

1 it now.

2 THE WITNESS: Right. To be clear,
3 I'm not looking at the headends where they
4 don't carry Tennis Channel at all. I'm
5 focusing only on the headends where they carry
6 it.

7 JUDGE SIPPEL: Does that take you
8 where you want to go?

9 MR. CARROLL: It does with one
10 follow up.

11 JUDGE SIPPEL: Go ahead.

12 BY MR. CARROLL:

13 Q How many headends is that that
14 you're excluding from your analysis for that
15 reason? How many from the database? I think
16 you said there's a database with about a
17 thousand. How many of them have you excluded
18 for this reason?

19 A Sure. About [REDACTED] odd get excluded
20 but it turns out that when you use the
21 population levels there it represents about [REDACTED]
22 percent of Comcast subscribers. These are

1 headends that are basically serving very, very
2 small areas that have not yet been developed
3 yet.

4 Q Again, it's just a simple
5 question. Is it about [REDACTED] that were excluded
6 from the analysis for this reason? Yes or no?

7 A For not carrying Tennis Channel at
8 all. Correct. Correct.

9 Q Okay. And so now go back to the
10 chart 1005. Then we look over and we have two
11 columns, Dr. Singer, in which we counted the
12 number of headends at D1 and D2, and the
13 number of headends on the sports tier. Do you
14 see that?

15 So we'll do this one at a time.

16 Louisville, for example, there's [REDACTED]
17 [REDACTED] out of the [REDACTED] that's carrying a
18 D1/D2 and [REDACTED] headends that are carrying it
19 on the sports tier. Correct?

20 A Yes.

21 Q Okay. That's the opposite of what
22 your opinion would suggest because Louisville

1 has a market share that is very small, only [REDACTED]
2 percent, and yet he's carrying four out of
3 five on the sports tier. Do you see that?

4 A I will grant you that I see that.
5 I'm not saying -- I don't know if that's the
6 opposite of what I'm predicting but I can't
7 rule out the possibility that in a sample of
8 [REDACTED] that you could find some outliers. This
9 relationship isn't a perfect correlation. It
10 is a statistically significant relationship
11 over a [REDACTED] observations.

12 Q Well --

13 A You certainly can find an outlier,
14 [REDACTED] or many.

15 Q Or many. Exactly. Let me just
16 look at one more. Rockford. We saw
17 Louisville has a very small market share at [REDACTED]
18 percent. Right?

19 A I assume that Comcast has [REDACTED]
20 percent in Louisville.

21 Q Right. And that's a small -- in
22 your model you would describe that as a very

1 small market. Correct? Is that correct?

2 A Yes. It must be a place where
3 Comcast generally doesn't serve.

4 Q And then Rockford, on the other
5 hand, has [REDACTED] and that's in the range of what
6 you describe in your report as a high market
7 share. Correct?

8 A It's higher than average.

9 Q Okay. And so your model would
10 suggest that in a higher than average market
11 share they'd be carrying it on a sports tier.
12 Correct?

13 A As a general tendency across all
14 headends in the [REDACTED] plus database but it
15 can't predict perfectly for every single head
16 out there.

17 Q In fact, Rockford is the opposite
18 of your general prediction. Isn't it?

19 A I don't know if it's the opposite.

20 Q Out of [REDACTED] they are only carrying
21 [REDACTED] on the sports tier and they are carrying
22 [REDACTED] at D1/D2. That for Rockford is the

1 opposite of what your general opinion would
2 predict.

3 A I can't tell from here. The way
4 you do it you plot the relationship that I
5 believe exist across all [REDACTED] and then you
6 could highlight for me these individual
7 headends and show them lying above or below
8 the regression line and I would grant you that
9 very few are going to lie right on the
10 regression line. Some are going to be above,
11 some are going to be below but what we did was
12 we took an average of the two samples.

13 Q We've talked about the average.
14 I'm off the average. I just want to come back
15 to my Rockford question. Last question on
16 this exhibit. I want to move forward to other
17 things. Rockford is an exception, an outlier,
18 in your terms because it has an above-average
19 market share but it's doing the opposite of
20 what your model would predict. Yes or no?

21 A I just don't think I can tell from
22 this.

1 Q And just as another last example
2 and perhaps I'll avoid having to use another
3 exhibit to speed things up. Fort Wayne on
4 this chart. Do you see Fort Wayne, the second
5 item?

6 A Yes.

7 Q We spoke briefly yesterday about
8 the idea of DMAs that split. That is, you had
9 headends. In the same geographical area you
10 had some headends where they were carrying
11 some way and some headends that were carrying
12 the opposite way. Correct? Remember that
13 topic?

14 A Yes. Within a given DMA it is
15 certainly conceivable that you could have
16 headends going in different directions.
17 Comcast is not uniform in its carriage of
18 Tennis Channel.

19 Q When you say it's conceivable, in
20 fact, it happens and we're looking at four
21 examples of that. Aren't we? Four examples
22 of cities where in the same DMA, the same

1 geographic region, some headends are doing one
2 thing and some headends are doing another
3 thing. Agreed?

4 A Yes.

5 Q And your model doesn't predict
6 that either. Does it?

7 A It does not. If I had Comcast
8 market share of the headend level, I could try
9 to get at that but I do not have it.

10 Q And, in fact, your model assumed
11 the same treatment among all the headends
12 because you applied the same market share to
13 both sets of headends in a DMA. Correct?

14 A Not correct.

15 Q Did you apply the same market
16 share to all the headends in the DMA
17 regardless of which way they were coming down
18 on carriage?

19 A Yes.

20 Q You can put that exhibit aside.

21 JUDGE SIPPEL: What is that
22 exhibit?

1 MR. CARROLL: 1005. Thank you,
2 Your Honor.

3 BY MR. CARROLL:

4 Q The model that you did that we've
5 been discussing included a regression
6 analysis. Correct?

7 A As a sensitivity test, correct.

8 Q Okay. I want to be clear on a
9 couple of things. There are very particular
10 rules -- I'm going to try not to get into the
11 details of this but there are very particular
12 rules for how you're supposed to do a
13 regression analysis. Correct?

14 A Sure.

15 Q Okay. It gets caught up with
16 complicating terms like causality and
17 correlations and all of these things that
18 statisticians love and that make regressions
19 very -- have to be very carefully done.
20 Agreed?

21 A Regressions as a general rule are
22 a very difficult thing. That's correct. And

1 subject to much decision making and judgments
2 by the economists.

3 Q Okay. And if it's done right, you
4 can draw some conclusions statistically with
5 respect to a term called statistical
6 significance. That is, you can look at data
7 and if the regression meet certain criteria,
8 you can make certain conclusions within
9 certain confidence levels. Agree?

10 A Correct.

11 Q Okay. If you look at your report
12 on page 14 --

13 MR. CARROLL: I think this is
14 Tennis Channel 16, the written testimony of
15 Dr. Singer, Your Honor.

16 JUDGE SIPPEL: Where are you, on
17 page 14?

18 MR. CARROLL: Page 14.

19 THE WITNESS: Do you want me to
20 look at footnote 28?

21 MR. CARROLL: We're going there.
22 You've anticipated me once again, sir.

1 JUDGE SIPPEL: Let Mr. Carroll
2 handle the questions and you handle the
3 answers.

4 THE WITNESS: Okay. Sorry.

5 JUDGE SIPPEL: That's an even
6 split.

7 BY MR. CARROLL:

8 Q On this page you were discussing
9 the regression work you did. Correct? Page
10 14.

11 A Well, that's why I was asking. In
12 the paragraph I'm discussing one test which is
13 a comparison of the means. In the footnote 28
14 I explain a sensitivity test which was the
15 regression analysis.

16 Q Okay. Good. The comparison of
17 the means, that's the averaging approach that
18 we've just spent a lot of time on. Correct?

19 A Yes. It looks at the average in
20 the two groups.

21 Q Okay. Let's look at footnote 28.
22 Footnote 28 you're describing the regression

1 and you make an interesting observation. You
2 say that the test of the averages doesn't
3 control for other variables that could explain
4 Comcast carriage decision. Do you see that?

5 A Yes.

6 Q So what you're pointing out as a
7 good economist is that if you've left out --
8 there could be variables that you've not
9 included in a model that might explain what's
10 happening better than the model does. Right?

11 A I'm going to agree with you but I
12 think you meant to say better than some other
13 variable in the model that I think is causing
14 the outcome.

15 Q Okay. In other words, you could
16 do a regression where you're looking at one
17 variable and you think that variable is the
18 explanatory -- explains what's happening.
19 But, in fact, you haven't tested another
20 variable out there that if you tested it, you
21 would discover that's the one that explains
22 what's happening. Right?

1 A That could happen.

2 Q Okay. And you note an example of
3 that here. Don't you? You note that if you
4 actually look at the effective income, the
5 distribution of different incomes around the
6 country, and His Honor was asking about,
7 remember yesterday, some questioning about
8 wealth and income levels. Remember that
9 questioning?

10 A Yes.

11 Q You actually looked at the
12 possibility that what was accounting for the
13 observations here was income, distributions on
14 income levels for people. Right?

15 A Correct.

16 Q Okay. What you concluded was that
17 if you actually tested and included income in
18 your model, the statistical significance
19 disappeared. Is that right?

20 A It goes below the level of
21 confidence that I was able to achieve with the
22 simple comparison of the means.

1 Q Which means that you can't make
2 any conclusion at the level of confidence once
3 you include the income factors. Correct?

4 A Can I hear it back? I'm sorry.

5 Q You can't draw a statistical
6 conclusion at the confidence level you were
7 testing if you include income in the work?

8 A I can't rule out the possibility,
9 yes, that there are other things that are
10 explaining Comcast carriage decision vis-a-vis
11 tennis besides market share. It might even be
12 more important than market share.

13 Q Very good. We can put that to the
14 side. Is there another assumption that your
15 model uses? Let me again try to do this in
16 lay terms.

17 MR. CARROLL: Your Honor, I'm just
18 struggling to have my poor English handle some
19 of these statistical terms this morning.

20 JUDGE SIPPEL: I think the
21 struggle with the English is better than the
22 numbers sometimes.

1 MR. CARROLL: Yeah, me too.

2 BY MR. CARROLL:

3 Q When you do a regression analysis
4 am I correct that you run one variable that's
5 called your dependent variable. Have I got
6 that term right?

7 A Yes.

8 Q And the other variable that you
9 are examining is called the independent
10 variable.

11 A Those are the ones that you are
12 hoping explain the variations in the dependent
13 variables.

14 Q Exactly. You're hoping that when
15 you run the regression the independent
16 variable will explain what's happening to the
17 dependent variable.

18 A Correct.

19 Q Okay. And in your model the
20 dependent variable was what, carriage level?

21 A Right. Extent of carriage, yes.

22 Q Extent of carriage. So the

1 dependent variable was extent of carriage and
2 the independent variable that you were seeing
3 if it explained it was market share.

4 A Yes, that is the hypothesis of the
5 FCC's test.

6 Q To test that hypothesis you made
7 an assumption and the assumption that you made
8 is that the degree of carriage had no affect
9 on market share. Is that correct?

10 A That is an assumption that you
11 have to make in applying this test. Yes, it
12 is a criticism of my approach. It is a
13 criticism of the FCC's approach. It is a
14 criticism of Dr. Goolsbee's approach. That is
15 correct.

16 Q And just to be clear about what
17 that criticism amounts to, the assumption
18 you're making is that no matter how many
19 subscribers Comcast telecast the Tennis
20 Channel to, it will have no affect on their
21 market share. Correct?

22 A That's correct.

1 Q And you realize that that
2 assumption is the very opposite of the claim
3 the Tennis Channel has brought in this case?

4 A No.

5 Q Do you understand the Tennis
6 Channel's claim in this case is that it would
7 make a difference to my client if they
8 distributed Tennis Channel to more subscribers
9 than they do now?

10 A I think one of the claims of many
11 they're making is that Comcast could fight off
12 DirecTV and Dish in certain competitive
13 markets where those guys are carrying tennis
14 and you are not. They could fight off
15 defection.

16 Q Right. Meaning that there would
17 be a beneficial affect on my client's market
18 share if they distributed Tennis Channel to
19 more subscribers. That's a claim the Tennis
20 Channel is making in this case. Do you
21 understand that? Yes or no?

22 A I don't know if that's a claim

1 that they're making in the case.

2 Q Okay.

3 A I think what they're claiming is
4 that Comcast didn't consider those potential
5 benefits at all.

6 Q At any rate, so it's clear for
7 this record and for His Honor, you've made the
8 opposite assumption in your test. Your test
9 assumes that the level of carriage that
10 Comcast gives to Tennis Channel will have no
11 affect on its market share. Correct?

12 A In this context the regression
13 analysis. You are correct that you have to do
14 this. It is a technical assumption that gets
15 made when you employ regression analysis. The
16 explanatory variables are that. They are
17 predetermined. They are outside of the
18 system. They are exogenous. They are not
19 determined by the left-hand side variable
20 themselves.

21 Q Okay. We can move off of, I
22 believe, the regression analysis at this

1 point. I want to clean up some other issues
2 if I could. You can put that to the side,
3 sir.

4 JUDGE SIPPEL: How much longer is
5 he going to be on the stand?

6 MR. CARROLL: I'm going to try to
7 do this in 20, 30 minutes.

8 JUDGE SIPPEL: Dr. Singer, are you
9 okay?

10 THE WITNESS: Yes.

11 JUDGE SIPPEL: Let's go.

12 MR. CARROLL: Your Honor, is that
13 all right with you?

14 JUDGE SIPPEL: Fine with me. I'm
15 worried about the witness.

16 MR. CARROLL: We can take a short
17 break.

18 JUDGE SIPPEL: You've been sitting
19 on the stand for an hour-and-a-half. If you
20 want to--

21 MR. CARROLL: Your Honor, we could
22 take a short break.

1 THE WITNESS: I feel fine.

2 JUDGE SIPPEL: Then fine. Let's
3 go. If you feel fine, I feel fine.

4 MR. CARROLL: All right.

5 BY MR. CARROLL:

6 Q You gave some testimony, and I
7 think His Honor was asking questions earlier
8 in your testimony about this, about DirecTV
9 and Dish and their percentage ownership. Do
10 you remember that?

11 A Sure.

12 Q First of all, let me ask this
13 question. DirecTV and Dish put together have
14 more market share than Comcast does. Correct?

15 A I think that's true.

16 Q Okay. You can check it on your
17 subscriber exhibit if you'd like to confirm
18 it.

19 A Let's assume that to be the case.

20 Q Well, I don't want to make an
21 assumption. Do you still have your MVPD
22 exhibit up there from Mr. Phillips'

1 examination?

2 A I do but I recall that being
3 Tennis Channel subs but it might have total
4 subs. Let's see.

5 Q Doesn't your first column have
6 total subs?

7 MR. CARROLL: That was Exhibit
8 192, Your Honor.

9 BY MR. CARROLL:

10 Q Is that right, sir?

11 A You're right. If I add up the [REDACTED]
12 [REDACTED] of Direct with the [REDACTED] of Dish,
13 would I get above Comcast? The answer is yes.

14 Q Right. Comcast you have listed
15 total subscribers on this page as [REDACTED].
16 DirecTV is almost [REDACTED] and Dish is [REDACTED]
17 [REDACTED] so if you add Dish and DirecTV
18 together, that would get you to about [REDACTED].
19 [REDACTED] Have I done that correct?

20 A Yes.

21 Q Okay. Compared to Comcast we'll
22 call it [REDACTED]. [REDACTED] to [REDACTED].

1 Is that right?

2 A Correct.

3 Q Okay. So combined DirecTV and
4 Dish are a pretty powerful market force. Yes?

5 A Combined. Yes, combined, I'll
6 grant you. I hope they are not making
7 decisions jointly but, yes, combined it would
8 be.

9 Q Exactly. You would hope that
10 because that's a lot of market power if they
11 are acting together in that market place.
12 Isn't it?

13 A As an economist we don't want
14 firms to be acting jointly regardless of their
15 market share but they would be especially
16 problematic with two firms who had a sizable
17 market share.

18 Q Okay. And Tennis Channel has been
19 quite successful to those equity carriage
20 deals at getting broader distribution with
21 DirecTV and Dish. Correct?

22 A More success with DirecTV than for

1 Dish but there are probably good reasons for
2 that given Dish and strategies. Yeah, they've
3 been fairly successful.

4 Q Under those equity for carriage
5 deals they did, according to your chart on
6 192, they got ■ percent penetration with
7 DirecTV and ■ percent penetration with Dish.
8 Correct?

9 A Correct.

10 Q And now in addition to the
11 carriage side of it, DirecTV and Dish also got
12 equity ownership of Tennis Channel. Correct?
13 Is that correct?

14 A Correct.

15 Q Now, when you report --

16 MR. CARROLL: Your Honor, this is
17 page 45 of Dr. Singer's written testimony. It
18 should be paragraph 63 on that page if I've
19 done this right.

20 JUDGE SIPPEL: This is Mr.
21 Orszag's attempt?

22 MR. CARROLL: Yes, that's where it

1 starts.

2 BY MR. CARROLL:

3 Q About a third of the way from the
4 bottom of the page you talk about DirecTV and
5 Dish and you refer to their equity as [REDACTED]
6 [REDACTED] of equity. Do you see those words?

7 A From an individual perspective,
8 yes. From an individual. I don't sum them
9 up. I don't know what the purpose of -- are
10 you asking me -- well, I'm sorry. Go ahead.
11 From an individual perspective one has, I
12 think we heard, [REDACTED].

13 Q I'm going to get to that in a
14 second. I just wanted to start with your
15 words. At the end of that sentence you write
16 the words, "Is likely too large to be
17 explained by [REDACTED] of equity held by
18 DirecTV and Dish."

19 A Correct.

20 Q Those are your words.

21 A Correct.

22 Q Now, it is your testimony that you

1 didn't mean to say that combined it was [REDACTED]
2 [REDACTED] of equity. You meant that
3 individually it was [REDACTED] of equity.
4 Is that your testimony now?

5 A Let me just read this back to
6 myself. I'm sorry. Can you take me --

7 Q Take as much time as you'd like.

8 A "The disparity..." Okay. Yes. I
9 was meaning individually.

10 Q Now, let me look at the beginning
11 of this sentence just to follow up on that.
12 You start by saying, "The disparity in Tennis
13 Channel's penetration levels between DirecTV
14 and Dish on the one hand..." You put them
15 both together on one hand. Don't you?

16 A Yes, but I'm not considering that
17 they made the carriage jointly. They made the
18 carriage decisions individually.

19 Q And then you put Comcast on the
20 other hand in your sentence.

21 A Yes.

22 Q And then you describe DirecTV and

1 Dish's equity as [REDACTED] of equity.

2 Correct?

3 A Yes. I believe that DirecTV and
4 Dish individually have [REDACTED] of
5 equity.

6 Q Do you think that's an objective
7 way to describe it?

8 A [REDACTED]

9 Q Yes, sir.

10 A [REDACTED] for Dish. That's [REDACTED]
11 [REDACTED]. I think that's fair. [REDACTED]
12 for DirecTV. I think that's fair. It seems
13 comparable to the [REDACTED] shares that Comcast
14 owns in its national sports networks other
15 than Golf and Versus.

16 Q Do you think that put together
17 it's [REDACTED] You would agree with me
18 if you put those two together that's not [REDACTED]
19 [REDACTED]

20 A It's starting to get to be [REDACTED]
21 [REDACTED] but that presumes they are
22 making carriage decisions jointly.

1 Q Now, [REDACTED]
2 [REDACTED]. Don't they?

3 A I learned that at the hearing,
4 yes.

5 Q Oh, you didn't know that before
6 you came?

7 A I don't think so.

8 JUDGE SIPPEL: [REDACTED]
9 [REDACTED]

10 MR. CARROLL: [REDACTED] Thank
11 you.

12 BY MR. CARROLL:

13 Q So you did all the work in this
14 case and until the testimony yesterday you
15 were not aware that [REDACTED]
16 [REDACTED]

17 A I read Mr. Solomon's testimony and
18 I cannot recall seeing that point in his
19 testimony.

20 JUDGE SIPPEL: You mean his
21 written testimony?

22 THE WITNESS: Yes, his written