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 17, 2015
10:00 a.m.

Before:

HON. SHIRA A. SCHEINDLIN,

District Judge

APPEARANCES

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(Case called)

(In open court)

THE COURT: Good morning, everyone. Please be seated.

The parties did as I asked, and they wrote a time schedule out. That was one of my better suggestions so far in this case, and I ask you to please stick with the schedule you wrote. We don't have a lot of flexibility with time. We want to use our three days well. So, I'm even going to skip greeting you. I know who you are and where you are sitting. I would like to get started right away with opening statements. Your own schedule says 30 minutes for plaintiffs, 30 minutes to be shared by defendants, so I assume we will start with Mr. Diver.

MR. DIVER: Thank you, your Honor. I'd like it start just by thanking the court and everybody else for accommodating the need to reschedule this hearing.

Thank you, your Honor. We are going to have three days of testimony over what is undoubtedly a very complicated and difficult subject, namely the economic model that Dr. Noll has presented, but we shouldn't forget that this case overall is a straightforward case for class certification. The complexities you are going to hear about over the next couple of days do not go to the question of whether these issues are going to be resolved on a class basis.

There is no dispute that the core issues of liability

are all common issues. The focus of defendants' attack for class certification is entirely on impact and damages effectively. They cite per se rules that they claim require the plaintiffs to establish both impact and damages on a class-wide basis in order to get a class certified. The Second Circuit has reaffirmed the long-standing rule that that's not true, that damages are not required to be established on a class-wide basis in order to certify a class.

Even still, nothing about what we're going to hear over the next few days is going to affect whether this case should be resolved on a class basis, because what we will see is the damages and impact issues will be resolved on a class basis regardless of whether the defendants' challenges to plaintiffs' theory of damages are correct.

THE COURT: Let me ask my first question.

MR. DIVER: Sure.

THE COURT: If I struck Dr. Noll entirely based on the Daubert challenge, could you proceed?

MR. DIVER: Could we proceed in the case? Absolutely, your Honor.

THE COURT: Could you proceed as a class in this case?

MR. DIVER: Absolutely, your Honor, because, remember, we are seeking not only damages but we're seeking injunctive relief. And our theory of damages is the theory of overcharge of the out-of-market. If we fail to prove that there is an

overcharge on the out-of-market packages, then the result would be that the class members as a whole have not shown any calculable damages.

THE COURT: Then you would only have a B2 class?

MR. DIVER: Well, we would have a B2 class certainly.

THE COURT: Without damages.

MR. DIVER: Without damages.

THE COURT: OK.

MR. DIVER: And then every remaining question --

THE COURT: And for that B2 class, without any damage claim, you could prove that case at trial without Dr. Noll?

MR. DIVER: That's correct.

THE COURT: OK.

MR. DIVER: Well, not without Dr. Noll. Without Dr. Noll's structural model of the prices of the out-of-market packages. You still have all the economic issues about the effect on the market as a whole, market power, the effect on --

THE COURT: And does the defendants' Daubert challenge go to that portion of Dr. Noll?

MR. DIVER: Defendants do not go to that portion of Dr. Noll's analysis at all. They are not really asking for Dr. Noll to be kicked out of the case; their attack is entirely focused on the damages model.

Now, it is true, of course, as we all know I think now, that damages models are currently tested at the class

certification stage, certainly in antitrust cases, but the question that's being addressed is different than the one that's here.

In a typical antitrust price fixing case the question is whether there is a model that is capable of calculating an overcharge for all of the different kinds of products, all of the different kinds of consumers, middlemen, different kinds of contracts, negotiations, for the different titles of e-books. That is the question that requires assessment at the class stage.

In this case we have a handful of products sold on a mass market base at listed prices, and there is no serious dispute that if Dr. Noll's model is capable of calculating the damages for one person, that it's capable of calculating the damages for everybody.

THE COURT: If they have common damages. But according to the defense argument -- and it's their biggest argument -- there are some people who would be so called winners and some people who would be so called losers because some people like to watch all the different teams, and the way the model would work is maybe there would be no elite package at all, it would only be ala carte, which would turn out to be more expensive if they wanted to watch everybody. So, one of their biggest arguments is there is no commonality, there is no predominance, there is no adequacy, because the class is so

disparate in terms of what the viewers want.

MR. DIVER: That's their argument.

THE COURT: Yes, I understand.

MR. DIVER: But the first step in their argument is Dr. Noll's model can't show overcharge damages, because there aren't any overcharges for the out-of-market package.

THE COURT: I was putting that aside.

MR. DIVER: I understand. But that first question is a class-wide question, the question of whether the model applies on a class-wide basis. They're saying the model can't show damages for anybody, and so then we have to look at all the other harms and benefits they get.

THE COURT: I didn't think it was sequential. I didn't think the arguments were sequential. I thought they were two different arguments: One is the attack on the model itself for not being able to appropriately calculate overcharges, but the other part is that some people just don't want the "but for" world that he posits because it will lead maybe to the end of league packages.

MR. DIVER: Right. But again if plaintiffs' class members were overcharged, then they certainly suffered impact, and they can add a claim for damages, not withstanding whether there are other issues.

THE COURT: I see the retrospective overcharges.

MR. DIVER: Exactly.

THE COURT: In other words no "but for" ruling really, just were they overcharged and, if so, by how much.

MR. DIVER: Exactly. The "but for" world is, you know, I mean there is going to be a lot of talk about a "but for" world in this case, but it's a way of figuring out what the actual value is of what the plaintiffs purchased, what it should be in a competitive market. We aren't here to figure out what the future is going to hold exactly; we are here to find a way to calculate the way that the world should have been.

THE COURT: But you do want to go into the future somewhat. When you talk about an injunction, you want to stop something as a practice --

MR. DIVER: Yes --

THE COURT: -- which means if that is stopped there will be a different practice. That's the future.

MR. DIVER: But the past is not to predict every detail.

THE COURT: Hardly every detail, but once you stop a practice there has to be some other way of broadcasting the games. Is that wrong?

MR. DIVER: I'm sorry, your Honor.

THE COURT: Oh, OK.

MR. DIVER: Going back to the point of the model, the defendants are arguing that there are winners and losers

because there are differences, but what they are not arguing is that the overcharge for the package is any different from one person who bought it or somebody else who bought it. Dr. Noll's model only addresses that overcharge, so it necessarily applies to the class-wide basis.

Now, another important point to remember about Dr. Noll's model is that it's not a final damages model, it's not intended to be a final damages model. In fact, Dr. Noll, plaintiffs don't have to have a model at this point anyway. The burden here is to show that there is a way of calculating damages on a class-wide basis.

Your Honor in the Betances case recently affirmed that models aren't necessary to show that there is a methodology to resolve issues on a class-wide basis. That's a fundamental rule of the law. Nevertheless, Dr. Noll has produced a very highly sophisticated model, not a final one but a very highly sophisticated and reliable model.

There is no real challenge to the underlying methodology that Dr. Noll -- the methodological approach. He has created a structural model to determine the price of the bundle in a world in which the restraints are removed and every team's games are available in a competitive market. He uses the Generalized Method of Moments to estimate demand based on actual data of viewership and purchase decisions in the actual world. He then simulates a counterfactual world in which these

additional products are available.

Now, the defendants use the same methodology to attack Dr. Noll's model. They haven't challenged the overall approach, and it's not surprising. The defendants used this methodology themselves. The most common use for this in sort of legal matters is in merger analysis. So, to that end both DirectTV and Comcast in advocating for their proposed mergers have submitted structural models to the government. Just last year DirectTV submitted one that uses the Generalized Method of Moments and the Bertrand pricing model to simulate the effects of its proposed merger.

The defendants make a number of challenges to the way that this general approach has been used in this case, and I am certainly not going to address every one of them.

The first type is a type that he is modeling the wrong thing because these products wouldn't even exist in the real world. Dr. Ordover makes the claim that certain of his programming would disappear if it was subject to competition. He also makes the claim that it's just a fact that certain of these players would not agree to the conditions necessary to allow the bundle to continue to exist in the real world. And this analysis is not based on running of the model and determining the profitability of it; this is based on what he claims is a fundamental principle of content exclusivity, in particular that the teams in the RSNs are so insistent on his

notion of content exclusivity that they wouldn't permit the league to offer the programming through the bundle.

THE COURT: Let me just make sure I understand. You're not challenging content exclusivity, are you? You're challenging only territorial exclusivity.

MR. DIVER: Exactly. We are not challenging the decisions of individual teams, RSNs, to make unilateral decisions in the marketplace. That's not the subject of our challenge. There is a factual question of in fact what decisions those individuals would make. And the evidence will show and shows that in fact this principle of content exclusivity is not a necessary condition for any of this programming. But more to the point, if the content exclusivity decision is right, it doesn't mean the bundle goes away; it means that the teams will insist that the bundle continue to black out the games in the local territories.

The difference.

THE COURT: But he assumes a blackout in the local --

MR. DIVER: Dr. Noll assumes that those blackouts exist, and I will get to the reasons why in a second.

Now, it is important to note that this analysis of whether the bundle would exist based on content exclusivity again is not made on any showing that it wouldn't be profitable to offer the bundle. In fact, every model that's been produced in this case shows that the bundle would be profitable.

THE COURT: I think the defendants argue that it might not be, that under Dr. Noll's model it may be that the bundle will not make any economic sense any longer and won't be available. That's why they talk about the winners and losers. Isn't that an argument they make?

MR. DIVER: Well, they say it would not be available, but again that's based on this notion of content exclusivity; it's not based on an analysis of whether that bundle would in fact be a profitable product or not.

They do have another analysis which we'll get to, Dr. Pakes, which says that there may be more profitable ways of doing it. But nobody has said that offering the bundle would not be profitable for the leagues.

THE COURT: Actually I think the defendants do say that. I thought I saw an argument in their papers that said, given the competition, it may no longer be profitable at all to offer the bundle on an economic basis.

MR. DIVER: Again --

THE COURT: Not because of content exclusivity but because of the competition of the ala carte offerings.

MR. DIVER: I'm not saying they don't say that.

THE COURT: OK.

MR. DIVER: I'm saying they haven't done any calculations that show that.

THE COURT: All right.

MR. DIVER: Now, another type of challenge they make to Dr. Noll's model is that he has made the wrong assumptions about how to create this model so that it properly fits the sports broadcasting market. Now, fundamentally this is not a challenge to the basic methodology; it's a challenge to what the facts are.

Their most central argument of this type is that he should have included a bargaining analysis like Drs. Crawford and Yurukoglu did in their paper. Dr. Noll will explain why it is not appropriate to use and not necessary to use such a model in this case. There are two reasons: First, it wouldn't be expected to make a difference. And defendants have not shown that it would make a difference. They don't know that it would raise prices at all, and their experts have so testified. They are just saying that Dr. Noll should have tried it. If they believed that it would make a difference, they are certainly capable of doing the analysis themselves and presenting it as an alternative.

THE COURT: They're not really required to do that. There is a Daubert challenge here that says his failure to do it makes his analysis methodologically flawed. They are not required to come up with an alternative if in fact they prove that his methodology is so bad.

MR. DIVER: Well, I understand that. I'm saying this shouldn't be part of the Daubert analysis at all; this should

be litigated as part of the adversarial system.

THE COURT: Why shouldn't it be part of the Daubert analysis? If his methodology is flawed, if it ignores basic economic principles, if there is usually bargaining between the supplier and the distributor, and somehow he just leaves it out, if each one has a profit margin and this concept of double marginalization is usually there -- I mean there are real conflicts in these expert reports, but if the defense is right, then the reports or profit testimony is methodologically flawed, and it should be stricken.

MR. DIVER: Well, I don't think -- well, Dr. Noll will obviously address this issue at length, but the basic point is this: It's not expected to make much of a difference, and if it did make a difference, that would give the defendants incentive to not allow it to make a difference. Every penny that the price is raised by this kind of thing is undermining the profits of the defendants, so what Dr. Noll has done is make the assumption that the defendants would choose the price that maximizes their joint profits. OK?

And, yes, the defendants say there would be double marginalization, they would charge a price that's even higher than the monopoly price, and it would be at a price that's so high that it would undercut their on profits. That's what their defense is.

THE COURT: Well, they don't concede it would undercut

their own profits. But, OK, I understand that they say everybody makes money in the chain.

MR. DIVER: But the point of double marginalization is that it does reduce the profits.

THE COURT: Right, I understand your position on that.

MR. DIVER: Now, they say that there is double marginalization in the market now, but they can't point to a single contract in this thing that doesn't either not have any double marginalization issue at all because it doesn't have linear pricing, or that doesn't have some mechanism to reduce the effects of double marginalization.

As we stated in my e-mail response to Mr. Adam Makus' question, this is not just Dr. Noll's position, this is the position that the Department of Justice reached as part of its review of the Comcast NBC Universal in which Comcast was justifying -- its main efficiency argument to justify the merger was that it would reduce double marginalization. The Department of Justice rejected that view, finding in fact that the existing contracts already take into account and reduce and eliminate the effects of double marginalization.

Now, the other main sort of assumptional challenge they make to the design of Dr. Noll's model is that he has modeled the wrong kind of competition, in fact that he has modeled too much competition, and that the defendants would find a way to set super competitive monopoly prices even in the

absence of the current restraints. Their own challenges, they built models where they removed the competition from Dr. Noll's models and leave in some cases models of at pure monopoly. They then claim that this shows that prices would go up in the "but for" world. Now this is obviously quite a turnaround for defendants who have argued throughout this case that they don't charge super competitive prices, that they don't have monopoly power in any relevant market. Their defense is quite literally to say that the prices would go up in the "but for" world because they would have monopoly power and they would use it.

Now, again, regardless of who is right about this, it's a class-wide issue; it affects the prices of the bundle up or down. It's not a challenge to the methodologies; it's a challenge to how the methodologies should be used to best fit the facts of the case.

Now, I want to address --

THE COURT: Why does Dr. Noll assume that the league and the teams are all independent entities and they're not functioning as a joint venture? I was troubled by that.

MR. DIVER: Well, he will address that issue. He doesn't assume that they're not a joint venture. He assumes that the pricing strategy of the league is independent of the pricing strategy of the teams, and there is a variety of reasons for doing that. One is that there is an assumption -- well, his primary reason is because he doesn't believe that a

collusive solution is the right way to model it; it's not necessary for the league to do it that way. And leagues don't always do it that way, and we are going to see lots of evidence that leagues don't have to do it that way.

There is a technical reason why it's done as well, which I'm not going to get into right now, but essentially the evidence will show that this is a reasonable assumption based on motivations of the leagues generally, how they do it, and the fact that --

THE COURT: To have the teams competing with the leagues, and they are all independent of each other and they're not operating together as a joint venture?

MR. DIVER: Well, the Major League Baseball currently states that it charges a below profit maximizing price for its out-of-market package. Now, that package is competing with all of the teams' broadcasts. If it's charging the below profit maximizing price, it means it's not doing what defendants insist they would. OK? And there are reasons for the league to prefer it's own products in those cases. There are plenty of instances where leagues compete for sales of various things with the individual teams, and Dr. Noll will explain why that is.

In the last few minutes I have --

THE COURT: And why do you think that the teams would continue to supply the content for free? Why would there be

free feed to what would be their competitors in the "but for" world?

MR. DIVER: The teams would supply the feeds to the league because the teams are profit sharing from the leagues There is no instance in which a team charges the league a per-subscriber fee for any of its content or rights of any kind that defendants have pointed to. So the teams --

THE COURT: He envisions the world free of the restraints in his -- we have to call it the "but for" world. He says they would continue to provide a free feed to what would be their competitor.

MR. DIVER: Right. And there are examples of exactly this happening right now in both these leagues and other leagues. The clearest example of this that we put in our papers is major league soccer. There is a league-wide package, and there are local broadcasts, and in some cities, including Philadelphia where I live, the package competes with the local broadcast, so it's competing in a sense, but it's an alternative distribution method that ultimately the teams are profiting from.

THE COURT: The RSN feed of say a YES network would be available nationally, right, in this world? Anybody could buy just Yankee games.

MR. DIVER: That's correct.

THE COURT: It's not just the local market; it could

be anywhere. So that's what I meant by competing with the league package, so they would be supplying their competitor with free feed and then competing.

MR. DIVER: The team is not supplying a competitor. The team is profiting from its own distribution and the league's distribution. This is no different than happens all over the economy all the time. There is multiple distribution sources, and the team is profiting from it in both ways.

Now, I want to address a little bit more the blackout assumption.

THE COURT: OK.

MR. DIVER: It's important to keep in mind in this case that there are really two major types of blackouts. There are the blackouts that prevent an individual team from broadcasting its games nationwide. When the Yankees are on the YES network in Cleveland the game is blacked out.

THE COURT: Correct.

MR. DIVER: Those blackouts are the fundamental challenge of what plaintiffs are challenging are those blackouts. Those are fundamental and those --

THE COURT: Is that what you call the territorial?

MR. DIVER: That's the territorial restrictions and the blackouts used to enforce the territorial restrictions by preventing those games from being broadcast outside of the territory. Dr. Noll's model is built on the assumption that

those games are available everywhere.

THE COURT: But the person who bought the out-of-market package and lives in Cleveland can watch the Yankee game, right?

MR. DIVER: Through the package.

THE COURT: Through the package, right. OK. Not directly through the YES network but through the package.

MR. DIVER: Exactly.

THE COURT: OK.

MR. DIVER: So the other kind of blackouts are the blackouts of the out-of-market package, which are imposed in order to maintain exclusivity of the RSN and the local network in the local area.

THE COURT: The local network, the person who bought the out-of-market package can't watch --

MR. DIVER: Can't watch.

THE COURT: -- can't watch the Yankee game unless they bought an in-market package, right?

MR. DIVER: Exactly, that's right. But they can get the YES network. So it preserves the exclusivity of the YES Network in New York.

THE COURT: Is that the in-market package?

MR. DIVER: That's the -- no, just television channel.

THE COURT: So you living in New York can get the YES Network.

MR. DIVER: Just on cable television.

THE COURT: You can. It's not blacked out.

MR. DIVER: Correct. It's just the Yankees broadcasting their games in New York through YES.

Now there is a factual question about whether these kind of blackouts are necessary, whether they would continue. Now the defendants take the position that they're fundamental. Some of their witnesses have testified that these are anachronistic. Plaintiffs think it's most likely in fact that these blackouts would go away. But that's not again part of --

THE COURT: Actually, I thought Dr. Noll assumed the blackouts would stay in place.

MR. DIVER: He assumes they would stay in place but not because he is making a decision, you know, about whether it would or wouldn't happen, but because for purposes of his model he doesn't want those games in his model anyway because he is trying to figure out the overcharge of the games people actually purchase. The games that people actually purchased were blacked out. His model is not intended to be a description of every detail of the "but for" world and every decision an individual team might make.

THE COURT: But the defense argument under Daubert is fit. They are saying are you or are you not challenging those blackouts as restrictions. Apparently you are not.

MR. DIVER: We are not challenging those blackouts as

restrictions. We have a view about how likely it is they would go away.

THE COURT: I understand.

MR. DIVER: But that's not part of the legal challenge.

THE COURT: So then in your last one minute would you just summarize your legal challenge. Exactly what are you challenging? What practice are you challenging?

MR. DIVER: We are challenging -- the fundamental thing we are challenging are the territorial restraints, the systems that prevent the individual teams from broadcasting their games nationwide.

THE COURT: OK.

MR. DIVER: And we are also challenging the fact that the league sort of monopolizes as part of that system the out-of-market distribution through the packages.

THE COURT: OK, that does finish your 30 minutes. Thank you very much. And is it Ms. Wilkinson who is going to make the opening?

MS. WILKINSON: Yes, your Honor.

THE COURT: OK.

MS. WILKINSON: Good morning, your Honor.

THE COURT: Good morning.

MS. WILKINSON: Let me start where Mr. Diver started, about whether the challenges that we are making today through

our opposition to class cert and Daubert go to winners and losers, because of course that is, as you have articulated already, our most basic challenge, which is that the plaintiffs here can produce winners and losers depending on the outcome of the challenges, and so let's start with the two things that they have to produce.

If you don't mind, your Honor, I just used a few slides that help me simplify the concepts.

THE COURT: That's fine.

MS. WILKINSON: Plaintiffs to prove common impact -- and when we say common impact, I think Mr. Diver was kind of evading the point. It's not the amount of damages; it's the actual injury; it's one element of the claim. So, they do have to prove common injury to the class.

So, when you asked the question, well, what if you Daubert Dr. Noll or at least his model, how can they go forward? We don't believe they can go forward, because they have no basis for showing that last element even under an injunction. They have to show injury and common injury for to you issue an injunction. And without the model, they have no basis to show injury, because the only injury they are claiming is that these guys, the putative class members, should pay less for the package. That is the --

THE COURT: Or they were overcharged by what they did buy.

MS. WILKINSON: Right. But the way they show they were overcharged is, as you point out, there is some method to pay less in the "but for" world.

THE COURT: Right.

MS. WILKINSON: The only way that they have asserted that evidence to you or to us is through Dr. Noll.

THE COURT: So, I think that one of the lawyers from the plaintiffs' team should write down now "In summation I need to explain to the judge how I can prove a B2 class without Dr. Noll." OK, go ahead.

MS. WILKINSON: So they use Dr. Noll to support these two elements that we think at a minimum they would have to show you they have met their burden on, that the package continues to exist. Because if the package doesn't exist, there could potentially be winners -- and we will talk about that in a moment --

THE COURT: Right, I understand if there is no package, people would like to watch all teams are going to be losers.

MS. WILKINSON: Right. But they try and say it's all or nothing. There could be winners because let's talk about our Mets fan, one of their class representatives in Las Vegas, Mr. Biraglia, he is then going to get the Mets alone.

THE COURT: Right. He can buy ala carte the Mets.

MS. WILKINSON: So you would still have a winner in

theory.

THE COURT: Right.

MS. WILKINSON: So they also have to prove to you that the league package would be cheaper in the "but for" world because --

THE COURT: Cheaper than what?

MS. WILKINSON: Cheaper than what it is today, because otherwise -- right, there is no overcharge today. If they can't show you an alternative world that should have existed from the very beginning -- like their theory is I think I heard Mr. Diver say --

THE COURT: Is that right, that the package has to be cheaper, or the ability to watch what you want to watch has to be cheaper? I don't know if the package has to be cheaper. The point is right now there is no ala carte menu for all teams everywhere available, so as long as you end up cheaper for what you want to watch, you're a winner.

MS. WILKINSON: But you yourself just said some people want to watch the package.

THE COURT: Some do, I understand that.

MS. WILKINSON: So my family follows the Nationals, the Yankees, right, the Dodgers and the Red Sox. If we're not going to pay any less, how are we winners in the "but for" world? If the package is not cheaper for my family, then I and all the class members I could represent have not been harmed.

So, that's where we get the winners and the losers, and I'm not sure that was totally addressed by the plaintiffs, but that's our theory of it.

Then our third challenge -- and I'm going to I hope set forth a little road map on how we are going to attack plaintiffs on these three grounds throughout the hearing -- is that the model is not methodologically sound.

So how do we show that these class members are different? You can start with Dr. Noll's old data. Recently in model number 3 -- which is the one I think he is relying on today, and plaintiffs will rely on throughout this hearing -- he said that he looked at viewer preferences, and he divided them into these three categories. So, there is no doubt there are large percentages of the putative class. And these are the putative class members: The MLB internet consumers, the DirectTV and the NHL internet. And as you can see, they are varied percentages, but they all show they are significant percentages that are one team fans, two to five team fans, and six or more team fans.

THE COURT: And this is based on actual viewer data. This pie chart is actual viewer data or not?

MS. WILKINSON: He says it's based on actual data. And I think what he will tell you today is "And then I went and checked the surveys that DirectTV has, and the NHL and Internet, and they match up so I feel good about these" -- he's

going to tell you actual predictions from his model --

THE COURT: For these purposes you accept this is actual data because you like this pie chart.

MS. WILKINSON: We actually think the data comes out a little bit differently, so I'm just trying for these purposes --

THE COURT: But even if this were, you would still say look at the green, there are a lot of people who like to have lots of teams available. Right?

MS. WILKINSON: Yes, except for I misspoke. We have two different ways. This is Dr. Ordover's calculation of it, because they calculate -- they grade or they group the preferences differently. But it's the same basic break-out as Dr. Noll.

THE COURT: That's what I say. I see, it's Dr. Ordover's, not Dr. Noll's, but the bottom line is the green shows that lots of viewers like to have lots of games.

MS. WILKINSON: Exactly.

THE COURT: Lots of teams.

MS. WILKINSON: Exactly. So, that just goes to the simple point that I don't think we need to belabor, that there are winners and losers, if either of those two requirements are not met.

So then we say that the model is flawed because it doesn't fit the plaintiffs' theories; it's based on the

economically irrational assumptions, and the methodology of this model is unreliable for all of those reasons and some more specific reasons that you will hear from our experts.

THE COURT: On both sides. You mean on the supply and the demand side.

MS. WILKINSON: Correct. So, on the fit issue, what is the real problem? We think what Dr. Noll has done is he hasn't actually modeled what the plaintiffs have asked for. I'm going to show you what they asked for since they filed their second amended complaint. Because he, as I think you noted in your discussion with Mr. Diver, he is now saying I'm not going to eliminate the in-market blackouts.

THE COURT: Well, Mr. Diver said more than that. It's not just that Dr. Noll is assuming that the blackouts remain; Mr. Diver says we're not challenging the blackouts; that's not our complaint.

MS. WILKINSON: Well, let's see. That's not really what they have told you all along. In fact, they told you just the opposite. In the second amended complaint they say: Subjecting the viewer to local blackouts is an express restriction on competition. That reads to me that they're saying that's unlawful, anticompetitive behavior.

But it's not just them. It's class representatives that they tell you are representative of this class. Mr. Bibiglia again from Las Vegas says he's not even

complaining about the overpaying; his injury is that the blackouts are in place, and this is exacerbated in his particular group of putative plaintiffs because in Las Vegas there is many overlapping home territories, so as a Mets fan there is a lot of home games that are blacked out for him, and that's what he is upset about, so that's the group he is representing, yet Mr. Diver now says --

THE COURT: Well, Mr. Diver, you are going to have to come to grips with this problem. Either you are or you aren't challenging these blackouts. Going back one slide --

Can you flip back one slide, the complaint?

Look at that phrase.

MR. DIVER: Would you like me to respond to that?

THE COURT: Just on that one phrase, just that slide. Are you saying that the local blackouts are a restriction on competition which you are challenging and asking be eliminated?

MR. DIVER: There are two issues here. Yes, they are a restriction on competition, and to the extent that they exist by virtue of an agreement amongst the clubs in restraint of trade, they are unlawful. So in fact, yes, as they currently exist they are unlawful.

But what we are not suggesting is that they couldn't be the result of a unilateral decision. Their argument on content exclusivity is that the clubs would make a decision in the absence of these agreements, and we're saying we don't

think so. But that's a separate issue. OK?

THE COURT: So, you are only challenging them to the extent that they arise from the group agreement. Once an individual does the same thing, you're not challenging it. If a team wants to -- is that what you are saying? That's how I hear your answer to be.

MR. DIVER: Yes, to the extent they are an effect of the agreement in restraint of trade, they are anticompetitive.

THE COURT: I see. But if an individual team decided on the identical blackout, you live with it.

Now I understand his position on the blackout. It's wrong because it's an agreement.

MS. WILKINSON: I am not sure I do, your Honor, and I am going to point out where I think what he said is not even still addressing all the blackout issues.

So, we also have Mr. Rasmussen who says the same thing, that blackouts are what irritated him.

And the plaintiffs told you in their class certification premotion letter specifically here all class members are seeking an injunction ending the restrictions and attendant blackouts. So, I think you and your clerk asked us for copies of our letters. This is why when I came into the case I said can we write a letter, because I don't understand what their theory of the case is.

THE COURT: Right.

MS. WILKINSON: And so we're still not sure. We're going to ask Dr. Noll what he actually did model and didn't, because we believe --

THE COURT: Well, what he modeled and didn't is different from what the lawyer says the case is, if you know what I mean. He's a hired expert, he was asked to model something, he did or didn't. That's different from pinning Mr. Diver and his team down as to what they're seeking.

This slide says all class members seek an injunction ending the restrictions and attendant blackouts. The only way to read that now is that if these restrictions have the agreement of requiring a blackout, yes, he is seeking to end it. But he's allowing apparently the theoretical possibility that an individual team, once they are free of the restrictions, can still decide on a blackout. That's how I understand his answer. We need to move on.

MS. WILKINSON: OK. So, the question is under Comcast v. Bayron, the other question is does the model actually fit the theory, which is why we're trying to find out first what the theory is to see if the model fits it.

So, what does Dr. Noll tell you in his declaration from a month ago? My model assumes that the blackouts within a team's broadcast territory continue.

THE COURT: That's OK. I get that now.

MS. WILKINSON: They don't challenge content

exclusivity, but yet they have these basic economic irrational assumptions, which is the teams will give their feed away for free, and basically that these people have to act like competitors but they won't at certain times and they will.

So, we use the simple example. Random House today owns the copyright and can license the Great Gatsby, right? They are going to sell it on their own, we assume. If they're going to give it or have HarperCollins distribute for them as well, then they're not going to give it away for free, because they're going to be competing with themselves. Why would they give it away to a competitor?

THE COURT: Well, Mr. Diver did answer that in his opening, he said because they make money both ways. In your slide here they make money when they retail it, directly Random House sells it to the consumer and they make money. And if they sell it to HarperCollins they make less per books sold but they still make money. They're going to charge HarperCollins one ninth of the nine premium books, so they make money both ways. Some people want to buy a collection, some people want to just buy a book. We need to move on again, because I know the answer, and you have limited time. So, I get it.

MS. WILKINSON: Two issues. When they give it away for free, the HarperCollins people have no marginal cost, so they're getting it for zero, so they can underprice them and eventually --

THE COURT: But they're not selling the same thing, they're selling a collection -- in your case a package. Some people want that collection, others want just the book. That's the answer.

MS. WILKINSON: So the other problem is they didn't show if they could make even more money by charging a fee, a profit maximizing.

So, all Mr. Diver and Dr. Noll say is you can make money if you give the feed away for free. But that's not the question for the team, right? The individual team is now a competitor with everybody, and they want to maximize their profits.

So, what Dr. Ordover -- this is what Dr. Noll's analysis showed: Oh, look, if I keep the free feed rule in place, you will have package profits and stand-alone profits, and that will be profit positive.

THE COURT: Correct.

MS. WILKINSON: But what Dr. Ordover is going to show you is, no, if each team were to negotiate separately, bilateral negotiations -- I think your example is a supplier with a distributor, so the team is the supplier, the league is the distributor -- if they go up to 17 cents, they're going to make even more money. So, why would they not do that? Why wouldn't they want to maximize their profits? He never calculated this. All he did was try and show you that there is

some positive profit --

THE COURT: Right.

MS. WILKINSON: -- to the package. But that's not the team's economically rational analysis. It's can I make the most money.

THE COURT: Not necessarily, because there are collateral consequences to making the most money. You don't want to ruin the whole business. If you make too much money and everybody else makes too little money, then the game is no longer competitive.

So, I don't know what the incentives are to not make the most money, but sometimes the most money will reduce demand, sometimes the most money here in this particular case might reduce sports competition. I mean I can project a number of things, but it's not what I can do, it's what the experts can do.

MS. WILKINSON: And the experts will tell you that's what they balance, how much demand and how much price is that perfect place where --

THE COURT: Right, like I say, I can imagine why you wouldn't want to maximize every penny, but it's not for me to imagine.

MS. WILKINSON: And Dr. Ordover and the others will explain to you why that works here and it's kind of a win for all the teams independently.

And that would make -- if we're right that you can benefit more from charging a feed fee, that would make in the "but for" world all the package prices go up. OK? That's the simple point. And what Dr. Noll --

THE COURT: But that argument does strike me as one that would be hashed out at trial and not as a Daubert challenge. If you're right, it just means that there are two different views. One is right and one is wrong, and the fact finder decides. I need to look for the flaws, flaws in assumptions, flaws in the way economic principles are applied. That's what I'm looking for in a Daubert challenge. By the way, you raised plenty of them, but whether you win or not, I don't know yet. But that's what I'm looking for, not who is right but where the flaws are.

MS. WILKINSON: Of course, you're right, your Honor. But we say that his irrational economic assumptions that are fundamental to his model are the flaws, and this is just what the flaws produce, they produce a higher package price.

So, we agree it's not whether we're ultimately right or wrong -- obviously you already know how we feel about that -- but it is does he have some flawed methodology and economic assumptions that are key to his model --

THE COURT: That's what we are both looking at. OK.

MS. WILKINSON: So, what is he missing? What does he not do that any rational team owner would do? They would want

to know the impact of all of their broadcast revenues. And he doesn't dispute this. For the average team in 2012 -- and that's the data that's been shared with everybody -- 57 percent of all broadcast revenues for a team come from in-market. So that dwarfs everything else. But what Dr. Noll does is he says I'm not going to see if there is any impact on those in-market revenues when you bring in the package at a lower price. Think what he is doing. The price is now lower on the package and the stand-alones are all around the in-market, so you are constraining all the prices. Right?

THE COURT: Sorry, I don't follow what you just said at all.

MS. WILKINSON: You start with your in-market revenues. Let's go to Tampa because it's easier, and it's the example we are going to use most of the time. We are in Tampa, and Tampa Rays have their in-market revenue. Comcast pays them through the RSN a per-subscriber fee. Just I think in 2012 it was about 43 million on average per team. So that's a very important source of revenue. And all they have that's constraining that is the package, which is much more expensive for a subscriber. Because I think you asked the question how do you watch in-market. It's on your expanded basic cable package, so you just pay your fee for that package, and included in that is your local RSN as one of the channels.

THE COURT: Is that what is called the in-market

package?

MS. WILKINSON: Yes. So, it's not really a sports package; it's your cable package which includes --

THE COURT: Is there also an in-market sports package? No.

MS. WILKINSON: Well, they have some things called sports tiers, but that's not relevant. Here in New York if you have cable you just flip on your cable package, and there is a channel that shows you the YES broadcast.

So, you're back down in Tampa, and all of a sudden in their "but for" world all of these stand-alones are coming in. The Yankees are coming into your territory, and they're charging this lower fee than the bundle.

THE COURT: Lower fee than what?

MS. WILKINSON: Than the bundle. The stand-alones, when you want to just buy your Yankees games, it's cheaper than buying the whole package.

THE COURT: The package being not a sports package but your cable package.

MS. WILKINSON: No, I'm sorry. The out-of-market package that the league sells.

THE COURT: Oh.

MS. WILKINSON: So in their "but for" world two things change: You have all the stand-alones from each team coming in and saying, hey, you can just buy me alone, or you can buy a

cheaper out-of-market package now. So the economics are some of the in-market fans go away and buy YES because they're really more Yankees fans. It's constraining the price, and these in-market revenues are going to go down. Dr. Noll doesn't dispute that. But he doesn't say by how much. He doesn't calculate it. So, he doesn't do what the owners would do, which is figure out is having the package -- they can't control the stand-alones -- is having the package worth it in my overall positive revenue I'm trying to achieve versus not having it? You will see he doesn't do any of that calculation, which they would do in making this decision.

He also doesn't -- and he presumes the opposite, that the teams once they have all the rights in their hands, that they will sell the TV rights to somebody and they will sell the internet rights separately. That's not what is going on today. I think you pointed this out when you say, well, isn't there convergence that's starting to happen.

In the real world in the contracts today -- we use the Rays example -- if they get their internet rights back, the teams -- because they don't have them right now at least in MLB -- they go straight to the RSN. That's their producer. So the Internet rights and the TV rights are together. They are more valuable together for exactly the reasons that Dr. Noll wants to separate them, because you're competing with yourself when they're separated. So, the distributors want to buy them

together and offer them to the customer, hey, you can watch TV, or you can watch it on the Internet, but you pay us, and we will provide both.

THE COURT: Us being?

MS. WILKINSON: Let's say it's Comcast.

THE COURT: No, but do you need the MPVD at all for the Internet? Can you go direct?

MS. WILKINSON: You can go direct to the Internet, but the same thing is going to happen. Right? You are going to want to say --

THE COURT: I thought the RSN can go directly and sell directly through the Internet, it doesn't mean the MVPD.

MS. WILKINSON: Right. But what I am saying is they want to keep those rights together; they don't want to sell the TV rights to the MVPD and then the rights to the Internet, because they can't control the prices and they will compete. They want to do multi-product pricing and control both of those. And that's what this shows, that that's what happens. And this is what has happened with the NHL last year in Canada, they sold the Internet rights and the TV rights together.

THE COURT: They being?

MS. WILKINSON: The NHL in Canada. I am just using this as an example.

THE COURT: I wanted to understand they. The league is what you want to say?

MS. WILKINSON: Yes.

THE COURT: OK.

MS. WILKINSON: And they did this because those rights are more valuable together, allowing the distributor to offer them to their customers in concert instead of in competition. OK?

Most recently just this year Fox did the same thing, so for the first time when you watch the World Series, which Fox has exclusive broadcasting rights to, they also got the streaming rights, the Internet rights, so instead of the league giving the World Series to Internet watchers separately in competition, they put them together, and Fox said, hey, if you are my customer, if you want to watch it on TV, you can, if you want to watch it on the Internet, you have to authenticate, you have to show me you are a subscriber, but then you can watch it on your device.

THE COURT: Well, this may be good for profit maximizing for the league, but how about the consumer? In other words, would the consumer benefit if there was that competition rather than unit pricing or whatever you call it?

MS. WILKINSON: In theory the consumer could, but there is no right to that, because these are the -- and they don't challenge this -- you are the exclusive distributor of content, you get to decide. And that's what we're saying, that if you are trying to profit maximize, you would not separate

those two, because you would cannibalize your own product.

THE COURT: Well, the demand might go up if it was less expensive. It might be increased demand, so you wouldn't cannibalize your own product if the demand went up significantly because the price was cheaper.

MS. WILKINSON: In theory, your Honor. But I think what we are trying to show you with this is that in the real world people have already made these decisions, and they put the rights together.

And what Dr. Noll comes in and says is I'm making these assumptions that are key to my model. And we're trying to show that they're not economically rational in many ways, but one is they can't point to you in the real world where that is really happening. What we're showing you is they are now starting to put those rights together.

And that matters because even at the Internet -- I think they keep pointing out to you, well, the Internet is the substitute. It's not today. Even though the price -- again this is 2012 data, but it hasn't changed much -- the price is almost 50 percent lower on the Internet for the package. So you see that on the left the package has 54 percent of the --

THE COURT: The television package.

MS. WILKINSON: On the left is the Internet package.

THE COURT: On the left, OK.

MS. WILKINSON: So, they charge a lot less for the

Internet, $20.05 a month, and on television they charge 50 percent more, and they still have almost half of the consumers. So, it's not a substitute, it's not a perfect substitute.

THE COURT: Well, that's a big spread, and the Internet generation is going to be the larger purchaser over time -- I mean the Internet is here. All this reflects is generation change maybe. Who knows. But it's an eight percent difference anyway.

MS. WILKINSON: Right, but that's the point, that if they charge so much less, why wouldn't everybody go to the Internet?

THE COURT: Because generationally some people are still in the television era, exactly. But that will change.

MS. WILKINSON: Yes.

THE COURT: Yes.

MS. WILKINSON: But they can't argue that it's a substitute during the class period.

THE COURT: I understand.

MS. WILKINSON: And right now it is not a perfect substitute.

THE COURT: I understand.

MS. WILKINSON: So, what we are left with they accept that we can be the sole distributor, the team.

THE COURT: Right.

MS. WILKINSON: Which means you are allowed to engage

in simple multi-product pricing. So if the team is like Coca-Cola, they decide how to price a single can versus a package, and they don't price them in competition with themselves; they think about how the consumer will buy them. They want the consumer if they go to the full package or the single basically to be economically indifferent to them. They don't want to undercut their price and their profits if they can avoid it.

What Dr. Noll ignores is everyone who then has the content in the distribution chain is going to have the same thought. So, we used DirectTV. If YES in the "but for" world they carry that stand-alone now down in Tampa, and they're going to carry the television package, they're not going to price those so that they undercut the value; they're going to price them in concert. He really doesn't dispute that, but then that's where his model fails to do any of that bargaining and any of that calculation, and that's where we say that's a fundamental flaw, because he says it's OK, and he says it makes sense to do multi-product pricing when you are the sole licensor, but then he doesn't account for it and how that would change anything.

Then he adds many methodological flaws. This is kind of the moving target. We shot at model number two. So, Dr. McFadden says, wow, it changed the demand preferences, made them extreme, and the price of the package didn't change. So,

what does Dr. Noll do? He says, OK, I'm going to fix that. And then what does he do? He fixes it by generating extraordinary demand. So, he takes the World Series viewers, who are watching it for free, and at the ultimate game, and he says that in a "but for" world there is going to be a 600 percent increase in demand. And he says that those folks, almost half those people, are now going to become paid subscribers for regular season games when there is no evidence that they've done anything but watch the World Series. That's his basis for generating the demand.

And why do we think that shows totally absurd results? Because he doesn't account for all the other distributors which could end up being almost a hundred percent of the people who watch the World Series, because he only has data for the two -- DirectTV and MLB -- he could actually be predicting that almost a hundred percent of people who watch the World Series would buy an out-of-market product. And I don't think anyone thinks that's true.

So, then you look at the test to see what his model shows, if it comports with common sense about this demand, and I think Dr. Noll would agree, and we would all agree, that a single team fan in the real world and in his model should be more likely to purchase a stand-alone because it's going to be cheaper, and a multi-team fan as he designs it should be more likely to purchase the package. Right? That should be the

trend. But look at what his data shows. This is from his model. Dr. Ordover just pulled out his output. Even though the single team fan only values one team, his model still has that 32 percent of those people purchasing a more expensive package. That doesn't make sense to us.

And with the two team, instead of going in the opposite direction, the more teams you like, the less likely you are to buy the package. And the most extreme result? Take a look at this, for the people who by his definition prefer at least four teams, three or four more, 99 percent of them buy a stand-alone, and only one percent buy the package even though the package would be cheaper.

So this internal check that Dr. Ordover is going to tell you about shows that there is something flawed inside that.

So, it's for all of these reasons, your Honor -- lack of fit, the economic assumptions that are the foundation of his model -- they are not a difference in facts; they are the assumptions that create the parameters for his model -- and then the methodology he uses producing these results that are nonsensical -- are all the bases for our challenge to class cert and Daubert.

THE COURT: Thank you.

(Continued on next page)

THE COURT: In our effort to stay with the proposed schedule, it's time for the first witness. Anybody who wants to, can use the jury box. It's available if anybody wants to sit there.

Are you Dr. Noll?

THE WITNESS: Yes.

THE COURT: Do you want to stand for a minute. Raise your right hand.

(Witness sworn)

THE COURT: Please be seated. When you're seated, state your full name first and last spelling both names for the record.

THE WITNESS: My name is Roger Noll, R-O-G-E-R, N-O-L-L.

THE COURT: Thank you.

Mr. Diver.

ROGER NOLL,

called as a witness by the Plaintiffs,

having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. DIVER:

Q. Good morning, Dr. Noll.

A. Good morning.

Q. Can you briefly describe your expertise as it relates to the issues in this case.

A. Well, my field of economics is industrial organization which includes the field of antitrust and regulation and in that context, I've been teaching and doing research in this area my whole professional career. The research that I've done includes many articles and two books on the economics of sports and many articles and a book on the economics of television. So that's my basic professional set of backgrounds.

Q. Now, have you produced -- prepared a set of slides to assist in your testimony today?

A. I'm having trouble hearing you.

Q. I'm sorry. Have you prepared a set of slides to assist in your testimony today?

A. Yes, I have.

Q. Can you describe what your assignment was with respect to the plaintiffs' class certification motion.

A. Yes, this is a characterization of it, to determine whether the evidence and analytical methods an economist would use to analyze the liability allegations of the complaints and to calculate damages are predominantly common among the class members.

Q. Did you reach a conclusion?

A. Yes, I did.

Q. What were your conclusions?

A. That several issues had to be addressed to answer that core question. The issues that needed to be addressed are listed on

this slide and that each one of these would be analyzed and demonstrated using methods that are common to class members.

Q. Can you explain to me the common methods you would use to assess market definition.

A. Market definition is about the extent of which products complete with each other. One starts with a reference product and then identifies other products that compete with it. And as summarized in my expert reports, this is a characteristic of the market and there -- the way this particular market works is that consumers stage prices, whether it's prices for getting things on television or prices for attending games that are common to all members in a particular locality, so that any analysis of market definition is going to be common. If one attempted to define a market for one consumer, one would do exactly the same analysis to identify the market for the consumer who lived next door.

Q. And what methods did you use to analyze market power?

A. Market power is the degree to which a firm has the ability to charge supercompetitive prices in the long run or to exclude competitors from the market. Once again, this is a market-wide phenomenon. Again, because the prices are charged on market-wide basis, the degree to which a firm has market power dealing with one consumer is exactly the same as whether he has market power to deal with the next-door neighbor.

Q. How did you analyze the sources of market power?

A. The market power in this case is derived in -- with respect to broadcasting in part from the territorial restrictions on broadcasting. And so, the reason that firms enjoy market power in their local broadcast areas is, in part, due or it's enhanced by league rules regarding territories for broadcasting. And that's, again, a common phenomenon that the territorial rules that apply to one person apply to that person's next-door neighbor.

Q. And how did you analyze the effects on competition?

A. The analysis consisted of a series of things addressing whether there was loss of output, whether there was loss of choice, and whether there was elevated prices. And there are several pieces of analysis that went into this, but they, again, all have to do with analyzing things at the level of a market and it's common to the members of that class.

Q. I think we can skip the business justifications.

Did you conclude the damages to be resolved on a class basis as well?

A. Yes, I did, and that is the -- and that required the development of the econometric model of supply and demand for out-of-market broadcasts.

Q. Now, did you analyze whether there are other anticompetitive effects?

A. Yes. I just actually briefly mentioned these in answering the previous question. These are -- this is the list of them.

Consumers have limited choice, that is to say, if I -- a New York Yankees fan living in San Francisco, I do not have access to the YES network with live Yankees games on it, it reduces output by reducing the number of consumers who view out-of-market telecasts. Indeed, in the opening argument, that was the illustration point was that Noll must be crazy because he assumes a lot of people would get access to games who don't currently have it. So that's exactly the reduction in output.

And then the next point is that the prices are elevated for -- this is exactly the point that was made by the defendants' opening argument -- local territorial rights, broadcast speeds are higher than they would be if the local team faced competition from out-of-market teams. And then, of course, the consumers themselves pay exactly one source of supply of out-of-market games which is the league bundle and because they face exactly one source of supply, they pay higher prices than they otherwise would.

Q. Going back to the first top list, did you conclude that the choices available to consumers was effect that was common?

A. Yes. It's common in the sense that it differs from region to region from broadcast territory to broadcast territory, because in both leagues the number and identity of the teams that are available out of market and the choice they have is different, but within each of the territories, the effect is common to all consumers in that territory.

Q. Now, did you provide an econometric model of all of these effects that consumers faced?

A. The econometric model that I estimated is relevant to some but not all of these points. It is -- it's only with respect to the question about raising the price of out-of-market telecasts that is exclusively relied on the model. The other points all have other sources of evidence and argument, but the model is the sole source of evidence regarding the price effect.

THE COURT: While the other three bullet points you say have other sources of proof, does your model, though, add to that proof and speak to any of those three bullet points?

THE WITNESS: Yes.

THE COURT: It may not be the sole source, but does it speak to those three?

THE WITNESS: Yes. Well, it does speak to some degree. Obviously, --

THE COURT: To all three, to all three of the first three?

THE WITNESS: To a very limited extent, the first one.

THE COURT: Yes.

THE WITNESS: The output reduction to a substantial extent, because one of the results of the market -- of the model is what you saw in that slide, that there's -- the number of people who subscribe to out-of-market telecasts goes up

substantially if they're allowed to buy single channels, so it's more important for that. It is not relevant to the third point. The evidence and analysis about that is separate from it. And then -- but it is the sole source of information about the last.

Q. Now, did you provide other analysis besides the model of these issues?

A. Yes. That's sort of the point of what I just said.

Q. Now, did you analyze whether programming producers would still produce broadcasts?

A. I'm sorry. I'm having trouble hearing you again.

Q. Did you analyze whether live baseball and hockey programming would still continue to be produced in the absence of the restraints?

A. Of course. Yes.

Q. Can you explain what this slide is.

A. Yes. The fundamental economics of television with respect to professional sports and, indeed, with respect to all sports, is that the act of providing broadcast coverage of a sporting event doesn't cost very much. It's really inexpensive. And it's become less and less expensive through time owing to technological progress in the communications industry and the ability to distribute signals. So, first point, it doesn't cost very much. That's why you can have incredibly low popularity sports on television, why there's lots and lots of

sports that have extremely low audience ratings, it's because it's so inexpensive. You don't have to have much demand for something to be on television.

The second point is that in the history of broadcasting, the first reaction of the industry, the sports industry to the invention of television was fear that it would substitute for live attendance and that, in the words of the defendants like to use, that television would cannibalize attendance to live games.

In the late 1950's when broadcasting for the first time became significant and important, it became obvious that wasn't true; that the act of putting sports on television naturally enhanced the value of sport and increased demand for live attendance. So that there's the only circumstances in which you can find a negative effect on broadcasting on attendance is very specific, isolated things, such as when the weather is really bad, there will be no-shows at the football game if it's on television, but for the most part, the broadcasting of sports is promotional.

Then the last point is that the world is full of things that don't have territorial restrictions. We tend to have blinkers because the four major professional sports in the US have always had territorial restrictions that define their broadcasting rights, but in reality --

THE COURT: You're including football and basketball?

THE WITNESS: Football, basketball, hockey and baseball have always had territorial restrictions.

THE COURT: I want to be sure, that football and basketball have the same issues that are in my cases?

THE WITNESS: They sure do.

THE COURT: I see. But they're not here.

THE WITNESS: They're not here, and football is very different because it sells all of its television rights through the league.

THE COURT: Okay.

THE WITNESS: So even though the football telecasts are regionalized, so they really are local, they're sold by the league, basketball has a whole other set of institutions which are different than either of these two leagues, and I don't know why Mr. Diver -- but you don't have to worry about that.

THE COURT: No. I was curious. And I was going to ask that question today and I did. Okay. Thank you.

THE WITNESS: There's something that's similar in basketball but there are differences as well.

THE COURT: Okay.

THE WITNESS: So the bottom line to it is, there are these sports that have no territorial restrictions like college football and college basketball. In Europe, there are no territorial rights. They don't have territorial rights even for attendance and location of teams. So the world is full of

examples where there are no territorial rights and sports do just fine and they're all on television.

Q. And did you analyze the economic incentives of programming producers in continuing to produce these games?

A. Yes. And this marries the demand side to the point about the supply side which is that once you have decided to have a sporting event, deciding to telecast it is incredibly cheap, but on the other hand, sports has enormous value. And indeed, of all the kinds of programming that are on television, sports is the biggest, quote, "subscription driver," that is to say, of all the things you can put on a cable television system or a satellite television system, the ones that have the biggest affect on of how many people subscribe to it are sports.

And this is an intriguing result that produces on the one hand it doesn't cost much; on the other hand, it's extraordinarily valuable to consumers. The producers themselves also face these very low costs of distributing them, which didn't use to be the case when there were only 20 or 30 channels on a cable television system, but with modern digital technology, again, these are not significant costs.

And the reality is that the league packages already distribute all the games in all the leagues nationally. It's just they don't necessarily reach any given place because of blackout rules, but the incremental cost of distribution of all the games has already been paid; namely, through the league

bundles that are distributed through satellite and cable television companies.

So removing blackouts would actually save them money because it would eliminate the cost of actually figuring out the different combinations of blackouts that they have to do in every single market area in the United States in order to adhere to their own territorial restrictions.

Q. Did you analyze whether the leagues would like to continue to offer the bundles in the absence of these restraints?

A. Yes, I did.

Q. What was your conclusion?

A. Well, there are a number of reasons why they would want to continue to offer to bundle and they're listed here. The first is the point I made before, the promotional value: How do you maintain the interest of the transplanted New Yorker in San Francisco in baseball if he has no access to the Yankees? The second is --

THE COURT: You don't need a bundle to do that. He can buy a standalone --

THE WITNESS: That's exactly right, continue to offer the bundles --

THE COURT: I know, but your first answer doesn't make sense because he can just buy the Yankees if he wants to.

THE WITNESS: He can buy just the Yankees.

THE COURT: Yes.

THE WITNESS: Suppose it's a family in which there are four people with four different teams.

THE COURT: That's right.

THE WITNESS: Then we can then analyze in economics whether they would buy four different teams separately or whether they would buy a bundle, and there's still enough demand from the bundle left from those families that there would be an economic market for the bundle.

The second point which I think is extremely important here is that leagues have lots of rules that are for the purpose of shifting revenue from the teams to the central fund. And they do this for the purpose of revenue-sharing and equalization because the more equalization you have to revenue-sharing, two things happen that the leagues like: The first is the number of viable teams goes up and the second is player salaries are lower, all right?

So this has more -- more revenue-sharing has two beneficial effects to the bottom line of the members at league that as a collectivity, there are individual teams, however, who do not benefit from revenue-sharing, and the Yankees are a prime example. The Yankees are essentially the target of almost all the revenue-sharing rules. They are the quintessential example of a team that generates revenues that are given to all the other teams in the league through centralization of revenue.

Marginal cost is low, and I just gave the explanation. And then the important point, of course, is that in the active modeling demand, that gets to the slide that the defense gave in their opening argument, that the bundled -- after all the dust settles and all the individual single channels are offered and people decide to subscribe to them, it's still profit-enhancing to offer the bundle. That is something the model can test; that it does, in fact, increase the profits of the league to continue to offer the bundle given --

THE COURT: Increase over what?

THE WITNESS: There is an incremental positive profit over all the revenues they have. Once we have the ability to buy out-of-market teams on an *al a carte* basis, then that equilibrium has the property that if you then add the bundle to it, the profitability of the league as a whole goes up.

Q. Why did you conclude the damages could be resolved with common evidence in this case?

A. Okay. These explain the reasons: The obvious point to make right off the top is that unlike local television, the league bundles are sold at a common price list available to everybody, unless you happen to be in Connecticut and you have to pay a sales tax basically.

THE COURT: Are you saying the bundle costs the same in New York as in Utah?

THE WITNESS: It's all, yeah.

THE COURT: One price?

THE WITNESS: It's exactly -- now, there are multiple packages -- there are multiple ways to buy the package, but they're all available to everyone, with the single exception of the renewal discount. You have to have subscribed last year to get the renewal discount, but aside from that, it's common, and the price depends on when you sign up or in NHL's case, whether you pay with a Discover Card, but these are all prices commonly available to everyone, all right? There are no individual characteristics involved. There's no individual negotiations between customers and anyone to get the league package.

And the -- what has to be taken into account, of course, is that different people are paying different prices, which is why we actually used as price the average monthly price paid for packages of different durations. And most but not all of the differences go away when you just use the average monthly price.

THE COURT: So for the person who likes the package, isn't it possible that after these restrictions are drafted and after there's more competition, you said there's still an economic incentive to produce a package, but it might cost more, so those people are who like to buy packages may actually end up paying more for their package than they do now.

THE WITNESS: Remember, though, that the price/cost margin is huge, all right? In other words, the cost of the

package, the actual incremental cost of the package, given that everything is already distributed nationally, is extremely low. So the main element driving price of a bundle isn't its cost; it's the elasticity and demand. It's the intensity of the demand for the bundle.

THE COURT: Right. So the demand would drop if people can buy *al a carte*.

THE WITNESS: Yeah, that's right. And we find --

THE COURT: So, I'm asking you, aren't there some people who now buy packages who will pay more for their packages after the restraints are eliminated?

THE WITNESS: The answer to that is no, because the competition effect on price is the principal factor affecting price. So what actually happens in the model that I have is that the price of the bundle goes down, the number of people who subscribe to the bundle goes down by an amount that's small compared to the number of people who buy single channels.

Most of the effect of eliminating the restriction - not all of it, but most of it - is new people coming into out-of-market telecasts. And then there is another effect that is a substantial fraction but not a large fraction of the existing bundle people switch to --

THE COURT: So, you don't see any losers? The defense keeps using the word "loser." Some people will pay more for the same product. You don't think that's true. You don't

think anybody is going to pay more.

THE WITNESS: There are conditions under which more competition could cause the price of a specific product to go up. Those conditions do not exist here, all right? And, indeed, one of the issues between me and the defendants' economist is whether that would be true. And I have analyzed the market and the conditions under which that result would obtain do not apply here in my view.

THE COURT: So, what you're saying is if you're right and nobody plays more, then there's no losers; and I don't have to worry about class problem of winners and losers because there aren't any losers.

THE WITNESS: That's right.

THE COURT: Okay.

THE WITNESS: What I have concluded is that the possibility of losers is not plausible in this case because the conditions under which that would happen do not obtain.

Q. Dr. Noll, can you describe what the conditions would be under which it would be expected to obtain?

A. You mean the conditions under which the price would go up?

Q. Yes.

A. Yes. Well, her Honor identified one of them, which would be a cost function that was strange, all right; that is to say, where the nature of the costs were such they were extraordinarily powerful in economies of scale that drove up

the price for those who remained for the bundle, and the reason that doesn't obtain is because the incremental cost of the bundle, once you have already got national distribution of all the channels, is virtually zero, so that doesn't -- you can't have a cost-side argument.

The second has to do with the relative elasticities of demand for single-channel purchasers versus multichannel purchasers; that you would have an effect where there was a huge reduction in the elasticity of demand, the people who wanted multiple channels had extremely elastic demands relative to demand in general.

THE COURT: I'm sorry. I didn't follow that.

In other words, are you saying if 99 percent suddenly only want single channels and only one percent want the package, that would be a problem? But you don't see percentages like that. Is that what you're saying or not? Did I misunderstand? Is that what you meant by elasticity of demand?

THE WITNESS: No. Elasticity of demand has to do with how much the price would go up if you took off a few people, right, and who are those people?

One of the features of the demand for sports programming or any kind of programming is consumer heterogeneity, that is to say they differ; and they differ in not only how -- what their willingness to pay is for a

particular team, but their insensitivity to price, the degree of sensitivity to price that they have. What the point I'm making is even -- it doesn't have to be a large share jump, suppose a one-third jump or 25-percent jump --

THE COURT: To the standalone and away from the package?

THE WITNESS: If those are the most price sensitive -- if those people are extremely price sensitive and the ones that are left are extremely price insensitive, then their price can go up. And that's why you have to do the GMM demand model and calibrate it to the existing behavior of the consumers is to see if that price sensitivity result is true. And you could get that result. There's nothing about the model that I did or the model that their experts did that wouldn't get that result by assumption; it's just that it doesn't get that result.

Q. I think we should turn to the damages model. Can you provide an overview of the task you undertook with this model.

A. Yes. The damages model is very narrowly focused on what a damage model has to do, which is, try to estimate the extent to which the -- there was an overcharge for the product holding the characteristics of the product constant; and this is extremely important because the characteristics of the product include the blackouts and that causes all this confusion about what does Noll think the blackout rules are going to be.

The product is a bundle that would exist with the existing set of blackouts, so you try to replicate that blackout thing and say how much would competition by itself affect that price? So, that's what the goal is, what is the effect on the price? And then the second goal is at that price, would the product continue to exist? That's the goal, the pure goal of the model.

And in order to do that, there's two steps: The first is to use the existing world in which there's consumers who some of whom buy the league-wide bundle and there's a league setting a monopoly price for the bundle. There's, contrary to some characterizations, there's both a supply and a demand side in step one, but the purpose of step one is to recover the demand curve.

We know what the monopoly price is already by just observing it, so we construct the model in which the existing price is the monopoly price outcome and calibrate consumer demand on the basis of that price, the sales of the product, and the distribution of consumers according to how they allocate their viewing time among channels. And that gives us, in the first instance, a characterization of the nature of consumers' utility functions, the things that drive their demand, and the variation, the heterogeneity of consumers in terms of that.

THE COURT: So when you estimate at step one, you're

envisioning a world in which they have the *a la carte* option?

THE WITNESS: The first step is no.

THE COURT: No? Why would you be estimating then if you wouldn't have actual -- if you weren't changing anything else, you would have actual figures.

THE WITNESS: Because we have to recover the demand curve. In other words, the only information we have about the nature of demand for out-of-market games is the existing response of consumers to the limited option they're given --

THE COURT: Correct.

THE WITNESS: -- which is the bundle or nothing.

THE COURT: That's right.

THE WITNESS: So you use their response to that in terms of the distribution of how many of them buy it.

THE COURT: That's an actual figure. You don't need an estimate.

THE WITNESS: No, but you need that to answer the counterfactual question if the prices change and the kinds of products that were offered --

THE COURT: That's why I asked you when you said "estimate," are you assuming a world in which *a la carte* is an option? You said no.

THE WITNESS: That's step two. You take the demand curve that you derive -- the demand relationship that you derive from the existing world.

THE COURT: That's not an estimate. That's not an estimate; you know that.

THE WITNESS: You don't know the demand curve; all you know is the outcome. You know the price, and you know the distribution of viewing times, and you know how many people bought it. You don't know how they would behave if you changed any of that.

THE COURT: Am I missing something? I think I asked that three times. If you change something, the change would be that they would have an option.

THE WITNESS: And that's step two.

THE COURT: Okay. Never mind. I'm not going to get an answer to the way I'm framing it. I'm sure it's me. I accept it as me.

Go ahead. Could you go back to the previous slide.

THE WITNESS: I think it's responsive to the question.

THE COURT: Can we go back to step two. Thank you.

THE WITNESS: Let me finish it off one more time.

THE COURT: Okay.

THE WITNESS: What you do in step two is you have a set of -- a demand relationship is a mathematical formula that says how will this particular consumer respond to a change in the way things are sold and their price. And so you take results from a very specific case, namely the league bundle given the blackout rules and its price, from that, infer the

consumers' behavior, and from that say how will the behavior change in step two to reflect the counterfactual world in which all 30 of the RSNs or the team broadcast -- live team broadcasts are distributed nationally.

So you're using a demand estimate you derived from the status quo to analyze another counterfactual world that has territorial restrictions removed.

THE COURT: Right.

BY MR. DIVER:

Q. You prepared some slides walking through these steps. It would be better to move on.

A. Yes.

Q. You want to use this slide to try to answer the judges question.

A. I think I already did it in saying step two. This would just be repeating what I just said. The bottom line is step one enables you to estimate parameters and their distribution in consumer demand relationships; and from that, you can generate a large sample of hypothetical consumers to do step two that reflect the heterogeneity of tastes that are revealed to you in the existing data.

Q. Can you help us understand what you mean by set of parameters. I'm afraid we're going to hear this.

A. Yes. A structural model is a series of mathematical equations that are meant to replicate the behavior of

participants in a market on both the supply and demand side. And that -- that set of mathematical equations has numbers in it that are constants that you don't know and you use the existing data to estimate them, and those are called the parameters.

So in a simple demand curve, you might say that, you know, linear demand curve was at the quantity purchased is A minus BP where P is the price, well, A and B are the parameters and P is the variable in the equation that explains the quantity demand.

Q. And what parameters are being estimated with this model?

A. The parameters that are being estimated are the -- are the things that go into the utility function that measure the responsiveness of the consumer to price; the value they place on having access to the bundle; and the value they place on viewing time of each of the teams or RSNs that they view.

Q. Without getting into how the method actually works computationally, can you explain the Generalized Method of Moments?

A. What the Generalized Method of Moments does is find the -- first of all, it calculates moments of a statistical distribution of various phenomena, in this case, the viewing times to the channels and uses an iterative process to calculate the parameters in the utility function that we described - the valuations is placed on the bundle and the

valuation placed on price, and the valuation placed on viewing time - and it tries experimental values of these and with the goal of coming as close to pre -- producing moments of viewing time that are as close as possible as the mathematical procedure can produce to the actual moments, and it stops when it gets as close as it can.

Q. And is the Generalized Method of Moments generally viewed as a reliable methodology?

A. Yes. It's -- it's used a lot by economists in general and industrial organizations in particular to study demand in products of differentiated markets.

Q. What do you mean by products of differentiated markets?

A. Products of differentiated markets are ones in which products have different qualitative attributes but they nonetheless are competitive substitutes for each other.

So, a Honda is not exactly the same as a Chevrolet, but there are differences among them. And people go shopping for cars and they actually bargain for people over what the price should be, but even though they're different, even though people will -- some people will express strong preferences for one over the other, the reality is they compete despite the fact they're different. And the automobile industry is a classic example of a product differentiated industry where you can measure demand by taking into account both the competition across cars and the valuations people place on their

attributes.

Q. Now, you may have addressed what's on this slide. Has the Generalized Method of Moments been used to estimate demand for television programming before?

A. Yes.

Q. Has it been used many times?

A. Not many, but several. There -- I mean, there have been several papers published, the most recent one is the one that we have been using here by Greg Crawford and Ali Yurukoglu, but there have been others as well. And yes, it is used to analyze television demand. It's not the only model that's used to analyze television demand, but it is one of the models that has been published in peer review journals to measure television demand.

Q. Were you familiar with the use of this method in the television industry before the paper Crawford and Yurukoglu paper?

A. Yes, of course.

Q. Again can you state again what the moments -- what is a moment?

A. A moment is -- well, let's start off with what a statistical distribution is. A particular variable may take on many values with differing probabilities and a statistical distribution, you can think of it as a picture like a bell-shaped curve. What's the probability that any one of

these things is going to be actually observed? The moments characterize the shape of that statistical distribution. The first moment is the mean, the average; the second is the standard deviation or variance, which is a measure of the spread; and then there's skewness - is one tail bigger than the other? - and then there's flatness - is it does it have a high level peak or does it sort of spread out more? So there are a number of moments that you can use to characterize statistical distribution. Indeed there is an infinite number of them.

Q. Can you describe the datasets that you used to derive the moments?

A. The -- well, the data we used -- the moments we actually used are price, profit margin, and the viewing times shares. So we calculate -- we calculate the means of viewing times of each of the channels in the standard deviations.

Q. The means and standard deviations of what datasets?

A. These are data taken -- some of -- the two Internet versions of the league bundle, NHL, MLB, have produced data at the consumer level of viewing. And so we use those data to calculate the moments directly. And in addition, we have a sample of DirecTV customers. We don't have any viewing data from Comcast.

THE COURT: I think we're going to take a morning ten-minute break now. It's a quarter of on that clock. We'll reconvene at five of on the courtroom clock. Ten minutes.

(Recess)

(In open court)

THE COURT: Just before we continue, I had a question, Ms. Wilkinson. Maybe it's for you. I don't know because you mentioned it, Dr. Noll mentioned it, you both mentioned it. I want to make sure I have the facts right. It's very elementary. I apologize for that.

Can you explain the blackout one more time. For the person in San Francisco or Iowa who wants to watch a Yankees game live, what happens?

MS. WILKINSON: It depends on who the Yankees are playing. Are you assuming they're playing San Francisco?

THE COURT: Okay. I need a quick explanation for that.

MS. WILKINSON: Let's assume they're playing San Francisco, the only way in San Francisco to watch the San Francisco/Yankees game is on your cable package, that's in-market RSN that's part of the bigger cable package. That's the only way you can watch it in San Francisco.

THE COURT: You can watch that game?

MS. WILKINSON: You can watch San Francisco playing the Yankees.

THE COURT: But if the Yankees are playing somebody else?

MS. WILKINSON: Yeah. Let's say they're playing the

Marlins or they're playing the Rays who they play more often, then you can watch that on the out-of-market package in San Francisco. But if you're in New York, the only way to watch the Yankees are on their -- think of their, really, their cable package that has YES on it.

THE COURT: So the blackout means that what's blacked out of your out-of-market package is anything that involves your home team?

MS. WILKINSON: Right. The whole game is blacked out. Both ends of it are blacked out. So you can't -- in the package in New York, you can't see the Yankees' side of the feed. You also can't see the San Francisco or the Rays' side of the package either.

So if you're living in New York, you don't get to see either -- it's called game exclusivity -- you don't get to see either game. If you're out of market and neither team --

THE COURT: -- is in your territory.

MS. WILKINSON: -- is in your territory, then you're okay.

THE COURT: Then you're okay. But if your team is the one playing against the Yankees, you won't see the game on the out-of-market package.

MS. WILKINSON: On the outer market package.

THE COURT: Thank you. I just wanted a clarification.

MR. DIVER: If I may, if you live in Iowa and want to

watch the Yankees game and you don't subscribe to the package.

THE COURT: And if you don't subscribe to the out-of-market package?

MR. DIVER: But you do subscribe to the YES network, which is possible, that game would be blacked out of the YES network.

THE COURT: That's what I thought somebody said in opening and I didn't understand that. So if you live in Iowa and purchase the YES network --

MR. DIVER: Yes, which you can do.

THE COURT: -- you can't watch the Yankees game?

MR. DIVER: That's exactly right.

THE COURT: What if you purchased on the YES network?

MR. DIVER: The YES network will show everything and as soon as the game starts, it will black it out or replace it with some --

THE COURT: What else is on the YES network other than the Yankees game?

MR. DIVER: There's the pregame shows, postgame shows, the history of the Yankees and so forth.

THE COURT: Maybe that's where I got confused.

MR. DIVER: So the team's own individual broadcasts are blacked out outside of the territory; the league's packages are blacked out within the territories. That's the distinction.

THE COURT: Thank you. All right.

MR. DIVER: To get back to something more interesting --

THE COURT: Not to me. That was interesting.

BY MR. DIVER:

Q. Perhaps it would be helpful to use some examples to show how the model matches data.

A. Yes. This table, just as some illustrative examples, are the moments that are used for the estimation of the demand relationship. And once we have the estimated demand relationship, the degree to which it predicts the data from which it was estimated. And as you can see, it's not perfect. It doesn't converge to perfection. It never does.

THE COURT: It doesn't converge to what?

THE WITNESS: Perfection. They never do. But -- and these are not cherry picked. This would be characteristic of the model that for the most part the predictions of the moments of the data from which it was estimated are at, the converged model predicts those models or something fairly close to it.

Q. Can you just go back and really basically for not -- in this group explain to me what each of those numbers is referring to and where it comes from?

A. If we look at the very first top, this is the MLB.TV, we take the average amount of time spent viewing the Yankees RSN or the YES network among all consumers who subscribe to MLB.TV.

We find that the observed average time is 5.6 hours and, of course, this is distributed very widely because for some people, it's going to be zero because it's blacked out. For some people who are devout Yankees fans, it's going to be a large number, and that gets us to the standard deviation which is a measure of the spread.

So it says that standard deviation of that number of viewing hours, which basically is a measure of the degree to which the distribution is spread out, is 13.7, which is a big number relative --

THE COURT: By the way, is that hours per week?

THE WITNESS: No. This is hours for the entire season.

THE COURT: For the entire season?

THE WITNESS: Yeah, yeah. The average person --

THE COURT: Who subscribes?

THE WITNESS: Who subscribes to MLB.tv watches the Yankees an hour a month.

THE COURT: No, not an hour of month.

THE WITNESS: Yeah, that's 5.6 for a season. A season is six months' long.

THE COURT: Per season?

THE WITNESS: But that's composed of a bunch of people who don't watch it at all.

THE COURT: Even though they subscribe to it?

THE WITNESS: They're subscribing to the whole bundle.

THE COURT: And this is nationwide.

THE WITNESS: This is nationwide.

THE COURT: I see.

THE WITNESS: That's the point, is that a large fraction of people don't watch it very much and a relatively small fraction of the people watch it a lot, and the mean is the average value. And then the standard deviation tells you wow, this is a very disperse distribution.

Q. Can you explain why the numbers are different for the Astros?

A. I'm sorry. For the what?

Q. For the Astros.

A. Because the Astros, on average, across all consumers, are less popular than the Yankees by a lot. The variation is less; that is to say, you'll find more people piled up on relatively small amounts of viewing; but on the other hand, those are, who are Houston Astro fans, will be way out there on the tail of distribution. And that's the generalized method of moments is supposed to capture is, let's find those few people out there who constitute the demand for the Astros games and see what they would do under various circumstances.

Q. And is the line mean of favorite team RSN viewing time?

A. This gets to the other point about the disparity between the average value for the Yankees and this one. If you look at

the people who have a favorite team, a favorite team of a person who subscribes to the package, then the average amount of viewing time per season is ten times as much as the average viewing time as the Yankees. So what this is about is about the fact that a lot of people are subscribing for the purpose of viewing a particular team a lot.

Q. We might have crossed paths here. I'm looking at the line in the blue with the mean RSN viewing time percentage.

A. Mean of favorite team RSN. Which one are you looking at? Tell me which one.

Q. That one.

A. We got the mean of the Yankees, the mean of the Astro, the mean of the favorite team, the price/cost margin and the bundle market share.

Q. What do you mean by percentage of favorite team viewing time?

A. This is the fraction of time spent viewing just one team, so it's a big number. Those people spend over half of their time watching their favorite team. So that's why you get this result that the average is so low, but that's because the total viewing time is concentrated in one team for those who -- for the favorite team guys.

(Continued on next page)

Q. And what does the price cost margin refer to?

A. It's the price minus the estimate of the marginal cost, which we have a debate about the right way to do it from the data we have.

Q. What does the market share represent?

A. We have a debate about that one too. It is the number of people who subscribe to the bundle divided by an estimate of the maximum possible number of subscribers in the market.

And the importance here is that, you know, we use the league play-off average viewing numbers as the measure, which is probably too low a number in the sense that the actual number of people who at some point watch the league championship is actually a higher number, but here the issue is one of conservatism. The bigger the market you make, the bigger the effect of competition on price, because the existing number of people who subscribe become the smaller and smaller and smaller fraction of the number you might sell it to, and if the number you might sell it to gets very large, the pay-off to a price reduction is much bigger.

So, as you adopt potentially different definitions of what the market size would be, the bigger that number is, the bigger the estimate of damages is. So, we picked this one on the grounds that it was the lowest plausible value from among the range that one could defend.

It would be hard to argue that the average number of

viewers of a league championship is an overestimate of the number of people interested in a sport.

Q. Can you describe what this chart is showing.

A. This is the predicted distribution of viewing times for the YES Network versus the actual. This is sort of predicting the data from which the model was derived and showing the distribution, and again the fact that a relatively small number of people view them a lot and a relatively large number of people view them very little.

Q. And what is this one?

A. Pardon?

Q. I've changed the graph.

A. Oh, OK. This is the same thing for the Penguins in the NHL.

Q. And did you conclude that the model -- the matches of the moments between the observed and predicted moments?

A. Yes, these are the illustrations of a more general point, which is that the explanatory power of the model to replicate the data from which it is estimated is high, and would pass normal conventional tests of whether the estimation procedures produced a good result.

So, the results for a specific team aren't that important. What is actually important is the power of the model itself to explain all of the data, all the moments, the average viewing times, as well as the standard deviations and

everything for all the teams. That's the criteria. The criteria that the estimation procedure uses is fitting all of the moments, so any single one isn't all that informative. What is informative is to look at the overall ability of the model to predict the data from which it was estimated. And it does a good job of that.

THE COURT: But what I see in these slides is that the estimate is pretty identical to the actual.

THE WITNESS: Yeah. If there were a large number of teams for which this weren't true, then you would say maybe we haven't done a very good job at least with respect to some of the teams capturing their demand. But we don't find that.

So, we find that indeed the model does fit the data. That doesn't mean you can't argue with how we use it, because this is not addressed to what is the proper model for the supply side on the "but for" world, but this says we're doing pretty good on the demand side.

Q. And did you assess the standard errors?

A. Yes. The standard error estimates of these things are all -- we did -- we do -- we passed the standard tests of statistical significance.

Q. Now, turning to step two of your model, can you provide an overview of step two?

A. Yes, the second step is one that takes a model of the world as it exists -- and it does a good job of replicating it -- and

applies it to a world that doesn't exist. This is where the simulation in. And in particular what is done is one changes the choices available to consumers, and changes the model of competition among the firms in the industry from monopoly to something else, and examines what is the effect. The focus is what is the effect on the demand of the bundle, both its price and sales, if we move to a world that's more competitive. And that is the essence of what the second step does.

Q. Can you explain how the results from step one are used.

A. Yes, step one gives you will the demand relationship. But you are assuming a world in which the supply side of the model has changed from one of being monopoly to one of being one in which all of the out-of-market RSNs are available.

Remember, the data themselves come from people who live out of market quote unquote. They are subscribing to an out-of-market bundle. So, the market you're modeling is one in which for out-of-market people the restriction against other teams broadcasting their games into that market where these people live has been removed. That is the essence of it.

We have not removed the failure of the bundle to include the in-market RSN, but we have removed the restriction that all the other RSNs are prohibited from being there in terms of the individual stand-alone channel. So, we have relaxed the notion that the only way you can get access to out-of-market RSNs is to buy the league-wide bundle.

THE COURT: Is that why you say you accept the blackout -- you meant the blackout in the out-of-market package. When I asked the question after the break, and you explained to me that if the Yankees play the Giants in San Francisco, if the Yankees play the Giants, that blackout you are going to assume remains in the out-of-market package, but the YES Network can sell directly in San Francisco.

THE WITNESS: Yes.

THE COURT: I got it.

THE WITNESS: It's important to recognize that the term blackout means different things.

THE COURT: Now I do. So, what you are assuming is that the YES Network can sell directly in San Francisco, but the out-of-market league package can continue to black out the Yankees/Giants game.

THE WITNESS: The RSN or the channel that carries the Chicago Cubs is always going to be blacked out in Iowa.

THE COURT: Wait. What?

THE WITNESS: Because Iowa is in the territory of the Chicago Cubs. You asked about Iowa.

THE COURT: I didn't get the geography of that. Can we just stick with California where I do understand it? My example is on the repackage, the Yankees/Giants game can continue to be blacked out in your model, but the YES Network can sell directly into California.

THE WITNESS: That's right.

THE COURT: OK.

THE WITNESS: And can even sell if it's playing the Giants or the As.

THE COURT: I got it. They can sell directly in, but the league out-of-market package in your world, you are accepting that it continues to black out that game in both New York and California.

THE WITNESS: Yes, the league bundle still respects the local RSN blackout; it doesn't respect any of the other blackouts.

THE COURT: OK. So there are different kinds of blackouts, and that may be some of the confusion. Good, that's helpful.

A. So that's the first point, that you have to take into account what is being relaxed, what's being offered, and it's different in every single local region for the 72 regions for baseball and the 46 I think it is for hockey. They all have different blackout patterns.

Then the second thing you do is you have to model the nature of the competitive interaction among the new entrants who are the stand-alone channels and the league bundle. This is where all the disputes are about what constitutes bargaining. It's different models of how the competitive interactions take place. It's not about I don't do bargaining.

Of course I do bargaining. I just don't do it in the market structure and the set of assumptions that they do it. I have a different set of assumptions about what the nature of those bargaining --

THE COURT: Well, where do you have bargaining? I thought your model did not have bargaining between the team and the RSNs or the RSNs and the MVPDs, that you took out two steps of bargaining.

THE WITNESS: That's because the defendants described bargaining as identical to negotiation over a per unit of output fee. And you can see that when they use the word "give it away for free." Teams don't give away their package for free, the league bundle. What they get is a profit share. They get a fee, it's just not the kind of fee that's going to distort the price. So, I am assuming that the way that bargaining works is that it's not a fee based on output. It's not a fee based on how many people buy that particular channel. Instead, it's another kind of fee that doesn't affect the final price, because the final price is the one that maximizes the joint profits of everybody.

THE COURT: So, the feed is free but the profit to the network comes from the distribution? They get a percent of each subscriber? Or what? Where do they get their fee?

THE WITNESS: I have a long table later on in the presentation about all the different ways, but the most obvious

is the profit sharing one because that's what the league bundle already is. All right? When marginal costs are essentially zero profit sharing has no effect on final prices. And there are other things that you can do. What you try to do is make the fee be related to the popularity of the team but not be related to the specific number of people who buy a service in order to get access to that team.

What causes the distortion and the higher price at the retail level is when you cause an intermediate price, a transfer fee inside, to be related to the quantity of output of the wholesale supplier.

So, what do people do to get around that? Because nobody wants to have the retail price be above the monopoly price. That's not in anybody's interest. So there are other contract forms that are widely used not on in sports but in television in general to avoid that.

THE COURT: So how does the team get the fee? What is it based on?

THE WITNESS: It could be profit sharing. I don't have an opinion on how eventually it could be, but it could be fixed fee. A lot of them do fixed fee and it's renegotiated every two to three years, you pay me X million of dollars and you get to broadcast my games.

THE COURT: Fee from the distributor? From the MVPD? The RSN?

THE WITNESS: The relationship between the network and the team and the relationship between the MVPD and the network can be of a contract form other than a fee per unit of output. And there are multiple kinds of ways to write that contract.

THE COURT: But if you are going to write a contract, you are going to bargain about it.

THE WITNESS: Of course. And that's why the notion that there is no bargaining in my model is false. There is bargaining; it's just not of the form that they assume.

THE COURT: I see. So, it's not bargaining based on per viewer subscription.

THE WITNESS: Well, per unit of output of the channel that's being sold.

Like per-subscriber fees when you are selling into a bundle are not the same as per-subscriber fees when you are being stand-alone. Per-subscriber fees when you are stand-alone are the worst kind of pricing in terms of creating this elevation of price.

Per-subscriber fees when you are one of a hundred channels in a bundle, and you don't add very many subscribers to that bundle, what you are actually getting is a large payment for all the people who don't watch you, and then a relatively small payment for the people who actually subscribe to the bundle because you were there. And that's much less distorting than a fee per-subscriber for a stand-alone.

And when you move from bundling to stand-alone, there is a huge incentive to adopt one of the contract forms that avoids the distortion of having price be closely related to output.

MR. DIVER: There are a number of slides addressing these issues.

THE COURT: OK.

Q. Before we move on to that, how is the counterfactual market structure implemented? How?

A. Well, the specific assumption made is that there is Bertrand competition among product differentiated firms, namely the bundled plus the 30 RSNs, which is actually the most common form of modeling the supply side in a product-differentiated industry.

Q. And is it possible to use this methodology to model different kinds of market structures?

A. Yes. An essential component of the blue box is based on your analysis of the nature of the industry and its institutions, what do you think is the most appropriate way to characterize the competitive interactions among the firms, how they actually compete with each other. And that is an essential element. And variations in the assumption about how that will happen cause different results in terms of what the prices and quantities are going to be that emanate from it.

Q. Let's look at the way you implement it.

A. OK. The way we get a demand relationship is to take the 72 distinct broadcast regions -- this is why the exclusivity thing is so complicated -- the 72 broadcast regions in Major League Baseball, and the 46 broadcast regions in the NHL, and generate from the distribution of preferences samples of 10,000 consumers in each of these broadcast regions, from which we derive the demand curve for all the products in that region.

Q. Can you explain why there are 72 broadcast regions and 30 teams?

A. I would hesitate to say there is a rational reason for it. It reflects historical patterns of how teams distributed their regional broadcasting prior to the league deciding to have a rule about how to deal with parts of the United States that are remote from the home city of a team. Like, you know, Montana is not within 600 miles of any team, but it has to be in somebody's territory because the leagues have decided that every square inch of the United States has to be in somebody's home territory.

So, there is a series of rules about definitions of home broadcast territories as well as home stadium territories that are essentially derived from the inheritance of history plus the sequence of expansion of the leagues. And there is really no rational reason for it.

Q. You describe --

THE COURT: Would you go back one slide. I just want

to ask a question about the 10,000.

Isn't this kind of a random choice, that every single region has 10,000 consumers? Because wouldn't in fact some regions have more consumers than others?

THE WITNESS: Exactly. So when we go to the demand curve, we weight the region by its population.

THE COURT: OK.

THE WITNESS: The reason we do 10,000 everywhere is remember our market shares are pretty low, so we have to have enough consumers in the sample that we can get a statistically significant estimate of what the demand for the product is actually going to be and how much is going to be sold, and so you need a pretty large sample size in every region, and then you weight it.

THE COURT: So, it is random to say 10,000 every region because they differ, right?

THE WITNESS: Exactly. So the smaller regions have a smaller weight. The 10,000 is simply this is how big it has to be so that in the smallest region you have statistical significance.

THE COURT: Thank you. Now you can go to the next one. Thank you.

Q. Can you explain the three types of consumers you have modeled?

THE COURT: Can you try really hard to keep your voice

up?

Q. Can you explain the three types of consumers you have modeled?

A. Yes. The model characterizes consumers into falling into one of three categories, which are hypothetical for another purpose, which is trying to model the nature of competition. All right?

And the idea here is that some people are subscribing to the league bundle to get access to one team, and they do relatively little viewing of any other team. Some people are subscribing because they are interested in two teams. Like, for example, the husband and wife may have different favorite teams, and so their decision is based on only two teams. And so the stand-alone versions of games, the one team person is just that one stand-alone that is going to be of interest as a substitute for league bundle. The two team person it's the two stand-alones, each one versus the league bundle. And then the multi-team is everybody else, and it's people who are interested in three or more. And they're distributed as to how many they are actually interested in, from three up to the max they could ever have in the league bundle is 29. But in Iowa it's 24. So, it's based on how many they could possibly have.

THE COURT: What does outside option mean?

THE WITNESS: The outside option is all the things you do besides watch baseball or watch hockey.

Q. Why did you not divide consumers into more types?

THE COURT: What? Into what?

THE WITNESS: More types.

MR. DIVER: More types.

A. The original idea for this was something that appeared in the documents, which is -- and it was really not two teams. Some people are only interested in their favorite team, and some people are interested in others. Professor McFadden took that and came up with a characterization that there were fans of the game and fans of the team, and he thought of a dicotomy where there would be the actual number of subscribers to the bundle with a mix of these two different types.

When we look at the data we discovered that a third categorization was potentially important and would increase the explanatory -- in principle it could increase the explanatory power of the model. Going beyond that, the number of consumers who fall into each of the other categories was sufficiently small that further refinement would not buy anything in terms of explanatory power of the model but would substantially increase its complexity and run time. So, we stopped here.

The main value of this method is that it says something about the nature of competition. It captures the fact that competition is not uniform across all consumers, that the value of alternatives is not the same among all consumers, and this three-way categorization is sufficient to capture that

concept and to model appropriately, I think, the limitations on the scope of competition in the model.

Q. Now let's turn back to the bargaining issue. Why is it reasonable to assume that participants would reach a bargaining that maximizes their joint profits?

A. It's the point I made before that if prices are expressed as a price per unit of output -- we have to define output very carefully. It's the sales to a particular person to gain access to that product -- if prices are based on output, and two firms in a vertical relationship, a wholesale supplier and a retailer, both have monopoly power, then each acting on its own will set a monopoly price, and the final retail price of the retail monopolist will be higher than if the two firms merged and monopolized their joint monopoly profits.

That's the problem with double marginalization. It's an inefficiency; its a price that's so high that it's more than a monopolist would charge. That's why there is a huge incentive for people in vertical relationships that satisfy this condition to find ways to negotiate out of it. Instead of selling on a per unit of output basis, they do things like baseball teams do for Pepsi Cola, they sell pouring rights. They don't have a fee per unit of Pepsi sold; they sell pouring rights. And that's a perfect example of a contractual way to get around the problem of double marginalization.

THE COURT: But when I read the submissions, the

problem was whether or not double marginalization is sort of the standard of the economic industry to use or not to use. One side says it's always used, one side says it's either never used or never used in this kind of model. Who is right on that? It's very confusing for a noneconomist to know what the industry standard is, so to speak.

MR. DIVER: Exactly. Let me first of all state that everybody, whether they are talking about doing their own research -- whether it's me or the defendants' experts -- you pick the model that seems most appropriate for the data you have and the institutions of the market and the firms that you are analyzing. All right?

So, there isn't any single industry standard. What there is is a set of tools that you pick among depending on your view of what the best one is among the set of tools you have.

And their claim about double marginalization is because that's the result in the Crawford and Yurukoglu paper, is that the reason they get the answer they do is that the subscription drivers, the handful of cable channels that have significant market power like CNN and Fox News, people like that, would in fact charge a stand-alone per-subscriber fee instead of what they now do, a subscriber fee for the entire extended basic bundle, which is less of a double marginalization problem. And the act of going from a system

that reduces or almost eliminates the double marginalization problem to a system that emphasizes it would strip away essentially all the benefits to consumers of unbundling. That's the result. Now, that doesn't mean it's a prediction. And Greg and Ali don't believe it's a prediction of how the world would actually behave. What they are saying is if this is what happens, then consumers won't derive any benefit, and, indeed, it then manifests itself in policy, like, for example, FCC policies about what vertically-related firms can charge for if you are an MVPD there is an FCC process to regulate how much you can charge your competing MVPDs for the networks you own. That's an attempt to get rid of a form of double marginalization.

So, what we know is the institutions in the industry recognize the existence of the problem, the policy makers recognize the existence of a problem, and so we have a series of institutions of contract forms and other institutions to mitigate it.

So, it isn't wrong to completely eliminate double marginalization from your model or to say I'm not going to worry about it because I'm just going to rely that the people in the industry know this is a problem, we know they know it, and they have invented ways around it.

THE COURT: And that takes me back to bargaining, because again the criticism was it's in the Crawford model but

it's not in yours, and it's standard to have the bargaining. I think you answered it already, but I just wanted to say isn't that the same kind of attack, that you should have built in?

THE WITNESS: The real attack is I should have built in a per-subscriber fee as the negotiation, as a thing negotiated. And my answer is, no, they wouldn't do that because it's not in their interest to do it. They would negotiate something else that doesn't cause a double marginalization problem.

THE COURT: Like the pouring rights.

THE WITNESS: Yeah.

MS. WILKINSON: Your Honor, I have an objection only to what Dr. Noll introduced as hearsay statements from Greg Crawford and Ari Yurukoglu. He said Greg and Ari don't agree with that or something.

THE WITNESS: It's Ali.

MS. WILKINSON: Ali, excuse me. I would only object to him testifying to hearsay.

THE WITNESS: No, this is their paper.

THE COURT: It's in the paper because the expert relied on the source. It's in the paper, and maybe they can point it to you outside of these hours, so you are satisfied that it's in the paper. OK, it's not something that they told him privately.

Q. Moving to the next slide, Dr. Noll, can you explain

different ways of avoiding double marginalization?

A. Yes, and here they are. The first thing is the competition avoids it. Double marginalization is something that arises when there is bilateral monopoly power, there is monopoly power at the wholesale level and the retail level, so the more competitive the market is, the less important double marginalization is.

THE COURT: Is that one reason you wouldn't treat the teams as a joint venture, you treat them as independent entities, the teams from the league?

THE WITNESS: That is a separate issue, but you're absolutely right that joint ventures can be used purely for the purpose of creating a new product that is priced independently of all the other products in the market.

Like we go back to Music Net and Press Play, that were created by the record companies to sell digital recordings. That got into hot water because it became a price fixing conspiracy or had the trappings, the look, and they eventually divested their joint ventures and now those companies are now stand-alone companies.

The idea of a joint venture is not that it's a mechanism to eliminate competition, it's that you are setting up an independent source of price setting. That's how it's not anticompetitive to add a new product by creating a joint venture. If you create a joint venture for the purpose of

coordinating your pricing on all the other products that compete with it, then that's anticompetitive.

So you had to be careful about joint ventures. There are pro-competitive joint ventures and there are anticompetitive joint ventures. You have to make the distinction between them.

Going down, fixed fee contracts, like I said before, the pouring rights.

Q. Are there examples of fixed fee?

A. There are a number. For example, the league bundles themselves, some of them, in some cases are sold at fixed fees. The baseball teams frequently mostly sell their television rights to RSNs for a fixed fee. The contract is complicated; it will specify the number of games and then so much per game beyond that, and then a fixed fee just for the minimum number.

Then there are nonlinear contracts like per-subscriber fees that are charged to be a member of a bundle are actually a form of nonlinear contract. It's complicated as to why, but they are.

THE COURT: I don't understand the word nonlinear.

THE WITNESS: It means that part of what you charge is not related to how many customers you have, and part is related to how many customers you have. So, it's not strictly a per-customer charge.

THE COURT: OK.

THE WITNESS: And revenue sharing contracts, which is how the league bundles are done, they are basically profit sharing. Right?

And then collaboration on retail prices, where the wholesaler and the retailer jointly negotiate both the wholesale price and the retail price. These are all examples of how you get around it.

Q. Can you explain how revenue sharing reduces double marginalization?

A. Yes. Well, it's really easy to see in profit sharing, because suppose you say that the wholesaler is going to get 50 percent of the profits and the retailer is going to get 50 percent. Then the retailer's problem of maximizing downstream profits, the solution to the profit maximization problem -- maximize price times quantity minus cost -- is the same as the solution to maximize half of price times quantity minus cost. So, those two contracts get exactly the same result.

Revenue sharing doesn't exactly the same result. It can create a distortion to the extent marginal costs are important. But if marginal costs are low, then revenue sharing is like profit sharing.

Q. Can you explain how existing agreements are structured to address this issue?

A. Yes. This sort of is a summary, a beginning of a summary of a lot of contracts that are actually in evidence in the

case. The agreements between teams and the RSN, they are specifically a fixed fee per season or per game, and they typically have tiering requirements, so that the agreement is going to be they're going to be on a particular tier. Likewise, the RSN contracts with the MVPDs can take a similar form with about having a tiering requirement.

The agreements between leagues and teams on the bundle is a profit sharing agreement. The agreements between the leagues and television networks for a mix fixed fee like the game on ESPN, the baseball game on ESPN or the baseball game on Fox Network are for a fixed annual fee. NFL contract with CBS or a season's worth full of broadcast is a fixed fee. League agreements with MVPDs for the bundle in the case of MLB are a fixed fee agreement, and for the NHL are a revenue sharing agreement.

And this is another phenomenon where you might use a quantity-based measure, but you combine it with other things about penetration and tiering that put a constraint on what the retailer can do that eliminates or mitigates the double marginalization problem. And RSN agreements to MVPDs fall into that category.

Agreements that involve content provider and setting the retail prices I discussed. The MLB agreements with MVPDs for MLB Extra Innings include provisions about joint setting of retail prices. The MLB will be consulted and be involved in

the retail pricing process. Likewise, the agreements with NHL Center Ice, they have a suggested retail price which turns out to be very close to what the actual price is.

Agreements within vertically integrated firms can be different. A vertically integrated firm doesn't obviously face the problem of double marginalization because it is in fact maximizing joint profits no matter what the transfer price is for the wholesale product, like Group Sports versus DirectTV or City Comcast Sports Network versus Comcast. Regardless of what the wholesale price is, they are integrated entities and they are going to charge the joint profit maximizing retail price.

Q. Can you explain how a tiering requirement limits double marginalization?

A. Yes. Again, remember, go back to what the form of the agreement is. They will have a per-subscriber fee, but the per-subscriber fee isn't directly related to the number of people who actually watch that network or, more importantly, the number of people who subscribe to the MVPD because that network is there. All right?

So, the bigger the tier, the more the number of channels that there are on in the tier, like extended basic, which is the biggest tier that MVPDs offer, the MVPD, if it signs a tiering agreement where the per-subscriber fee will be based upon a tier that has at least 80 or 85 percent of subscribers which is written into the contracts, then the

amount it's going to pay is based on a very large number of subscribers compared to the number of subscribers who actually subscribe to that tier because of the presence of that particular network. And that is sort of equivalent, that is a two-part tier, where there is a big payment which is the per-subscriber fee times the number of subscribers who don't care very much about your network and didn't subscribe to you because of that, versus a much lower than value to consumer per-subscriber fee for the small fraction of people who subscribe to the tier because you are there.

Q. Can you explain what you mean by two part tariff?

A. Yes. Or multi-part tariff is a fee structure in which there is a component of it that is not quote marginal unquote, doesn't affect the final good price. It's somehow related to things that are not relevant to the decision-making variable about how much to sell. So it can be just a fixed fee. It can be, as we say, a per-subscriber fee on your biggest tier even if you are not on it, like how many subscribers do you have. Actually even if you are a pay per channel, the maximum possible number of customers you could have is the total number of subscribers to the MVPD, so you can have a contract that says you have to pay me so much for every subscriber you have, plus in addition to that an additional fee for those subscribers who actually buy my particular channel.

So, those are all the ways you can do. And there are

lets other ways to do it. There is an infinity of ways to create alternatives to strict linear pricing based on output.

Q. Can you explain what this slide shows?

A. This is the bottom line for the model. It shows you the average monthly price of the various bundles here, the estimated average monthly price of the bundles using the additional competition that would arise from eliminating the territory restrictions, and the percentage overcharge that is estimated, which is basically the percentage difference between these two columns.

Q. Can you explain why Comcast is not represented on this chart?

A. Because they didn't provide the data that was necessary to be able to estimate the model.

Q. And how could you account for that in calculating damages?

A. Well, one way to do it is to simply -- since Comcast and DirectTV are competitors -- to assume they are essentially the same. Notice that it's also the case that NHL is missing from both DirectTV and Comcast, so you would have to figure out some way to estimate the NHL value on MVPDs, if you didn't have any data, they didn't provide any data.

THE COURT: Are these three on the left-hand column, are these all television, or are any of them Internet?

THE WITNESS: The first two are Internet. Notice these Internet prices are lower.

THE COURT: Right.

THE WITNESS: The reason they are lower is not just price discrimination. You also get different products, including the distribution system --

THE COURT: Right.

THE WITNESS: -- when you get an MVPD. So you can't really compare them and say, oh, that one is higher than the other and not just take any further things in account.

But in any case, what we have the most data for is the Internet versions. Of course the double marginalization problem is not a problem in the Internet service --

THE COURT: Because it's direct to consumers.

A. It's only a problem for the DirectTV estimation, and so it's an only an issue that we can debate about the DirectTV.

What we can say is, look, the Extra Innings on DirectTV has very close to the same mark-up, let's just pretend they are both 27 percent and charge 27 percent to Comcast. Then because those relationships from MLB and MVPD are the same for baseball, let's just assume they are the same for the NHL and say it's 31 percent for everybody.

To me as an economist, I would much rather have the data than estimate them, but the table indicates to me I'm probably going to get pretty much the same results, so...

Q. And for purposes of the modeling at this stage, did you model multiple years?

A. Sorry. Would I do what?

Q. Did you model multiple years of data?

A. No. Again, at the time I was doing the modeling I didn't have sufficient data to do multiple years. I can do some of it now, and I will do more years, and more years is really valuable because you can get some sense of price sensitivity for multiple years, because there have been some changes of price over time. An extremely valuable part of multiple-year data is, first of all, being able to model price sensitivity better, and secondly being able to model competitive interaction between the Internet and the MVPDs better.

Q. Do you believe that a final damages model will be able to calculate damages for the class in each case?

A. Well, there is no doubt that, yes, it -- the model will be used to calculate damages. The only thing that's in doubt is the magnitude, what the number will be, but the methodology is standard, and we will just have a fight over what is the appropriate way to assume the market structure works on the supply side in a counterfactual world.

MR. DIVER: OK, I have no more questions.

THE COURT: Let me look over my notes and see if there is more questions that I have.

You said that the assumption that the MVPDs have no bargaining power is a conservative position. But why would their having bargaining power result in even lower prices to

the consumers as opposed to higher profits for them? In other words, you said it's a conservative estimate to assume that they don't have bargaining power. Do you remember that?

THE WITNESS: Was this in my report or my testimony?

THE COURT: It may have been in the briefing, that the claim is made that -- plaintiffs say that your assumption that the distributors don't have bargaining power is actually a conservative position. I'm trying to understand why the plaintiffs lawyers say that.

MR. DIVER: Or ask me.

THE COURT: I could, but I thought I should ask him.

THE WITNESS: I don't have a clue as to what that is in reference to.

THE COURT: OK.

THE WITNESS: I'm sorry.

THE COURT: That's OK.

MR. DIVER: I think what was understood by that was in the context of an actual bargaining modeling you're bargaining the bargaining power of two sides, and the MVPD's interests, if it were in a bargaining situation with an RSN, is to lower the prices that the RSN is charging and not raising them.

One of the things we saw in the Crawford and Yurukoglu paper is that sometimes those bargainings result in lower prices and sometimes they result in higher prices, so it's in that specific context.

THE COURT: If the distributors would distribute both league-wide packages and ala carte channels, why doesn't your model use multi-product pricing?

THE WITNESS: Because it assumes independent pricing and joint venture to avoid anticompetitive effects. If you actually assume that the joint venture is for the purpose of cartelizing the prices, setting prices cooperatively, then you would get higher prices.

And it's not the case that what I am assuming is independent pricing by the Yankees for the Internet version versus the MVPD version. That's not what I am assuming. I'm not modeling it because I don't have the data to model it, because I don't have multi-year data, and I don't have data for all of the MVPDs, but there is nothing here that is assuming independent pricing of the Internet versus MVPDs. But what is being assumed is --

THE COURT: The multi-products I was talking about was the league-wide packages and the ala carte channels.

THE WITNESS: Yes. And the notion that a major activity of the joint venture is going to figure out a way to get collusive pricing of the stand-alone channel, that is what I'm rejecting as a modeling strategy.

THE COURT: So, this again I guess really is a question for you, Mr. Diver. So he only analyzed the impact on out-of-market consumers, so that means you're really not

challenging any of the restrictions -- we talked about that earlier -- in-market. In other words, that's not part of this challenge.

MR. DIVER: Well, there are two answers to that. We're not seeking to quantify damages for anything other than what he has modeled.

THE COURT: Which is out-of-market.

MR. DIVER: Which is out-of-market. But he has analyzed the anticompetitive effects in a more general way on certain other practices. To the extent there are in-market blackouts again that are the result of collusion, we're challenging those.

THE COURT: But you don't have a model for calculating damages.

MR. DIVER: But we don't have a model for calculating damages.

THE COURT: Does that mean you are not seeking damages for that?

MR. DIVER: We're not seeking damages --

THE COURT: Not seeking damages.

MR. DIVER: -- for them.

THE COURT: OK. OK. I don't have other questions. We have ended seven minutes ahead of schedule, which is good. We can either reconvene at two and have a slightly relaxed lunch, or we can come back at seven of two. I vote for the

former; I think we should come back at two. Does anybody strongly disagree? No. All right, see you at 2 o'clock.

(Luncheon recess)

(Continued on next page)

AFTERNOON SESSION

2:00 p.m.

(In open court)

THE COURT: You are?

MR. KEYTE: James Keyte for the NHL and other defendants.

THE COURT: Okay.

CROSS-EXAMINATION

BY MR. KEYTE:

Q. Dr. Noll, we heard a lot about from everybody about the Dr. Crawford and Yurukoglu, but so it's clear, neither of them have filed a report in this case, correct?

A. Not to my knowledge; no.

Q. So when it comes to defending this model, you're on your own, right?

A. They're not going to be here to defend the model.

THE COURT: He's not. He has four lawyers sitting here.

THE WITNESS: I was going to say, I'm not the only person in the room on the plaintiffs' side.

THE COURT: Right. You are outnumbered, but you're not --

THE WITNESS: I am outnumbered, but I'm not the only one.

THE COURT: Okay.

Q. Dr. Noll, in terms of the relevant field of economics here, would you agree that your model is what is called a structural model?

A. Yes.

Q. Do you agree that on the demand side of your model, the relevant field is discrete choice or so-called logit model?

THE COURT: You lost me. What?

MR. KEYTE: Logit. It is discrete choice modeling of this type of demand.

THE COURT: What was the word, though? Somebody spell it.

THE WITNESS: Logit.

MR. KEYTE: L-O-G-I-T.

THE COURT: Thank you.

Q. Can you explain what logit modeling is. It's out of your report.

A. It's a random coefficient model, and basically that's an assumption about function over form is, what the shape of it looks like.

Q. It's a form of demand-side modeling. That's good enough for now. It is a form of demand-side modeling, right?

A. Yes, the logit model is something that is used to estimate the demand curves; yes.

Q. Now, in order for these types of models to be reliable, you agree that certain modeling principles must be followed? Do

you agree?

A. I'm not sure I agree with you until I hear what these principles are. Yes and no. There are certain things that reliability -- there are tests for reliability. There are things you do to try to match the model to the data; yes.

Q. Let's go over some basic principles and see if you agree with them. Do you agree that a model must capture the relevant and important characteristics of the industry being modeled?

A. Well, the demand-side model isn't about industry characteristics; it's about product characteristics, so I'm confused.

Q. Do you agree that your model must capture, whether it's on the demand side or the supply side, the relevant and important features of the industry being modeled? It's a simple proposition. Do you agree with that principle?

A. Yes, the industry characteristics are principally captured on the supply side; yes.

Q. And do you agree that in structural modeling, that the model of the actual world must be consistent with the observed data in the real world?

A. Well, perfect consistency, no. You try to construct a model which -- as good as you can do to match the characteristics of the real world.

Q. As close as you can?

A. Yes.

Q. And do you also agree that a model must be in what is called equilibrium?

A. A model -- that is the point of a structural model, is to compute equilibrium.

Q. Can you explain to the Court what equilibrium means briefly.

A. It is the set of prices and outputs that represents the interaction of the supply side and the demand side that has the property that if you're there, nobody changes.

Q. And in common sense terms, it's nobody really wants to do something else if you're in an equilibrium; correct?

A. Nobody wants to do so given various institutional arrangements. There are -- we frequently talk about collusive or cartel equilibrium in which everybody has an incentive to deviate, but they nevertheless don't because the unraveling of the cartel plus the punishment to them if they do deviate is sufficient to cause them not to do it, but they would still have an incentive to deviate, and the model is an equilibrium only because of this other stuff.

Q. Understood. Do you agree that a model must be falsifiable?

A. I agree that -- you're at a point where we have philosophy of science-type controversy. I happen to agree but not everybody agrees that falsifiability is an important feature of a model, but I agree with the statement, so if you ask me, then I agree with it.

THE COURT: But it doesn't help me because I don't know what it means to be falsifiable.

THE WITNESS: I was afraid of that.

Q. Do you agree that you can't --

THE COURT: Excuse me.

MR. KEYTE: I'm sorry.

THE COURT: What does it mean?

THE WITNESS: That it is something where you can test whether its predictions mimic the real world in the context that it was designed to model. So, if the model is designed to estimate the price of X, you can predict the price of X with it; you can test whether its predictions are accurate.

And falsifiability, in the context of my direct examination, was the stuff I showed about reproducing the moments, reproducing the data that were used to construct the demand relationships.

Q. Let me ask a slightly different -- see if you agree with this principle: You shouldn't have a model that produces the same result, no matter what you put into it. Do you agree that's called falsifiability?

A. Not unless the things you have in the model don't affect the outcome or they affect it very little, yes. That doesn't mean the model is false; it just means the phenomena you have chosen to analyze are not very important in explaining whatever it is you're analyzing.

Q. When you have things that are important and you put them in your model and they produce the same thing, no matter how extreme those things are, that's a falsifiability test as you understand it?

A. No. That's not the right way to characterize what falsifiability test is.

Q. So you agree with the principle. We just have a difference of view on the principle.

A. Yes. You don't -- you pick a model to deal with the particular problem, and the problem being defined by the data and the structural characteristics. If you produce an alternative set of data and an alternative set of structural characteristics and show the model doesn't work for that, that doesn't say anything about the falsifiability of the model for the problem which it was designed to solve.

Q. Last question on this: If you have a model that you put in relevant inputs and no matter what they are, it produces the same result, is that a falsifiability test?

A. Not really; no.

Q. Okay. We'll have testimony on that.

Do you agree, as a matter of principle, that to be reliable, a model must not produce counterfactual or absurd results?

A. You'd have to define "absurd" to me. Obviously, counterfactual, if it's relevant to the things and the problem

the model was designed to solve, then the answer to that is obviously yes. But absurdity, you'd have to define what you mean by absurdity. Scratching your head saying I don't like that result looks weird to me, that not a test of falsifiability.

Q. Yeah, but there comes a point that says ah, that makes no common sense. I better see what's going on.

A. If you say so.

Q. I'm asking you, sir.

A. I don't know. What you mean by common sense, what's common sense to you as noneconomist may not be common sense to me.

Q. So in your view, a model can produce absurd results; you just don't know what "absurd" means?

A. No, I didn't say that. I said the -- if I were to answer yes, I would have to buy into the notion that you are the adjudicator of what is absurd, and I don't buy into that. I'll have my own definition of what is a counterfactual or implausible result, not let you do it for me.

Q. That's fine. I just want the principle. We can fight about what it means to you. I just want the basic principle of modeling. Thank you.

Now, let's talk about your model at a general level so we understand it. So you start with the demand side, correct? Correct?

A. No.

Q. You have a demand side?
A. I do have a demand side.
Q. And you estimate demand by using this logit model of demand for both the league bundles and standalone packages, correct?
A. I -- that's, yeah, that is -- the object of the game is to estimate the demand for the league bundle under a counterfactual assumption --
THE COURT: But he said standalone. Did you also the model the demand for the standalone?
THE WITNESS: Yes. The demand system is a system that demands for everything.
THE COURT: For everything?
THE WITNESS: The league bundle and the standalone channels.
Q. It covers both when you're doing that?
A. Yes.
Q. Would you agree, Dr. Noll, that the results of your demand model should in fact be driven by, as you say, the data on prices and viewing patterns of individual consumers?
A. The -- if the demand model is going to be a good job of explaining demand, then the things you've chosen to use as a the variables to construct the demand model ought to be important in determining what the demand relationship looks like.
Q. And here, there were prices and viewing patterns of

individual customers; correct?

A. Well, yes, except the prices don't vary.

Q. Yes.

A. But, yes, the action is coming from the pattern of viewing times.

Q. As you testified from the supply perspective, you use a Bertrand model to model the but-for world, correct?

A. That's correct.

Q. To be clear, so you're not following the C&Y I call it, instead of Crawford and Yurukoglu, the C&Y model, on the supply side, the paper, you're not following that on the supply side, correct?

A. That's right.

Q. Now, your model has a variety of assumptions in it, correct?

A. Yes, it has assumptions in it.

Q. Let's go through several of those. For example, in terms of producing and distributing games, your model assumes that the only thing that changes in the but-for world is that teams can now distribute nationally, correct?

A. That's correct.

Q. And in fact, you characterize this as just an incremental change from the actual world, correct?

A. Yes. It's changing one thing.

Q. It can go national. And your model assumes that the

allocation of RSNs in the way, for example, the MVPDs chooses to distribute is the same in the but-for world?

THE COURT: Sorry. I didn't understand the question.

THE WITNESS: I didn't understand the question.

THE COURT: That's two of us.

Q. It's the same argument. Let me just state it again. Your model assumes that the allocation of RSNs is the same in the but-for world as they are in the actual world? It's the same set of RSNs?

THE COURT: You're only asking that it's the same set of RSNs?

Q. Your model assumes it's the same set of RSNs?

THE COURT: As now exists?

THE WITNESS: That's actually not true.

THE COURT: Okay.

THE WITNESS: It's that the games that are now broadcast locally over RSN, those telecasts are the content, but whether it's through the RSN or something else that distributes them nationally, that's not part of -- that's not an assumption.

Q. I understand that. You're not bringing in other RSNs. You're not bringing -- you're just dealing with the RSNs that are currently in the actual world in terms of your Bertrand model?

A. The right way to characterize it is not quite that. RSN is

a stand-in for a series of live game telecasts organized by a particular home team. And yes, it would normally be an RSN, but sometimes it's an over-the-air channel, and it could be the team itself.

Q. Correct.

A. So there isn't any institutional assumption about the organization that does it. What the assumption is that a season of live game telecasts for the Yankees is a product and somehow it's getting there, and we don't care who does it.

Q. Thirty new suppliers. That's what you assume. In the but-for world, there's 30 new suppliers, national suppliers of individual packages?

A. The suppliers of the game telecasts are already there and they're the teams.

Q. Understood. In your Bertrand model, you have 30 new competitors, correct?

A. They're not new.

THE COURT: Try again.

Q. In the national, as you would call the national marketplace? Sorry.

A. In the out-of-market territory, --

Q. Yes.

A. -- the number of people who are there differs from the number of people who are there now by some number between 25 and 29.

Q. Okay. And your model assumes --
A. Twenty-four and 29. Excuse me.
Q. Sorry. Your model assumes that each team's national offering will find MVPD distribution on both TV and the Internet, correct?
A. I lost you again on the question.
Q. Your model assumes that each team's national offering will find distribution on an MVPD on cable and on the Internet; it assumes that it will find that distribution?
A. It assumes that all of these live game telecasts will in fact be distributed nationally; that's exactly right.
THE COURT: But I have a question. I didn't think that was exactly right. He's saying through an MVPD. Do you need an MVPD to go Internet?
THE WITNESS: No. That's why I said it the way I did because I wanted to make certain what was going on was correct.
Q. I want to cover both.
A. Okay.
Q. You assume that you'll have distribution through cable on an MVPD and then over the Internet, as well?
THE COURT: What do you mean and then? You lost me.
MR. KEYTE: On both, on both, on cable and the Internet.
THE COURT: I'm sorry. I don't understand you. Are you saying MVPD is needed to distribute the content for either

cable or television?

BY MR. KEYTE:

Q. For cable for the MVPD; that's your assumption?

THE COURT: For cable, but not necessarily the Internet?

MR. KEYTE: Exactly.

THE COURT: Okay.

A. Yes, the model assumes that all of these channels that contain live game telecasts of every team are available everywhere, although the number that are out of market differs by regional. They're available to MVPDs everywhere; that's what it assumes. Yes.

Q. And your model assumes that all the leagues' rules stay the same?

A. Except the territorial restrictions on broadcasting.

Q. Exactly. Thank you.

Now, let's look more closely on the demand side. And, first, I just want to talk about fans and their preferences. And you testified that there's a heterogeneity, is the right word, spectrum of preferences for sports fans, correct?

A. Yes. I testified that demand is heterogeneous.

Q. And you agree that there are fans that have favorite teams?

A. I agree that one way to characterize some fans is they are fans of a specific favorite team; yes.

Q. In fact we'll get to it, you worked that into your third

model, correct?

A. The third model has a method for estimating which fans fall into which category.

Q. Would you agree that fans that have a favorite team could also have -- like other teams as well? Do you agree with that?

A. The concept of a favorite team includes a variety of consumers. The only thing they all have in common is that a very large fraction of their viewing is for a single RSN, but what they do with the rest of their time varies, and how much of the rest of the time is somewhat variable, although not greatly.

Q. Right. I'll take myself, a fan of the Yankees, the Rangers. I also like to see the rivals of the Yankees and the Rangers lose in whatever games they're in. There's that type of fan, correct?

A. Yes. There are perverse people in this world.

Q. And there are fans that have a favorite team that also like to follow star players, like pitchers and Ovechkin and Crosby on other teams, but they still have their favorite team, correct?

A. If you say so, you're getting into weeds now about why people distribute their viewing across channels and for the purpose of the model, it doesn't matter what the "why" is. Yes, there are people who have mostly -- most of their viewing is accounted for by a single, favorite team, but they also

distribute viewing over others; yes, there are people like that.

Q. I'm sad for you that that is a weed for you. That's life for somebody.

A. I would just say get a life.

Q. I watch sports.

Do you agree that, in general, consumers derive a high value or what you call utility for watching sports content?

A. Oh, yes. That's at the root of all of this. That's a crucial element of trying to analyze sports broadcasting is the fact that it's somewhat unique in the intensity of demand for it among consumers.

Q. And you said, that's subscription driver as well?

A. That's precisely the sense in which it is unique. It is the single most-important subscription subscriber.

Q. Dr. Noll, you said you did apply the C and Y methodology on the demand side, correct, what they did on their paper?

A. I did it on both the supply and demand side in the initial step one, and then I did it just on the demand side in step two.

Q. And let me just highlight some differences so everybody knows between what C and Y did on the demand side even and what you didn't do or couldn't do, but didn't do. C and Y relied on demographic data, correct, and you did not?

A. Yes. We do not have demographic variables to explain the

variations in the subscriptions across the regions.
Q. C and Y relied on geographic data and you did not?
A. Yes, we simulated the geographic data. That was part of my estimate. We created geographic data from simulations from the demand estimation.
Q. Now correlations, which I think is pretty -- I'm going to ask you about it -- correlations means if I watch one channel, I might have a positive correlation to watch another ESPN, I'll watch ESPN2, or a negative correlation is when I watch one channel, I don't like a certain type of channel; are you familiar with that concept?
A. Yes, I am.
Q. Isn't it a fact that C and Y used correlation analysis and you did not?
A. Yes. They were interested in identifying families of channels because their set of channels was very heterogeneous compared to mine.
Q. Let me focus more on the elasticity of demand of what C and Y did and what you did and for elasticity of demand, lets call that, if you can agree, willingness to pay.
A. Well, that's not what elasticity of demand means, but if you want to call it that, we'll assume --
THE COURT: I'd rather know what do you -- did you define it?
Q. You define it --

THE COURT: Excuse me. Please give me a moment.

MR. KEYTE: I'm sorry.

THE COURT: Thank you.

How would you define elasticity of demand?

THE WITNESS: The elasticity of demand is actually a technical formula. It's the responsiveness of quantity demanded to price, and it's basically the percentage change in quantity divided by the percentage change in price. So it's a number that says -- if it's a high number, you're really responsive to price; if it's a low number, you're not.

BY MR. KEYTE:

Q. And you would agree that elasticity of demand plays a critical role in your model?

A. Elasticity of demand plays a critical role in any model of supply and demand because it determines the outcome in both monopoly and a competitive case.

Q. Now, isn't it a fact in your model the price of the package in the but-for world is a function of the price competition between individual teams, or RSNs, and the packages?

A. Yes. The price competition occurs, yes, and that's the mechanism by which price changes.

Q. Isn't it a fact, Dr. Noll, that C and Y's model for calculating demand elasticities included data that varied over time and geography?

A. Yes, but that's not the crucial fact. The crucial fact is

their data contains differences in prices in different areas. They have -- they have price variation that is -- varies among consumers both at the same point in time across geographic areas and at different times for the same consumers in a given geographic area, so they have price variation and we don't.

Q. So you don't have that. So you didn't do what C and Y did on demand elasticity either?

A. That's correct. There's no price variation in the data that were produced to me.

Q. So you had to do something else?

A. Well -- no. What we had to do does not include in the data price variation, moments prices as part of the things we were going to analyze because there weren't any. So therefore that doesn't mean the demand relationship you estimate doesn't imply a price elasticity because it does; it just means that you don't have that particular source of variation in the data to use as moments to estimate the demand relationship.

Q. You didn't have that. So you did -- in fact, you didn't do what they did?

A. Well, I didn't make up price variations so I could estimate elasticities from it, no. I used the price data that actually exists for variation.

Q. So for your elasticities, you focused, in part, on market shares and what is called a Lerner index?

A. That's correct. You can infer price elasticities from

equilibria in a market if your assumptions are correct about the market structure.

Q. Let me ask you first about market shares. You only had data about consumer preferences for people who bought the package, correct?

A. That's correct.

Q. And that was about four percent of the people?

A. If you say so.

THE COURT: What people?

BY MR. KEYTE:

Q. Of the people that you've measured for your market share?

A. Of the total number of potential customers of the bundle, it was three-point something percent.

THE COURT: What's the total number of potential customers are? All adults?

THE WITNESS: No. It's the mean number of people who watch the World Series or the Stanley Cup.

THE COURT: That's the total?

THE WITNESS: Yeah. That's -- a crucial part of the model is what you assume the total potential market is.

THE COURT: That's the total potential, those who watch the World Series or the Stanley Cup or both?

THE WITNESS: No. For baseball, it's the World Series.

THE COURT: And for hockey, the Stanley Cup?

THE WITNESS: Yes.

THE COURT: So only 3.6 percent of that group bought the out-of-market packages?

THE WITNESS: Exactly. Of those people who -- of the, sort of, average rating in the World Series, a fraction of that who bought the packages, 3.6 percent, something like that.

THE COURT: Okay.

BY MR. KEYTE:

Q. Just to be clear, you didn't have data on consumer preferences for the other 96 percent?

A. No, the -- you have -- you have information about it in the sense that you knew they didn't buy it. So you're generating a group of consumers based upon an assumption about the statistical distribution of demand that produces -- it uses the fact they didn't subscribe it to estimate what their demand parameters looked like.

Q. Understood. My question is slightly different. You don't have data on the preferences, their tastes, of that other 96 percent anything directly?

A. Taste is one word; and preferences is another. Yes, you have information on preferences to the extent for those who subscribe, it's their actual pattern of viewing; for those who didn't subscribe, it's the decision not to subscribe.

THE COURT: Yes. But he's saying within that 96 percent of people, you don't know whether they are team

favorites or everybody favorites or two-to five-team favorites? You don't know which of the three groups they would fall in?

THE WITNESS: Right. What you're doing is assuming a distribution of preferences, and then you're using that distribution of preferences to simulate the preferences from the people who decided not to buy.

THE COURT: So what do you project for that 96 percent?

THE WITNESS: That's why it's the same problem that everybody has who uses this model, which is that you're trying to predict what's going to happen in the market if the price changes to something that it's never been before or if the way the product is sold --

THE COURT: We need to back up. For that 96 percent, as the question implied, we don't know if they are the type of viewer that likes one team, two- to five teams, or all teams.

So, how do you distribute them amongst those three choices when you have no information about them?

THE WITNESS: You make an assumption about the statistical distribution of the parameters that go into the utility function from which demand is estimated. And you assume that you're only looking at the top few percent of the values of those parameters; and that you use a continuation of that statistical distribution down in to lower values that would enable you to predict demand if the price were lower.

THE COURT: I don't understand a thing you just said.

For those 96 percent of people who watch the World Series but don't buy the out-of-market package, we don't know much about them. We only know they chose not to buy the out-of-market package, but we don't know if they're single-team fans, two- to five-team fans or all team fans.

Do you place them in one of those three categories or you don't do that?

THE WITNESS: You estimate what the -- you estimate what their preference -- what the distribution of that -- those preferences is.

THE COURT: How do you do that? How do you project whether it's 1/3, 1/3, 1/3 or 20/20/60? How do you do that?

THE WITNESS: That's precisely what the point of the Generalized Method of Moments is about; it's a factor to produce the complete distribution of parameters that go into the demand relationship. And because it is -- it's informative but people chose not to do it, so you know on balance, those numbers have to be lower.

In addition to that, you know there's a distribution of those among people. So you're making an assumption of that's what a distribution looks like in general and you're estimating the parameters of that distribution from the information you have about those, and you can actually observe their choices. And then you project demand into a new world in

which more people are participating, and they're the ones who didn't have enough demand to buy the bundle at the old price but may have enough demand to buy either it or a single channel at a lower price.

BY MR. KEYTE:

Q. Thank you, Doctor. On the market share, in estimating the size of the market, which is important, because that's how you end up getting the share, you didn't have to buy a package to watch the World Series or the Stanley Cup, right? You just turned on the TV?

A. No. But that doesn't have anything to do with what you determine is the size of the market.

Q. It's a factual question. You just turn on the TV, correct?

A. Yes, you can watch the World Series or the Stanley Cup over ordinary television. I'm not sure we call it free, but, yes, you can watch it over ordinary television.

Q. So your assumption is that if I'm interested enough in a sport to just turn on the TV for the Stanley Cup, I'm part of the market that might buy a package even though I'd have to go buy a package, it's only a regular season package, it has nothing to do with turning on free TV for the Stanley Cup, correct?

A. No, it does have something to do with it because whatever the price is for turning on the television to watch the game on television, that means if the price of the bundle were that

low, you'd buy the bundle.

THE COURT: Is there a price at all for me to go home and turn on the TV and watch the World Series?

THE WITNESS: There is a very tiny price.

THE COURT: What is it?

THE WITNESS: Namely the cost of the electricity and all that of watching it, plus you do have to subscribe to the MVPD, so it's not that it's free, all right?

THE COURT: I do? I have to have cable?

THE WITNESS: If you live in an area where you can't get over-the-air. And only -- 90 percent of the households in fact do have MVPD service, so the vast majority of people get their television from MVPD use. The price is low, but, remember, the demand curve is supposed to be defined for all possible prices, including a very low price. So that's why -- the fact that people are willing to turn on and watch at a price that's very low means they have enough interest that there exists a price if they were to pay for it.

THE COURT: Plus, on your side of the ledger, they also some interest in hockey or some interest in baseball?

THE WITNESS: Or they wouldn't have turned it on.

THE COURT: Exactly.

THE WITNESS: And not all of those would watch only if the price were zero. Some of them would have paid a higher price. So what you're trying to recover is that entire demand

relationship: How many would watch if the price were ten cents or a dollar or ten dollars? We cover the whole thing.

Q. I was just highlighting that factual difference. Let's talk briefly about the --

A. It's not a factual difference. It is a part of the fact of the demand relationship is that the price is really low to watch it on television.

Q. I'm simply saying it's different factually to turn on the TV for free and to actually purchase a package.

THE COURT: Well, if he doesn't accept your premise, then it doesn't matter how many times you say it. He does not agree that it's for free, it's very minimal, but it's the cost of buying your cable package or the cost of the electricity or the intangible, to me, the cost of your time, but, okay. If you're willing to put your time into that sport, that's something.

Q. Let me ask you a few questions about the Lerner index. Would you agree, Dr. Noll, that the Lerner index only applies to firms that are engaging in a short-term profit maximizing strategy?

A. It depends on how you define marginal costs whether it's short term or long term. But the Lerner index is an indicator of the degree of market power a firm has in reference to a mark-up over marginal cost and the time frame of the marginal cost to something you can choose.

Q. But the standard approach to the Lerner index is that it's a short-term profit maximizing concept; correct?
A. Sometimes it is and sometimes it isn't. It depends what the question is. The time frame of the Lerner index is a function of the question you're asking.
Q. I'm asking in the abstract, is the Lerner index geared for short-term profit?
THE COURT: I think he answered you. He said sometimes yes and sometimes no. We need to move on. And by the way, I don't know what the Lerner index is. You have to remember who your audience is for your cross-examination.
MR. KEYTE: I'm sorry. I thought you did explain that on direct.
THE COURT: I don't remember that.
Q. Would you explain briefly again -- not again -- the Lerner index.
A. The Lerner index is price minus marginal cost or the margin divided by the price. So, when you say the Lerner index is .3, that means there's a 30 percent mark-up of price over marginal cost.
Q. Dr. Noll, your second model, I just want to make sure the Court understands, have you abandoned your second model?
A. By "the second model," you mean the one that was done in September?
Q. Yes.

A. No.
Q. So that's still a live and in play?
A. Yes, it is. That's an alternative way to estimate damages that's based on team viewing times instead of RSN viewing times.
Q. And it's subject to Dr. McFadden's falsifiability test, correct?
A. If Dr. McFadden says so. I don't think his falsifiability tests are valid falsifiability tests as I explained in my report.
Q. In any event, you changed how you categorized consumers in your third report, correct?
A. Among other things.
THE COURT: I have to back up. What is the difference between team viewing time and RSN viewing time?
THE WITNESS: Okay. What do people actually watch? They watch two teams playing each other.
THE COURT: Correct.
THE WITNESS: So one way to think about --
THE COURT: Never mind. I know. The two networks, they compete.
THE WITNESS: How much time they view each team or the other one is how much time they view --
THE COURT: The Yankees Network v. The Yankees and Giant game.

THE WITNESS: If I'm watching the Yankee Network, I'm viewing both the Yankees and the Red Socks.

Q. Dr. Noll, in your three categories, if I'm in category one because I strongly prefer a team, do you zero out my tastes for other teams?

A. I don't understand the question. Do I zero out for what purpose? What's the question?

Q. Do you take me as a simulated consumer because it -- seems simulated consumers and then when I'm in category one, I don't have tastes for other teams. If I'm in that category one, I just have a taste for one team alone; correct?

A. Yes and no. Yes, it's true the assumption is made that the -- we're creating hypothetical consumers that are only interested in one, only interested in two, or distributed in their interests across the rest, but then the nature of the model is such it actually -- because of the distributional assumptions on the parameters in the demand relationship, when you actually draw simulated consumers, they don't necessarily look like that, but you start off with a hypothetical consumer that only cares about one RSN, a hypothetical consumer that only cares about two.

Q. Did you use any objective factors to determine whether I fit in category one, category two or category three?

A. The -- within the data, the proportions of people who are one, two and many are determined by the estimation procedure to

maximize the explanatory value of the three-way categorization.
Q. Let me give you a hypothetical. Assume, Dr. Noll, that I'm a consumer that likes -- that I watch the Yankees and the Rangers percent 90 of the time, I'm a group one consumer, correct?
A. Well, I don't know whether you're a group one consumer, but probably given that. I mean, it's not -- it's complicated because the -- it's all of the -- it's all of the moments of your viewing pattern that determine how we categorize you and it's not susceptible to a simple thing like you just said. But let's, for the sake of argument, say that you watched almost all Yankees and occasionally watch something else, then most likely you'd be classified as a single RSN customer.
Q. Okay. So, assume we made that -- I'm in group one, just assume that, but, again, I'm that dedicated fan who also likes to watch the rivals lose, star players, conference play and other games, but I don't watch them for a lot of time. Are you with me for that assumption? And assume, though, that I don't watch them for a lot of time but I get a lot of value out of it. I check in to see if those rivals are losing. I check in on that star player, but it doesn't add up to a lot of time.

Do I have it right, Dr. Noll, that as a group one consumer, those preferences for other teams are eliminated in your model? They're zeroed out?
A. In the creation of simulated types, that's true. In the

actual data, they're not eliminated. What we're trying to do is create some simulated consumers to limit the degree of competition in the model, but even then, there's going to be -- because of the -- you're right if you focus only on means of things in the distribution but because of the stochastic component of the items that go in the utility function, some of those simulated consumers are going to have value for the bundle even though they have a zero weight on each of the time viewing points.

And like your example, you may think of yourself as buying the bundle rather than a single channel because you're buying an option value that three times a year someone pitches a no-hitter and you see -- you're watching the Yankees game and it's 17-1, and it's not terribly interesting; and the announcer says, oh, we notice that in St. Louis Wainwright is pitching a no-hitter, and you have no interest in either St. Louis or the team they're playing, but Wainwright is pitching a no-hitter, so you switch to that channel, that has value to you, but it's not measured in the time viewing of St. Louis, but it is part of the logit error that appears inside the utility function.

That's how you get value from other things that are not measured by viewing time.

Q. If I'm group one in your model where you have these three groups, I'm only watching that team; I don't have other teams in my group? Correct?

A. It says you have zero utility weight assigned whatever you do --

Q. Fine.

A. -- there, but it's not the viewing time of the team that's entering the utility function; it's something else that we're just capturing by the logit error.

Q. It assigns zero utility to that, correct?

A. No. It assigns zero utility to the viewing time per se. It's something else besides viewing time is generating your utility.

Q. Dr. Noll, you had put up a chart where you said you tested your three categories with the mean, for example. I want to ask you, is it correct that you did not test whether your model conforms to the actual observed data on the variety of RSNs watched, correct?

A. I'm not sure I understand what the question is. Does it replicate the distribution of viewing times across all the RSNs from the simulated consumers?

Q. For the variety of RSNs watched; correct.

A. It wouldn't replicate it because the market in which they're operating is one that has more choices, so it would be an apples and oranges comparison. You wouldn't attempt -- you wouldn't expect the distribution of viewing times when there are 31 choices to be the same as when there's one choice.

Q. So you didn't test for it because you don't think it's

appropriate?
A. There are things you could do to test the validity of the model, but that's not one of them.
Q. So you didn't do that. Did you test for -- to see whether the actual observed data conformed to how many different RSNs fans watch at any time, any amount of viewing for how many different RSNs? Did you test for that to see if it matched the observed data?
A. Once again, it's the same answer because they have -- there's a different set of choices in the real world versus the counterfactual world. There's no observations from the counterfactual world on what the distribution of viewing times would be. So there's nothing -- when you calculate the distribution of viewing times in the counterfactual world, there's nothing to compare it with in the real world.
Q. So you didn't test for it, and that's your explanation. Correct?
A. That -- yes. There's no real-world data against which to test it. Yes.
Q. Did you make sure you ran whatever tests C and Y ran on the paper you relied on?
A. Well, you're going to have to be specific because I'm not sure I understand. We do things like standard errors and fit measures. I'm not sure what you're talking about.
Q. Let me be more specific. Are you aware that C and Y made

sure that their model matched how many channels consumers watched at any given time?

A. Well, that's in the -- they test whether the model matches the actual data, and that's what I was doing before. They do in fact check whether it matches the actual data under the conditions of the actual world.

They don't check whether the allocations of viewing time among channels when you buy them on an *a la carte* basis matches what you would actually do if you bought them on an *a la carte* basis because there's no such data.

Q. I'm talking about the former. Did you run the same test that C and Y did?

A. Did we run a test about the adequacy of predicting the data from which it was estimated or no?

Q. That same test?

A. We didn't run their same test because it's not same model. They don't have types of consumers. So there's no connection between their model -- the test you would run on their model and the test you'd run on our model.

Q. That's your answer.

Let's turn to the supply side. And I want to start with some basic facts again of the actual world so we're all on the same page. Let's start. You agree that you testified that leagues are joint ventures, correct?

A. Leagues define themselves as joint ventures. They don't

have to be.
Q. But they are.
A. No, not all of them but these are, these two are.
Q. These two are. And you agree that leagues price the out-of-market package in a way that takes into account the relationship to the profitability of teams, correct?
A. Leagues try to make policy to engage in joint profit maximization of their members. Some things they do are efficiency enhancing, so that's a good thing. Some things they do are anticompetitive, and that's a bad thing. But yes, they do engage in behavior for the purpose of trying to increase the profitability of their members.
Q. And they take into account the relationship of the profitability of teams arising -- from other teams, correct?
A. Of course they do. That's -- that's to the extent allowed to do so legally; yes.
Q. And you agree that with respect to the pricing of packages, the leagues are pursuing long-arm product maximizing objectives, correct?
A. I believe they probably are, yes, with some caveats having to do with revenue sharing.
Q. And you agree that in the but-for world, the teams would still not be independent competitors, correct?
A. I'm not sure I know what you mean by that. I mean, we're trying to come as close as possible to creating a world in

which teams are independent competitors and the degree of anticompetitive collusion among them is minimized.

Q. I understand. You're not getting rid of the joint venture. They're still not completely independent competitors, even in your but-for world, correct?

A. That's true, but it's not a legitimate purpose of the joint venture to cartelize the industry in terms of the behavior of the independent competitors.

THE COURT: In what ways are they a still joint venture in your but-for world?

THE WITNESS: First of all, the simplest and most obvious procompetitive case is they have common rules and a common schedule and they produce a league champion. That's all procompetitive and, in that sense, they're a joint venture.

Let's take another example. As we talked about earlier, the NFL centralizing all television broadcasts and selling them nationally to networks, they needed an antitrust exemption called the Sports Broadcasting Act to do that. So, they're still a joint venture, but that's something that is implicitly anticompetitive in an antitrust convention.

Now, where the line is, where we draw the line is where we have fights, and that's what's going on here, but that's the principle behind this is the interesting thing about sports leagues is there are things they do as joint ventures that are procompetitive and things they do as joint ventures

that are anticompetitive.

Q. To be clear, your Bertrand model assumes, by definition, that the competitors are completely independent, correct?

A. It assumes the individual teams price their nationwide live games independently from the joint venture, pricing.

Q. And independently from each other?

A. Independently from each other and independently from the joint venture being sold -- the model to have in your head is somebody has appointed an independent nation to operate the joint venture.

Q. As if the joint venture didn't exist, correct?

A. No. It still exists.

Q. No. I know it exists, but you're Bertrand model assumes they're all independent competitors, correct?

THE COURT: I want to clarify that. They're independent competitors when they're selling just their team product directly, but when they're adding their team product to the package, then they're working through the joint venture?

THE WITNESS: The assumption is that the joint venture is operated as if it were an independent agent.

THE COURT: Of?

THE WITNESS: It's an independent entity that is separate from the pricing decisions of the 30 --

THE COURT: Teams?

THE WITNESS: -- teams; yes.

THE COURT: I'm still a little confused.

When they want to sell their own product directly, not through the package, they're all competitors, they all set their own prices, they do what they want to do; but when they're contributing their fee to the league package --

THE WITNESS: They don't coordinate. They don't coordinate the pricing of their single team channel with the pricing of the product. There's no coordination there. There's no collaboration.

THE COURT: I'm not getting through the difference I'm worried about.

They're making two products: One is their direct product. They're selling their own network nationally; yes?

THE WITNESS: Yes.

THE COURT: That's one product. That's certainly competitive. No cooperation. But they're also contributing their fee to the bundle; when they do that activity, are they still competing with each other or there, they're just willing to go as a joint venture and act together, so to speak?

THE WITNESS: In a model of the Bertrand computation model or other oligopoly models, everybody sets price in anticipation of what somebody else is going to do. So in that sense, they do anticipate the prices that other people are going to charge, including the league bundle. But there isn't this direct collaboration, let's all sit down at the table and

collectively decide what the league bundle is going to be and what relationship it's going to have.

THE COURT: Do they charge anything to contribute their fee to the league bundle?

THE WITNESS: They're paid a fee to have it in there, which is the profit share. Again, we're back to the story, there's lots of ways they can be paid. And the way they have chosen to be paid is the equal share of the profits.

THE COURT: I see. They're not competing there.

THE WITNESS: Yes.

THE COURT: They're only going to get the same share of the bundle?

THE WITNESS: Exactly.

THE COURT: That's what I was getting at. Thank you.

BY MR. KEYTE:

Q. Dr. Noll, in your first report, and perhaps your second report, you said that you can have -- you can run a Bertrand and essentially ignore the MVPDs because you said the Internet took away any bargaining power from the MVPDs.

Do you recall that?

A. I said that one reason to believe this is a reasonable model is because of the competition between the Internet and MVPDs for the league bundle, yes.

Q. Is that still your opinion? We haven't seen it in a while. Is that still your opinion?

A. Yes. My opinion is that this is one of the few places where the Internet and MVP distribution become close competitive substitutes. It's not true in general, the Internet is a close competitive substitute to MVPDs, but in this particular case because it's been going on so long, this is the most advanced in terms of competitive substitutes.

Q. Okay. Now, you said that in your reports and I think on your direct for some period of the class the Internet was not in play. What period is that?

A. Again, you're dichotomizing. What I said is the significance of the Internet has grown through time. And as we observe the data through time, an increasing fraction of the people who subscribe to a league-wide bundle are doing so over the Internet.

In the year that I have data, as I recall, it was around half for baseball and around 20 something percent, 25, 30 percent for the NHL, those fractions continue to grow. And at the very beginning, of course, most people were subscribing over MVPDs. The reason for that is the fraction of households that actually have high-speed Internet access. We now live in a world in which most people have it. At the beginning of the period when the leagues began to offer their bundles at the beginning of the class period, a much lower fraction of the households had it. So for a much smaller fraction of the population was this a reasonable substitute.

Q. You agree that an Internet offer can be what's called a complement rather than a substitute in a sense that it supplements your viewing? I still want my TV, but I also want to be able to log on on-the-go whenever I want to watch it on a device on the Internet; you agree that they can be complements, not substitutes, correct?

A. There's an element in which it's additive and the leagues would like it restricted to that; and for certainly the MVPDs would like to restrict it to that, but what you're really saying is there's a qualitative difference between the Internet and the MVPD.

One of the advantages of the Internet is the ability to receive it on a mobile device and have mobility, but that's -- now we're back into the world of product differentiation. It's not substitute versus complement. It's product attributes that some people will value and others will not and that affect the extent of competition between them.

Q. Dr. Noll, as an economist, you talked about you used data, correct, you were looking for data to do economic analysis? Correct?

A. You're always looking for data; yes.

Q. Isn't it a fact that you did no cross-elasticity analysis between the Internet and MVPDs?

A. Yes. You can't. There's not enough date qua.

Q. You don't have any? You did no analysis?

THE COURT: He said he doesn't have enough data.

THE WITNESS: No data. Yes, you started it off with data and I said, well, the question presumes the existence of the data that we don't have.

Q. Dr. Noll, in your model, you do no quantitative analysis at all of any but-for world competition between the Internet and the MVPDs. Is that correct?

A. That's right. And I can hardly wait to get the data so I can do it. That's one of the -- I'm just anxiously awaiting on the data so I can do it.

Q. You didn't do it?

A. I haven't done it yet. Get me the data.

Q. Let's talk about this favorite topic, double-marginalization. And I first want to be clear, RSNs and MVPs now contract on a pay-per-subscriber basis, correct, in the current world?

A. For placement --

Q. RSNs and MVPDs?

A. For placement on extended basic, yes. Yes, it's a per subscriber for placement on extended basic. That's how most of the contracts are that require the tier that has 80- to 85 percent of the subscribers.

Q. You said that involves double-marginalization, but you think the incentives will change in your but-for world?

A. No, that's not what I said.

Q. You don't think the incentives won't change?
A. The incentives change. What I didn't say is what you characterized me saying about double-marginalization. You got it exactly wrong, by the way.
Q. Thank you. Thank you very much.
You would agree that this will -- in the but-for world, this relationship between RSNs and MVPDs will require a change in their contracting practices, correct?
A. As argued in my reports and as argued in the opening remarks by the defendants, I believe that the single-most important change that will result from eliminating territorial restrictions is a reduction in prices and fees for local live team broadcast rights; yes.
Q. Well, you also think there will be contracting changes to eliminate double-marginalization, correct, between the RSNs and the MVPDs?
A. There will be contractual changes, but not in the local market contract. What I'm talking about is what the contracts would look like for national distribution avoiding double-marginalization. They may -- it may require changes in contracts or it may not, because it depends on the degree to which the channel that carries the live game telecast of a team has substantial market power. If they don't have any monopoly power, there's no double-marginalization to worry about.
Q. Understood. So, you're projecting a new negotiation that

will take place when the RSNs can go nationally?
A. I'm not assuming the RSNs go nationally. The teams own the right to the broadcast, so they can do it themselves and on the Internet, they may well do it themselves. The broadcast is not owned by the RSN; it's distributed by the RSN. So the teams can either use the RSN or do it themselves.
Q. In this, whether it's the teams or the RSNs, when they go nationally, there will be a negotiation over how the RSNs will pay the MVPDs, correct?
A. There will be -- there will be a negotiation over the terms, and it's not just the price, the terms under which these things are carried.
Q. And you think -- you have testified that you believe that they would have an interest in doing some form of fixed fee -- I think you had a list -- of some form of contracts that would eliminate double-marginalization, correct?
A. (a), they haven't -- both sides through negotiation have an incentive to avoid double-marginalization, and (b), in parallel circumstances in the real world, they do adopt those contract margins.
Q. And one of those involve resale price, controlling in some fashion the resale price, correct?
A. Yes. That's correct.
Q. Did you agree -- do you think the MVPDs -- I'm sorry -- the RSNs would set the resale price?

A. They would have a negotiation process just like the NHL currently has for its bundle where the wholesale price and the retail price are negotiated as part of the same agreement.

Q. By the way, in ones that -- the contracts you looked at that have a resale price discussion, are they setting the minimum resale price or the maximum resale price?

A. They're -- it's called the manufacturer's suggested retail price. That's what it is. And what it says is there will be a collaboration, a collective collaboration, a collaborative decision about what the retail price would be; and one of them says 'Here's a suggested price.' And the other one says 'And one of the things to take into account is the Internet price.'

Q. Okay. But just to be clear, Dr. Noll, in this negotiation that would have to happen in your but-for world, you have not modeled any of those negotiations, correct?

A. I don't have to once I know that it's not going to affect -- it's not going to cause double-marginalization.

Q. I'm just asking you if you modeled?

A. I modeled -- I have a conceptual model of how it works. I have explained why it doesn't matter, and that all involves the use of economics and modeling. But it's not part of the model for estimating the retail price because it's unnecessary in the model to estimate the retail price.

Q. There's going to be a negotiation and a bargain struck and you did not model that, correct?

A. I did not model what the negotiation deal would be, which of the many contract forms that avoid double-marginalization they will adopt.

Q. In fact, Dr. Noll, in this entire supply chain in your but-for world, there's going to be many negotiations, aren't there?

A. In principle, there could be many, just sort of like, you know, these RSNs are already carried nationally anyway. All those negotiations are already there. They already take place for the RSNs that are distributed nationally with the games blacked out.

Q. Oh, you don't think the world changes enough where they're going to actually reset their relationships?

A. Of course they're going to renegotiate. Next time they negotiate the contracts, it will be with the games not blocked out, or if that's way baseball and hockey decide to do it.

Q. And my only point, sir, is you did not model any of negotiations in the entire supply chain; is that correct?

A. I did not model it in the context of setting a retail price because it's unnecessary; no.

Q. And another thing you did not model in your but-for world was any kind, any kind of joint pricing by any participants in the industry, correct?

A. I did not measure -- I did not -- well, it's not quite true.

Q. Multiproduct pricing, you didn't model any multiproduct pricing of anybody in the but-for world, correct?
A. Why don't you define for me what you mean by multiproduct pricing because the league bundles are, in fact, multiproduct.
Q. Let me use one example. You would agree that an RSN in your but-for world is going to offer an MVPD product and an Internet product, correct, whether it's an RSN or a team?
A. They might. Yes, the team will arrange to have both an Internet product and an MVPD product. And, no, I did not model the simultaneity of the price-setting of those two things because of the reason I gave before and you talked about, which is the inability to model the competition between Internet and MVPDs with the data that I have.
Q. So there will be multiproduct pricing and you didn't model it, correct?
A. Well, the degree to which there's competitive substitution between the Internet and the MVPD is already baked into the current prices. So when you use the current penetration market share and pricing data, that is already in there, that you're essentially measuring the product-specific elasticity and demand, and that demand curve has got this relationship built into it. It's not that it doesn't influence it. It's just not modeled directly. And it would be better to model it directly. And I would like to model it directly if I could get the data.
Q. Let me just sum up on this topic: To the extent in the

but-for world there will be multiproduct pricing by anyone, you did not model it, correct?

A. Except in the case of the league bundle, which is a multiproduct product.

Q. But the other ones you did not bundle, correct -- I mean, you did not model, correct?

A. I did not model Internet and MVPD as a joint pricing problem, yes, but that's the only thing I didn't model that I can think of.

Q. Or MVPDs when they have a multiproducts in the but-for world?

A. I did not -- well, no. MVPDs?

Q. Yes. They'll have -- they'll be dealing with individual standalone packages and packages and all their other products. You did not -- those are multiproducts. You did not model that, correct?

A. I'm assuming those are independently set by virtue of the contractual relationship between the team and the MVPD.

Q. You did not model that, though, correct?

A. Well, I modeled it under my set of assumptions about how the modeling should go given the relationships between the team and the MVPD.

Q. Your model has no multiproduct pricing by an MVPD for its products or an RSN for an Internet MVPD product, correct?

A. It does not do that because it's assumed to be irrelevant

for the reasons I gave.

Q. And you don't have the data you say?

A. No. That's a different -- what I don't have the data for is the trade-off between the Internet and the MVPD. The answer to the Internet versus MVPD question is different than the answer to DirecTV offering multiple products.

Q. My point is simple: Both of them you didn't model?

A. For completely different reasons: One of them, no data; the other unnecessary because of the nature of the relationship.

Q. Thank you, Doctor.

MS. WILKINSON: I'm going to conduct the second hour of cross-examination. I assume we're not going to take a break.

THE COURT: Not yet. We will take a break, but not yet.

MS. WILKINSON: Thank you.

CROSS-EXAMINATION

BY MS. WILKINSON:

Q. Good afternoon, Dr. Noll.

A. Good afternoon.

Q. If we can start with just the basics. Today here in New York, a consumer can view every single baseball game that's played in America, isn't that right, a professional baseball game played in the Major League Baseball league, right?

A. By some combination of purchases of YES and the Mets and the league package.

Q. So they're all available?

A. That's right.

Q. That statement is also true for hockey, for the 1200 hockey games that are played in the United States in professional hockey, all of those games are available to consumers in New York?

A. I answered too quickly. It's almost all. It's not all, all right? There are some examples of games that are available only over the air that are not included, all right, but for the most part, you're right that both -- in both baseball and hockey to the first order of population, you can buy access to everything to the combination of a league package plus all the regional sports networks that carry local teams.

Q. Let's make it clear so we understand what is available in the real world and then what you're saying is different in the but-for world, so we need to start with what's available in the real world.

Here in New York, if you want to watch the Yankees, right, you get -- your YES network is available on your basic cable package; right?

A. Yes.

(Continued on next page)

Q. And you can watch other Yankees games on other stations that are also on your cable package, right?
A. You can watch national televised Yankee games on national --
Q. So, some Yankees games are put on national TV through ESPN, or Fox, or the play-offs by Turner, right?
A. There are national broadcasts of Yankee games, yes.
Q. So, if someone has -- to your discussion with your Honor earlier -- if someone has already purchased their cable package and they purchased their basic cable package, whatever they paid for it, once they have those costs, when they turn on their television here in New York they can get access to all of those channels and see all of those Yankees games.
A. Yes, they can.
Q. And not only the Yankees games, but they can see all of the other games if they're willing to purchase the package.
A. Well, that is the part that isn't quite true because not everybody puts all of their games on their regional sports network. I think the commissioner of baseball testified that it was 151 out of 162 is the league-wide average. So, it's not true. That's what I said earlier, it's not true you can get all games, but you can get almost all.
Q. Fair enough. So, all of those that are broadcast anywhere, you can get in New York.
A. Well, all of those that are broadcast except for the fact

that a couple of over-the-air deals don't make it, but aside from that, yes.

Q. And that's about 2400 games minus the 151 you talked about?

A. If you say so. I don't know.

Q. And the national games that are free over the air, are available in that same cable package, regardless of whether they are Yankees games. I am just trying to make it clear so her Honor understands what's available. I'm just guessing she may not turn on the television and watch sports all the time, but she could turn on the television, and if Fox is showing a game, and they are the sole distributor of that game, you just turn on your cable television, and you can watch that game here in New York, right?

A. You can watch every game that's televised on the cable systems or the satellite systems that serve New York City.

Q. So, when you say in a "but for" world you are trying to increase output for people, what you are really saying is when you buy the package you just want it unbundled, you want consumers to be able to buy if they want to only that team that they want to watch if they're out-of-market.

A. It's a non sequitur, the two parts to your question. The increase in output is not the unbundling. The increase in output is the increase in the number of viewers and the amount of time they spend watching out-of-market games. That's the increase in output.

Q. Let's use real teams and real cities so we can understand. Down in Tampa today you can watch all of the Yankees games -- unless they're playing the Tampa Rays -- right, down in Tampa Bay if you buy the package, can't you?

A. I assume so. I mean I do not know as a fact there has never been a Yankees game that wasn't televised over the YES Network, but, yes, you can get access through the league bundle to the YES Network and get whatever games are on the Yankee network.

Q. And then in your "but for" world those are going to be unbundled, as well as there will be the bundled, so someone who just wants to watch the Yankees game can watch those same Yankees games by buying the YES Network in Tampa, right?

A. That's correct.

Q. But will they be able to buy and see over that stand-alone the games that are normally blacked out because they're shown on the Rays' local station?

A. In other words, will the games between the Yankees and the Rays be on both channels?

Q. Correct.

A. The way we do the modeling assumption -- because it's done by RSN -- is, yeah, you can watch the game on either channel.

Q. So let's use this chart so we understand what blackouts you have modeled and what you haven't. You have a fan who lives in Tampa and he or she is a Yankees fan, OK?

A. Yes.
Q. The Yankees are playing the Rays, and in your "but for" world the Rays' feed is in the package or not?
A. Yeah, we impose a zero viewing constraint on the Rays' RSN within the bundle but not on the Yankees.
Q. Dr. Noll, just really honestly we're trying to figure out yes or no. You can explain how you do it in the model, but we really don't understand which games the fan can see. So if they're in the "but for" world, they buy the package, will they be able to see the Rays' feed of this Yankee Rays game in Tampa?
A. Whether the Rays feed is on it, it's not modeled, but we have assumed that it's not. And whether the Yankees feed is on it, we have assumed that it is.
Q. OK. So if we check these boxes, your assumptions then are the Rays would be blocked out of the "but for" world package but the Yankees would not.
A. That's correct.
Q. So, there is no more game exclusivity, as they call it, down in Tampa because you now can watch the Tampa game against the Yankees through two different exact same game through two different networks, right?
A. That's right.
Q. And that doesn't happen today in the current world, right?
A. Well, it happens when there are two teams in the same

market.
Q. But that's a different -- we are talking about out-of-market and one in-market, right?
A. Well, that wasn't the way you asked the question.
Q. I apologize.
A. OK. If one is in-market and one is out-of-market, one of the things that's blacked out from the league package is the visiting team's RSN within that local market.
Q. So, if you consider the game the content -- are you with me? Just consider that for now, the game is the content.
A. I do in the consider the game to be the only content. It's also the way the game is produced, and the announcers, and all the other stuff that goes with it.
Q. Understood, but I'm asking you for purposes of this first question to assume the game is the content. OK?
A. The game is part of the content.
THE COURT: She is saying it's an assumption. Just assume for the moment that the game is the content. OK?
Q. Now there are two sources of the exact same content in Tampa in their home market, right?
A. If there are two sources of the game, and that's the only content, then there are two sources of the same content.
Q. And the difference in the content is that the Rays' network will show their production and their announcers, and the Yankees will show their announcers and their production, right?

A. That's correct.
Q. But it's the exact same game. I'm going to see the same guy either strike out or hit a home run, right?
A. That's correct.
Q. So, that is not true content exclusivity anymore in the home market, is it?
A. I believe it is still content exclusivity, because contrary to the assumption you made me make, the production and the announcers are part of the content, and people have preferences across them, and so fans of the Dodgers are not going to watch the Giants announcers, they are going to watch the Dodgers announcers.
Q. We will get to that. So, I think you have already answered this. The blackouts for the stand-alones, the Yankees network will be able to show the Rays game on their stand-alone down in Tampa, right? It's their feed, so this will be the other game.
A. Yes, the Yankee network will be available in Tampa without the Yankee Tampa game blacked out.
Q. So, if you are kind of living in Tampa and you're a fan but also like the Yankees, now you are going to have the chance to buy the Yankees and see all of the Yankees/Tampa games by just buying the Yankees network, right?
A. Yes, you will be able to watch the games, the Yankees and the Buccaneers play against each other on the Yankee network if you choose to buy it.

Q. And, therefore, you might be less interested in subscribing to your cable package because if you kind of like the Yankees -- you like the Yankees more and you like to see them play Tampa -- you no longer need the package. Let's say you go to the Internet for the stand-alone, right?

A. In principle, that could be a substitution to the Internet away from MVPDs if the Internet contains products that are superior substitutes with a lower price than the MVPD.

Q. And you believe that's going to happen because you believe that there is going to be a significant reduction in the in-market revenues when this happens, right?

A. That's correct.

Q. And that's what that means, that some people instead of paying for their cable package to watch the Rays on their basic cable are going to move, or at least the MVPD is going to be unwilling to pay the same subscriber fee to either the team or the RSN, and so that's going to cause the in-market revenues to go down.

A. The in-market revenues of the team, yes. It won't necessarily -- there will be a price effect all away the long the line, MVPD prices, the team rights fees prices, everything, all of these prices will change.

Q. So, I just want to clarify something you wrote in your report. I hope you can explain to us how it's consistent with what you just told us. Can you show slide -- I can do this --

In your report you actually said that your analysis assumes that the RSN would enjoy the same content exclusivity in the counterfactual world because they would be the only source of in-market live telecast of the games involving the team for which they have acquired exclusive television rights.

A. Yes, they will be the only one that is that team's broadcaster. That's what I meant by that.

Q. But you said live telecasts of the game.

A. That's what I -- I was adopting a different definition of content than you are. Yes, it's the only entity that has the right to be that team's regular broadcaster with the advantages of regular scheduling and the advantage of the consistent broadcaster. So content to me means more than just the game itself, it also means all the other things that go with being the team's broadcaster.

And if you want to describe what the model itself does, the model itself is based upon RSN viewing the sectional model on the last report. That was the change from going from team times, and what that buys you is the ability to model RSN-specific demand. And the reality is whether you include the blacked-out games or not doesn't matter very much in the estimation, so if we went through and changed that definition and reestimated it, it wouldn't matter very much. So, this assumption doesn't really matter.

Q. I'm not sure I follow you. What doesn't matter very much?

A. It turns out that suppose you adopt the view that the Yankees network had to black out the games it played against Tampa in Tampa. It turns out that doesn't matter very much in terms of demand for the Yankees, because for the precise reason you just said, people already have access to the game on the MVPD. But just like --

Q. Did you model that?

A. We noticed -- we changed the definition of blackouts when we went from basing the estimation on team viewing times to basing the estimation on RSN viewing times, and explicitly adding blackouts.

It turns out that last step of instead of having blackouts be implicit in the viewing time data, being explicit in the model, that didn't change the estimated price very much, just pennies. So, it turns out that the way you define blackouts, and whether you black out the Tampa/Yankees games in Tampa that are on the YES Network, if you apply that to the whole data set, it won't affect the results by any significant amount.

Q. You did not model what you just said. You did not model blocking out the Yankees feed of the Tampa game in Tampa. You didn't model the in-market blackouts.

A. The model that's reported in the report did not do that.

Q. Right.

A. But I'm just telling you that we know from the previous

change in model that more explicitly taking into account blackouts in a much more important way had no effect on the estimates. It wasn't an important source of value, for the reason that's the premise of your question, which is the game is already there.

Q. Dr. Noll, we are really trying to show the court what you did model and what you didn't. OK? You're saying I know because I have looked at these things. But you did not model -- because you don't have all that data. Wouldn't you have to model every game changes depending on what game is being shown and where they are? You did not model the Yankees blacking out their feed to the Tampa game to see what happens, did you?

A. But I did go from blackouts being implicit in the viewing times to explicit by taking them out, and it didn't matter.

Q. You didn't go --

A. So I know --

Q. You didn't model all the blackouts. You only modeled some blackouts.

A. But a very large fraction of all the blackouts were modeled. Almost all of them were included in the first step, so adding a few more isn't going to change it.

Q. You modeled the package blackouts, didn't you?

A. I modeled the package blackouts, but they are also in the stand-alone team estimates as well, because they're blacked out

in certain areas. Each RSN is blacked out in certain areas, certain DMA.

Q. Let's move on to the demand you simulated and the preferences that you simulated. I think you tried to explain to her Honor that you actually simulated how those 12.7 million people or potential customers, minus the people already buying the out-of market product, what category of preference they would go in, the one team, the two team or the multi-team, right?

A. Well, it wasn't 12.7 million. It was 720,000 for baseball and 460,000 for the NHL. So it's not the entire population that's simulated in the sample.

Q. But you took your data set from those 12.7 million people to simulate, right?

A. No.

Q. It had nothing to do with it?

A. No. The data that gave rise to the simulation is the actual viewing time data in the league-wide package, which is, you know, three and a half percent of that 12 million.

Q. Right. But you then simulated the rest of those people, the 600,000 plus?

A. Depends on the sport. 720,000 for MLB, 460,000 for the NHL.

Q. So, let's stick with MLB for a moment. The 720,000 subscribers or potential purchasers -- because many don't

purchase, isn't that right --

A. Yeah, these are --

Q. -- in your model?

A. Yeah, these are people who are in the set that at some price they would subscribe. But as in the previous line of questioning, going all the way to zero, but this is trying to trace out the entire --

Q. So, out of the 720,000, you don't know whether they are a single, a two team fan or a multi-team fan. You simulated that and predicted it, as you were explaining to the judge, right?

A. No, the simulation is a simulation of these preferences was then imposing on these types that have been estimated from the actual data.

Q. And you would hope that most single team fans, if the single team stand-alone was cheaper, would purchase the stand-alone and not the package, right?

A. I'm sorry.

Q. Wouldn't you think from a common sense standpoint if someone is a single team fan, right, and a single team is cheaper in your model than a bundle, they should purchase the single team stand-alone?

A. On average, yes, but not universally, no. There is no reason to believe that. It's not in the structure of the model. The model does not require that at all.

Q. You actually did, because you made the utility either --

the single team fan the utility was for the one team and no utility for anything else.

A. But that's not the only -- there is no utility on the time spent viewing that team, but there is other forms of utility from the bundle that are in the preference function and that arise from two sources. One is the valuation of the bundle in general, and the other is the logit error, which is the random component value. So, those things produce demand to do other things than just watch one channel.

Q. You have an error in your model, right?

A. Yeah, it's called a logit error. It's not a mistake; it's a component of the utility that has a statistical distribution that is in economics called an error term.

Q. Right. And it's because you assign utility to these different teams. The single team fan in your model says I have utility for one team, and I don't have utility for two or for the bundle, right?

A. No, it's that I don't have utility that is captured by the amount of time I spend viewing it.

Q. OK, that's -- assume that's what we are talking about.

A. But it doesn't mean you have zero utility from having access to that team. It means that the way that utility creeps into the analysis is not through viewing time.

Q. Well, it only creeps in through the error. You can't point to anywhere else you measured it.

A. Well, it also creeps in through the Landa value that is subscribed to the bundle.

Q. We will get to, if you can tell us how much of an effect it has. The two team fan has a utility for two teams and nothing for the bundle, right?

A. Well, it's not correct to say you have zero utility for the bundle, because the time spent viewing the other team is not the source of the utility. All right? That's where the mistake is coming. Yes, the weight on time spent viewing that team is zero, but that doesn't mean that the bundle itself has zero utility beyond just the Yankees.

Q. And the same thing applies for the multi-team fan, right?

A. The same thing applies to them, yes.

Q. And you would think if your model was correct that the person who is the single team fan should be more likely to purchase a single RSN than the multi-team fan, right?

A. No, not necessarily.

Q. No relationship?

A. There is a complex relationship, and there are things pushing it one way and things pushing it the other, and what they do is a consequence of the net effect of those two things.

THE COURT: I don't understand your answer. All she said is wouldn't you think that the single team fan would prefer the stand-alone to the bundle. And you said no. And I can't understand why no. They only like one team, and the

price is probably less for the single stand-alone than for the whole bundle. Why wouldn't they buy the stand-alone, or more likely than not?

THE WITNESS: Because there are other things besides teams. Think of it as buying an option. It's the point I made before, that when you subscribe to the bundle -- remember, these things are all based on relative amounts of viewing times. Suppose you are a person who watches a lot of baseball.

THE COURT: OK.

THE WITNESS: And mostly you care about the Yankees.

THE COURT: Right.

THE WITNESS: But you are also a baseball fan who cares about specific events like somebody is playing in the game and they are about to hit their 70th home run, or somebody is pitching a no hitter.

THE COURT: But you are assuming there is no single team fan, there is no such thing really.

THE WITNESS: Single team fan means the utility of viewing a particular game is partly captured by how much time you spend watching it, but then there are other things that give value, and those are the other things that would cause a single team fan with very intense preference for the sport to pay more to get access to all of these other things.

THE COURT: I can see that might happen for one or five of a hundred single team fans, but all she asked you is

isn't it more likely that any particular single team fan would prefer the stand-alone assuming that it's cheaper than the bundle.

THE WITNESS: There is no natural answer to that question, because what the proportion is is a function of the relative prices. The bigger the price difference gets, the more people will pick, you know, the one rather than the other. So, you can't answer the question in the abstract.

THE COURT: Well, fair enough. If the price were the same for the stand-alone than the bundle, why wouldn't you pick the bundle? You could watch more sports. But if there is a price difference and you only like one team, wouldn't you be more likely to pick the stand-alone which is also cheaper?

THE WITNESS: And on average you would think yes. But that doesn't mean that there wouldn't be a lot that would pick the bundle.

THE COURT: Fine, but on the average the answer is yes.

THE WITNESS: But, you see, that's the problem is when you have heterogeneity of consumers you can have a very large fraction who will go for the higher priced thing even though they spend 90 percent or 95 percent of their time watching their favorite team. They would still -- they wouldn't necessarily buy a single other team's feed.

THE COURT: But how do you know that other than your

common sense and instinct? In other words, how does your science --

THE WITNESS: That is the explanation for why we have components to demand that respond to sources of value other than the viewing time. That's why the model has these other parameters in it, and why it has this random distribution of the utility, why you consider it a random variable, to give it a shock that isn't measured by what is already in there. That's why you do the model this way, so you can capture differences in behavior among people that are not solely explained by viewing time.

Q. Let's see if we can look at what your data actually shows. You are familiar with Dr. Ordover's supplemental report, his second supplemental report?

A. Yes, sort of. I mean it came out so late, I haven't had time to study it carefully.

Q. Did you not review it before you came to court?

A. I have read it, and I have thought about it, but I certainly don't have it from memory, because I haven't had it very long.

MS. WILKINSON: Your Honor, may I hand up a copy?

THE COURT: Sure.

MS. WILKINSON: Would the court like one?

THE COURT: Sure.

MS. WILKINSON: It's Joint Exhibit 7.

Q. Dr. Ordover took, as you see down here on Exhibit 4A -- do you see Exhibit 4A?
A. Not yet. OK, I found it.
Q. And you see his note down here, Dr. Ordover says he took your reported market shares, right? These are based on the purchases for each subscriber that you predicted in your third model, right?
A. I see what the table is, yes.
Q. OK. You don't have any disagreement with the numbers he is reporting here, right?
A. I haven't authenticated whether the numbers are right or not right, so I'm not going to testify they're either right or wrong. I don't think he intentionally did anything wrong. These are probably correct, but I can't testify that they're correct.
Q. But this is a different issue. Did you not check before you came to court to see whether Dr. Ordover calculated -- based on your subscriber data that was an output of your model -- that these market shares are correct or incorrect?
A. I personally haven't, because I didn't have time to do this. I think others have checked it.
Q. Did anyone tell you it was wrong?
A. No. As I said, I have no reason to believe it's wrong, but I think it's not me that should testify as to its accuracy.
Q. Dr. Ordover -- I just have a separate questions whether you

checked.

THE COURT: He already answered. He didn't personally check.

Q. Look down on the one RSN and go down to where it says total share 11.66. Do you see that?

A. Yes.

Q. That means out of the hundred percent of one RSN potential customers, only 11.66 made a purchase in your model, right?

A. That's right.

Q. And of those people, 32 percent -- even though they are a one team RSN -- purchased the bundle. Do you see the next number down, bundle share?

A. Bundle share, 3.79. Is that what you are looking at?

Q. Yes.

A. Where are you?

THE COURT: 32.5.

A. 32.5.

Q. That's under the one RSN. So while these people only liked one team, a third of them bought the bundle.

A. That's correct.

Q. Right? And that means if you do the math out of a hundred percent, right, only 68 percent bought the single team, right?

A. That's correct.

Q. Now we were talking about the general trend. One would think that generally the more teams that you favor, the more

likely you are to buy the bundle, right?
A. No.
Q. And you say that sounds right, no, but we're wrong.
A. No, your intuition is not correct.
Q. And even though that seems to make sense to us, your model certainly shows the opposite, doesn't it? Because if you look down at the two team RSN, instead of those people being more likely to purchase the package, they're even less likely to purchase the package.
A. That's correct.
Q. So your data shows that if you are a two team fan, 81 percent of those people buy the stand-alone, which is cheaper, right, than the package even in your "but for" world, right?
A. Substantially cheaper.
Q. 50 percent cheaper?
A. It's substantially cheaper. The stand-alone channels are like 40 percent of the bundle price, something like that.
Q. So up here when the single team fan -- go back up there -- could get what they want -- which is one team -- and they could get it for 50 percent less, still 30 percent of them buy the bundle, right?
A. Well --
Q. Just yes or no, that's true or not?
A. You said that's what they want. Because that isn't what they want. You are wrong when you characterize it as that's

what they want. That's not necessarily what they want.
Q. Well, you haven't added any data to the model to be able to help determine what they want. You have an error, but you don't have any additional data on their preferences that you put into this model, do you?
A. It's not an error in the sense of mistake; it's a source of demand that's unrelated to viewing time.
Q. I didn't say that. Let's answer the first question. You do not have, nor did you put into your model, any additional data about their preferences, did you?
A. There is no additional information about their preferences other than the logit error that measures the departure of the utility from the expected value.
Q. So when you spent five minutes telling her Honor that all of these different things could happen, that's what you think. You have no data in your model that suggests that's why these people who are single team fans would actually purchase the bundle, do you?
A. I know that the reason the results come out this way are because of other components of utility besides the weight on the time. But I don't know what those stand for in any particular case of any particular consumer.
Q. So, you can't tell us why 32 percent of the single team fans are buying a league package, or at least you can't tell us in a way that Dr. Ordover could go check, right?

A. Well, no, he knows why. It's because this component of the utility that is unrelated to time but that generates utility from the game, for those people it's relatively high compared to other people in the sample.

THE COURT: Wait a minute. So, I understand everything you say about the single team fan, why one third of them would prefer the bundle. I understand that, because there are factors other than just the viewing time. But I don't understand why it's less likely that the two team fan would buy the bundle when instinctively one would think that the two team fan would be more likely to buy the bundle. Why does it look like it's so much less? Can you explain why?

THE WITNESS: The reason for it is the teams that the person is a fan of on the time viewing side become almost perfect substitutes, and so if you can spend a lot of time viewing either of those teams, that generates almost as much utility as watching half of that amount of time for each one.

In other words, the viewing time is a mechanism that picks up the degree to which teams are substitutes for each other, and when you finally get to the multi-team fan, you have lots of teams that are perfect substitutes, and so you can distribute your time.

Now, what that means is competition is an extremely important thing for the people who care about more than one team, because they get to play off one against the other

because they really don't care which of those they buy. That's the fundamental reason why these results come about.

Q. Let's show the rest of the results.

THE COURT: Yes.

Q. Because the multi-team fan favors how many teams in your model?

A. It's three or more, and it can be any number from three up to 29, 30.

Q. And if you were to purchase four RSNs using your pricing in the "but for" world, the league package would be cheaper than buying four RSNs, right?

A. Of course.

Q. Right?

A. Yes.

Q. So, economically the person should want to purchase the package if they favor three to four or more teams, right?

A. No, because that's not what is being estimated. That's not the nature of the estimation procedure. It doesn't produce the fact that because you watch four you want to buy four, because they are such close substitutes that it's the same answer. If you are going to watch a hundred hours, watching 25, 25, 25, 25 produces almost as much utility as watching just one hundred, because they are so close substitutes. Consequently the most important thing to you is price, and the fact that the stand-alone things are really cheap is extraordinarily

attractive.

THE COURT: Only one is really cheap. What she is saying is if you have to buy four of them it's no longer cheap.

THE WITNESS: That's right, but you don't care about four, because you don't derive much additional utility from dividing your viewing time on four than just having one.

That is the essence of what the utility function is saying, is that when you have roughly equal viewing time among a bunch of channels, it basically says you are indifferent between those teams, not completely indifferent but close to indifferent, and so you are more inclined to go for the cheap one and spend all of your time watching one team than to buy -

THE COURT: You are not watching one team; you are watching one team and all of its competitors.

THE WITNESS: Yeah, because you like all teams, and they are all fun to watch, and you can get one plus all its competitors for eight bucks, or you have to pay 20 for the whole thing, so you go for the eight bucks and watch the one.

Q. But the trend that the more teams you like, the more likely you are to buy a package, is contradicted by your data, right? Because look what happens. When you are in a multi-team fan, only one percent of those people buy the package, right?

A. I know you would like to think that contradicts the data, but it doesn't.

Q. But that's what you say. I hear --

A. Because all that we're saying is that it turns out that the parameters we estimate produce the result that the multi-team people are the most price sensitive.

Q. So the predictions are not consistent with our common sense for a reason you have explained.

THE COURT: He is saying with your common sense. They're completely understandable to him, and he has kind of explained why. He says they're the most price sensitive people. And, after all, if you follow one team you get to watch all the other teams compete against them, so in the end you are watching every team.

Q. Because I think you said something quite different in your deposition. Let me see if I can find that quote. Can we put up slide 8, please. Thank you.

You were asked about what people would do with your model, right? And you said: Knowing what I know from the model, and doing some preliminary tests, somewhere around two or three the preferred teams is where no one would ever pick more channels, they would go with the bundle.

Isn't that what you said when you were asked --

A. Yes, this is in response to buying more than one channel.

Q. Can I finish?

THE COURT: I think you did.

Q. I didn't quite, your Honor.

I was going to say this is what you were saying about

model number two, right?

A. This was about picking multiple channels. This was about the comparison between how many channels would you buy as opposed to the bundle. This was in a world in which you can buy more than one channel. And so this was about the relative prices. At somewhere between two and three, depending on which channel you like best, it's cheaper to buy the bundle than to buy single channels. That's what this statement is about.

Q. The channels are the RSNs, right?

A. Well, they may be, yes, but this is about do I buy one, do I buy two, do I buy three, or do I buy the bundle. And somewhere between two and three -- if you what you wanted to do was buy multiple channels, at somewhere between two and three you would switch to the bundle.

Q. So, you're saying your model is showing at least for your simulation virtually no one who is a multi-team fan wants to buy the bundle.

A. Yes, that's exactly what this shows, that they're happy with one --

Q. And this?

A. -- at the low price.

Q. This was just the MLB.tv data, right?

A. This is just for the MLB.tv.

Q. But if we look at the Extra Innings DirectTV data we see the exact same pattern, don't we?

A. That's correct.
Q. So, it doesn't matter what data set you are using; you still get this kind of what I will call -- and you don't agree with -- an oddity that the more teams you like the less likely you are to buy the bundle. And you have the exact same difference, 99 percent and one when you look at the MLB Extra Innings data, don't you?
A. It is true you get the same results, because the multi-team people are the big beneficiaries of competition, not the single-team people.
Q. But that sounds like everybody in these two different data sets are the same, but even better we look at hockey and your model produces a third exact same what I'm going to call reverse distribution in who would purchase the stand-alone and who would purchase the package. Right?
A. These produce the same results for the same reason.
Q. Even though they're different data sets and you are supposed to be simulating different viewers, right, who view hockey over the Internet versus people who watch baseball on TV, or people who watch baseball on the Internet, correct?
A. Yes, they are different people, but the nature of estimating the preferences produces the result that competition is most important for people who are interested in multiple teams.
Q. I believe you have said generally you have no argument with

multi-product pricing when there is a sole licensor or controller of the content, right?

A. Under certain circumstances. I mean I don't favor joint ventures as a way to create a cartel, no.

Q. I wasn't talking about the league. If you are the sole licensor or owner of that content, you don't dispute that people can distribute it through multiple ways and do multi-product pricing, right?

A. I agree that multi-product firms will take into account whatever cross elasticity demand there is between their products, yes.

Q. And they will set prices for both so that they maximize their total profits, right?

A. That's correct.

Q. So, in your "but for" world when the restraints are lifted, the team now has its in-market rights which it had before, right?

A. That's correct.

Q. It now has its out-of-market television rights, correct?

A. That's correct.

Q. And it has its out-of-market Internet rights, right?

A. That's correct.

Q. So, it is now the sole licensor of all of its content, right?

A. That's correct.

Q. So, if it wanted to go directly to the Internet like you say, or bypass the RSN and go directly to the MVPD, it would be in its interest to multi-product price, wouldn't it?
A. Well, the locally market thing isn't competing with the out-of-market stuff, so that's not the important fact. Certainly it is the case that the Internet price and the MVPD price out-of-market would be set together.
Q. The in-market doesn't compete with the out-of-market? Is that what you just said?
A. Yeah. The team's games -- the Yankees games being broadcast in Tampa would be set independently from the Yankees games being broadcast in New York. That is to say the out-of-market pricing is not in-market pricing. But the out-of-market pricing is both Internet and MVPD.
Q. The Yankees now have the ability to license their content throughout the country any way they choose, right?
A. That's correct.
Q. That's why you are complaining about restraints. And they could decide to go to the television distributor, the MVPD, and say you're going to pay me a per-subscriber fee for my stand-alone and I want you to distribute it nationally, right?
A. Well, to each of the MVPDs that operates outside their local market, of which there are hundreds or thousands.
Q. Just use one for simplicity sake. They could go to one and do that, couldn't they? Let's assume it's DirectTV and it's

almost everywhere.

A. If they wanted to sell exclusively to DirectTV or Dish Network, they could go to just one and have only one negotiation and have limited distribution, yes.

Q. And they could decide to also distribute to DirectTV their Internet rights and let them have those rights together, couldn't they?

A. They could if they wanted to.

Q. And that might be economically rational or even profit maximizing for them, right?

A. It may or may not be, yes.

Q. You never modeled that, did you?

A. No, I have not modeled who they are going to sell their -- if they are going to sell exclusive rights outside, no.

Q. So, if they sold those together, the idea would be that they would be priced to be complimentary and not to be competing with themselves, right?

A. Although they would always take that interaction into account in general, it's better to have your downstream distributors be competitive. That's normally the case because you don't like to create market power for an exclusive retailer. But there are circumstances in which you might want to have an exclusive retailer.

Q. OK. And there would be nothing wrong with that if that's what you decided to do.

A. Not in and of itself, no.
Q. So, now let's say the team decides that they have all of these rights and they're going to go to MVPDs to get their stand-alone content distributed on television, right, national. Let's just assume they talked to one or multiple.
A. I'm sorry, I lost your premise. They are going to a single MVPD and that's --
Q. Or multiple ones, but they are going to get their stand-alone distributed nationally. All right?
A. OK. Well, YES Network is already distributed nationally.
Q. They do that with a per-subscriber fee, don't they, out-of-market.
A. Yes, a very low per-subscriber fee in a bundle, yes.
Q. It's a per-subscriber fee. It's not a flat fee, is it?
A. It's not a per person who subscribes to YES Network fee. It's a per-subscriber fee over a broader base.
Q. It's a per-subscriber fee who subscribes to the cable package.
A. Right, it's a bundle. It's a bundle. It's a fee to be included in a bundle.
Q. Right. So, they get a per-subscriber fee for all the people who subscribe to the cable company's bundle, right?
A. Yes.
Q. And right now that's what the Yankees do out-of-market even though they show what you were describing to your Honor as

shoulder programming, right?

A. That's one way to put it.

Q. That's what they call it in the industry, right?

A. That's one thing they call it in the industry, yes.

Q. And let's say they do that, and they charge a per-subscriber fee to be in the cable package bundle nationwide, OK? You don't have any problem with that, do you?

A. No.

Q. And then they turn to the league, who you say now is independent of them, right?

A. That's right, they have set up an independent entity to offer the bundle.

Q. So when they decide whether they are going to provide their content to the league, it's just like they're talking to the MVPD in the sense that the price that they're going to agree to is a bargain they are going to come to, right?

A. No, that's wrong, because it's a league rule that it's mandatory to supply the fee to the league.

Q. Well, do you know what league rule that is that you keep saying is a rule that's mandatory?

A. It's a requirement to write it into the contracts that the programs will be included in the bundle.

Q. And are you taking the position that that regulation is a rule of the 30 teams or a rule that just the commissioner wrote and can revoke at any time?

A. Well, I'm not making a distinction between the commissioner and the leagues. There is a reason why such a rule exists, and I know the Yankees don't like the rule and would love to get out of it, and they would like to get out of it now independent of the outcome of this case, but it's still the rule.

Q. Dr. Noll, that wasn't my question. My question was: How can the rule be changed? Does it take 30 teams to vote to change that regulation, or can the commissioner change it on his own?

A. The commissioner can change it, but the commissioner is subject to his employers which is the executive committee, which is the 30 team owners.

Q. So they don't have to put it to a vote, right?

A. They don't have to put it to a vote unless they want to have to put it to a vote.

Q. So, for a moment set aside the rule, because your position is the rule will stay in place, and our position is the rule will change. Right?

A. I don't know what your position is. That's the argument that some people have made, that you can just say, well, the rule will change and then the Yankees will get some fee for having it included in the bundle, or withdraw from the bundle. But that's not the rule, and there is a reason for the rule, and it has nothing to do with anything we're talking about.

Q. Well, if it's more profitable for them to independently

charge the league a fee, and everybody ends up making money independently, more money than they do with having a zero or a free fee, that would be a rational decision, an economically rational decision, wouldn't it?

A. If the nature of the fee setting process is to create collusive pricing, yes, it would be more profitable for everybody.

Q. I didn't say it was collusive, Dr. Noll.

A. No, but the mechanism that we would achieve to get there is in fact collusive pricing.

Q. You said that; I did not say that.

A. The mechanism that is set up in the expert reports is like a license, the license fee in a patent pool. It's a mechanism for imposing a tax on transactions that recover the monopoly price from the competitive price.

Q. It's not like a cross license like in a patent pool, right?

A. It's a license for access to patents, yes.

Q. But this is a one-way license, isn't it?

A. It's conceptually not distinct from what I just said.

Q. So, set aside your conclusion that it's collusive. All right? If they were able to set prices independently, so the Yankees go to the league and they treat them like they're Comcast and say I want you to carry my broadcast in the package but I want you to pay me a per-subscriber fee, and they negotiate and come up with that fee, and everyone did that

independently without speaking to each other, that would not be collusive, would it?

A. The mechanism you are describing is an incomplete characterization of how it would come about, but I agree that there exists a way to recover the monopoly price from an agreement about feed fees and changes in the rules. Yes, you could do that. There is a way to do it to reestablish the monopoly price.

Q. You are calling it a monopoly price, but what they want to do is make sure since they are either the owner or licensor of all the content, they want to make sure that when they give it to the league it doesn't undermine the price where they're selling it either to the MVPD or going over the Internet. Right? Because they are allowed to multi-product price, aren't they?

A. They want to increase the ability of the members of the league to exercise market power, and this is one way to do it.

Q. No, I am talking about the individual team --

A. Yes.

Q. -- not the league. The team itself wants to say I'm selling my product over here let's just say for $10. OK? I don't want to sell it over here for free so that this guy can price it for $1 and take all my customers. Right?

A. And there is two reasons why that might happen. The first reason is a mechanism whereby all teams can reestablish the

monopoly price, and the second reason is in a world in which their centralized revenue is equally shared, the higher revenue teams have an individual incentive to defect from a collaborative activity, because their profit share in the collaborative activity is too small to compensate them for going it alone. And then they can say I'm going to go it alone unless you pay me. And that is the private incentive of a team like the Yankees. They would like to withdraw from the league unless the league paid it.

Q. That wasn't my question, Dr. Noll. We are talking about could they each come to a bargain to provide their content and make even more money. OK?

A. Yes, it's true.

Q. Independently.

A. They could use the double marginalization principle to reestablish the monopoly price.

Q. Well, it wouldn't be double marginalization because they be would be competing out in the marketplace, they would be competing with the stand-alones, which is the whole basis for your model: Competition between the package and the stand-alones.

A. They're softening the competition among the stand-alone packages in the context of the model, because going back to our one and two RSN consumers, we have modeled a world in which there is limited competition among the RSNs, and this is a way

to use the league bundle and the feed fees as a mechanism to reduce the degree of competition among the stand-alone RSNs.

MS. WILKINSON: Your Honor, we didn't take our break, and I have one last area. Can we take a break before I do that?

THE COURT: No, I thought I would stop you at four and take the break for the five minutes then.

MS. WILKINSON: Then may I use the board?

THE COURT: That's OK. I actually thought you got more time that way, because nobody comes back in five minutes.

MS. WILKINSON: Fair enough. I will take whatever time you give me.

Q. Dr. Noll, one of the results of your model is that if in today's world the league did what you are suggesting, the leagues did what you are suggesting, which is allow all the teams to go nationally, you say they would double their profits, right?

A. From out-of-market activity. Obviously that's not all there is, because there would be a reduction of fees in local markets that would more than offset it. But, yes, within the out-of-market category the profits would go up.

Q. So your point is the league should be -- and the teams -- are considering all the revenues they are getting from broadcasting before they decide, not just the out-of-market. They need to consider the effect on the in-market, right?

A. Well, they would like to consider them. The issue is to what extent is it OK for them to consider them as a group. But, yes, what is important to a single team is its income from all sources.

Q. And your position is that in the "but for" world you will have the stand-alones but if you also have the package, that still has a positive additive value to the overall profits, right?

A. Yes.

Q. So, let's take a look at what you're saying. We will start with our Tampa example, and in Tampa they make a certain rights fee which is their payment for their local in-market, right?

A. That's correct.

Q. And we will call that in-market revenues. And do you know what that is in the current world for the average team in the 2012 that we gave you?

A. $25 million or something like that.

Q. No, the revenues?

A. I'm sorry. Then I didn't understand.

Q. 42 million or so?

A. Oh, from all broadcasts.

Q. No, for in-market.

A. For in-market Tampa gets that much? I didn't think so.

Q. That's on average.

A. Oh, you are talking about Tampa as an average team.

Q. I'm using Tampa just so we can round it.
A. You didn't mean Tampa; you mean an average team. Yeah.
Q. We will use Tampa as the average team. So in the current world they are making 42 million on their in-market revenues. That's right? This is the current world in our hypothetical?
A. Just so you know, I cannot come anywhere near clear to see what you are doing. You are way too far away for me to be able to see anything.
Q. Well, I'm not going to cheat, because even if you can't see it, there are other people.
A. I know, but I am just telling you I cannot see it.
Q. I just wrote down Tampa, they make $42 million in in-market revenue in the 2012 world. Right?
A. I don't know.
THE COURT: That's what she wrote, in-market, 42 million Tampa in 2012, their in-market on that.
Q. Now in your "but for" world, if this was going on -- if your "but for" world occurred in 2012, Tampa would now have all of these RSNs in its market competing against it, right?
A. Yes.
Q. So, they still have their in-market -- sorry my writing is so small -- I put in-market there -- they have in-market revenues, but now Yankees fans can jump to the Yankees stand-alone rate, the Mets and such, right?
A. Yes, some number of people subscribe to all that stuff,

yes.

Q. So, Tampa's in-market revenues are going to go down when all of these stand-alones come into the market.

A. That's correct.

Q. How much?

A. I have not estimated that. I have no way of estimating that.

Q. You have no idea how much they're going to lose relative to how much they're going to gain here, right?

A. No, I could estimate it, but it wasn't part of my task. My task is what is going to happen to the price of a bundle, not what is going to happen to the local rights fees of Tampa Bay.

Q. But you have no idea what that number is right now. You haven't modeled it or calculated it.

A. I haven't modeled it. I can tell you what factors will in fact determine what ballpark it's going to be in, but I couldn't provide you with a point estimate.

Q. OK. And what you did model though is you modeled to see is the industry better with just these RSNs in the market, or are they better off with the package still in the market and the RSNs. Right?

A. All that I measured is if the RSNs were already there on a stand-alone basis is it incrementally profitable to have the bundle.

Q. So, you have to know what the profits are without the

bundle, and then you did a calculation you said the bundle being available is overall additive to the profits of the industry.

A. It's overall additive -- once you have already eliminated the territorial restrictions, then it's additive to add the bundle.

Q. We are in the "but for" world --

A. Yes.

Q. -- and the territorial restrictions are gone. And you calculated how much the bundle being in place was additive to the overall profits, didn't you? Do you remember those numbers?

A. Additive to the out-of-market profits, not additive to all broadcast profits, no. What I calculated was is it additive if at the end of the out-of-market restrictions, and you have a certain amount of profits from the stand-alone channels, on net can you get additional profits by adding the bundle to that.

Q. And you came up with an actual number, didn't you, that it was $11 million?

A. Approximately.

Q. You had I think $4.4 million for a month and about $11 million for a season, right? Do you need to look at your reply?

A. No, I will assume you are telling the truth. I don't have the number memorized, but that sounds approximately right.

Q. And then for Tampa they are only going to get 1/30th of that, right?
A. That's correct.
Q. So they're going to add $892,000 or so to their profits for out-of-market if the package stays in place, right, compared to your "but for" world if they didn't have a package.
A. Yes.
Q. And that's because of a couple of things. One is the package is already cheaper in your "but for" world, right?
A. That's correct.
Q. So it's constraining the prices of these stand-alones somewhat, about five percent I think you've calculated.
A. That's correct.
Q. So, if the package wasn't there, all of these would go up about five percent, right?
A. That's right.
Q. So, the package though still is beneficial because you're not looking at any of the effect on the in-market revenue, right?
A. I was not attempting to say that the active -- eliminating territorial rights was overall net profitable to the league. Of course it's not net profitable, or they wouldn't have the rule. So, yes, they have already experienced a decline in their local revenues arising from the fact that the in-market restrictions have been eliminated.

Q. But we are just trying to get to the point. If you were the team or the owner, and you are trying to figure out do I vote for the bundle, you don't just look at your out-of-market profits; you want to know how the bundle also impacts your in-market profits.

A. Well, the thing that is hitting on the profits in-market is the existence of all of these out-of-market single things. There is relatively little effect on those guys. It's like you said it's like five percent when you add the bundle. The big hit has come from adding the all the 30 or the 29 other teams' RSN. That's where the hit is coming from.

Q. If you took away the bundle, you are going to have these stand-alones go up on average five percent, but not all. Some go up more, some less, right?

A. Yes, some more, some less.

Q. So, you are going to have a little bit more of a price differential, right, between the Tampa in-market and the cost of the RSN, right?

A. There will be a small price effect on the local rights.

Q. And you haven't figured out -- because if even taking away the bundle increases the in-market profits by a million dollars -- which would be about three percent -- then for that owner it doesn't make any economic sense to vote for the package, does it?

A. Well, you are assuming the answer. Yes, it's true that

Tampa's share of the profits of the bundle are very small compared to the decline in the value of their local rights that would come about from eliminating the territorial restrictions.

Going to a bundle in addition to the stand-alone prices is not going to have a big effect on Tampa Bay's local rights fees, but, you know, that is not the main factor or even an important factor in determining those rights.

Q. Dr. Noll, you said that the in-market revenues --

THE COURT: Ms. Wilkinson, it's 4 o'clock. I really have to stop, take the five minutes now, and then have redirect. I know you are sort of in the middle of a point.

MS. WILKINSON: Can I just ask one question?

THE COURT: Yes.

Q. So, Dr. Noll, you didn't calculate and can't tell the court what the impact would be of no package on the in-market revenue and whether that could make up for losing the revenue on the package, can you? You didn't calculate it.

A. The bundle itself is not costly to any of the teams in the league.

Q. Dr. Noll, did you calculate it?

A. I haven't calculated a number, but it's not costly to the teams.

THE COURT: Thank you. We will reconvene in five minutes for redirect.

(Recess) (Continued on next page)

(In open court)

THE COURT: Are we ready for redirect?

MR. DIVER: Unless your Honor has any more questions, we don't have any redirect at this time.

THE WITNESS: Your turn.

THE COURT: I didn't prepare the redirect. There was this one thing about the random C generator and that was sort of attacked. You used random numbers to rank the fans of each team, right?

THE WITNESS: No. The mechanism for doing this iterative procedure to try to generate parameters that matched the moments has to start somewhere.

THE COURT: Right.

THE WITNESS: And we pick a random number as far as -- and if you make a series of assumptions that cause the factors that are in your model to sort of all have -- all be the same, so you don't have much differentiation amongst consumers, then where you start can determine where you end.

THE COURT: The sensitivity to price, right --

THE WITNESS: Yes.

THE COURT: -- you said you would just randomly generate whether some fans of some teams are more sensitive to price than others.

THE WITNESS: No. That's -- that's only an implication of what you're doing. What the model does is

produce -- a demand relationship in economics is how much do I buy as a function of the prices of everything else. And you generate that from the maximization of the fans' utility or welfare subject to a budget constraint. That's why the other option is in there. A fan has so much money to spend and there's the price on the bundle and there's a price on each of the individual channels and there's a price on everything else, the other options.

And so you use that generated utility function, which assigns weights to both money and viewing time and the presence of the bundle, to generate the demand curve; and that then produces for you price elasticities and price sensitivities in the model.

THE COURT: One of the things is there's no data to use if you used a randomly-generated, what do you call it, C number, and they criticized you for that. So I'm trying to understand the criticism in the answer. Why did you use a randomly-generated number rather than something that was based on data?

THE WITNESS: No. The randomness is a necessary component of the Generalized Method of Moments. What they're actually -- the consumer is based on fact, but the data they provided has no variation in price, so I can't add that.

Normally, what we would do in this kind of a model like is in the paper by Ali and Greg, is that you would observe

that MVPDs have somewhat different prices and include somewhat different things in their bundle, so you can actually get some variation in what the consumers are offered and how much the price is. So they can use those moments, the mean and the standard deviation and all those variables, to get some additional explanatory power.

I don't have that because, first of all, the composition of the bundle is -- only varies by the local territorial rights. It's not very gray. And secondly, there's no price variation. So I can't use those to estimate a demand curve. That means that there's going to be more susceptibility of the model to influence by the brand of effects, the statistical effects than there is in a model that had more data about prices.

THE COURT: Okay. That was the last one I think I had, too. As I said, I didn't prepare the redirect. If you don't have any, then we're finished 20 minutes early. That's the end of it. I don't think there's any point in starting the next expert who is on for tomorrow who is Dr. Ordover. So if you agree, we'll just reconvene at 10 a.m. tomorrow.

MS. WILKINSON: We do. Thank you, your Honor.

THE COURT: All right. Thank you.

(Adjourned to March 18, 2015 at 10:00 a.m.)

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