IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	)	
Plaintiff,	)	CV No. 17-2511
	)	Washington, D.C.
vs.	)	April 11, 2018
	)	10:41 a.m.
AT&T, INC., ET AL.,	)	
	)	Morning Session
Defendants.	)	
	)	Day 12

TRANSCRIPT OF BENCH TRIAL PROCEEDINGS
BEFORE THE HONORABLE RICHARD J. LEON
UNITED STATES SENIOR DISTRICT JUDGE

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Proceedings recorded by mechanical stenography; transcript produced by computer-aided transcription

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WITNESS INDEX

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WITNESSES	DIRECT	CROSS	REDIRECT	RECROSS
GOVERNMENT'S:				
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P R O C E E D I N G S

DEPUTY CLERK: All rise. The United States District Court for the District of Columbia is now in session, the Honorable Richard J. Leon presiding. God save the United States and this Honorable Court. Please be seated and come to order.

Good morning, Your Honor. This morning we have Civil Action No. 17-2511, the United States of America v. AT&T, Inc., et al.

Will counsel for the parties please approach the lectern and identify yourselves for the record.

MR. WELSH: Good morning, Your Honor. Eric Welsh for the United States.

THE COURT: Good morning.

MR. CARSON: Good morning, Your Honor. Dylan Carson for the United States.

THE COURT: Good morning.

MR. KEMPF: Good morning, Your Honor. Don Kempf for the United States.

THE COURT: Good morning.

MR. CONRATH: Good morning, Your Honor. Craig Conrath for the United States.

THE COURT: Good morning.

MR. HEIPP: Good morning, Your Honor. Justin Heipp for the United States.

THE COURT: Good morning.

MR. SCHUETT: Good morning, Your Honor. Ruediger Schuett for the United States.

THE COURT: What's your name?

MR. SCHUETT: Ruediger Schuett.

THE COURT: Say it again.

MR. SCHUETT: Ruediger Schuett.

THE COURT: Do you want to spell that.

MR. SCHUETT: S-c-h-u-e-t-t.

The court reporter has my card.

THE COURT: Say again.

MR. SCHUETT: The court reporter has my card.

THE COURT: He does?

MR. SCHUETT: Yes, he does.

THE COURT: He needs it.

MR. PETROCELLI: Good morning, Your Honor. Daniel Petrocelli for defendants.

THE COURT: Welcome back.

MS. ROBSON: Good morning, Your Honor. Katrina Robson for defendants.

THE COURT: Welcome back.

MR. OPPENHEIMER: Good morning, Your Honor. Randy Oppenheimer for defendants.

THE COURT: Welcome back.

MR. WALTERS: Good morning, Your Honor.

Rob Walters here for AT&T and DirecTV.

THE COURT: Good morning.

MR. BARBUR: Good morning, Your Honor. Peter Barbur for Time Warner.

THE COURT: Good morning.

MR. ORSINI: Good morning, Your Honor. Kevin Orsini for Time Warner.

THE COURT: Good morning, Mr. Orsini.

MR. RAIFF: Good morning, Your Honor. Mike Raiff for AT&T and DirecTV.

THE COURT: Good morning.

MR. PETROCELLI: May I have 30 seconds with Your Honor?

(Sealed bench conference)

MR. PETROCELLI:

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MR. PETROCELLI:

(Open court)

THE COURT: All right. The government can call its next witness.

MR. WELSH: Your Honor, the United States calls Professor Carl Shapiro.

DEPUTY CLERK: Sir, please raise your right hand.

(Witness is placed under oath.)

DEPUTY CLERK: Please be seated.

THE WITNESS: Good morning.

THE COURT: Good morning.

MR. WELSH: May I proceed?

THE COURT: Proceed when you're ready.

MR. WELSH: Thank you, Your Honor.

CARL SHAPIRO, Ph.D., WITNESS FOR THE GOVERNMENT, HAVING BEEN DULY SWORN, TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION ON QUALIFICATIONS

BY MR. WELSH:

Q Could you please state your name for the record.

A Carl Shapiro.

Q Good morning, Professor Shapiro.
Professor, I'd like to start off with you providing a little bit about your background to His Honor so he'll get to understand some of your qualifications.
So if we could start off and if you could tell us on or about your educational background, please.
A Yes.
I earned my Ph.D. in economics in 1981 from MIT.
Prior to that, I had undergraduate degrees in mathematics and economics and a master's degree -- from MIT and a master's degree in mathematics from the University of California, Berkeley.
Q And if you could also tell His Honor about your academic positions that you've held.
A So after I got my Ph.D., I went to Princeton University. I was a professor there for about ten years.
And then in 1990, I moved to the University of California, Berkeley. I've been a professor there since 1990.
Q And you're still at Berkeley?
A Yes, I am.
Q Okay. What is your field of academic research, sir?
A My field within economics is called industrial

organization economics.

The applied side of that would include antitrust economics, industrial organization in our field. We study how firms compete, how markets are structured. And that includes as well a range of government regulation of business.

Q And you mentioned within industrial organization, there's the antitrust economics. Can you just briefly explain to His Honor what that field is or that specialization.

A Well, over the last 50 years or so, there's been an increase in demand for economic analysis in antitrust for legal purposes and enforcement purposes. And scholars in my area have developed the literature and studies and then, of course, the applied side of that.

So this would involve using economics for mergers, such as we're talking about here, but also monopolization cases, cartel cases as well.

Q Have you published research on industrial organization and antitrust economics?

A Yes. A good -- most of my published work is in the field of industrial organization. Some spills over into intellectual property and patent issues. And particularly in the last, I don't know, 10 or 15 years, especially antitrust issues in my published work.

Q And with respect to those publications, have they been in what you would consider to be respected academic journals?

A Yes. I have a good number of publications. In the coin of the realm of academia are peer-reviewed journals, a good number of publications in top peer-reviewed journals, but also in other similar practitioner outlets as well.

Q I think you may have mentioned this, but have you actually published a merger analysis?

A Yes, I have.

For example, I have a paper in 1990 I'm rather proud of in one of the top journals, the American Economic Review, with my colleague, Joe Farrell, on horizontal mergers.

Q Now, have you worked as an antitrust regulator in the past?

A I don't like to use the word "regulator."

Q Okay.

A But I have served in the Justice Department antitrust division as the chief economist. Formally, the title is Deputy Assistant Attorney General for Economics.

I served in that role from 1995 to 1996. And then I came back again in 2009 to 2011, again, chief economist in the antitrust division.

Q Can you explain to His Honor what your general responsibilities were as the chief economist at the antitrust division.

A Well, I would describe it in a couple of ways.

There are about 50 Ph.D. economists who work in the antitrust division. So the chief economist comes in -- it's a political division, political appointee.

THE COURT: Political appointment?

THE WITNESS: Yeah.

Comes in and supervises that cadre of civil servants and then as part of the team assembled by the Assistant Attorney General for antitrust and so, as the chief economist, gives advice to the assistant Attorney General for enforcement matters and also typically has a pretty good role in what we call competition advocacy for the division is telling the rest of the government and the world what their views are on competition issues.

Q And in addition to what you just described, did you also, during this time as the chief economist, help to provide any economic analysis when it came to either horizontal or vertical mergers?

A Yes.

So essentially all the matters that the division handles that would involve economics, the chief economist would be involved or the person working under the chief economist, and that would certainly include mergers. There would usually be maybe a dozen-or-so mergers would get a close look, a second request per year, give or take. And I would be involved in those when I was there at the Justice Department.

Q And your work here in terms of the economic analysis, that would be both for horizontal and vertical, what we call vertical mergers; is that correct?

A Yes. And we handled both types when I was at the Justice Department most recently.

Q Have you also, Professor, worked for the White House?

A Yes. After I left the Justice Department in 2011, I served as a member of the President's Council of Economic Advisers. There are three members. It's a Senate-confirmed position. And so I was -- had the honor of serving on the CEA for that period of time after I was at DOJ.

Q And can you just describe, generally speaking, what sort of responsibilities you had there.

A Well, by statute, the Council of Economic Advisers, its job is to give the President of the United States objective economic advice on all manner of topics.

And so as a member, we were working in the Executive Office of the President to do that.

We would split up the portfolio. So since, given my expertise, I would be handling things more industry-oriented, such as trade with China or housing finance or environmental regulations; and another member, Katharine Abraham, who was my colleague, would handle more of the labor market issues and some other macro issues, for example.

So I had a wide range of topics there that were in my area as a member.

Q And do you recall when it was that you were on the President's council of economic advisers. That was 2011 to 2012.

Okay. Now, other than the work that you've described in academia and then in your various positions with the government, have you also been involved in antitrust cases in other roles or capacities?

A Yes.

I, on a fairly regular basis, will either work for private companies, maybe if they're considering a merger or some other antitrust case, non-merger, and I have been retained by the U.S. Government, either the Justice Department or the Federal Trade Commission, to serve as -- to analyze matters, more often mergers than not, and testify if it comes to that.

Q So have you testified, then, as an economic expert in any merger litigations?

A Yes, I have, a number of times.

Q Can you give His Honor maybe an example of a recent case.

A So I guess it's just two years ago, probably right down the hall here, I testified in Judge Sullivan's court on the -- on behalf of the Federal Trade Commission.

This was the proposed merger between Staples and Office Depot that, in the end, he decided to block. And that was two years ago. That's one good example of my testimony on a merger.

Q And in terms of this work that you've been doing, has any of that involved vertical mergers, sir?

A Yes.

More of my work has involved horizontal mergers, but I've also looked at vertical mergers.

15 years ago, actually, I looked at the merger, it wasn't a merger. It was a partial ownership arrangement between DirecTV and Fox. Somebody's called it the News-Hughes transaction, on behalf of DirecTV, and News Corp. That's a while ago.

More recently, for example, when I was at the Justice Department, we -- I was there when the DOJ reviewed the Comcast-NBCU merger, which I know Your Honor is very familiar with.

Q Now, you mentioned a moment ago in your testimony that the testimony you gave in FTC versus Staples. Have you been recognized by courts, sir, as an expert?

A Yes. I have testified.

Q Has any court ever excluded you from testifying as an expert witness?

A No, sir.

MR. WELSH: Your Honor, we would offer Professor Shapiro as an expert in industrial organization and antitrust economics.

THE COURT: Okay.

MR. PETROCELLI: No objection.

THE COURT: The Court will so rule.

You may question him accordingly.

MR. WELSH: Thank you, Your Honor.

May I proceed?

THE COURT: You may.

MR. WALTERS: Your Honor, we have some demonstratives for Professor Shapiro's testimony. There are some boards here.

THE COURT: I see.

MR. WELSH: And we also have some handouts, if I may approach.

THE COURT: Sure.

MR. WELSH: We have marked those as PXD11, Your Honor.

And these have been provided to defense counsel previously, pursuant to the Court's order.

THE COURT: Thank you.

MR. WELSH: May I approach?

THE COURT: Yes.

MR. WELSH: May I approach the witness, Your Honor?

THE COURT: You may.

MR. WELSH: May I proceed?

THE COURT: Yes.

MR. WELSH: Thank you, Your Honor.

DIRECT EXAMINATION

BY MR. WELSH:

Q Professor Shapiro, let's start with your assignment with regard to the analysis of this proposed acquisition of Time Warner by AT&T. Can you please briefly describe that for His Honor.

A I'm sorry?

Q Yeah. Would you please tell His Honor what your assignment was with regard to this analysis of the proposed acquisition.

A So the Justice Department asked me to look at the transaction and evaluate the competitive effects, what would be likely the result of this transaction if it went through.

Q And this would be the likely effects, then, on competition?
A Well, when I do that in a merger, I'm looking at the competitive effects. I guess that's a more precise term. And I'm particularly --
Q Yeah.
A -- looking at what the impact would be on consumers.
Q Okay.
A So I would be applying and am applying here the consumer welfare standard.
Q All right. At a high level, what opinions did you reach about the likely effects of the merger on competition?
A So there are three main opinions I'm here to offer. The first is, it's my opinion that the merger will likely lead to an increase in the fees that Turner is able to charge to other multichannel video program distributors, MVPDs, and that that will, in turn, lead to higher prices for consumers for their pay-TV packages.
So that's the first.
Q Okay.
A Second, I think there's also a danger that the merger will lead to -- a risk that the merger will lead to some coordination between AT&T and Comcast to withhold programming content from virtual MVPDs and slow down their

growth.

Third, the merger will create incentives for AT&T to restrict the use of HBO as a promotional tool for rival MVPDs -- that is, rival to DirecTV.

So all of these effects will be -- will reduce competition in the market for video programming distribution.

Q Now, based on these three opinions that you just outlined for us, did you reach a conclusion about whether the merger would substantially lessen competition?

MR. PETROCELLI: Objection. May I approach, Your Honor?

THE COURT: You may.

Professor, you have to step down and sit at that chair there against the wall.

(Sealed bench conference)

THE COURT:

MR. WELSH:

MR. PETROCELLI:

MR. WELSH:

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MR. WELSH:

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(Open court)

THE COURT: You can rephrase the question, consistent with the discussion at the bench.

MR. WELSH: Yes, Your Honor. Thank you.

BY MR. WELSH:

Q Professor, based on your opinions that you just outlined and looking at it from your perspective as an economist here and your background as an expert in antitrust economics and industrial organization, have you reached, in that capacity, reached a conclusion as to whether the merger would substantially lessen competition?

A Well, I apply the consumer welfare standard. So the opinions I'm going to present to Your Honor, I've concluded that the merger will, in fact, harm consumers. And the harm is significant, in my view, in terms of the dollar amount. That's my conclusion.

Q Okay. Now, you mentioned the consumer welfare standard. Can you elaborate a little bit for His Honor about that. What is the goal for understanding the consumer welfare standard here?

A Well, the -- I would put it this way. The merger will, is certainly beneficial to DirecTV. They're going to acquire Time Warner assets. That's going to -- that's welcomed to them.

It's unwelcomed and it's going to raise the cost of the rivals, for reasons I'll explain, such as Charter or Dish.

How do we balance that?

Okay. The competitors don't like it. It's good for DirecTV. The way to assess that, at least the analysis I'm presenting, is to see what is the effect on consumers.

And that -- so there's going to be some tradeoffs in doing that, pluses and minuses. And it's that tradeoff that I'm able to quantify and conclude that the consumers will be hurt.

And they will be hurt because the competitors to DirecTV will have higher costs.

Q Now, when you look at this, Professor, do you look at the incentives as well as the changes in market structure? And if so, can you elaborate on that for His Honor?

A So to make these predictions -- I mean, we're talking about predictions -- this is where antitrust economics come into play.

And I start, my field, we start that we've got a change in the ownership of assets. We've got a combination between DirecTV and Time Warner.

And then we want to trace through, how will that change in ownership of assets affect incentives, okay?

The core methodological working assumption of economics is that the firm will operate to make the most profits as a combined entity. And when they do that, how will they behave differently? How will their incentives be different because of the merger?

And so we trace through the effect of the ownership change on incentives, and we're really hardcore about incentives, okay? That's what we do, antitrust economists. And you'll see that in my analysis to come.

And then we're using our tools to then predict the effects in the market of those changed incentives.

Q And when you do this, when you look at the structure, market structures here and the incentives, do you look at the merger both from the perspective of the good parts of the merger, as well as the bad parts?

A Well, that's what I was indicating before.

I'm going to see some positive elements of the merger in terms of DirecTV, having lower costs, but there are going to be negative aspects in terms of its competitors having higher costs.

So I'm going to need to trade those off. This is somewhat different than horizontal merger analysis. We're talking about vertical merger analysis here.

And it's ultimately going to be impact on consumers that we're looking for. That's the methodology I'm bringing.

Q And how does your training in economics, sir, assist you in this predictive exercise that you've been talking about.

A Vastly.

The -- everything I've been talking about, in order to trace through the impacts of incentives, we need to bring economics to bear. You're going to hear about a bargaining model. You're going to hear about bargaining. You'll hear about cost changes and those passing through the price changes. All of that is applications of the field of industrial organization economics.

Q Okay. And you mentioned that you're making predictions. I mean, do economists have a crystal ball here that they can use?

A No. Our field has not advanced to the state of having a crystal ball.

I would say --

THE COURT: Don't feel bad. Ours isn't either.

THE WITNESS: I'm hoping we can have a good set of binoculars --

THE COURT: Okay.

THE WITNESS: -- instead so that we can look forward and have reasonably accurate predictions.

But, look, I'm not going to -- I don't want the Court to think I can predict things perfectly. What we have to do in merger analysis is to predict to the best of our ability generally what the incentives and the changes will be. And that's what I'm going to do today.

Q Okay. Now, you're aware that the defendants have an economic expert as well, Professor Carlton; is that correct?

A I am.

Q Okay. Are you aware, sir, of Professor Carlton's approach to analyzing this vertical merger?

A I have read his reports in detail. Yes.

Q And is he in general agreement on this approach that you've mentioned?

A First, I have a great respect for Professor Carlton. I think we do -- at a high level, I think the methodology I've described, Your Honor, he would agree with. And the need to make tradeoffs, in this case I think he would agree with. It turns out we balance things a little bit differently, but there is a starting point of some agreement.

Q Well, let's just plow through this right now and get started here.

So often in mergers, we talk about market definitions. Let's start there. Do you define a relevant product market in this case?

A Yes, I have.

I've actually defined two relevant product markets. These are the same as you'll find in the complaint. One is the multichannel video programming distribution market. That includes basically MVPDs and virtual MVPDs.

And then there's a broader market as well. I think we're calling it the all-video distribution market that includes those firms but also the subscription video-on-demand firms such as Netflix.

Q And what methodology did you use to get to those two product markets for defining those?

A So I used what economists call the hypothetical monopolist test. This is the standard method that antitrust economists have been using to define relevant markets for at least 35 years, widely used, more often in horizontal mergers, but in other cases, antitrust cases as well. That's -- I applied that method, and it's explained in my reports.

Q And you used that for both of your product markets; is that right?

A Yes, that's correct.

Q Now, for ease of analysis, do you focus on a market for the multichannel video programming distribution encompassing both?

A Yes. I think that that's -- I think it's, to me, easiest if we really talk in terms of the slightly narrower market, the MVPD market, we'll call it, although that also includes virtual MVPDs.

Q If there's harm in the smaller market, do you have a view about whether there would be harm in the broader market, sir?

A Well, the harm that I'm measuring is, I'm calculating certain harms, and those are occurring no matter what market you situate them in. And they involve the higher prices that consumers will be paying for their pay-TV packages.

And so that harm is what it is, no matter which, whether you situate it in the somewhat, in the narrow market or the somewhat broader market.

Q Okay. So you talked about the hypothetical monopolist test in terms of your markets. Did you also see other evidence in the case that supported the product markets that you've defined?

A Yes, particularly the MVPD market.

This is really, I think, pretty much standard industry recognition that this is a market that the firms recognize each other's competitors. And year in and year out, the Federal Communication Commission publishes something like an MVPD.

I don't know exactly what it's called, but they look at this market and define this market in their own proceedings and in their studies. So I think it's generally recognized in the industry.

Q Does Professor Carlton dispute your conclusion as to the product markets?

A No, he has not.

Q Okay. Now, did you also define a geographic market here or geographic markets?

A Yes. There are actually a large number of them, and I did define them.

Q What was your methodology there for defining geographic markets?

A So the key idea in thinking about the geographic markets is, think of yourself as a consumer, as a household. What are you choices for your video distribution to your home? And different people that live in different areas have different choices.

Mostly, in D.C., I think that the most, a lot of the area here, people would have Comcast; and they might have Verizon through the FiOS; and then, of course, the two satellite offerings, DirecTV and Dish.

But other parts of the country, they're different, right? Comcast is in some areas; Charter is in other areas, et cetera.

So basically, the zones that are the relevant markets are defined based on the choices that the consumers in those areas have.

And when I do that systematically throughout the country, I end up with about 1100 geographic areas. It's quite a few, but it's the big country.

Q And, again, Professor, does Professor Carlton dispute your conclusion on geographic markets here?

A No, he has not.

Q All right. So let's -- you mentioned you have your three opinions. So let's discuss the first one, that AT&T would charge higher prices to its rivals for the Turner content, which would result in higher prices to the consumers. So we're going to focus on that, first.

A Okay.

MR. WELSH: And this will take some time, Your Honor, in terms of the questions here.

BY MR. WELSH:

Q Where is the best place for us to start here with Turner and its fees?

A Well, I would just level-set things by making it clear to the Court what -- the object of analysis now are the Turner affiliate fees that they charge to distributors. And so we have our first demonstrative here shows just what those fees were in 2016.

And we're going to use the term here, Your Honor, "per sub, per month." I think you've heard it a bunch already.

THE COURT: Yes.

THE WITNESS: And so that's what this chart shows here.

I think the numbers are actually confidential, so I shouldn't say them out loud? I'm not clear.

BY MR. WELSH:

Q I believe that's right. So if you can just talk more generally about what we see here.

A Okay.

So if you take, for example, the orange bar, that's what the Turner fees that DirecTV and AT&T have been paying per sub, per month -- were paying in 2016. And then you can see there's some variation.

And these distributors listed along the horizontal axis will be the ones that we're going to be focusing on here.

THE COURT: What's this for, though. What are they getting from Turner, the four big networks or more than that?

THE WITNESS: Okay.

More than that. So they -- well there are seven networks in general --

THE COURT: Okay.

THE WITNESS: -- for Turner, okay?

THE COURT: But four of them are the major ones.

THE WITNESS: Right. Right.

THE COURT: That's where they make their money, apparently.

THE WITNESS: Right. That's true.

So what we've done here is add up all the fees that Turner is getting for all of their networks and calculated that on a per-sub/per-month basis.

THE COURT: So in this chart here, all of these distribute -- all of these distributors listed at the bottom, are they all getting the same number of networks or are they getting a different combination of numbers?

THE WITNESS: They would be -- I'm sorry.

THE COURT: Go ahead.

THE WITNESS: They would be getting some different combinations. In part, the one reason the numbers vary here is because there would be different penetration rates.

THE COURT: I see.

THE WITNESS: So if one distributor has a much -- a higher distribution a penetration, for example, the Cartoon Network, Adult Swim channel, then they would be paying more because more of their subscribers. And that would show up as a higher number here than another distributor who had less penetration.

THE COURT: So hypothetically, if I'm looking at like the amount is that AT&T-DirecTV is paying and comparing it, say, to Sling, all right?

THE WITNESS: Okay.

THE COURT: From looking at this chart, I can't tell -- at least I don't think I can tell, how many of those networks that Turner has that Sling is using and how many that AT&T-DirecTV is using, right?

THE WITNESS: That's correct.

THE COURT: So the numbers, they may be the same, but they may not be the same --

THE WITNESS: Correct.

THE COURT: -- on this chart?

THE WITNESS: Right.

And I'm not putting forward these numbers to indicate that one distributor is paying more or higher price or a lower price. I'm just showing you generally what the prices look like.

THE COURT: Okay.

THE WITNESS: So the variation is, in part, because of different penetration of networks.

THE COURT: Okay.

THE WITNESS: That's absolutely correct.

THE COURT: All right. Thank you.

BY MR. WELSH:

Q Is this, in essence, a baseline for your analysis?

A Yes.

This was really for the very limited purpose of just kind of getting a sense of the scale of these numbers, and these are the fees we're talking about. And then we'll talk about how they will change as a result of the merger.

THE COURT: So this is page 2 of 11?

Well, it says "2" in the lower right corner. It's actually the first page.

MR. WELSH: It is the first page. We had some other slides, Your Honor, which we, to be more efficient for Your Honor, we took out.

THE COURT: All right.

I'm going to call this the first page of PXD11.

MR. WELSH: Understand. Thank you, Your Honor.

THE COURT: Go ahead.

MR. WELSH: Thank you.

BY MR. WELSH:

Q Professor, so with respect to the fees that we're looking at here, how are those determined in this industry?

A So these fees are determined based on some rather tough negotiations that take place between Turner and the respective distributors.

Q Is that through -- we've heard some testimony here about a bargaining process. I think you mentioned it earlier even in your testimony. Is that through bargaining, sir?

A Absolutely.

And I think the Court has heard quite a bit about those negotiations and bargaining.

Q And you mentioned earlier in your testimony about a bargaining theory. Could you just explain to His Honor what the bargaining theory is.

A So since we're going to be trying to predict how the fees will change, we need some model or some way of doing that.

The bargaining theory I'm going to be applying is very straightforward. It's basically what I would call "split the difference" bargaining, which is that when we bargain and there are some gains to be had, we split those gains.

"Gains to be had" means there's a mutual -- there's a deal to be had. We're better off doing a deal than walking way, that we're going to split those gains.

And so the key things for bargaining theory are that both sides have leverage, and the leverage is based on what would happen if there were no deal. And we're going to pursue that in considerable detail for a while here now in my testimony.

Q So you mentioned the leverage, and you also mentioned what happens if you don't have a deal.

With respect to bargaining in general, did you find evidence that this is a factual reality in the pay-TV industry?

A   Absolutely. I don't think there's any doubt about it. Many of the witnesses you've heard both from Turner and from the distributors, they understand what -- they have to think about what'll happen if there's a blackout. If we don't have a deal and the Turner content doesn't appear, let's say, on Charter, they need to study how bad will that be for Charter. And, of course, Turner needs to think about how bad would it be for them.

So that's what the leverage is based on. What happens if there's an impasse and no deal? And that's -- people are studying that in the industry. And that's exactly -- the bargaining theory exactly reflects that. Those leverage points are key.

Q   Did you find, from your review of evidence in this case, Professor, that both sides in a negotiation look at their relative strength, positions of strength, and their leverage in the negotiation process?

A   Absolutely. I mean, Mr. Breland from Turner made that clear, and I think Mr. Schlichting from Dish. I don't think there's any question that's what's going on in this industry.

Q   And you mentioned also that, if you don't reach a deal, that's part of the calculus here.

If you don't reach a deal, we've heard testimony about there being blackouts or going dark. Have you reviewed any evidence regarding blackouts in this case?

A Absolutely. I've spent quite a bit of time looking at blackouts.

Q Explain to His Honor why blackouts are relevant here for this discussion today.

A Well, even though they don't happen very much, that's the key to leverage, okay? It's really anytime you're negotiating, your leverage is based on -- I'm saying like, I don't like the deal you're offering me; I'm going to walk away. So we need to figure out what do I do if I walk away.

And so that's the blackout here. And so that's -- we're going to be looking at that closely.

Q Have you seen evidence in the record about the parties themselves conducting blackout analyses to anticipate what might happen should they not reach a deal?

A Yes.

So one important piece of evidence that I'll be relying on will be analysis by Charter, in particular, about what they think the impact would be on their distribution business if there were a long-term blackout of Turner; that is, if they did not have the Turner -- could not display the Turner content to their subscribers.

But that's just one example we have. Comcast has also looked at blackouts.

This is what the negotiators have to do to understand the bargaining situation they're facing.

Q So why would the Turner fees increase due to the merger? Can you explain that?

A Well, this is the key economic point that underlies this whole part of my testimony, Your Honor.

The idea is that the merger will give AT&T greater leverage in these negotiations.

I'm going to use the example of Turner negotiated with Charter, as an example, but we could talk about other distributors as well. But just to make it specific, and we do have this use of quite informative Charter document.

So the idea is that the -- after the merger, AT&T will have more leverage as the owner of the Turner content than Turner had before.

Now, that has to be explained. Why? Why are they going to have more leverage?

But the focus would be on how will the merger change incentives and leverage.

You're looking at me like maybe I should actually explain why they should have more leverage.

Q Please.

A So what changes with the merger?

After the merger, AT&T recognizes that if there is a backout, let's say Charter, then what's new -- what's new is that AT&T will recognize that their DirecTV and U-verse businesses will benefit if Charter doesn't have the Turner content. Okay. Why is that?

If Charter and Turner can't come to a deal, Charter is going to be a weaker competitor. They're going to start to lose some subs, some subscribers without the Turner content.

So we have to think through what happens in the event of a blackout, because that's what the leverage is based on.

So if we just go through the logic, I'm going to just -- this is fundamental that we're going to do a lot of calculations later. But this is the fundamental idea, so I'm going to just go pretty slowly.

So let's think through. If Charter does not have Turner to show, their service is less attractive. Some of their subscribers are going to leave. And some of their -- and they're going to have trouble attracting subscribers in the future. Both of those are important. So over time, they're going to have fewer subscribers.

Okay. Now, the key thing is that in terms of the merger effect is that when that happens, some of those subscribers are going to turn out to be DirecTV subscribers instead, either because a Charter subscriber will depart and go to DirecTV or U-verse, or because Charter will not be able to attract a DirecTV subscriber due to Charter's lack of the Turner content.

So the inevitable consequence of this blackout will be that DirecTV subscribership base will grow over time. That is a benefit to AT&T.

That was not something that would be part of these negotiations prior to the merger, but it is part of the negotiations after the merger.

To put it a little bit dramatically, perhaps, after the merger in these negotiations, the AT&T person negotiating the Turner content could say to Charter, look, we would love to do a deal with you, but we want more money.

THE COURT: Why are you assuming it would be an AT&T person negotiating as opposed to a Turner person negotiating?

THE WITNESS: So, well, Turner is now owned by AT&T.

THE COURT: Oh, I understand that.

But you've been reading the testimony in this case, haven't you?

THE WITNESS: Yes, I have.

THE COURT: And you have been present for some of it probably too?

THE WITNESS: I have not.

THE COURT: You haven't. But you've been reading all of the daily copy?

THE WITNESS: Yes. I'm a couple days behind, but I've been reading a lot of it.

THE COURT: Okay. Well, then you know from testimony that's already been provided in court that in situations where mergers have already occurred, like, say, NBC-Comcast, right?

THE WITNESS: Okay.

THE COURT: The Comcast people do negotiation, not NBC.

THE WITNESS: So --

THE COURT: They do the negotiation with the distributors.

THE WITNESS: I think you meant the other way around; the NBC people do the negotiations?

THE COURT: The NBC do the negotiations. They do their own negotiating, and they're not taking -- I believe the testimony was they don't take orders from NBCUniversal as to how to structure the negotiation, how to present it, how to -- I mean, that's what they said. Is this correct? Or do you have a different understanding or something?

THE WITNESS: No. I am aware of that testimony.

And so I think there's a very serious tension between that testimony and the working assumption for antitrust economists that Professor Carlton and I share;

that the company after the merger will be run to maximize their joint profits.

THE COURT: So you have reason to believe or suspect that DirecTV will not do its own negotiations; AT&T will step in to do the negotiations for DirecTV?

THE WITNESS: For Turner, I think you mean.

THE COURT: For Turner?

THE WITNESS: Isn't that what you mean? I don't want to -- okay.

I would put it this way, that --

THE COURT: Start with answering that question. Do you have a basis to believe that? Or what is your basis to believe that?

THE WITNESS: Okay.

So I'm not in a position to say how AT&T will structure who will be at the negotiations and --

THE COURT: A crystal ball won't predict that, will it?

THE WITNESS: No. I'm not -- no.

And I don't have a crystal ball, on top of that.

So -- no.

So what I'm saying is that it will be in AT&T's interests to play this -- to use this leverage in the negotiations. It will be in their interest --

THE COURT: So that's an assumption that you're making?

THE WITNESS: Yes, it is. Okay.

THE COURT: But you don't have an independent basis of evidence for that?

THE WITNESS: That is fair.

THE COURT: That's an economist assumption?

THE WITNESS: That is true. That is true.

THE COURT: Okay.

THE WITNESS: And let me say, I think it's -- the reason I'm comfortable making that and would hope you would accept that, Your Honor, is that I think it's -- I'll use the word "dangerous" or certainly "worrisome" to allow companies to merge on the contrary assumption that they will not use their combined assets and power in their interest of their -- in the combined interests of their shareholders.

THE COURT: Well, is there evidence that when Comcast and NBC merged that this assumption took place, to your knowledge? To your knowledge.

THE WITNESS: No, I don't -- not to my knowledge. Of course, we have an order there. We have a consent decree and so forth.

THE COURT: No. I understand. But we've had witnesses testify about this.

THE WITNESS: Right.

THE COURT: And they say it doesn't. They say it's --

THE WITNESS: So I would say --

THE COURT: Comcast is over here and NBC is over here. And NBC is maximizing its profits, and Comcast is doing its thing.

THE WITNESS: Look, I think if you accept that, which, from my point of view, would not be in the combined interests of the new company. They would be leaving money on the table.

THE COURT: Okay.

THE WITNESS: If you accept that, then this bargaining leverage would not come into play.

THE COURT: Okay.

THE WITNESS: Okay. That's the way it is.

THE COURT: Okay.

BY MR. WELSH:

Q Professor, so you talk about the -- post-merger, you talk about the benefit to AT&T if there's a blackout of a rival. Charter, I guess, is the example we were talking about.

Is there a flip side of this discussion that we should be talking about in terms of the cost to AT&T?

A So -- yes.

So another way to think about this is, again, I'm taking the perspective of the merged company, AT&T, that when they license the Turner content to Charter, it makes Charter a stronger competitor. And that imposes some costs on DirecTV. They end up with fewer subscribers.

Q Okay.

A So a very good way, as an economist, at least, that I'll, I guess, urge upon the Court, to think about that the merger creates an additional cost to AT&T of licensing the Turner content to Charter, and that's sort of fundamental.

And then we're going to ask, what are the implications of that higher cost?

THE COURT: Okay.

BY MR. WELSH:

Q And I understand from your testimony that you see a change, then, in the bargaining dynamic that would occur after the merger; is that right?

A Right.

So we can think of this two ways. It's equivalent. One is, AT&T will have a higher cost, so they will be less inclined to license.

Another way would be, they have more leverage in the negotiations, because they're less keen to cut a deal.

THE COURT: Okay.

BY MR. WELSH:

Q Have you seen evidence in this case from some of the third-party distributors about whether they're concerned about there being a change in this bargaining leverage post-merger?

A Yes.

And I think this is also responsive to Your Honor's series of questions.

You hear from Mr. Schlichting or you hear from Ms. Fenwick. They -- and I'll interpret a little bit. They instinctively, since they are nervous that their competitor, DirecTV, is now going to own an important input that they need, Turner, okay?

And that, I think very real business sense, is inconsistent with the view that somehow Turner will be operating on its own and not be -- and not part of the overall company. So they're fearful -- I hope I'm not overstating it -- about that.

And so that's the other side of it from the distributor feeling they'll be in a weaker bargaining position with AT&T controlling Turner.

Q Okay. Let's get back now to the fee increases as part of your opinion.

What is your conclusion as to how much the Turner fees will increase if the merger were to go forward?

THE WITNESS: Okay. So this is our next demonstrative, Your Honor.

THE COURT: Okay. Same packet?

MR. WELSH: That's right.

THE WITNESS: Page 3, which I think we're going to rename 2.

THE COURT: Yeah.

THE WITNESS: See, I picked up pretty quickly on that.

THE COURT: Well, you went to MIT.

THE WITNESS: Thank you.

BY MR. WELSH:

Q What do we have here on this particular demonstrative, sir?

A So there's a lot here to take in. Just the title -- let's start with the title: "Predicted Turner monthly fee increases for rival MVPDs."

And this is bases on the market configuration, how things looked in 2016.

I've got some additional analysis where we carry that forward in time, but I'm going to start with 2016.

And --

Q I'll just caution you, sir, that I understand that the column on the percentage increase has been designated as confidential, so the rest of it is not. But if you would just keep that in mind as you're testifying.

A Okay. That's helpful. Thank you.

So if you go down to the bottom, the bolded, overall, this is literally the bottom line.

THE COURT: Yep.

THE WITNESS: The prediction is that, added up across all these distributors, the Turner fees will go up 76 cents per month, okay? And that comes to --

THE COURT: That's per subscriber?

THE WITNESS: That's right.

So this is per subscriber, per month, 76 cents.

And then when we multiply by all the subscribers, we get about 48, $49 million a month. And that comes to the 586 million a year.

THE COURT: Okay.

THE WITNESS: Okay?

So -- and this is why I had showed the previous chart -- so we can put the 76 cents in context in comparison with the bars that you saw previously, which I won't say those numbers.

THE COURT: Yeah, I know.

THE WITNESS: But that's the context.

THE COURT: I got you.

THE WITNESS: So -- and you can see the percentage columns that these are significant percentage increases for the Turner fees. For reasons we'll explain later, soon, it's not the same for all the different distributors.

THE COURT: No.

THE WITNESS: Some face higher or lower percentage increases.

But the bottom line there is that 76 cents per subscriber per month, $586 million a year.

So we're going to spend the next chunk of my testimony explaining where I came up with these numbers.

THE COURT: Okay.

BY MR. WELSH:

Q Okay.

And I won't mention the actual number on the percentage increase, but that's a double-digit number, correct --

A Yes, sir.

Q -- for the overall?

A Yes.

Q Okay. And the data that went into this, where did that data come from, sir?

A Right.

So this is data from the merging parties. And then third parties, basically all these distributors, the various distributors provided data to the Justice Department that I had access to.

THE COURT: And, again, they're not equal in terms of the number of networks or anything, right? They're all different packages?

THE WITNESS: That's right, yes.

Different -- I would emphasize different penetration rates, which is --

THE COURT: But the fees are a function of how many networks you are getting from the company --

THE WITNESS: Yes, yes, they are.

THE COURT: -- from the distributor.

THE WITNESS: Right. But -- yes.

They tend to get -- but what causes the difference in fees that you're asking about is not so much whether they get the networks but how many of their viewers see them, the penetration rate. But it's the same idea, yes.

THE COURT: Okay. I see.

THE WITNESS: But each distributor, so we'll talk about Charter, is paying a certain amount for a certain set of networks. And then we're going to see how that's going to change, distributor by distributor.

THE COURT: Okay.

BY MR. WELSH:

Q Professor, before we leave this particular demonstrative, does the analysis take into account the current contracts of the MVPDs or the proposed arbitration remedy that we've heard about?

A So, no, it does not.

I want to really emphasize this and flag this for Your Honor.

THE COURT: All right.

THE WITNESS: The -- and, you know, you'll hear about this on cross-examination, I'm pretty sure.

The -- there are two things that I've set aside in doing this calculation. One is, there are certain contracts that Turner has with distributors that prevent them from raising the fees for some number of years. And I have not included that here, okay?

And the reason is, I'm trying to evaluate the fundamental incentives and changes in the market created by the merger and these contracts will, of course, expire in time. And so I'm trying to understand, with the market as we see it, what would the effects of the merger be if those effects were not temporarily constrained by these contracts?

But I'm happy -- I fully acknowledge the actual effects will only occur gradually, because these contracts will prevent the prices from going up right away.

THE COURT: Yeah.

THE WITNESS: So there's that point.

The other point, the arbitration, my analysis here, all this that you're about to hear in the next hour or so, does not include any remedies.

I'm analyzing the merger as structured and the fundamental incentives created be the merger without possible behavioral remedies, such as arbitration. That is not included here.

THE COURT: Okay.

BY MR. WELSH:

Q And we'll be coming back to this demonstrative later in your testimony as well.

But I know you've testified about this being -- you're trying to predict what's going to happen post-merger. Are you trying to get this down to the last penny?

A Well, it actually is down to the last penny, but I don't want to convey the idea that there's that degree of precision.

So, for example, when I talk about the bargaining, I talk about "split the difference" bargaining, I'm not saying that every bargain, people exactly meet in the middle.

THE COURT: So it's binoculars. It's not a microscope.

THE WITNESS: Thank you. That's good.

So, no. I think this is the best we can reasonably do. But, of course, the real world is messy and it's imperfect.

BY MR. WELSH:

Q Okay. Well, let's talk about the bargaining model here.

First, could you explain to His Honor how bargaining models work?

A Well, we have the demonstrative just to go through what I hope will be very quick, the basic idea of bargaining and leverage.

THE COURT: Do you want to go to the next one?

THE WITNESS: Yes, please.

THE COURT: Number -- I'll call it 3.

THE WITNESS: Okay.

MR. WELSH: Yeah. I believe it's No. 4, and we'll just call it 3.

THE COURT: Yeah.

THE WITNESS: So I'm going to try to go through this quickly; but if it's not clear, Your Honor, please stop me, okay?

The basic idea of splitting the gains from trade is -- so my example here is you're negotiating to sell a used car. The car -- I'm the buyer. I'm willing to pay 10,000 for the car. You're -- you could sell it to somebody else probably for 6,000. So we've got 4,000 gains. Because, you know, I'm willing to pay ten; anything over six, you're okay with.

If we're going to negotiate, the neutral assumption is we're going to split the gains; we're going to get up at 8,000. So we end up in the middle.

And the way economists think about that is at 8,000, you get $2,000 surplus; you get 8,000 when your other person would have only given you six, and I get 2,000 surplus because I was willing to pay ten but I got it for eight.

Okay. So that's this slide. And this is a --

BY MR. WELSH:

Q How does the merger change that?

A So then the key thing that we're going to -- the operative, what we're going to do now to analyze the merger is we want to understand how when the seller's cost goes up, the negotiated price changes.

Remember I said as a result of the merger, AT&T's cost of licensing the Turner content to Charter will go up. So we want to understand, when the seller's costs go up, what happens to the negotiated price.

And this chart is meant to do that in simplified form. So let's take the same example.

Q Are you referring to what's page 5 we're going to call 4 of your demonstrative?

A Yeah. So the one that says, "An increase in seller's cost leads to a negotiated price increase."

Are you with me?

THE COURT: I got you.

THE WITNESS: Okay.

So now be basically take this same simple example. And suppose it turns out you get a better offer from somebody else, 7,000 for the car, okay, instead of six. Well, now we only have 3,000 gain to trade. If we split the difference now, we're going to sell it for 8500 instead of 8,000, okay?

So if we believe in equal bargaining split, when your costs go up, which is to say you have a better alternative, then you're going to get a higher price.

You might ask, how's that's going to happen? Okay? And bargaining is a dark art in many ways.

But the idea is you have more leverage now because you have a better offer. And you will be more -- you're willing to apply that leverage. And some of them are willing to walk away, if necessary. And so the price will end up at 8500.

If we believe that the, these leverage points matter for bargaining, then better outside offers make one party stronger in those negotiations.

So the key takeaway would be when the seller's costs go up, in this case by a dollar, the negotiated price goes up by 50 cents.

So this logically follows from "split the difference" bargaining.

And we're going to now use that and apply that to the merger.

BY MR. WELSH:

Q And when we look at splitting the surplus from the trade, is that a neutral assumption?

A Yes, I would say it's neutral in the sense that we're not assuming that one side or the other gets the lion's share of the gains. It's just down the middle.

This is the standard assumption, both in the literature and when bargaining models have been used in practice, indeed, in earlier mergers and so forth.

Q Have you seen some testimony in this case from some of the third-party witnesses with respect to this issue of splitting the surplus?

A There are a couple of witnesses, maybe Mr. Schlichting, I think, said -- talked about ending up in the middle. It's not as quite precise as 50/50, but the same idea.

Q And, Professor, did you look at the cost of capital in relation to the bargaining split?

A Yes. So I should say, while 50/50 is a neutral assumption, the bargaining theory as economists have developed it does recognize that if one party is very impatient and eager to make a deal, then they will be in a weaker position.

And so there's -- part of the theory is how if there are very different degrees of impatience, the bargaining split could move against the impatient party.

And I've been able to test that here by looking at -- you wouldn't expect that to be a big factor when you have large corporations negotiating with each other.

But I did look at the cost of capital of the different companies, and there are some differences. But it doesn't move the -- if you apply that, it doesn't move the split much off of 50/50. If anything, it stays pretty close. So I think we've got some empirical basis as well for the 50/50 split here.

Q Does the bargaining theory that you're talking about, does that help you to understand AT&T's costs from this merger?

A Well, yes. What we're going to go now do is look at the increased cost to AT&T of licensing the Turner content and then recognize that gives them more leverage, quantify those increased costs.

And just like the dollar in my example, well, what is that number for AT&T? How does their cost of licensing the Turner content go up as a result of the merger? Again, the cost coming from -- it makes Charter a stronger competitor. And that's exactly what we want to measure now. So that's the exercise we have to march through.

Q Okay. We'll get to that in a second.
So the cost goes up --
A It can't wait.
Q -- and then prices also get pushed up to the consumer?
A Right.
So we're talking now about higher Turner fees and then those will, in turn, lead to higher costs for consumers in terms of their subscription prices for pay TV.
Q How does the bargaining theory help you to measure this change that you're seeing in the bargaining leverage itself?
A Well, again, it's directing us to measure these increased costs at AT&T, and we're going to do that by measuring the benefits to DirecTV and U-verse, if there's a blackout, okay?
So that's what's new from the merger. If there's a Turner blackout -- we'll use Charter as our example -- what are the benefits to DirecTV and U-verse? And that is the thing -- we want to measure that, and that's what's going to constitute the additional leverage.
Again, with my ongoing assumption that AT&T will operate this in the joint interests of the whole company.
Q And one final question on this point, but why would distributors agree to pay this higher price for the

Turner content post-merger?

A Well, they're not going to be happy about it, but that's nature of bargaining. When one side has greater leverage, they do better in the negotiations. That's the basic idea.

Q So let's discuss now your bargaining theory. How did you go about calculating the benefits here? Take us through that approach.

A Okay. Well, we kind of -- I think I kind of previewed this a little bit.

We want to measure the benefits to DirecTV and U-verse if there's a blackout of Turner on Charter. I know I've said that a few times.

Q Okay.

A And the benefits come from lost subscribers at Charter due to the blackout. So we're going to call that the subscriber loss rate.

And then how many of those subscribers are going to wind up going to or staying at DirecTV, we're going to call that diversion rate.

And then how profitable would those subscribers be for DirecTV?

And we'll measure that as a profit margin at DirecTV and U-verse.

Q Okay. And we'll go through each one of those individually.

Once you have those parameters, those inputs, what do you do with it, just generally speaking?

A So that gives us this cost increase, this leverage increase that AT&T has. And then we're going to -- that's going to lead to higher Turner fees due to that leverage.

And that's going to -- I'm going to calculate that for each distributor, for Charter, then Dish, Comcast, and so forth. And that will tell us how much higher the cost will be that these distributors will bear for Turner content.

Q Okay.

A I should say -- I think we skipped over it. I'm not saying that after the merger, Turner will deny its content to the other distributors. This is not a foreclosure-withholding story. It's a bargaining-leverage story.

Okay. I considered whether there would be withholding. And that has been a concern in some private -- prior vertical mergers. And I did not think that would happen. So this is a bargaining leverage higher price, "raising rivals' costs" effect, not a foreclosure effect of denying the programming.

Q Let's talk about the first component piece of this, the, what you call the subscriber loss rate.

What does that -- tell His Honor a little bit more about what that specifically means and entails.

A So the question we're now asking is if -- I'll use, continue to use Charter as an example.

If there is a long-term blackout of Turner content on Charter, what will the impact be on Charter's subscriber base? Okay.

And you've heard a fair bit of testimony about people estimating this and so forth, and here's how it's going to get used in my analysis.

I should highlight, we're talking about a long-term blackout, not a temporary one.

Q And why is that? Why are we looking at long-term versus a temporary?

A Because that's really ultimately what the bargaining leverage is based on, if the two parties don't come to a deal, what's going to happen to both of them in terms of Turner losing some subscribers and Charter -- Turner losing affiliate fees and advertising revenue and Charter losing subscribers and the margins on those subscribers.

Q Are you aware that Professor Carlton has stated that a blackout must be long-lasting in order to be informative about the importance of Turner?

A Yes. This is an area where Professor Carlton and

I are very much in agreement, that the proper place to look is at long-term blackouts. And what we're trying to measure is the subscriber loss rate from a long-term blackout.

MR. PETROCELLI: Objection.

THE COURT: Hold on.

You have an objection?

MR. PETROCELLI: I do, yes.

THE COURT: You'll have to step down, Professor.

(Sealed bench conference)

MR. PETROCELLI:

MR. WELSH:

THE COURT:

MR. PETROCELLI:

THE COURT:

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MR. PETROCELLI:

THE COURT:

MR. WELSH:

THE COURT:

MR. PETROCELLI:

THE COURT:

(Open court)

THE COURT: All right. We're going to take the luncheon recess -- not lunch, the morning recess.

So come on up.

So as you know, you're a witness now under oath in the case. You're not at liberty to discuss your testimony with anybody, including your own counsel and the Justice Department. In other words, nobody. You have to stay independent of all others --

THE WITNESS: Yes, sir.

THE COURT: -- until you come back.

So we're going to take a brief recess, 15-minute recess, and we'll see you back here. And we'll probably be going until about 1:15 before we take the lunch break.

THE WITNESS: Thank you.

THE COURT: Okay?

You can step down.

Counsel, do you have any questions we should review before then?

MR. WELSH: Nothing here, Your Honor.

THE COURT: Okay. We'll take a recess.

DEPUTY CLERK: All rise.

This Honorable Court is now in a brief recess.

(Recess from 11:55 a.m. to 12:16 p.m.)

DEPUTY CLERK: The United States District Court for the District of Columbia is again in session, the Honorable Richard J. Leon presiding. God save the United States and this Honorable Court. Please be seated and come to order.

Your Honor, re-calling Civil Action No. 17-2511, the United States of America v. AT&T, Inc., et al.

THE COURT: All right. The witness remains under oath.

You may proceed when you're ready.

MR. WELSH: Thank you, Your Honor.

BY MR. WELSH:

Q Professor, earlier this morning, His Honor asked you some questions about Comcast and NBCU and their pricing decisions. And I just want to come back to this briefly.

Professor, in your experience, is it a common principle in merger analysis that a corporation and its wholly owned subsidiaries, that they would operate in complete unity of interest?

A That is a standard working assumption of antitrust economics, yes.

Q Okay. I think you were trying to say that earlier.

Let me come back now to where we were talking about the subscriber loss rates and that issue.

So you talked about how the permanent losses is what you're looking at. Were there any permanent blackouts of Turner?

A There have not been any permanent blackouts of Turner content that I'm aware of or during the period where we have information.

Q So what did you do instead, then, to look at the subscriber loss rate in light of that fact?

A So in the end here, Your Honor, I'm going to rely on three types of evidence to estimate this subscriber loss rate.

First, we have a long-term blackouts of Viacom content on two other distributors. One is Suddenlink; the other is Cable ONE. So we have long-term blackouts of a different package of content, but that's very informative. And that's a first.

So actual blackouts of comparable content.

The second is studies done in the normal course of business. And in particular, I'll emphasize the study done by Charter regarding what they predicted or expected the impact on their subscribership would be from a long-term Turner blackout.

So that's "normal course of business" documents, which were developed as part of the negotiation process or to inform negotiation.

And then the third, we have the survey of Professor Hauser that you've heard about from his testimony.

Q So let's take these one at a time.

So with respect to Suddenlink, what is your estimate of Suddenlink's subscriber loss rate as a result of the Viacom blackout?

A I estimate a subscriber loss rate of 9.4 percent.

Q Do you have a demonstrative, sir, on this point?

A Yes, we do.

Q Okay. Can we go to that.

Is that what's listed as page 7, but page 6, I guess, of the actual demonstrative?

A This is, it's titled "Suddenlink's Continuing Subscriber Loss Due to Loss of Viacom."

Q And, again, sir, where did the data come from here?

A This, again, would be directly from Suddenlink. The Justice Department was able to get these data.

Q And if you could just walk us through briefly what's reflected on this demonstrative.

THE COURT: Would be page 5.

MR. WELSH: I'm sorry. Page 5, Your Honor. I misspoke.

THE WITNESS: Okay. Good.

MR. WELSH: Thank you.

THE COURT: Uh-huh.

THE WITNESS: Okay. So we have data here, Your Honor, from January 2013 through the end of 2017. That's the horizontal axis.

THE COURT: Yep.

THE WITNESS: The vertical axis is the number of virtual subscribers at Suddenlink. The gray dots are what they have reported their monthly subscribers. So that's the actual data, the gray dots.

The black line in the middle there, October 2014, that's when the Viacom blackout took place.

So we have data before and after.

So what I've done is basically look at the trend beforehand, and that's the green line. That's the -- that is the trend based on their subscriber data before the blackout.

And then the orange line would be the continuation. So that would be our estimate of what their subscribers would have been if they'd continued the trend they had, which was somewhat declining subscribership without a blackout.

But that's not what happened. The subscribership fell off rather sharply after the blackout, as seen in their actual data.

And the dashed green line shows the new trend line after the blackout.

And the gap between the orange and the dashed green line is our measure or estimate of how much -- how many subscribers they lost over time as a result of the Viacom blackout.

This is a pretty straightforward piece of data analysis, and it's this that underlies the 9.4 percent figure that I've calculated for the long-term subscriber loss rate.

I should say the losses don't reach that level after two years, because they are continuing. And the 9.4 is a long-term figure.

Q And to arrive at the 9.4 percent figure that you've testified about, did you do a regression analysis to get there using the data?

A Yes. That's what shown here.

Q Now, when you did this, did you consider whether Suddenlink's decline here, as you've listed, was caused by any sort of industry trends, rather than as a result of the loss of the Turner content?

A Yes, I did.

So the -- I also wanted to just check that there was no general industry trend that would explain the loss, and that's the next slide in this packet.

Q So that would be slide 6, what was 8.

Can you take us through that?

A Yes.

So this is basically measuring -- I'll start with the orange line. That the same data we saw from Suddenlink. It's just normalized so that we're comparing their subscribers in any given month to what they were right before the blackout.

And we can see beforehand, they were -- we can see their subscribership is falling. And then it falls more sharply, like we already saw. That's the orange.

So this compares their pattern to the pattern in the rest of the industry.

And all the other colors are different measures of what's happening to other MVPDs in terms of their subscribers.

I think you've heard that there's been a general decline of MVPDs subscribership, and you see that here.

For example, the red is the whole country, all MVPDs. And it's declining about a percent or two a year, okay, and that's the red line shows that.

I also did some of the other lines here are looking in Suddenlink's own geographic areas, just as a check that the other MVPDs who serve their geographic areas did not experience a decline that they did.

So this, I think, completely convincingly shows that the Suddenlink decline after the backout was, indeed, due to the Turner content and not some other industry trend.

THE COURT: Now, do the MVPD subscribers tend to be, a high percentage of them tend to be older folks, 60-plus?

THE WITNESS: I don't know the actual numbers, Your Honor. You mean in general in the whole country?

THE COURT: Yeah. I mean, the impression I have is that young folks want to do things over the computers.

THE WITNESS: Right.

THE COURT: They don't want to have cables and satellite Dishes and all that kind of thing.

It's us older folks that like to have that stuff.

THE WITNESS: I think there's something to that, that the virtual MVPDs, for example, are more popular a bit on the younger set. And that is, I think, an issue for the very long term for the industry.

THE COURT: Right.

THE WITNESS: But I don't have the data on the age breakdown.

THE COURT: That's because if, hypothetically, the MVPD subscribers are, a large percentage are 60 and older, they're dying off too.

THE WITNESS: Well not that fast, please.

THE COURT: Well, yeah, but they are.

So, you know, that might account, in part, for this decline nationwide, in part.

THE WITNESS: I think the demographics are part of the picture, yes. I don't have the data on that, but I agree with that in general.

I will caution you, though, that the decline here is very gradual --

THE COURT: Okay.

THE WITNESS: -- okay, and one or two percent a year. And I wouldn't -- just don't overstate it.

THE COURT: Okay.

BY MR. WELSH:

Q Professor, what we're looking at here, again, this is Suddenlink's drop with Viacom, right? This is not Turner?

A Right.

Q Okay. Great.

Now, if we could turn to the next subject, which is Cable ONE, I think you mentioned that there was a drop there with Viacom; is that right?

A Yes.

So the other long-term blackout that we have data about is also Viacom content, but the distributor is Cable ONE. And this is shown on our next slide.

Q So that would be page 6 of the renumbered 7?

A I think it's 7.

Q Seven, excuse me, of the renumbered. Right?

A So I'll be very quick here. This is exactly the same analysis as was done for Suddenlink, identical method, and it leads to actually a larger number for the long-term subscriber loss rate of 16 percent in this case.

Q Okay. So we had the 9.4, and we had the 16 percent. And what does that tell you, then, about the subscriber loss rate for the Turner content?

A So the -- we have to think about possible adjustment. How do we compare the Viacom content to the Turner content?

And I think it's quite clear that the Turner content is more important, more valuable, and would have a higher subscriber loss rate than the Viacom content.

So these numbers we've just seen would be too low for Turner because they're coming from the Viacom experience.

Q Have you seen evidence in the case to indicate that the value of the Turner content is higher than the value of the Viacom content, sir?

A Yes, and that's our next slide. So what'll now become 8.

Q What are you presenting here, sir?

A So this, the most straightforward measure of the value of the content is what are the affiliate fees, what the distributors paid for it.

And this chart shows the Turner and Viacom affiliate fees in per sub per month.

And you can see that in the most recent number here, 2016, there's -- I don't know what I'm allowed to say exactly, but a substantial premium for Turner over Viacom content.

So to the extent I'm using those subscriber loss rates from the Viacom blackout, I'm going to be using a number that's too low, actually.

Q And do you, roughly speaking, do you have a percentage difference between the Turner content and the Viacom content based on this slide?

A Well, we would have -- the difference here is about 30 percent premium for Turner over Viacom. So that's a number worth knowing.

Q So let's now turn to the next part of this, so we now have talked about the subscriber loss rates. Let's talk about the industry analysis that you talked about earlier.

Can you describe for His Honor the types of analyses that you reviewed that were "ordinary course of business" documents?

A Right.

So I had my team look quite extensively for evidence in the record where --

THE COURT: Who's your team?

THE WITNESS: Oh, I'm sorry.

So there's a lot of work involved here.

So I have other economists who help support me. I don't do it all myself. There's -- the consulting firm is called Bates White that's helping me on this. That's what I meant. And the economist --

THE COURT: That's another firm?

THE WITNESS: Yes. Yes.

THE COURT: So you review their work? You direct their work.

THE WITNESS: I ask them to look into things. This is the standard in this line of work, if you will. So, yeah, they work under my supervision, but it's a lot more than one person could do. There's so much to look at.

Yes.

So -- and I also make queries of the Justice Department lawyers and economists to further find things in the record and help me do my investigation.

BY MR. WELSH:

Q So getting back to the documents, did you look at a study -- I think you mentioned in your testimony about Charter, that there was a study done for them.

Did you pursue that?

A Yes.

So I was saying, I look -- I had -- I look generally for instances where there was analysis of the effects that were predicted or expected of a long-term Turner blackout, a very specific question.

And the study done for Charter by Altman Vilandrie that you've heard about and you had Mr. Bewley here testifying, that was the single best document and analysis that I was able to -- that I found.

Q Did you consider that document to be reliable?

A I do.

Q Can you explain to His Honor why.

A Well, there's -- this is done -- there's clearly a lot of analytical work goes into this. It addresses exactly the question I'm interested in.

They're looking at a variety of scenarios. They've got both the set-top box and the survey analysis and the hybrid.

So now, I've not reviewed their work. I'm not doing that. But, as I look -- as I'm used to looking at materials, this is a serious in-depth analysis. It's not just somebody throwing up a number, which you sometimes see, kind of guessing.

Q Okay. And you said it was going to a question that you're interested in. Is that the permanent drop that you're talking about?

A Yes. It's exactly the question that we're asking about here: What would happen to subscribership if there was a long-term blackout of Turner, in this case, on charter.

Q And did also look at other content other than just the Turner networks?

A Yes. They looked at a number of different programming groups.

Q Was that useful for you?

A Yes. We can see how Turner compares to some of the other groups, for example.

Q What did you conclude, sir, based on the Altman Vilandrie study that was done for Charter?

A I would say the other thing that they do that's quite important is they estimate how many subscribers Charter would lose, current subscribers they would lose because they don't have Turner as people leave.

But also how they would have difficulty attracting subscribers into the future, the gross adds, the fewer gross adds at Charter.

And they had numbers on both of those, which is exactly what I need to do my estimates.

And when I took their inputs and calculated the subscriber -- the long-term subscriber loss rate using their findings, I got a range -- well, they have a range. And so I have a range as well that's reflecting their range, which is 9 percent to 14 percent.

Q And without getting into confidential information here, were there any other analyses of Turner subscriber loss rates that you also considered in addition to this Altman Vilandrie study?

A Yes, there were. And the one that comes to mind is Comcast had a study, and I think --

Q I think they have designated the information there confidential, so I would ask that you not repeat that openly. But did you -- maybe you can just describe generally for His Honor.

A So they were also trying to estimate subscriber loss rates. I don't think they went out as far as in time; but they came out with a number that is comparable, closer to the lower end of this range that I'm using.

Q Now, I think you also said, in addition to the Altman Vilandrie study and then the drops with Suddenlink and Cable ONE, that you also considered Professor Hauser's survey that was in this case.

Can you explain to His Honor your thoughts on Professor Hauser's work here and how that impacted your work.

A Well, he has a 12 percent long-term subscriber loss rate. And so that, I would say, corroborates the data points I'm getting and the range I'm using from these other sources.

Q Did you also look at subscriber loss rates for the virtual MVPDs as well, sir?

A Yes, I did. And there's some evidence that -- again, comparable range here, I know there's some Turner analysis of that, where they estimated the impact of their programming on one or more of the virtual MVPDs.

Q So let's just sum up, if we can, briefly, the subscriber loss rates that you found. It will be 9.4 percent, 16 percent for the two blackouts with Viacom; is that right?

A Yes.

Q And then the 9 to 14 for Altman Vilandrie; is that right?

A That's the range coming from their analysis.

Q And then Professor Hauser's 12 percent?

A That's correct.

Q Okay. What measurement did you ultimately decide to use for your calculation on the cost to AT&T of licensing the Turner content to its rivals?

A So I'm -- the primary numbers I'll be presenting to you and were in that chart, actually, already were based on the lower end, the 9 percent. But in my reports, I also provide some alternative calculations at the higher end, more to the 14 percent.

Again, there's a range which reflects the fact that we don't know exactly.

Q And I think you alluded to this earlier, but I just wanted the record to be clear. Do you find that the subscriber loss rates tell you anything about the market power?

A Well, these are, I think -- the subscriber loss rates and the affiliate fees that Turner commands are the best measures of the commercial significance of the Turner content.

And in this sense, Turner has market power. They have the power to move subscribers around in a significant way downstream, subscribers who are subscribing to large bundles of programming. And that's, to the economist, that's the measure of their commercial power and significance. I would point to the subscriber loss rates.

Q So we've talked about subscriber loss rates. Let's talk about the second component here, your diversion rates.

Can you take us through that about what the diversion rate is as an input and then how you went about calculating that.

A So just to remind the Court, we're calculating how much DirecTV and U-verse benefit when there's long-term blackout of Turner content on Charter. We've estimated how many Charter subscribers will be lost over time.

Now we have to figure out what fraction of those will end up as DirecTV subscribers, either by moving to DirecTV or by staying at DirecTV and not going to Charter, either way. So we'll bill the DirecTV and U-verse subscriber base. So that's the diversion rate.

THE COURT: To what extent does there geographical location overlap with one another?

THE WITNESS: This is very much a geographical question. Right.

So in general --

THE COURT: Is that diagram situation or is it that they completely overlap?

THE WITNESS: Well, so DirecTV is national.

THE COURT: All right.

THE WITNESS: So what we're going to do is we're going to look at Charter and each of these 1100 local markets. And if they lose subscribers, we're going to --

those subscribers are going to move and I'm going to assume they move to the other, in each local market, to the other distributors proportional to their marketshare.

And so in most of the country, then, DirecTV will get a substantial share of those subscribers moving from Charter, because they would basically, most of the time, be either going to Charter -- excuse me, leaving Charter will go to DirecTV or Dish, the two satellite options.

In some regions, there would be another option. Maybe U-verse or FiOS would be an option.

So I have to do this diversion in each of the 1100 markets and then add it up across the country. And that's the next step, and we do that calculation. I do that calculation.

Q And you did that for those 1100, approximately, geographic markets?

THE WITNESS: Was that clear enough? I'm not sure.

THE COURT: Yes.

THE WITNESS: Okay. Thank you.

BY MR. WELSH:

Q Now, we've heard something about cord cutting here. Can you explain to His Honor what your understanding of cord cutting is and then tell us whether you took that into account here.

A Right.

So we're talking about cord cutting. We're talking about people who drop their MVPD subscription. And they basically exit the market we're talking about. And they no longer have a pay-TV package, either virtual or traditional MVPD.

So I've accounted for the fact that some fraction of the Turner, excuse me, the Charter subscribers who leave when they don't have Turner, will just pull the plug -- will not move to any other MVPD package.

And I have a number on that from the same Altman Vilandrie study. They actually -- part of what they report is their estimate of the share of the lost subscribers at Charter that would not pick another pay-TV package. So I use that.

And some of the lost subscribers will pull the plug, will cut the cord; and that will reduce, of course, the number that go to DirecTV. I have a counter for that.

Q So we have the subscriber loss rate. We have the second factor now of diversion, which you calculated. And the third, I think, was the profit margin; is that correct?

A Yes. The profit margin that DirecTV and U-verse earn on the additional subscribers that they will have due to the blackout of Turner on Charter.

Q Why is that an important input into this calculus?

A Well, since we're trying to figure out how DirecTV benefits from this blackout, it's one thing to get subscribers, but how much are they worth to DirecTV? How much money will they make. And this -- we can use their data on the lifetime value of the subscribers and so that's the next step.

Q Okay. And you've talked about the new adds, these gross new adds, and then there's also churn that exists with subscribers; is that correct?

A Yes.

Q So did you look at the margins for both of those?

A Well, now we're getting into the, some of the data limitations here.

So just to be clear what we're trying to do, I want to measure how much extra money, let's talk about DirecTV, earns, because they have more subscribers due to this blackout at Charter.

So, as I've said before, this comes in two parts. First, they will get some inflow of subscribers who have left Charter. Some will come to DirecTV. And those are gross adds, okay. And we have data on the lifetime value of gross adds.

But in the long-term, the more important factor is reduced churn. DirecTV will keep its subscribers longer because they won't be -- fewer of them will be going to

Charter, because Charter doesn't have the Turner content.

And so that value of reduced churn, I don't have as good a measure as I would like of that.

The value of retaining a customer is much higher to DirecTV than the value of getting a new one, because to get the new one, there are certain subscriber acquisition costs, including possibly installing a satellite Dish in their house.

So I am unhappy that I don't have a proper measure of the margin on the retained subscribers, and I've had to do what I can with the data that was available to me and use the margin on the gross adds.

But I know that's too low. So this is one of the -- like I said, I'm unhappy about it. But the consequences of my margin figure is definitely understated and substantially understated because I don't have the proper data on the value of the retained customers.

And I have reason -- the data I have tells me that would be probably 50 percent higher than the value of the new gross adds, because of these subscriber acquisition costs are significant.

So I'm using the gross add margins. And you've heard about this, and Professor Carlton has a measure and I have a measure. That's what we're talking about here.

But, again, the data I have available, I'm using those gross add margins. And I know that they're substantially too low, but it's the best I have.

Q Okay. So let's look at what you did do.

Do you have a demonstrative that talks about the margins?

A Yes. That's our next demonstrative.

So these are AT&T's margins, per subscriber per month, based on this gross add data that I've been talking about.

And --

Q And that's gross -- excuse me.

That's gross add data that came from AT&T?

A Yes. It's the same data we got.

Q Okay. Go ahead.

A And these are the 2016 data that I used.

And I think the numbers may be confidential. Let's just say the reason there are so many bars here, Your Honor, is the blue is the DirecTV; and the margins are higher if the subscriber has more services, right? Video, telephone, and Internet has a significantly higher margin than video only. Those are the blue bars.

And then the orange bars are the U-verse margins, which also are higher if the subscriber has more services.

And so I've basically -- I have these margin data based on the gross add lifetime value numbers I got from

AT&T, and I use those to calculate the value to AT&T, either U-verse or DirecTV, of additional subscribers.

And that's the third piece of the calculations.

It's ultimately going to that big table that we showed you before, and I'm pretty sure we're about to show you again.

Q So the margin -- just so the record is clear, the margins here, which I think they have designated as confidential, the margins here, though, would reflect them being much higher when you look at the bundling of the video, telephone, and Internet?

A Yes.

Well, the margins are higher if people -- for people who have subscribed to multiple services.

What I've done is assumed that the additional subscribers that DirecTV and U-verse would get due to the blackout on Charter would be -- have to follow the same mix of packages as DirecTV's and U-verse's current subscriber base, which I have data on.

Q And two other quick questions with respect to margins, Professor.

So you talked about the problem with the data and the subscriber acquisition cost a few minutes ago.

Was there any other issue about whether the data reflected higher-margin customers coming as a result of the blackouts?

A Well, there are actually two other reasons why my margin estimates are too low. First is the one you just mentioned, which is, there's evidence from AT&T that when they get subscribers in the result -- as a result of a blackout on another distributor, that those subscribers are very attractive. "Super-low risk" was the word they used.

And this came from the instance when there was a blackout on Dish of some Fox programming. And so the point is, the subscribers who leave another -- let's say Charter, in our case, because Turner content is not there, those are likely to be subscribers with -- tilted towards a higher value, lifetime value, lower churn rates, basically, I think would be a big part of it.

So I haven't accounted for that, okay?

I don't know how big that is, so I can't -- I don't have a number to put on that, but I know my margin estimate will be too low for that reason.

The other thing is I'm not including the wireless margins. We did not have sufficient data to add the wireless piece here. And that's -- we know that's going to be increasingly a part of AT&T's business strategy, wireless. So that would lead to higher margins as well.

So there are a number of reasons why my margin numbers are too low.

I'm not doing that out of the goodness of my heart. I would like to have a more accurate number, but I can't. But I know it's too low.

Q So taking the margin numbers as you do have with the diversion rate and then with your subscriber loss rate, did you then do a calculus to determine what the effect on the merger would be on the fees that Turner could charge Charter or other MVPDs?

A So now we've got all the pieces that we laid out before, to allow us to basically see how the AT&T's leverage goes up as a result of the merger.

We put the pieces together, and we get the chart that you saw earlier with the per-sub/per-month increases in the Turner fees.

Q And you were correct in your prediction. We are going to go back to that. So let's look at the earlier slide on that.

A Slide 2 by the new numbering?

Q Sloyd 2 by the new numbering, correct.

And what does the chart tell you now based on the calculations that you've done?

A So we went through the numbers before.

Q Okay.

A I guess I would just -- now that we've been through all this detail, just explain to Your Honor that one reason the different MVPDs face different price increases here, the ones that are where there's particularly high diversion to DirecTV that are competing on average across the country closer to DirecTV will be experiencing the higher increases. That's where DirecTV will have the -- AT&T will have the greater leverage.

And, again, I don't want to go into the numbers because that's confidential; but because the diversions depend on the geographies and that depends on exactly who's who in different parts of the country, that's why the fees differ.

But we've already gone through the bottom-line number, and now we've done the analysis to get there.

Q Okay. And could you just remind His Honor what the subscriber loss rate was that you used for these calculations.

A Right.

So this is -- oh, that's good.

So this is based on the 9 percent subscriber loss rate.

And if we used the 14 percent, remember I said I was going to a use a range 9 to 14 percent? The numbers would be about 50 percent larger across the board here. Okay? Basically, you multiply by 14 over 9. So the 586 million would be closer to 900 million.

Q And if we --

A That's a range -- again, I'm reporting the lower end, and I can't give you more precision than that.

Q And you also talked about the margins.

And if you used a larger margin because you dealt with the subscriber acquisition cost issue that you talked about, what would that do to your figures here?

A Right.

So I don't know if I said this, but the harm figures here or the costs to the rivals are proportionate to each of these measures I put in.

So if the margin should be 20 percent higher than I gave, then these numbers should be 20 percent higher. So it's straightforward in that way. That's proportionality.

And I said, I think we do know that there's this -- reasonably, the margins on the retained customers are substantially higher than margins on new adds because it's the subscriber acquisition cost.

So we do have evidence there to put in a higher number for -- on that basis. So there, again, we have a range that we could calculate.

Q Now, you've explained, Professor, how AT&T's rivals will pay more for the Turner content. Did you balance that against the lower cost that AT&T would pay?

A Yes.

So the -- I said way back at the beginning, there's some balance in here. And I expect DirecTV to have lower costs of the Turner content now that they're in the same company.

Actually, this is a good example, going back to the question Your Honor raised.

I'm assuming that the Turner and DirecTV will work together in the joint interests of AT&T, and so Turner will lower the price that it charges DirecTV.

If you want to tell me that Turner is going to operate independently, then that wouldn't happen. But I think that's the right assumption, that they're going to operate in the joint interests of the company, of the overall company.

And with that standard assumption, I see some efficiencies here. This is called elimination of double marginalization which is a mouthful. EDM is the acronym.

Q Can you explain that a little bit for us.

A Well, basically, the -- right now, Turner is charging DirecTV a certain amount. We saw that in the very first chart.

So Turner earns a margin on its content it sells to DirecTV, and DirecTV earns a margin in selling to final consumers. Those two margins get stacked on top of each other in terms of what consumers have to pay.

And in the interests of the joint company, it's desirable to shrink that total margin so there's one instead of two.

That's the theory. I'm applying that here. And that leads to a lower cost for DirecTV of the Turner content of about a dollar 20 per subscriber per month. So it's significant.

And that comes from this, again, this core assumption of antitrust economics that the merged company will operate to maximize its joint profits, including coordination among different divisions, in this case, DirecTV and Turner.

Q Have you calculated out -- and you said it's a dollar 20 per-subscriber/per-month reduction. Have you calculated that out on a monthly basis, as well as a year?

A Yes, we have.

So I see the annual number here. I don't have the monthly number memorized.

The annual number is $352 million of cost savings at DirecTV due the lower price of the Turner content. And this is on the next slide.

Am I getting ahead of you?

Q No. That's fine. Which slide is that, sir?

A Well, it's going to be No. 10 now. It was 13 in the old days.

Q Great.
So tell His Honor, if you would just briefly, what's on this slide and what you're reflecting here.
A So I said at the beginning there's a balancing to be done. Here is where we do the balancing.
The large, red area is the extra costs for Turner content that will be paid by the rival MVPDs, 587 million.
The blue is the cost savings at DirecTV from paying less for the Turner content. That's 352 million.
And then when you net them out, we have a net increase in MVPD costs, looking at them all together, of 235 million.
And that's the key balancing that I'm able to do, Your Honor. And this tells us that the costs will overall be going up, not down, for the Turner content.
Q After the merger if it were to occur?
A That's what I'm talking about.
Q And so looking at this, how did these cost increases that you're talking about, this net cost increase, how does that translate, then, into the higher consumer prices that you testified about?
A So all this discussion has been about the cost that distributors are paying for Turner content. We are, in the end, interested in what that'll mean for consumers under our consumer welfare standard.

So the next step is to try to figure out what will -- how will the prices that they all charged to consumers change as a result of the changed cost of the Turner content?

And there's -- I want to say a simple way to do that and a more sophisticated way to do that.

The simple way would be to simply say, well, the costs of the MVPDs as a group went up by $235 million, or will go up as a result of the merger by $235 million a year. And that will be passed through to consumers.

We're not quite sure how much. If it was 100 percent pass-through, then that would be the same figure for the consumer harm. If it's 75 percent pass-through, you multiply it by 75 percent and you get a smaller number.

And that's not an unreasonable way to proceed, although it's hard to know exactly what the pass-through rate is.

What I've done as well is the more sophisticated approach, I'm calling it, which is to have a model of how the firms -- the distributors compete.

I've taken a standard model of competition, sort of a simulation model, and then calibrated, in each geographic market, to the market shares and the prices and the costs and estimated, using that model, the effect on the prices.

And I have done that. It needs to be done geography by geography because the market structure among the distributers is different in different parts of the country. And that's what I've done, and that allows us to come up with a more accurate, in my view, estimate of the effect on the consumers ultimately.

Q And what is the effect on consumers in the multichannel video consumer market here?

A So that's the next slide.

New slide 11.

Predicted Turner monthly fee increases for consumers, using -- again, this is a 2016 market configuration.

And we see the annual impact there is $286 million and that there's a monthly calculation done.

And then we multiply it by 12 to get the annual amount.

But the answer is $286 million annual impact.

Q To the consumer?

A That's the annual extra charges for consumers as a result of the -- flowing through from the higher Turner fee increases as a result of the merger.

Q And this is the -- based on the data for the 2016 market configuration, can you just remind His Honor why you looked at the 2016 here.

A Well, this was the last year for which we had a complete set of data, including, especially, the subscriber loss rate data.

But I then did do some projections to go forward in time to get a sense of whether it would be going up or down as market conditions change.

Q And can you take us through that.

A Yes. So that's the next and last slide. I guess it will be 12.

So just keeping it at a very high summary level, the first row here shows -- and let's look at the right-hand column: Net harm to all MVPD consumers -- customers. Those are the consumers. The $286 million figure that we've already seen was for 2008, excuse me, 2016 market configuration.

Then I was able to update to 2017, and the number goes up quite a bit to 436 million.

And I was also able to project to 2021, but the number rises further to $571 million per year in consumer harm.

Q Can you explain to His Honor why, looking at the 2017 numbers, why those numbers increased, what that was based on.

A Right.

So the main reason that there's an increase in

2017 is that the Turner fees -- affiliate fees are going up quite a bit, when we see that they actually went up quite a bit from 2016 to 2017.

And so what I've done is project a higher Turner subscriber loss rate that corresponds with the higher Turner affiliate fees.

I guess one way to think about it is why -- the fact that Turner -- their affiliate fees are going up substantially, did go up substantially from 2016 to '17, indicates that their content is even more valuable to distributors. And that is -- reflects a higher subscriber loss rate, holding other things constant.

And so that gives a higher number for 2017.

There are some other adjustments as well, but that's the primary one.

Q Was there also a higher diversion used?

A Yes.

Well, the diversion -- actually, I can't quite remember that sitting here right now, the diversions.

Q Okay.

A May have changed somewhat. I'd have to check my report.

Q Let's look at the 2021 figures. Can you explain why those numbers are the way they are.

A So I also did this calculation for 2021.

My binoculars are pretty good, but that's getting out there a ways.

But I think this is -- this is, I think, useful and reliable for Your Honor.

The -- let me just indicate directionally, the reason these numbers go up is that -- for two reasons, I think. One is -- primary reasons. One is AT&T's margins will -- multi-product margins are expected to go up. Okay. That's based on some of their own projections.

And this is because of their -- largely driven by their strategy to sell larger bundles to customers. So that leads to higher margins.

And then there's also some increase in the Turner affiliate fees that are projected.

So I know you've heard from Turner people that there's all this other content out there. And it's true; there's a lot of content.

But the projection is that the Turner subscriber -- the affiliate fees will continue to rise, and that indicates the Turner content will continue to be important and even more important. So those, directionally, is why the numbers are going up over time.

Q So it's your prediction and opinion that the net harm to consumers, looking at 2016, of 286 million, approximate, 2017 of $436 million in 2021 of $571 million, that's your opinion prediction based on your merger analysis?

A Yes. That's what I'm telling the Court.

Again, I want to say that we could -- I realize there are ranges here. These are based on, we're starting from the low end, 9 percent subscriber loss rate, and projecting that. So if we started with the 14 percent, we'd have higher numbers.

If we had a higher margin, which we should, the numbers would be higher.

And on the other hand, if my projections of the subscriber loss rate going -- are going up too fast, which could be, then we would take them down a little bit.

Q Let's switch gears now. Let's talk about the second aspect of your opinion, which I think you talked about coordination, coordinated effects. Can we talk about that for a few minutes.

A Whatever you want.

Q All right. Professor, what type of -- in terms of your opinion, did you analyze whether the merger creates a risk that AT&T will coordinate with other firms in the marketplace?

A Yes, I did.

Q And can you explain to His Honor what type of coordination you're concerned about in this case.

A The specific type of coordination that I'm concerned about is that -- is between AT&T and Comcast and that they will coordinate to withhold their content.

AT&T, after the merger, having the Time Warner content, Comcast owning the NBCUniversal content, to coordinate to withhold that content from virtual MVPDs, who are growing and posing a threat to Comcast and to AT&T's traditional MVPD businesses.

Q Right now, premerger, have you seen evidence that Turner wants the virtual MVPDs to have its content?

A Well, yes, they have been interested and have licensed the virtual MVPDs.

And, of course, for them, it's a way to reach some additional subscribers.

Q Now, post-merger, you talked about earlier in your testimony the analysis when you look at incentives. Do you see those incentives changing for the combined entity post-merger?

A No. I think standing alone, acting unilaterally, the -- AT&T will still want to license the Turner content to virtual MVPDs.

The concern here is what might happen if they coordinate with Comcast.

Q Okay. Would the industry be vulnerable to that kind of coordination post-merger?

A Well, the reason I'm concerned about this is because it really only takes two companies to -- who need to coordinate. So -- as antitrust economists, when we think about post-merger coordination, we're not just talking about illegal cartels or Section 1 violations. We're talking about just what might happen in the industry through tacit arrangements or just through -- just a mutual awareness.

And if you have a coordinated scheme -- I'll use that word cautiously -- that only involves two parties, then that's relatively easy to achieve in comparison with other situations where you need many suppliers. So this -- so that's why I'm concerned about this, because it only takes two.

And this is a situation created by this merger, or would be created, where you have the two companies with substantial distribution presence and substantial programming ownership assets. And that would be new, a new situation that was not created by the Comcast-NBCU merger. It's created by the second merger. And then you have the danger of coordination.

Q And the two companies you're referring to would be Comcast-NBCU, AT&T-Time Warner?

A Yes, sir.

Q And would you see a natural level of communication between those companies in terms of their contractual dealings in the ordinary course anyway?

A Well, one of the reasons to be concerned is that, of course, the two companies are in communication all the time. They have to be, because they're in a buyer-seller relationship. NBCU has to be talking to Comcast, and Turner has to be talking to DirecTV.

And as opposed to a situation where you had competitors who had no business talking to each other at all. So because of the vertical structure, they've got communications. It just raises the concerns about coordination.

Q And in post-merger, would AT&T gain the means to be able to coordinate in such a way that it would harm these virtual MVPDs?

A Well, this is not a risk that's present at all prior to the merger, because AT&T does not have the Time Warner content.

Q What will change for Comcast post-merger on this subject?

A Well, Comcast is not -- their asset ownership structure is not changing, but they will have a partner with whom to coordinate if they can achieve that and if that's mutually profitable.

Q Why do you see the virtual MVPDs being a threat right now to the traditional distributors like AT&T and

Comcast?

A Well, I think the general projections, I think AT&T projects this, that the virtual MVPDs will be growing in their share of the MVPD market overall, and it's probably because of the younger people that Your Honor mentioned.

And that is a threat to the existing distribution businesses, both in terms of pulling subscribers away and in terms of putting some pressure on their margins.

Now -- so that -- I think that's understood. And so that's the type of threat that could be potentially reduced through this type of coordination.

Q Would AT&T and Comcast, if they were to do this, would they jointly benefit from reducing the competitiveness of these virtual MVPDs?

A Well, that would be the benefit, because their distribution businesses, Comcast and DirecTV/U-verse, would benefit; but there would be a cost in terms of not getting the licensing fees for their content from these virtual MVPDs.

If they can substantially reduce the growth of those virtual MVPDs, then they wouldn't bear as much of a cost, because they would still get the affiliate fees from the existing pay-TV packages.

But there are some tradeoffs there involved in order for that to be mutually profitable.

Q Have you quantified the likelihood of this coordination occurring between AT&T, Comcast, if the merger were to go forward?

A No, I'm not able to do that.

Q Is it your opinion that the merger increases the risk of coordination even though you can't quantify it?

A Yes, that's right. There's no risk of this type of coordination prior to the merger. It becomes a risk because of the merger.

Q And why is it that you're unable to quantify it?

A Because I don't yet have a crystal ball.

Q Okay.

A That's just beyond the capabilities of my field.

Q Sir, if coordination does occur, would that be a substantial lessening of competition, in your opinion?

A Yes. I think that would be quite bad news for consumers, because they would be -- have fewer choices for these virtual MVPDs. And there would be less margin pressure on the traditional packages, so consumers would pay more there too.

THE COURT: Would it be illegal?

THE WITNESS: Well, then it depends on the specific type of coordination you have in mind.

The one I really have in mind, I'm not thinking that it would be illegal. It wouldn't require an agreement in Section 1 sense.

So, for example, each of the two companies could simply decide not to renew license or not to license to a new virtual MVPD and wait and see if the other did, okay?

It's like, well, I'll wait; and they could mutually forbear, without any communication between them. And that might very well, as I understand these things, not be a Section 1 violation.

If you -- the merger guidelines talk about coordinated effects. And they do not include -- excuse me.

They include modes of coordination that are very much not Section 1 violations. And that's how I think of it certainly as an antitrust economist.

BY MR. WELSH:

Q Professor, earlier when you talked about the natural communications that occur today, I just want to come back to that, because I think maybe there was a misspeak.

But NBCU, who would they be dealing with on a contractual side, looking at AT&T-DirecTV, for example?

A I'm sorry. I don't understand.

Q Yeah.

Would NBCU be working out contracts with AT&T-DirecTV?

A Yes.

Q Okay. I think --

A I misspoke perhaps.
Q I think you misspoke earlier.
A All I meant is that NBC programming is licensed to DirecTV, and Turner programming licensed to Comcast.
Q To Comcast. That's fine.
A So the companies, as a whole, are in communication.
I'm not suggesting any illegal communication, like I said, I'm just saying but the fact that there are these interconnections is something that's relevant in thinking about coordinated effects.
Q Let's briefly touch on HBO and then I want to go to the remedy.
So with respect to HBO, that was a third part of your opinion. Can you just tell His Honor what your opinion is there as to the effects of the merger on HBO.
A Yes. This is, I think, straightforward and should be very brief.
The -- after the merger, AT&T will have a disincentive to allow HBO to be used as a promotional tool by Charter and Dish and other MVPDs who compete against DirecTV, because, to some degree, those promotions pull subscribers away from DirecTV.
So it's simply the very general idea that now that AT&T will control this asset, HBO, they will not view it

neutrally anymore, as HBO does. And they will want to favor DirecTV and disfavor the rivals.

I'm not saying they're going to cease doing HBO promotions on Charter, for example, or Dish. It's just going to be a minus, and they will be less inclined to do that and would be -- the incentive would be to curtail some of those promotions. That's all.

Q And have you seen evidence pre-merger of distributors using HBO in order to win customers over to their distribution?

A Yes, there is lot of evidence about HBO. It's a valuable brand, a lot of co-promotion, other promotional activities. I think HBO is quite proud of that, and rightly so.

That's clear, I think, from the evidence. There's a lot of that cited in my report.

Q And post-merger, you see that changing, if I understand your testimony?

A I'm just saying it will be like a thumb on the scale against doing some of those promotions, because -- to the extent they would pull subscribers away from DirecTV.

THE COURT: Let me see counsel.

Step down, please.

(Sealed bench conference)

THE COURT:

MR. WELSH:

THE COURT:

MR. WELSH:

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MR. WELSH:

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MR. WELSH:

MR. PETROCELLI:

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MR. WELSH:

MR. PETROCELLI:

MR. WELSH:

(Open court)

THE COURT: We're going to take the luncheon recess.

You're a witness under oath in the case. Refrain from discussing your testimony so far or what it might be when you return, including the trial lawyers.

Anybody. All right?

THE WITNESS: Yes, sir.

THE COURT: Stay independent of all others. We'll be beck and reconvene at 2:45.

THE WITNESS: Thank you.

THE COURT: All right. We'll be going late, probably be going till 6:00 or 6:15 tonight.

We'll stand in recess.

DEPUTY CLERK: All rise.

This Honorable Court will stand in recess until the return of court.

(Proceedings concluded at 1:18 p.m.)

C E R T I F I C A T E

I, William P. Zaremba, RMR, CRR, certify that the foregoing is a correct transcript from the record of proceedings in the above-titled matter.

Date: April 11, 2018________ /S/__William P. Zaremba______

William P. Zaremba, RMR, CRR