR. DIVER: Injunctive relief; exactly.

THE COURT: Okay. And then if Mr. Paris is right, you can't get that either, right?

MR. DIVER: Yes.

THE COURT: Okay. This I get.

MR. DIVER: Although that would also -- any current subscriber to a television package would have this relief, even under Mr. Paris' characterization.

THE COURT: I guess he found a case that said if it's a mixed class of former and current, then it wouldn't be class-wide relief and you wouldn't be able to get injunctive relief; and then he put on the screen that many of your representatives are former with an express lack of intention to come back in the market.

MR. DIVER: And their ability to proceed with their challenges, their standing to do so, has already been tested and resolved.

THE COURT: I understand for damages retrospective. I don't know about prospective.

MR. DIVER: No. Specifically this argument that they have challenged these named plaintiffs' ability to seek injunctive relief is because of that issue, okay.

So the third affect on the class members the overcharge they pay on the out-of-market packages. So the remaining class members are defined by the fact that they purchased an out-of-market package, and we allege they paid high prices because of it.

The basic theory is straightforward. They purchased a product, it's the same product that the other class members purchased. They paid essentially the same price for that product.

THE COURT: You're talking about the out-of-market packages?

MR. DIVER: The out-of-market packages. If it was priced too high because of a restriction on competition, then they all paid the same amount too much. There's variations, but those are easily accounted for, and we haven't heard any disagreement with that basic contention.

So realizing that the out-of-market package damages is just one part of the case helps to understand why Dr. Noll's model is not a model of the entire case. Dr. Noll's model is a model that is trying to find a fair estimate of what that product should have cost, okay? It's not intended to model all of the effects of the antitrust violation in this case.

THE COURT: Okay.

MR. DIVER: Now, I don't want to spend too much time, but I think your Honor understands that the core issues in this case are really all common issues. Even the issues related to impact and pricing that we're talking about here are common issues really entirely, okay? These are the impact common issues. The out-of-market package issue they claim is not common once you get to this winners and losers argument. But for them to get to their winners and losers argument, they first to have to do what we spent the last three days talking about, which is to say that there is no appropriate benchmark pricing that Dr. Noll established either because the products wouldn't exist, the price would be higher or because Dr. Noll's model is not admissible. All of that applies to the class as a whole. There's frankly, no reason why any of those arguments need to be resolved now. They can all be resolved on a class basis.

THE COURT: That may be if he is still in the case after the *Daubert* challenge.

MR. DIVER: Exactly, but --

THE COURT: I understand from there, you're saying if he's allowed in, then it becomes a common issue.

MR. DIVER: Right.

Now, one thing that's important to keep in mind, because we're proceeding on an overcharge theory, because we're saying that the harm should be measured by the overcharge, by the amount people should have paid, it applies on a class-wide basis and we're not the first to say that that renders this winners and losers argument irrelevant. As you see in the *Visa Check/MasterMoney* antitrust litigation, a winners and losers argument is immaterial when an antitrust plaintiff proceeds on an overcharge theory.

And we can show you why this is in this case. These are the issues that will be faced at trial: The first are all of the various issues involved in whether or not defendants' practices are legal or illegal. If the defendants win their rule of reason case, they will have won on a class basis. If they don't, the question will then be did plaintiffs suffer overcharge damages. If the defendants win on that, the plaintiffs will not be able to show damages, any of them.

The next question will simply be should the Court issue an injunction. That injunction will have no individualized component. This is not like *Dukes* or -- it would simply be an injunction against defendants' practices. So there's no part of the trial that involves assessing winners and losers.

Now, I have a number of slides to sort of make the point that even at trial, the burden on plaintiffs for establishing damages is a reduced burden. And the one I like the most is this one because that's what the defendants are arguing here. "Where there is a dearth of market information unaffected by the collusive action of the defendants, the plaintiffs' burden of proving damages is lightened." In this case, there is no evidence of a competitive market in Major League Baseball and National Hockey League programming because these practices have now been in effect for some 30-odd years, okay, so there is a dearth of market information about.

THE COURT: I understand about what a competitive market would look like.

MR. DIVER: So that is the burden on plaintiffs trial. The burden on plaintiffs at class certification, of course, is not even that. It's to show that the plaintiffs will be able to establish on a class basis under that standard at trial. And, of course, under the *Daubert* standard, it's reduced to another level. The question is whether Dr. Noll's model is reliable enough to support the contention that plaintiffs will be able to show damages on a class basis at trial.

THE COURT: Everything so far has been background to that question. You have not yet addressed reliability of Dr. Noll, right?

MR. DIVER: Right.

THE COURT: Okay.

MR. DIVER: Now I would like to turn to Dr. Noll's model. Now, one thing about Dr. Noll's model that I want to highlight about the testimony we heard from the experts these past three days is we did not hear anyone attacking the underlying methodology.

THE COURT: I'm sorry? We what?

MR. DIVER: The underlying methodology.

THE COURT: I don't understand what you just said. I thought I've heard nothing but that for two days.

MR. DIVER: Well, it depends on what you mean by "underlying." Nobody said that structural modeling, the Generalized Method of Moments or Bertrand's pricing models are not reliable methods. To the contrary, every expert supported the underlying methodology.

What they argued was that there should be some additions to the model, that they should have done it a different way, or that Dr. Noll made some errors in implementation.

Not one of the experts testified that a reliable model using these methods could not be estimated, nor did anyone argue that this is not the right general way of approaching the question in this case, nor did any economist present the results of any statistical test showing a statistical failure of the model. There are standard ways of testing statistical models and the defendants have not presented any such tests. Dr. Noll did do such tests, but only he did them.

THE COURT: I don't know that that's accurate either. Some of the charts that talked about predicted and actual, and these came out in reverse of what one would expect.

MR. DIVER: There were no standard error type tests.

THE COURT: No, but there were a number of exhibits that took issue with the results.

MR. DIVER: But there are industry standard ways -- yeah, it took issues with the results, but they didn't use sort of industry standard error testing methods. They produced results that they thought looked bad is essentially what they have done, and I will discuss that.

THE COURT: They did talk about such ways of testing the validity of a model such as falsifiability or absurd results, and then they used examples of both to show that this model fails.

MR. DIVER: We can talk about -- absurd results is not kind of a formal method of testing a model. It's a way of looking at a model and seeing if it matches your intuitions or not.

Now, I want to address the issue of defendants' data. So, as I stated, the plaintiffs' burden is reduced somewhat by the fact that they have challenges involved in the production of data. Much of the challenges that we have heard are that Dr. Noll should have used more data. As we stated, the failure to produce data is the risk goes on the defendants for that, not the plaintiffs.

Now, Dr. Noll's model, again, part of it not being a final model is it's a model of only three datasets in one year. Now, we plan to run the model on more datasets when we receive them. We have received certain data sets from some of the defendants, but ultimately this is an ongoing violation. So, we need to do this at the time of the final model, and we don't know exactly when that is going to be.

So the data is limited in a number of ways, but in other ways, it is extremely detailed by normal standards. It is actual viewing data of actual people down to the individual level of their actual purchasing details. And we have seen that the model actually matches this detail data extremely well in all of the ways that it's properly measured. We see the means of standard deviations of the viewing times of the individual teams of the margin of the market share. There are charts like this for each team. These are the most and least-watched teams in each dataset. And you can see that it matches overall our conception of them.

Now, turning to the challenges that the experts have raised, I want to address some of the issues we have heard. We heard a lot of challenges in the defendants' closings. But the first is that this whole project is off to the wrong foot because there would be no bundle in a but-for-world and the only expert who testified in any way to support the lack of existence in the but-for-world was Dr. Ordover. And Dr. Ordover's testimony was based entirely on his conception of content exclusivity. And we heard from Mr. Burke that they still believe that content exclusivity is critical to the existence of the programming.

And yet the facts that we have seen over the last three days are that the leagues do exactly what the defendants had been claiming they never do. The radio feeds, to use defendants' terms, are appropriated by the teams and then the league and then used to broadcast directly back into the home territories and elsewhere. Major League Soccer operates exactly as plaintiffs' claim they would do here in the sense that the league has a league-wide package where they "appropriate" the feed and then compete back into the home territory of the producing RSN with that feed.

In fact, even the NHL does exactly what they say would never happen for the NHL divides territories into exclusive and nonexclusive territories. And a subscriber to DirecTV can view an RSN feed through an out-of-market package that is competing with the local RSN.

Now, notably Dr. Ordover does not do any quantitative analysis showing the lack of bundles existing in a but-for-world. He relies entirely on the defendants' statements that this content exclusivity is so necessary that the content wouldn't exist without it. In relying on these defendants, of course, he's ignored other of the defendants'. Bob Bowman has testified repeatedly that content can coexist on the Internet and on television. The Rangers as you know sued the NHL because it recognized that the practices at issue reduced output and raised prices.

Now, Dr. Ordover, as your Honor has acknowledged, ignores the fact that the teams are compensated for the teams in these arrangements. They're compensated the normal way that teams are compensated by leagues in general, by a share of their profits. Built into that is the fact that the leagues want to evenly divide the profits, which, in fact, amounts to a form of revenue sharing. Some teams end up worse off by virtue of this. The Yankees certainly contribute more than 1/30th to these national bundles and yet they receive only 1/30th of the revenues or the profits.

So, Dr. Ordover concocts a theory that is not based on any analysis of any of the ways that actual sports leagues act presumably on the basis of basic economics that teams or RSNs would start charging the leagues feed fees on a per-subscriber basis. Yet neither these leagues or any other leagues that Dr. Ordover could identify has ever done that in any sale of intellectual property rights.

THE COURT: I thought on the defense argument Mr. Keyte said that's how it's done now, and he showed me a sleight about per-subscriber mark-ups.

MR. DIVER: Not from the teams to the leagues.

THE COURT: No, not from the teams, right, from the MVPD to the RSN? Is that right?

MR. DIVER: I will address the MVPD to RSN in a second.

THE COURT: Okay.

MR. DIVER: So, it's important to see that Dr. Noll's assumption that the teams would provide these feeds for free is hardly radical. That's how they do it today, that's how include -- with all of their intellectual property. Nor is it radical to assume that the leagues would compete with the teams with this content. As we have seen, that's exactly what they do today. That's what they do on the radio. That's what the NHL does in the outer territories. That's what other sports leagues do. Major League Soccer competes directly with the RSNs in the distribution of its out-of-market packages.

Now, I want to turn to the issue that you raised of bargaining. Now, Mr. Keyte argued, and I think we should note that this is not correct, that simply because there is negotiation in a vertical market does not mean that one needs a formal bargaining model.

A formal bargaining model is needed when, as a result of the bargaining that you think will happen, you believe that it will have an effect that ultimately changes the retail price in a meaningful way. It only will do that under certain conditions. It depends entirely on how the contracts are structured.

So, for instance, the teams and the RSNs today are almost always contracted with a flat fee. The team charges $50 million to the RSN. The RSN sells as much of it as it wants. That has no affect on the retail price. There would be absolutely nothing to be gained by measuring the bargaining effects of that relationship in the but-for-world.

Nor is there any vertical relationship on the Internet side that would have any cause to be bargained. The only relationship that they plausibly contend wouldn't fall apart is the RSN MVPD relationship. Now, I believe it was Mr. Burke who put up a contract showing that there are per-subscriber fees at that level, but what he didn't show you is that those contracts also have requirements that those programs be placed on basic tiers. Dr. Noll repeatedly testified that when per-subscriber fees are combined with tiering, it reduces and nearly eliminates the effect of double marginalization, and no expert ever challenged that conclusion. So, the existence of double marginalization in the current world is minimal, and this is not simply Dr. Noll's view. This is the view that the Department of Justice came to after reviewing the Comcast/NBC merger, okay, because there again, Comcast was arguing that there's all this double marginalization in the cable industry and the Department of Justice said no, really, there's not.

So, what we are talking about is not moving from a per-subscriber linear fee now to a per subscriber linear fee in the but-for-world because it would be a per-subscriber linear fee without the effects of tiering. So what they're suggesting is that the defendants would enter into agreements with per-subscriber fees without any protection from double marginalization because it wouldn't have tiering and it wouldn't have anything else.

So Dr. Noll's basic assumption is, like the Department of Justice, there probably wouldn't be much of an effect from double marginalization; but the important point is if there were much effect from double marginalization, that would be against the defendants' interests and they wouldn't contract that way. And we have seen that when there is a substantial possibility of double marginalization, they don't contract that way. The out-of-market bundles are sold to the MVPDs in ways that prevent that effect. Those high-priced items, okay, that would have a potential for substantial level of marginalization are not priced that way. Similarly, as I stated, the teams do not sell to the RSNs in a way that has any possibility of double marginalization.

So the basis for their argument on bargaining is really the Crawford and Yurukoglu paper. And since the beginning of the class certification briefing, it's been the defendants' position, as I understood it, that because Crawford and Yurukoglu did bargaining, then it's unscientific not to do it in this industry.

Now, you've seen now several times that they have qualified their own analysis by saying, yeah, this assumes linear pricing which some people might think is unrealistic, and then they provide a reason why they did it that way, but there's no actual analysis as to whether that's the appropriate way to do it.

But in any event, yesterday Dr. Pakes stated that in fact you don't have to do the bargaining analysis that's in Crawford in Yurukoglu. When asked if it was needed to do this bargaining model as reflected in the C&Y paper, he said I don't think ever I said that in either my report or in my deposition. And then he went on to say that there are other ways that you could look at this relationship. And he didn't have any that he thought was necessary. All he said was that this relationship needed to be analyzed.

But Dr. Noll had analyzed the bargaining issue. He's discussed this from the beginning. He's simply analyzed it in a different way. This is not about methodology. This is a dispute about how industry participants are likely to structure their contracts if there's the double marginalization effect.

Now, Dr. Noll is plainly qualified to testify about the sports broadcasting industry. I want to address as well the issue that Dr. Noll is ignoring the MVPDs. He doesn't again specifically analyze the relationship between the RSN MVPD because he has concluded that the price that is charged to the consumer will not depend on that relationship. So he hasn't, again, he hasn't ignored the MVPDs, he discusses the MVPDs and he says why he doesn't need to specifically address the MVPDs.

The suggestion that he simply ignored the MVPDs or not allow that they make a profit is simply wrong. He believes that they would make a profit. He figures out what the maximum profit with the RSN and the MVPDs together could charge, and then he assumes that they split it in ways that was profitable for both. Now once again, this issue applies only to the television side. It has no application on the Internet side where the sales are direct from the league entities to consumers.

I briefly want to touch on the Yankees deviation issue because this is another case of an attempt to try to fit a dispute about how to properly model this market into something called methodology, okay. He claims that the model is not an equilibrium, but there's really no dispute that it is an equilibrium as long as you accept that the rules are as Dr. Noll assumes they are. This is not a dispute about whether there's equilibrium or not. This is not a methodological dispute. This is a dispute about whether this rule is likely to continue in this industry in the but-for-world.

As Dr. Noll stated, the reasons leagues have rules that constrain teams is precisely because the teams are likely to pursue their own interests in different ways that the leagues don't like. So the fact that a team has an incentive to do something else is, in fact, the reason for the rule in the first place. The leagues have decided that it's in their best interests overall, both because it's more profitable and for other reasons that leagues take into account in making such league rules.

Now, as we have discussed a number of times, the Yankees have an incentive to deviate from probably most league rules, certainly league revenue-sharing rules, national television contract rules, any number of rules.

Now, I want to talk briefly about Dr. Pakes' joint venture pricing analysis again. Again, he's presenting it as a methodological issue and to do so, he's assuming that it doesn't matter what the facts are. Now, Dr. Noll, of course, believes correctly that this would be a collusive pricing strategy, but it's also true that it's a quite plausible pricing strategy.

The league officials in both leagues in this case have testified they do not set league prices above profit-maximizing levels; in fact, they set prices below profit-maximizing levels. Dr. Noll has explained why leagues have incentives to favor central revenue over team revenue. And this leads to them taking their own profits into account more than the team's. And what defendants are suggesting is that the league would give up its profits in order to spread them amongst the leagues, which, of course, would also spread them less equally among the teams as well.

THE COURT: I know he misspoke. He said "teams." He meant "leagues." No problem. I got that.

MR. DIVER: I want to address the three type model that Dr. Noll created.

THE COURT: What about the argument about the multiproduct pricing that if it's one person doing the pricing for two products, you can't collude because you can't collude with yourself? So if the MVPD is selling both the standalone and the package, they would take into account the effect of price on one and the effect of price on the other without colluding.

MR. DIVER: Right. I think there's a confusion in that. Dr. Noll is not saying that DirecTV can't set prices to the extent it has the power to set prices, but --

THE COURT: He's saying the model doesn't take account of multiproduct pricing techniques.

MR. DIVER: The model does not assume that DirecTV has complete pricing power over the retail price. In fact, DirecTV doesn't have retail pricing power over the league packages now either. Those prices are set.

THE COURT: It has no control over the league package price?

MR. DIVER: Well, it has some control over the league package price, but it does not have independent pricing power under either of the contracts. In both cases, the league has some say in the pricing of those. So there's that, and DirecTV also faces competition.

The way Dr. Pakes modeled that DirecTV faced zero competition, so it was just simply setting the monopoly prices as though there's no other baseball in the world, right, and no other MVPDs and no anything. So that pricing model doesn't take into account all of the constraints on DirecTV's pricing, both from the source and from the competition. Now, the three team --

THE COURT: Three categories?

MR. DIVER: -- the three categories, now this was, of course, created in large part in response to Dr. McFadden's suggestion that fans be fit into -- he had two types, superfans and fans of the game. And Dr. Noll's response to that tried this multi-team thing, and it had a number of clear benefits for the model, including capturing competition between the teams in a way it never had before. I want to clarify some of the ways in which this is done.

Mr. Keyte was incorrect that the model could not account for his interest in the rest of the league.

THE COURT: Didn't Dr. Noll testify that he zeroed-out, so to speak, those who watch less than an hour a month of the other channels, you know what I mean, the ones who flip through and take a quick look?

MR. DIVER: He said an hour a season.

THE COURT: Whatever. Those people, he zeroed out.

MR. DIVER: It doesn't assume that if you watch very, very little that you're actually -- that the utility -- you're not getting any utility from actually watching the channel, okay, from the time spent enjoying watching a baseball game. So Mr. Keyte is a perfect example of that. He likes to watch the Yankees but his interest in other channels is not to watch those games; it's to find out the score.

THE COURT: I know. I said you're not watching the whole game the hour, but what he said is it has utility to him and he would pay for it. He said he would pay for the multichannel because he wants to be able to check out --

MR. DIVER: But that utility is captured for Mr. Keyte. That's part of the logit utility term. So it's not that the model doesn't account for somebody who does that; in fact, it accounts precisely for somebody who does that. He gets utility from actually watching the Yankees and he gets some other kinds of utility from having the package information, feeling like he can check in.

THE COURT: All I know is he's placed in the first category of the single-team fan.

MR. DIVER: That's right, that's right, because he is overwhelmingly interested in watching the Yankees.

THE COURT: I know, but it's kind of an arbitrary line. Where do you draw it? One hour, five hours, 30 minutes? All I'm saying is it was zeroed-out of the analysis.

MR. DIVER: That's a good question. It's not an arbitrary line in that sense. It's actually part of the estimation process. The model figures out how many people are in which category as part of the estimation for matching. So it's part of what creates the match with the data. It's not canceling out any data by the way. It's matching all of the existing data, but it's using this method of dividing people into three categories in order to better match the data.

Now, I think the idea -- I think intuitively, there's a notion of someone like Mr. Keyte who really likes the Yankees and he might like to have the package, right?

THE COURT: He said flat-out "I would pay for it."

MR. DIVER: Right, but what he wouldn't do was substitute to another team instead of the Yankees. He would not realistically --

THE COURT: He did not argue that. He argued he would want the multichannel thing.

MR. DIVER: He would either want the Yankees or the multichannel. That's exactly who is precisely being captured by the single team.

Now, there's been obviously a great deal of discussion about how the multi-team fans come out in terms of their likelihood of buying the bundle. Now, as Dr. Noll testified --

THE COURT: The real dispute is whether the price incentive is the reason for what appears to be the skewed numbers or not. And there was testimony by the experts for the defense that it's impossible that it was driven by price sensitivity. One of them put a slide on the screen that said it cannot be, it has to be something else, and so a flaw is created by the formula.

MR. DIVER: You know, it's hard to argue against an expert like that, but I think it's clear that that's not true; that what's happening is the multi-team fans are people who are precisely, because they are responding to differences in prices, that it's driving the prices down. So they are -- in fact, the model is identifying them.

THE COURT: The problem was when they made the price the same, it came out the same way anyway. And even when they made the price the same and very low, it came out the same anyway. That was their point. They attempted, and maybe successfully, to disprove that price sensitivity accounted for that skewing. And therefore, they said it had to have come from the modeling, I guess the logit error thing.

MR. DIVER: I'll get to logit error. There are two issues about that. This is another example of sort of a repeated strategy of the experts for the defendants of sort of plugging in false information, false data, false prices into the model in model in order to --

THE COURT: Is that fair or is it just changing assumptions? They took Dr. Noll's number for the package, $20.05, and they just put it on both sides of the slide. So it assumed that the price sensitivity was taken out of the picture; and then they tested it and it came out the same way anyway.

MR. DIVER: But as Dr. Noll testified, two things, one that model is not an equilibrium because those prices would not remain equilibrium, but also if you were to do that, as Dr. Noll said, you would have had to reestimate the model from the beginning.

THE COURT: That's true. He did say that.

MR. DIVER: It's not a way of actually testing the model that's a standard test. In fact, the standard tests are the fact that this fits the data extremely well. It passes the standard error test and so forth.

There's a question about how much of this is being driven by the fact that plaintiffs are substituting because of price and how much is being driven by the logit error, you know?

THE COURT: Actually, no, I don't know. You said "you know." I don't know how to decide that exactly. Do you want to give your views on that?

MR. DIVER: The defendants don't explain how much of this is being driven by the data and how much of this is being driven by the logit error. They haven't provided any tests that show this. But one thing that they certainly haven't done is testified that this makes any difference in the results, okay? The model is not testing every aspect of this. In fact, it makes a number of predictions about things such as individual team prices and market shares, and it doesn't really matter like if they get these right.

If the relative prices of the Astros and the Blue Jays and some other teams are not quite right, it doesn't really matter because it all matters in how it effects the price of the bundle. There's a single thing that the model is trying to do.

THE COURT: Yes.

MR. DIVER: So there's a question that's never been answered about whether this has -- well, it's never been answered by the defendants. Now, as Dr. Noll testified, in fact, that if he thought that this were important -- it's not what this model is about, so I would think on its face he thinks it's important -- but if he thought this was important, the way he would do it would be to change the weight of the logit error.

And as he stated, he has a value that sets that that is highly conservative because he didn't have a way of setting it higher, but he knew that this would create a lower round on damages to do it that way. So for all of these reasons, the three-team chart, the 99/1 chart has not been shown that this model has any fundamental flaw.

THE COURT: Are you going to spend some time on the demand-side predictions of what that large 96 percent group would do?

MR. DIVER: Yes. I am absolutely going to do that.

THE COURT: In the absence of a survey, it might help to inform who they are and what their choices would be. Oh, you were going to turn to that. Okay.

MR. DIVER: I'm going to turn to that. These are slides from Dr. Noll's presentation this morning that in fact this is standard practice. In fact, if you look at Dr. Pakes' --

THE COURT: This is a group that, first of all, had a survey; and, second of all, it had the demographic data from the census. There were two very big differences.

MR. DIVER: That's true. It had certain kinds of data that we don't have here, but we also have certain kinds of data that they didn't have there.

THE COURT: The argument is made that you could have done a survey.

MR. DIVER: Well, Dr. Noll testified that a survey here would have had to have been, you know --

THE COURT: Too complex. That's what he said.

MR. DIVER: Too complex, right. There's 30 different teams and the market shares are very low. So you have to survey a lot of people to even find a few, and you need more than a few in order to have any statistical significance, right? But this shows here the numbers of folks you have data on compared to the rest of the market, in fact, this is not only normal, this is precisely what the Generalized Method of Moments is for.

THE COURT: I do understand that. The only difference is, as I said, Dr. Pakes, in what he was looking at, was describing two things you don't have: A survey and more demographic data.

MR. DIVER: There was a slide, I don't have it here, during the McFadden cross-examination in which it showed at his deposition he was specifically asked if a study was needed to make a scientific and he said no. He said it would be better, but that would not make it unscientific.

THE COURT: Okay.

MR. DIVER: Dr. McFadden had some other critiques, but, again, I think it's fairly clear that the dispute about the size of the market is not the kind of dispute that renders a model such to a *Daubert*.

I want to take a second to talk about his discussion of the insensitivity of the data to viewing times. Now, he had a number of criticisms of the September model that he's now dropped. He hasn't repeated them with respect to what they're calling the third model, the most recent version of the model, but what he has done is he's, again, plugged some artificial information into the model in order to drive implausible results.

He took the data and cut the viewing time in half and plugged it into the model to see if it would change the prices. The problem is, as he testified yesterday, he didn't change the assumption of the price people actually paid. So he captured two effects: People got half as much utility from watching, but they're twice as willing to pay for each minute because they watch half as much. This kind of critique is the kind of sort of manipulation, frankly sophistry, that has no place in certainly the *Daubert* challenge.

I want to say I haven't gone through each of the elements of Rule 23(a) and (b) because in this case it's pretty clear that nearly certainly every requirement of 23(a) and (b) is met.

I want to step back, too, to remind the Court that what we're talking about here is a basic division of the market horizontally into exclusive territories. This is an arrangement that under the antitrust law is a per se violation in virtually any other industry and why is it a per se violation? Because it so clearly is anticompetitive, it so clearly raises prices, and so clearly reduces output.

And yet, we have defendants coming and saying the restraints here actually lower prices and increase output. I submit that Dr. Noll's model is both reliable and suitable for class certification. If you have any more questions --

THE COURT: No. All set.

MR. DIVER: Thank you for your patience with this complicated material.

THE COURT: It's 3:22. What do you want to do?

MS. WILKINSON: We talked to plaintiffs, and I hope it will help you, but we agreed all of the demonstratives and exhibits should go into the record. We just need a day or two to work together to make sure anything that might be sensitive goes under seal. So we would agree to give every slide that we used with the witness, cross or direct, and the exhibits and during opening and closing to your Honor to have as part of the record.

THE COURT: As long as you identify that it was used on opening or closing as opposed to during the testimony so I kind of know at what stage; and if I refer to it in any opinion, I know which I'm referring to.

MS. WILKINSON: We'll do it formally, too. Maybe if your Honor doesn't mind, we do it in that way for yourselves and put it in notebooks with the tabs with each witness that it used with.

THE COURT: That will be fine. I'll get that by the end of the week. Today is Thursday, so no.

MS. WILKINSON: Perhaps Monday.

THE COURT: Monday?

MS. WILKINSON: Would you like it tomorrow?

THE COURT: No. I wish I could believe for a second that it would make a difference between Friday and Monday.

MS. WILKINSON: We were hoping you might want to take a break. Some of our people want to take a break, so if you don't mind we'll get it to you Monday.

THE COURT: That's fine. All right, everyone. Thank you very much for a very organized and impressive presentation.

Decision reserved.

(Adjourned)

INDEX OF EXAMINATION