COPYRIGHT ROYALTY BOARD

THE LIBRARY OF CONGRESS

IN THE MATTER OF: :
                                     :
                                     :
DISTRIBUTION OF 2000,   :No. 2008-02
2002, 2003 CABLE   :
ROYALTY FUNDS   :CD 2000-03
                              :Phase II
                              :

Tuesday,
June 4, 2013

Fourth Floor Hearing Room
Madison Building
Library of Congress
101 Independence Avenue, SE
Washington, DC

The above-entitled matter came on for
hearing, pursuant to notice, at 9:00 a.m.

BEFORE: THE HONORABLE SUZANNE M. BARNETT,
        Chief Judge
     THE HONORABLE JESSE FEDER
     THE HONORABLE DAVID STRICKLER

APPEARANCES:

On Behalf of the Settling Devotional Claimants:

        CLIFFORD M. HARRINGTON, ESQ.
        MATTHEW J. MacLEAN, ESQ.
        VICTORIA LYNCH, ESQ.
of: Pillsbury Winthrop Shaw Pittman
        2300 N Street, Northwest
        Washington, DC 20037-1122
        (202) 663-8525

        ARNOLD LUTZKER, ESQ.
        of: Lutzker and Lutzker, LLP
        1233 20th Street, Northwest
        Washington, DC 20036
        (202) 408-7600

On Behalf of the Independent Producers Group :

        BRIAN D. BOYDSTON, ESQ.
of: Pick & Boydston, LLP
        10786 LeConte Avenue
        Los Angeles, CA 90024
        (213) 624-1996

<u>On Behalf</u> <u>of</u> <u>the</u> <u>Motion</u> <u>Picture</u>
<u>Association</u> <u>of</u> <u>America</u>:

        GREGORY O. OLANIRAN, ESQ.
        LUCY HOLMES PLOVNICK, ESQ.
        KIMBERLY NGUYEN, ESQ.
of: Mitchell Silberberg & Knupp, LLP
        1818 N Street, Northwest
        Eighth Floor
        Washington, DC 20036
        (202) 355-7917

<u>ALSO</u> <u>PRESENT</u>:

        RAUL GALAZ
        DENISE VERNON

TABLE OF CONTENTS

1   P-R-O-C-E-E-D-I-N-G-S

2   9:03 A.M.

3   CHIEF JUDGE BARNETT: We are back

4   on the record in the matter of the

5   distribution of cable royalty funds for the

6   years 2000-2003, Phase II.

7   And Mr. Olaniran, had you

8   completed your examination of your client, of

9   your witness?

10   MR. OLANIRAN: Yes, Your Honor.

11   CHIEF JUDGE BARNETT: Okay, thank

12   you.

13   Mr. Boydston.

14   MR. BOYDSTON: Thank you, Your

15   Honor.

16   CROSS EXAMINATION

17   BY MR. BOYDSTON:

18   Q   Good morning, Mr. Lindstrom.

19   A   Good morning.

20   Q   My name is Brian Boydston. I'm

21   the attorney for Independent Producers Group.

22   You've testified that you provided Nielsen

1   diary data to the MPAA in connection with this

2   proceeding, correct?

3   A   That is correct.

4   Q   And that that information

5   constituted diary information for the four

6   sweeps weeks during each of the relevant four

7   years, correct?

8   A   Including March and October in

9   some instances as well.

10   Q   Understood, thank you. Now I just

11   want to confirm, I think you may have

12   mentioned in your direct testimony, but I

13   don't know if it quite made this clear. It

14   seems an obvious point, but these ratings

15   data, they don't reflect actual viewing by the

16   population that they're serving. They

17   represent viewing based on discrete numbers of

18   people within the population being surveyed,

19   correct?

20   A   If I understand the question

21   correctly, it is a sample that is being

22   measured rather than the full census

1   population.

2   Q   And so for instance, when there's

3 a diary entry for a particular program at a

4 particular time, one diary entry may be

5 extrapolated on to a number of additional

6 households, correct?

7   A   That is correct.

8   Q   Sometimes maybe it could be as

9 much as 10,000, maybe more, maybe less

10 households?

11   A   Ten thousand would be high in

12 terms of those weights, but it possibly could

13 go that high. It's probably more in the range

14 of a thousand for the most part.

15   Q   And I understand that you've

16 appeared in these proceedings for quite some

17 time, decades?

18   A   That's correct.

19   Q   And you appeared on behalf of the

20 MPAA in the 1997 proceedings that took place

21 in the Year 2001, correct?

22   A   That is correct.

1   Q   Are you familiar with the

2   September 2001 distribution order that came

3   out of those 1997 proceedings?

4   A   I don't recall the details.

5   Q   Have you reviewed it at some time

6   though?

7   A   I'm sure that I have, but I don't

8   recall when I did though.

9   Q   Fair enough. Do you recall that

10   in that decision on the '97 proceedings the

11   CARP referenced a high incidence of zero

12   viewing in the Nielsen diary data?

13   A   Yes, I do.

14   Q   And do you recall that in the '97

15   proceedings it was found that the aggregate

16   zero viewing equaled 73 percent of all major

17   broadcasts?

18   A   I don't recall the details of it.

19   Q   Would that figure of 73 percent

20   surprise you or does that seem out of whack?

21   A   No, it's actually very much in

22   line that even with the people meter that

1 currently is the source of what's done for a

2 $70 billion advertising business, that if you

3 dive into it that there's approximately 65

4 percent of the quarter hours would, in fact,

5 be zero viewing for stations. Now obviously,

6 that's in direct relationship to the size of

7 the audience to those stations, some more,

8 some less. But that is not inconsistent with

9 what's currently out there in the standard

10 audience measurement.

11 Q You mentioned, in your answer

12 right now, you mentioned metered ratings,

13 correct?

14 A That is correct.

15 Q And I assume you're talking on a

16 national level in your previous comment?

17 A Yes, I was.

18 Q On a national level would one see

19 that sort of incidence of zero viewing for

20 diaries as opposed to metered ratings?

21 A Again, it would be consistent

22 across meters and diaries. It would not be

1   surprising to see those types of levels. And

2   again, in direct relationship to the size of

3   the station that's trying to be measured. And

4   we try and be very inclusive for all stations

5   and therefore there are a lot with very small

6   viewing levels.

7   Q   From your testimony yesterday, my

8   recollection is that you were saying that the

9   diary ratings or the ratings derived from

10   diaries, there are many more diaries and much

11   more diary data that Nielsen collects than

12   metered data, correct?

13   A   There are more sample households

14   that are being measured. The extent of the

15   data that's being collected, because the meter

16   is 365 days a year, is very extensive, so I

17   wouldn't phrase it that way. But there are

18   certainly much larger sample sizes with the

19   diary.

20   Q   In terms of number of households

21   covered, my understanding from your testimony

22   was that the diaries are much greater than the

1   meters?

2   A   That is correct.

3   Q   On what kind of a scale?

4   A   I don't know exactly what the

5   metered sample was at the time, but I would

6   estimate maybe 5,000 or 10,000 during that

7   period of time.   Currently, right now,

8   nationally, it's 25,000. And the diary itself

9   is about 25,000 per week within independent

10   samples so that we're measuring about 400,000

11   plus households a year with the diary.

12   Q   So at the time in question, 2002,

13   2003,   your   estimate,   just   refresh   my

14   recollection, your estimate at that time is

15   that there must have been a couple hundred

16   thousand diary households and what did you

17   say, 25,000 meters?

18   A   No, it's 25,000 now.   It might be

19   5,000 or 10,000.   I honestly don't recall.

20   Q   So there could be as much as a 40

21   to 1 ratio during this time period of diaries

22   to meters or maybe greater?

1   A   That's correct.

2   Q   Okay. Now isn't it true that the

3   September 2001 order on the '97 proceedings

4   directed the MPAA to decrease the incidence of

5   zero viewing in its study if it was going to

6   use such Nielsen data in the future?

7   A   I don't recall.

8   Q   Let me ask you to take a look at

9   what's been marked as Exhibit 7 in the

10   document in front of you there which is the

11   testimony of Raul Galaz in rebuttal to the

12   direct statement of MPAA-represented program

13   suppliers and that's Exhibit 7 to the Galaz

14   testimony in rebuttal to the MPAA.

15   A   Exhibit 7?

16   Q   Yes. And you can go past that

17   page that just says Exhibit 7. I'll represent

18   to you that this is a printout of one of the

19   Nielsen data, raw data files that was provided

20   to IPG in this matter. And if you could just

21   look at the first page or so. Does this look

22   like, does the data that's represented here

1 look like Nielsen diary data to you?

2   A   Yes, it does.

3   Q   And my understanding is these are

4 supposed to be representing 16 weeks of

5 television viewing, correct?

6   A   If it's 2003, I would -- I would

7 assume, but I'm not completely sure.

8   Q   Okay, part of the reason for my

9 inquiry here is that in terms of -- well, do

10 you see -- it's about the fourth column over.

11 It's entitled zero viewing instances, no, no.

12 It's the next one, aggregate instances.

13   My understanding is those figures

14 under aggregate instances, the first of which

15 is 13,440, that these are the number of

16 quarter hour time periods measured in these

17 different entries. Is that correct?

18   A   That would be my interpretation.

19   Q   Now I'm going to have to do a

20 little math here because I want to try and

21 figure out how many quarter hours are in a

22 week. And -- excuse me, how many quarter-hour

1   time periods are in a 16-week sweeps sample.

2   And my calculation is that there are 4 quarter

3   hours in every hour, multiplied by 24 hours in

4   a day, multiplied by 7 days in a week,

5   multiplied by 16 weeks gives a product of

6   10,752. And we can do it on our calculators.

7   Does that sound right to you?

8   A   The math as you were running

9   through, I didn't follow and multiply it out

10   to the 10,000.

11   Q   Should we do that very quickly?

12   Would you mind doing that very quickly just to

13   confirm that? I can give you a paper and

14   pencil or do you have the ability to do it in

15   your head?

16   So it was 4 quarter hours times 24

17   hours in a day times 7 days a week times 16

18   weeks.

19   A   Somewhere around 11,000 or so.

20   Q   The figure I had was 10,752. Now

21   as I look back at Exhibit 7, under the

22   aggregate instances which is listing the

1   number of quarter hour time periods, what I

2   see are numbers generally in excess of that,

3   some close to double that or in fact, exactly

4   double that such as the second entry at

5   21,504. Now it would appear to me that that

6   means that on that second entry of WTBS that

7   appears on the first page of Exhibit 7 that

8   that would mean that actually what was being

9   presented here in this raw data was more than

10   16 weeks of information, more like 32 weeks.

11   Is that a reasonable conclusion?

12   A   The aggregate number of quarter

13   hours, yes.

14   Q   And as I said if one looks down

15   many of these, almost all of them seem to be

16   in excess of 10,752. My conclusion from that

17   was that while this data was aimed at

18   providing 16 weeks of data, it actually

19   provides a bit more than that. Is that a

20   reasonable conclusion?

21   A   It is including the additional

22   measurement periods of March and October which

1   would end up adding a considerable degree of

2   quarter hours to that.

3   Q   Right.   It just seems from the

4   mathematical standpoint there may be some time

5   even in addition to those two months, would

6   you agree?   Because two months would be an

7   additional 8 weeks, because 8 plus 16 would be

8   24.   And as I say, the second entry represents

9   32 weeks of quarter hour periods, so it seems

10   that there must be some additional data coming

11   into these beyond just the regular sweeps

12   weeks, the additional two months of October

13   and May.   Do you know where that other time is

14   coming from?

15   MR. OLANIRAN: Your Honor, I'd

16   like to object to Mr. Boydston's line of

17   questioning.

18   Mr. Boydston is actually implying that this

19   data that we're looking at is in fact the raw

20   data that Nielsen provided to IPG.   In fact,

21   it is not.   This is an analysis that was

22   prepared, I suppose, by Mr. Galaz, or someone

1   at IPG. For the purpose of this proceeding,

2   Nielsen does not, for example, if you look at

3   the last column, does not do zero viewing

4   instances in its raw data.

5   This is not the data or the format

6   in which you will find the Nielsen data. So -

7   -

8   MR. BOYDSTON: That contradicts

9   his testimony so far. His testimony was that

10   these numbers for minutes were what I asked

11   him they are.

12   MR. OLANIRAN: These are not the

13   raw data that was produced to IPG. You can

14   direct the question to Mr. Lindstrom to see

15   whether or not Nielsen calculates zero viewing

16   instances. I'm pretty certain they don't.

17   MR. BOYDSTON: I haven't asked

18   about that.

19   MR. OLANIRAN: You referred to

20   these as raw data in your line of questioning

21   and I just want to make sure we're clear about

22   that.

1   CHIEF JUDGE BARNETT: The witness

2   has already accepted this and has answered

3   questions about it. You can cross examine,

4   Mr. Olaniran.

5   BY MR. BOYDSTON:

6   Q   Do you know where these additional

7   minute quarter hour periods could have come

8   from? As I said, you clarified and you had

9   already testified that in addition to the 16

10   sweeps, there's oftentimes time for May and

11   October. But it seems like there's even more

12   in some of these entries and I'm just

13   wondering if you have knowledge as to where

14   the other minutes come from?

15   A   Again, I'm not sure where all the

16   aggregates are being built up to, but there

17   are many instances where that could end up

18   occurring.

19   Q   Okay.   Have you performed an

20   analysis yourself in order to determine the

21   existence of zero viewing in the raw Nielsen

22   data?

1   A   I personally have not.

2   Q   Has someone at Nielsen done that

3   as far as you know?

4   A   Not that I know of.

5   Q   Do you know of anyone else who has

6   done that?

7   A   Not in terms of specifically

8   looking at that aspect that I recall.

9   Q   My follow-up questions were

10 because

11 -- and I asked you and you said "I personally

12 haven't" which implied to me that maybe you

13 knew that someone else had. That was all.

14 But you don't know of anyone else that has

15 done that?

16   A   I can only answer for myself in

17 this case.

18   Q   Okay. Is --

19   JUDGE STRICKLER: Excuse me,

20 counsel. I didn't mean to step on your words.

21 May I ask him a question to follow up?

22   MR. BOYDSTON: Absolutely.

1   JUDGE STRICKLER: One of your

2   answers before, Mr. Lindstrom, was that you

3   understood that there were other reasons why

4   the aggregates would total more than the

5   additional two months. Counsel didn't ask you

6   what those other instances would be that would

7   account for that. Can you tell us what those

8   other instances would be?

9   THE WITNESS: There could be

10 situations like with GN. GN, there's actually

11 two separate feeds that are going on, one of

12 which is the local GN. The other is the

13 satellite feed of GN which has in some cases

14 different programming. It's possible if

15 somebody were looking at the data, they would

16 aggregate up each signal individually for the

17 quarter hours and then put them together.

18   JUDGE STRICKLER: Sort of a double

19 count on the WGN numbers, is that what you're

20 saying?

21   THE WITNESS: Potentially that's

22 one way of thinking about it, but again, I'm

1   not sure what are the occurrences in terms of

2   how this is built up. What I had been

3   answering originally was going this looks to

4   be consistent with the type of data that would

5   come out from what we were producing, but I'm

6   not sure where the 21,000 directly were coming

7   from.

8   JUDGE STRICKLER: And you said

9   there were instances that you could imagine as

10 to why it would be that you have the aggregate

11 totalling more than the additional two months

12 and you just gave the WGN example. Any other

13 instances or is that all that you can recall?

14   THE WITNESS: That would be the

15 one that -- that type of situation would be

16 the one that would be most likely to come to

17 mine.

18   JUDGE STRICKLER: Anything else?

19   THE WITNESS: Not that I can think

20 offhand.

21   JUDGE STRICKLER: Thank you.

22 Please proceed.

1   MR. BOYDSTON: Thank you.

2   BY MR. BOYDSTON:

3   Q   Have you reviewed the rebuttal

4   testimony of Raul Galaz in this matter?

.5   A   Very briefly.

6   Q   Have you reviewed the rebuttal

7   testimony of Dr. Laura Robinson in this

8   matter?

9   A   No, I haven't.

10   Q   Based upon your review of Mr.

11   Galaz' rebuttal testimony, do you have any

12   disagreement that for this time period, 2000,

13   2003 the Nielsen diary data aggregate zero

14   viewing was between 78 percent and 82 percent

15   depending upon the year?

16   A   I have no reason to disbelieve

17   that.

18   Q   Do you have any reason to disagree

19   that the range of zero viewing for stations in

20   the MPAA viewer study was between less than 1

21   percent and 99.9 percent zero viewing

22   instances?

1   A   I have no reason to believe that

2   would not be the case.

3   Q   Thank you.   Now is it accurate

4   that some of the station data that was

5   provided by Nielsen to the MPAA included

6   stations that showed 100 percent zero viewing

7   for the selected stations?

8   A   I could not say one way or another

9   for sure on that.

10   Q   Meaning you don't have any

11   recollection as to whether that occurred?

12   A   I do not have a recollection as to

13   that specific.

14   Q   Have you seen that instance before

15   in Nielsen data?

16   A   I haven't looked for that

17   specifically.   It would not be, again,

18   inconsistent if it were a station with very,

19   very low viewing levels, again, keeping in

20   mind that the base population that we're

21   looking is somewhere in the neighborhood of

22   100 million households.   In many of these

1   instances, we could be looking for viewing

2   that are at levels of a 1,000 during any given

3   quarter hour. It takes a lot in order to find

4   those which is why you need substantial sample

5   sizes, but any given quarter hour only has

6   25,000 as the base sample. That's why in

7   order to analyze that data, it really is

8   imperative to aggregate is across time. Zero

9   viewing is the specific quarter hours for

10   which the sample sizes would be relatively low

11   comparatively. And it really is necessary to

12   aggregate across.

13   Q   And the difficulty in doing that

14   results in the incidence of zero viewing that

15   we see, correct?

16   A   Because individual quarter hours

17   will be going against approximately a 25,000

18   sample size.

19   Q   Right, if it was a 25 million

20   sample size, that would probably be a

21   different story, correct?

22   A   Well, if it were two weeks, then

1   it would be 50,000; in 3 weeks, 75,000 and up

2   to the 400,000 plus, it's just the individual

3   quarter hours to look for zero viewing is

4   again not the purposes for which the study was

5   designed or terribly surprising when focusing

6   on that micro level.

7   Q   And that's the issue is that when

8   focusing on that micro level, this particular

9   study has its limitations, correct?

10   A   If one were trying to decide on

11   the audience for an individual quarter hour on

12   a low-rated station, there would be high

13   relative errors.

14   Q   Correct, which makes it kind of a

15   tough yardstick to use for this, doesn't it?

16   A   No. Because the whole purpose is

17   to aggregate programs across time. To

18   aggregate across days on strip programming, to

19   go across weeks and as those accumulate,

20   you're accumulating sample sizes which is the

21   way you eliminate a zero viewing issue. It's

22   the way that it works even in the example of

1   the people meter that I discussed of going

2   becomes an acceptable measure because, in

3   fact, you aggregate across time.

4   Q   Now the figures I mentioned a

5   minute ago, in the '97 proceedings, there were

6   73 percent zero viewing in the raw Nielsen

7   data and of these proceedings on these years

8   it's between 78 and 82. Based on those simple

9   numbers, it seems clear that in this study for

10   these years, the incidence of zero viewing is

11   certainly higher, isn't it? I mean it's 82

12   percent versus 73 percent on the high end,

13   correct?

14   A   But at the same time I think it's

15   imperative to go. It's not 80 percent of the

16   programs, in fact, have zero viewing. And so

17   that all that that might tell you in terms of

18   a decline or an increase rather and the degree

19   of zero viewing would suggest that there is

20   probably more fragmentation in the marketplace

21   that would cause distant signals to perhaps

22   have slightly less viewing. That is really

1   the main conclusion that you can draw from

2   that type of data set.

3   JUDGE STRICKLER: I have a

4   question for you about the zero viewing

5   quarter hour segments. You said as the sample

6   gets larger, you tend to correct for that.

7   Does Nielsen know whether or not the quarter

8   hours for the survey for one week which is a

9   zero, whether or not the zero repeats for that

10   same quarter hour for that same low-rated show

11   in the next survey and then survey and the

12   next survey or are these zeros all across the

13   low-rated shows and you don't figure out which

14   is which?

15   THE WITNESS: No, well, we don't

16   take that step in the analysis.   That's done

17   further down the line. But that's sort of the

18   way that this works is the idea that you may

19   have a zero in Week 1, but when you go to that

20   time period in that program in Week 2 and

21   you're adding them in together that you are

22   going to have a much greater likelihood that

1   you will find viewing in subsequent airings.

2   And we're not producing the data specifically

3   in the type of analysis that you're speaking

4   to other than the end product as I understand

5   it is ultimately an aggregation by program

6   across time which is where you do end up sort

7   of adding in the subsequent viewing. And you

8   would not have anywhere near 80 percent of the

9   programs with no viewing.

10   JUDGE STRICKLER: Yes, so when we

11 see 80 percent zero viewing, we're not saying

12 -- let me ask it this way, is that statistic

13 showing that a particular show, a low-rated

14 show, we'll call it Watching Paint Dry, a low-

15 rated show. It's not zero every time, every

16 quarter hour.

17   THE WITNESS: No.

18   JUDGE STRICKLER: Those 80 percent

19 zeros could be Watching Paint Dry, Watching

20 Grass Grow, two different shows.

21   THE WITNESS: Right. And if it

22 turned out that it was on five days a week and

1 three days nobody watched it, not nobody

2 watched it, but no viewing was recorded and in

3 the fourth and fifth day there was viewing

4 that was recorded, it would still show under

5 that scenario 65 percent zero viewing. But

6 the accumulated viewing across the five days

7 would be a fairly accurate or a reasonably

8 accurate reflection. And as you went across

9 weeks so that you have independent samples

10 adding to it, it will be a better and better

11 number the more weeks and sweeps that are

12 being combined.

13   BY MR. BOYDSTON:

14   Q   Now isn't it true there are

15 instances of zero viewing and not just for

16 quote unquote small shows or small stations,

17 but even big stations as well, is it not true

18 that for instance WGN by far and away the

19 largest station that's distantly retransmitted

20 has what i would call anyway a high incidence

21 of zero viewing in excess of 50 percent.

22 Isn't that true?

1   A   I don't know the specifics for GN

2   and there are two reasons why that could

3   happen. But first off, keep in mind as we've

4   tried to stress broadcast stations at this

5   point in time would almost be happy with one

6   and two rating levels. You're dealing with

7   small percentages and for cable viewing you're

8   dealing with tenths of a percent as your

9   typical rating level. So that even well

10   distributed, well viewed networks are likely

11   in the grand scheme of things to have

12   relatively low viewing levels at any given

13   point in time.

14   Q   Isn't it true, you mentioned

15   earlier you said well, it's not like we have

16   80 percent of programs with zero viewing, do

17   you have an estimate as to what the percentage

18   of programs are out there that have zero

19   viewing instances?

20   A   No, I do not.

21   MR. BOYDSTON: Your Honor, I'd

22   like to mark Exhibit 504. It's a one-page

1   document.   They are sticking together.

2   (Whereupon, the above-referred to

3   document was marked as Exhibit 504

4   for identification.)

5   BY MR. BOYDSTON:

6   Q   Now this is a document which I've

7   only marked at the moment.   It hasn't been

8   admitted and I haven't moved for it to be

9   admitted just yet. I'll represent to you this

10   is a document that has been generated by IPG

11   based upon analysis of the raw Nielsen diary

12   data and it reflects here that for the Year

13   2000 out of 8,173 unique programs we have

14   incidents of aggregate zero viewing of 42.65

15   percent.   Do you have any reason to believe

16   that that would be inaccurate?

17   A   I have no reason to believe it is

18   accurate either. And that's not question it.

19   It's just simply I don't have the base

20   information to be able to say.

21   Q   Okay.

22   JUDGE STRICKLER: Counsel, just so

1   you can clarify so I understand the questions

2   and the answers here. That final column,

3   percentage of programs with aggregate zero

4   viewing, does that mean as far as you're

5   representing percentage of programs with any

6   aggregate zero viewing or total aggregate zero

7   viewing?

8   MR. BOYDSTON: Any.

9   JUDGE STRICKLER: Thank you.

10   MR. BOYDSTON: Total is a story

11   for another day.

12   JUDGE STRICKLER: Fair enough.

13   BY MR. BOYDSTON:

14   Q   Let me ask you to turn to Exhibit

15   8 in the document you have there in front of

16   you. I'm sorry, Your Honors, it's just the

17   next exhibit in that same document we were

18   looking at.

19   CHIEF JUDGE BARNETT: Exhibit 8 to

20   the Galaz rebuttal testimony to MPAA?

21   MR. BOYDSTON: And actually,

22   belatedly, I'd like to move admit Exhibit 7.

1   MR. OLANIRAN: Objection, Your

2   Honor, on the same basis that I made before.

3   Mr. Lindstrom cannot authenticate this

4   document and while he answered questions about

5   it, I think his answers were more in a general

6   form, not specific to the document.

7   MR. BOYDSTON: The witness

8   acknowledged that this appeared to be

9   information that did come straight from the

10   Nielsen raw data. That's the purpose for

11   which it's being admitted.

12   MR. OLANIRAN: Your Honor, this

13   information did not -- it may have come from

14   the Nielsen data, but this is not information

15   Nielsen prepared. The only information

16   Nielsen provided with respect to the diary is

17   the raw data. This is not the raw data.

18   Nielsen does not calculate zero viewing

19   instances and Mr. Lindstrom's testimony has

20   been very consistent with that.

21   I think you can attempt to put

22   this in with the witness that sponsored this,

1   but I'm quite sure that Mr. Nielsen did not

2   prepare this document.

3   CHIEF   JUDGE   BARNETT: The

4   objection is sustained.   Exhibit 7 to the

5   rebuttal testimony is rejected.

6   MR. BOYDSTON: Not admitted.

7   CHIEF   JUDGE   BARNETT: Not

8   admitted.

9   (Laughter.)

10   MR. BOYDSTON: Thank you.

11   CHIEF   JUDGE   BARNETT: I   know

12   you'll make another stab at it, Mr. Boydston.

13   MR. BOYDSTON: I appreciate that.

14   Thank you.

15   MR. HARRINGTON: Your Honor, if I

16   could be heard for a second?

17   CHIEF JUDGE BARNETT: You may.

18   MR. HARRINGTON: I note we didn't

19   state a position on this, but the fact is

20   we've never received this document.   We

21   haven't received any of the proposed exhibits

22   that IPG has exchanged regarding MPAA.   And if

1   we're going to have a meaningful involvement,

2   we would like to be provided with a copy of

3   the exhibits that are going to be proposed for

4   entry in this case.

5   MR. BOYDSTON: Your Honor, this is

6   not the case against SDC. I'm not talking to

7   an SDC witness.

8   CHIEF JUDGE BARNETT: Mr.

9   Boydston, I thought we had made it clear that

10 all documents were to be provided to all

11 parties and so to the extent that you have not

12 provided MPAA to Mr. Harrington or SDC

13 documents to Mr. Olaniran, you need to do

14 that.

15   MR. BOYDSTON: All right. I mean

16 the only reason we haven't is as I said --

17   CHIEF JUDGE BARNETT: I understand

18 your point, but you need to understand ours.

19   MR. BOYDSTON: Okay.

20   BY MR. BOYDSTON:

21   Q   With regard to Exhibit 8, do you

22 recognize this exhibit as containing

1   information from the raw Nielsen data?

2   A   I recognize that it contains data

3   that wouldn't have been there as well, given

4   some of my perhaps speculation on the last

5   one, I think I need to avoid this one. We

6   didn't do data that was connected with the

7   application of the program names.

8   Q   Okay, are you referring to field

9   three there?

10   A   Yes, which seems to be a key

11   component of the data set.

12   Q   Is there anything else in this

13   that you would add to that field three in your

14   answer?

15   A   I am not sure what the rest of the

16   fields are either, but I do know that, in

17   fact, the program name data we did not get

18   involved with.

19   Q   Okay, the field at the far right,

20   do you have a recognition of what that is,

21   based upon what the raw Nielsen data is?

22   A   I'm not sure offhand. I could

1   speculate.

2   Q   What's your speculation?

3   A   Actually, I'm not completely sure.

4   CHIEF JUDGE BARNETT: We're not

5   going to ask witnesses to speculate.

6   MR. BOYDSTON: He said I could

7   speculate.   That's why I followed up.

8   CHIEF JUDGE BARNETT: Could, but

9   he's not allowed to.

10   MR. BOYDSTON: Fair enough.

11   BY MR. BOYDSTON:

12   Q   Let me ask you to look back at

13   Exhibit 7 and do you see stations on the left

14   hand side of that document that based upon

15   your experience you would believe were

16   probably independent stations as opposed to

17   network stations?

18   A   Yes.

19   Q   And do you see that those

20   independent stations and I realize that this

21   is something that did not come from Nielsen,

22   but they show an incidence of zero viewing on

1   the far right hand corner, at least as

2   represented in this document?

3   A   Yes.

4   Q   Do you have any reason to believe

5   that there would be a difference between zero

6   viewing of an independent station and a

7   network station?

8   A   There could be differences,

9   depending on how this was calculated.

10   Q   Just based upon what you see here,

11   do you see that or do you believe that

12   network-affiliated stations have a higher

13   incidence of zero viewing than network

14   stations?

15   A   I'm not familiar with all the

16   stations. I couldn't divvy them up in my

17   mind.

18   Q   Okay, let me ask the question just

19   a little different way. In general, is it

20   your belief that network-affiliated stations

21   would have a different, fundamentally

22   different zero viewing incidents than network

1   stations?

2   A   The main reason why there would be

3   a difference depending on how the calculations

4   were done or whether or not the quarter hours

5   with compensable programming were handled

6   before the analysis was done or not, so that

7   the network feeds would have been potentially

8   stricken which would end up with a zero

9   viewing cell.

10   We didn't do the program names

11   associated with that so those instances

12   should, in fact, come up with zeroes. I don't

13   know whether they were within this analysis.

14   The second thing is is that, and

15   it's a very broad type of statement and so it

16   is going to vary piece by piece within this is

17   that network programs will often have higher

18   ratings which, in fact, may or may not lead to

19   differences in the zero viewing cells, but

20   it's difficult to say. I don't think there's

21   -- you could necessarily make too general a

22   statement on that.

1   Q   I don't know if it's in front of

2   you there or not, but I think I can ask a

3   question and you can answer it without it in

4   front of you. If not, let me know. What I'm

5   referring to is your statement that you talked

6   about yesterday and you provided several

7   changes in your statement, as of yesterday, do

8   you recall that?

9   A   I do.

10   Q   And particularly on page six of

11   your testimony, you changed the references a

12   couple of times from the MPAA analysis, or

13   excuse me, the Nielsen custom analysis to Dr.

14   Gray's custom analysis. Do you recall that?

15   A   Yes, I do.

16   Q   When you refer to Dr. Gray's

17   custom analysis, what exactly is it you're

18   referring to?

19   A   I'm referring to an analysis

20   that's downstream from the work that Nielsen

21   did. We produced quarter hours, estimates of

22   quarter hours of viewing for distant cable

1   households among individual stations on a

2   quarter hour basis. And down the line from

3   that point in time, program names were affixed

4   to it and the analysis was completed.

5   And so it was a case of saying in

6   this case the analysis piece would have been

7   further down the line from the work that we

8   were producing.

9   Q   So if you could be more specific,

10   what was the work that Dr. Gray did that you

11   are encompassing in your phrase, "Dr. Gray's

12   analysis"?

13   MR. OLANIRAN: Objection, Your

14   Honor. I think Mr. Lindstrom is not qualified

15   to testify what Dr. Gray did. If he wants to

16   know what Dr. Gray did he can ask him.

17   MR. BOYDSTON: He's changed his

18   analysis to say that what he's talking about

19   is Dr. Gray's analysis which certainly implies

20   that he knows something about Dr. Gray's

21   analysis, otherwise why would he say it?

22   CHIEF JUDGE BARNETT: I'll allow

1   the question. He used the terminology in his

2   testimony.

3   THE WITNESS: The piece that the

4   adjustment had been made for was the notation

5   regarding two aspects of zero viewing, one of

6   which was taking out, in fact, the broadcast

7   network; viewing quarter hours that would not

8   have been compensable. We are producing

9   viewing data for all stations for all quarter

10   hours without tying to program name, so that

11   step within the process to take out

12   noncompensable quarter hours would have been

13   done further on and would have been part of --

14   included within Dr. Gray's analysis. And the

15   same with GN, where comparisons were necessary

16   in order to determine which quarter hours

17   should be included or not having to do with

18   the comparison of the national satellite feed

19   versus the local feed and where there are

20   differences.

21   BY MR. BOYDSTON:

22   Q   So are you saying that after

1   Nielsen provided the raw data to Dr. Gray

2   which included things like noncompensable

3   programming, network programming, if you will,

4   that after that, Dr. Gray removed that

5   noncompensable programming from the data set

6   you received from Nielsen and then did

7   something with it?

8   A   We provided our data to the MPAA

9   which was then gone on to Dr. Gray, but it is,

10   in fact, my understanding that that was done

11   in between Nielsen's work on the estimates of

12   the audience and Dr. Gray's final analysis.

13   Q   And how do you know that?

14   A   It is my understanding that that

15   is part of Dr. Gray's analysis.

16   Q   What's the basis for that

17   understanding?

18   A   I cannot speak with full expertise

19   on the details of Dr. Gray's analysis, so --

20   Q   Well, do you know if it was Dr.

21   Gray who did that or some other person?

22   A   I only know that it was done

1   further downstream from the work that we were

2   doing.

3   Q   And how do you know that?

4   A   Because we didn't do it.

5   Q   Well, how do you know it was done

6   in the first place then?

7   A   It is my understanding that it's

8   done. I couldn't sit and tell you the details

9   of how I know that.

10   Q   Well, you say that you know it,

11   something must have made you know it?

12   A   I would say that -- I may have

13   overstepped my statement in too strong a way.

14   And in fact, I would requalify that as saying

15   I, in fact, have -- I have no positive

16   confirmation to say one way or another that it

17   was done. I only can speak to the data set

18   that we provided which is again, the estimates

19   of the audience on a distant cable basis on a

20   station by station.

21   Q   I'm sorry, I beg your pardon. The

22   data   set   you   produced   did   include

1   noncompensable programming, correct?

2   A   It would because we wouldn't have

3   gone through to identify the program level

4   data.   It has to be done once the program

5   schedules are affixed.

6   Q   And   noncompensable   programming

7   includes, for instance, network programming,

8   correct?

9   A   I'm probably best not commenting

10   on that because I didn't get involved with

11   that aspect of it.

12   Q   Well, are you aware as to whether

13   or not network programming is compensable in

14   these matters?

15   A   I am aware, but not to the extent

16   of being able to answer on details on it.   To

17   a certain extent, you could almost go into a

18   speculation mode.   It doesn't affect what we

19   produced and as I said, I may have made a

20   stronger   statement   before   than   perhaps   I

21   should have.

22   Q   Now   you said yesterday   in   your

1   testimony that zero viewing is a misnomer in

2   the sense that when Nielsen data shows zero

3   viewing Nielsen isn't really saying no one is

4   watching, correct?

5   A   Other than for analysis purposes

6   where we're putting numeric fields in, Nielsen

7   doesn't show zero viewing.

8   Q   But I think your point was and

9   forgive me if I'm wrong, but your words

10 yesterday I believe were just because you have

11 something that shows no viewing under the

12 Nielsen data, doesn't mean that no one is

13 actually watching at that time, correct? It

14 just means that the Nielsen method did not

15 pick that up?

16   A   That the levels would likely have

17 been too small to have found reported viewing.

18 Yes.

19   Q   And again, this may be asking you

20 to be overstepping your bounds and if not, I'm

21 sure you'll avoid that. Isn't it the case

22 that MPAA study accords no value to programs

1   that have a zero viewing incidence?

2   A   That's not true.

3   Q   And why is that not true?

4   A   Once again, it's important to keep

5   in mind sampling in the way that it works so

6   that during any individual quarter hour you

7   may or may not find viewing in the same way

8   that for any given respondent it might be a

9   yes or a no in terms of have they viewed. You

10   would expect that to occur. But it's only

11   once you only add up all of the aggravated

12   viewing that, in fact, your estimate is

13   accurate.

14   And so it's a situation that it

15   really is necessary to add up the viewing

16   across time.

17   Q   Yes, but to the extent that the

18   MPAA study accords no royalty rights or no

19   right to actually get paid royalties out of

20   this proceeding to a program that shows up

21   with a zero viewing on the Nielsen data, is it

22   not true that zero viewing in the Nielsen data

1   translates to no value in these proceedings?

2   MR. OLANIRAN: Objection, Your

3   Honor. Mr. Lindstrom is not testifying what

4   MPAA's distribution methodology or what MPAA's

5   methodology is in this proceeding.   He's

6   testifying to what Nielsen produced to MPAA.

7   CHIEF JUDGE BARNETT: Sustained.

8   And let's keep our objections to the statement

9   of the legal basis for the objection, please,

10   not a narrative. Objection sustained.

11   BY MR. BOYDSTON:

12   Q   Do you have an understanding of

13   how the MPAA study accords shares of these

14   royalty pools to individual program suppliers?

15   A   To the extent that my knowledge

16   goes and it is again and a step further

17   downstream than what we do, but it examines

18   programs and examines programs across time and

19   across stations in a very aggravated way.

20   And under that scenario, instances

21   with multiple stations and multiple time

22   periods coming up with zero viewing are going

1 to be certainly the exception to that rule.

2 It's why again you have to keep aggregating

3 and a zero for a given quarter hour, as we

4 keep going back to it, zero viewing for a

5 given quarter hour doesn't mean anything. It

6 is only in that aggregation. And to the best

7 of my knowledge of what the MPAA does, I think

8 it's a fair representation of the relative

9 amount of viewing going to those programmings

10 across times and station.

11   Q   Do you think it's a fair and

12 relative representation if the MPAA

13 methodology accords no compensation whatsoever

14 for a program that, in fact, does have

15 viewership?

16   MR.   OLANIRAN: Objection,

17 relevance, Your Honor.

18   CHIEF JUDGE BARNETT: Sustained.

19   THE WITNESS: Can you rephrase

20 that?

21   CHIEF JUDGE BARNETT: You don't

22 have to answer.

1   THE WITNESS: I'm sorry, I thought

2   you were saying go ahead with it.

3   CHIEF JUDGE BARNETT: I used to

4   confuse those two all the time myself.

5   (Laughter.)

6   BY MR. BOYDSTON:

7   Q   Would you as an expert normally

8   provide relative error rates as part of your

9   report?

10   A   It's actually a difficult question

11   to answer. It's something that will often be

12   provided if it's asked for in terms of

13   syndicated data. It's frequently done. In

14   situations like this one, relative errors are

15   exceedingly complicated because effectively

16   every single program depending on how it's

17   aggregated will have different relative

18   errors. I don't know whether it pays to go

19   into the reasons for that or whether you can

20   accept that as what the situation is, but as

21   a result, trying to calculate out relative

22   errors on a study like this that will

1   subsequently be aggregated at a later point is

2   exceedingly difficult and cumbersome. If we

3   had a set of numbers that we did, we could

4   produce it, something along these lines, very

5   hard. And they will differ all over the place

6   and need separate calculations for each.

7   JUDGE STRICKLER: Excuse me,

8   counsel. Can you define that term formally,

9   relative errors?

10   THE WITNESS: Relative error would

11   be the relationship of the standard error to

12   the number that's being measured. So if we

13   produced a 10 rating, for example, and it had

14   a standard error of 2.5 points, it would be a

15   25 percent relative error. And so it's a

16   gauge of how tight the fit will be. It's kind

17   of a direct reflection of standard error.

18   The reason why it differs is that

19   one of the key components in calculating

20   either standard error or relative error over

21   time is how much is coming from unique

22   individuals. So it's not just the sample

1   size. It's whether there's a correlation of

2   viewing between events. And so the net result

3   is each program will have different

4   correlations or each aggregation will have

5   different correlations and different sample

6   sizes, causing it to again be very difficult.

7   BY MR. BOYDSTON:

8   Q   You've testified a number of times

9   in these proceedings. I understand going back

10   a significant amount of time.

11   MR. HARRINGTON: Asked and

12   answered, Your Honor.

13   MR. BOYDSTON: There's a little

14   more to it.

15   BY MR. BOYDSTON:

16   Q   Have you ever testified on behalf

17   of Settling Devotional Claimants?

18   A   I actually don't recall. I've

19   done so many of these. I don't remember as

20   people have gone in and out of these

21   situations. I'm also a little bit unclear on

22   exactly what the question is asking.

1   Q   Sorry about that. What I was

2   asking is have you ever testified in these

3   proceedings or proceedings before the CARP or

4   before its predecessor the CRT on behalf of

5   Settling Devotional Claimants prior to now?

6   A   Again, I can't remember off the

7   top of my head whether I have specifically

8   done it. I have certainly been cross examined

9   by the devotionals. I know that.

10   (Laughter.)

11   Q   Have you testified on behalf of

12   anyone other than the MPAA in these

13   proceedings?

14   A   Again, I don't recall. I have

15   done work for other claimants. I do not

16   recall whether I was specifically called for

17   those studies independent of the work that

18   I've done with the MPAA. But we are

19   fundamentally Nielsen is a fence-sitter,

20   although I'm testifying for the MPAA. I'm

21   here to testify about what we did and we can

22   and have done work for other claimant parties.

1   Q   Nothing further.

2   CHIEF   JUDGE   BARNETT: Mr.

3 Harrington?

4   MR. HARRINGTON: Yes, Your Honor,

5 just one or two questions.

6   CROSS EXAMINATION

7   BY MR. HARRINGTON:

8   Q   Mr. Lindstrom, in your experience

9 reviewing viewing data, have you found that

10 viewing is constant across a 24-hour day or

11 does it change from quarter hour to quarter

12 hour?   Let's assume national aggregate

13 numbers.

14   A   Change in which way, if you could

15 just --

16   Q   So do the same number of people

17 watch television generally, all programs at

18 say six in the morning or six in the

19 afternoon?

20   A   No, it changes throughout the

21 course of the day.

22   Q   It does. And are -- how would you

1 -- would you say that viewing during the hours

2 of say 2 a.m. or 6 a.m. are relatively low as

3 compared to other hours during the day?

4   A   They tend to be relatively low,

5 yes.

6   Q   And based upon your experience in

7 doing this for many years, am I correct that

8 starting at the hour of 2 a.m. viewing is

9 quite low and then at some point say at about

10 5 o'clock it builds up again and that the

11 lowest viewing level would be what, 2:30, 3:00

12 o'clock in the morning?

13   A   It tends to be in that type of

14 neighborhood, but I couldn't give you the

15 specifics.

16   Q   Okay, so if someone took the

17 viewing levels nationally at 1:30 a.m. and

18 drew a linear interpolation and reduced it

19 each quarter hour until, or half hour, until

20 6:30 a.m., so that the lowest viewing levels

21 are at 6 a.m., would that be a fair way to do

22 that?

1   A   I would tend not to do linear

2   relationships in terms of television viewing

3   overall.

4   Q   Thank you very much. That's all I

5   have.

6   CHIEF   JUDGE   BARNETT: Mr.

7   Olaniran?

8   REDIRECT EXAMINATION

9   BY MR. OLANIRAN:

10   Q   Good morning, Mr. Lindstrom. Greg

11   Olaniran for MPAA. I just have a couple of

12   very quick questions.

13   Just so we're clear, this zero

14   viewing idea we're talking about, when you're

15   looking at a particular station on a

16   particular date at a particular quarter hour

17   and the specific households that are viewing

18   that station, is that your understanding of

19   what the zero viewing instances are?

20   A   They're instances of particular

21   stations, particular households, particular

22   days and particular quarter hours, yes.

1   Q   And you spoke --

2   A   And if I could add on, and

3   particular weeks.

4   Q   Okay.

5   A   So that it's not an instance of

6   Monday at 8 across all weeks. It's Monday at

7   8 on February 2nd.

8   Q   Thank you. You spoke in terms of

9   fragmentation as probably accounting for the

10 difference between say the incidence of zero

11 viewing in some prior years versus say when

12 you compare those prior years to say the

13 period from 2002 to 2003. What do you mean by

14 fragmentation in the marketplace? Are you

15 talking in terms of programming?

16 A   It was mainly meant to be a

17 reflection of saying that television usage for

18 individual stations has declined over time and

19 has declined considerably for individual

20 viewing sources. And part of the reason for

21 that HUT levels are tending to be about the

22 same meaning the number of people using

1   television is about the same, but the

2   individual stations have gone down. And the

3   most likely scenario for that is simply there

4   are more stations. Cable systems have more

5   channels. There are more channels that are

6   available. And so the viewing is getting

7   divided up to a greater extent. And so a

8   situation with more zero cells as one piece of

9   what could cause that would be simply saying

10   viewing is declining for individual stations

11   overall, so it's not surprising it would occur

12   here.

13   CHIEF JUDGE BARNETT: May I

14   inquire?

15   MR. OLANIRAN: Oh, sure.

16   CHIEF JUDGE BARNETT: Mr.

17   Lindstrom, is there any way that Nielsen

18   measures Netflix streaming or Hulu or any of

19   those other sources of TV light time?

20   THE WITNESS: We're doing that

21   now. That's all part of the way that the

22   measurement system has changed. It's actually

1   some of the streaming sources of video have

2   been causing the biggest headaches in the

3   business right now, but we have gotten to a

4   point at this point where we're now beginning

5   to include PC usage. We're beginning to

6   include on-demand. It doesn't have to be

7   viewed simultaneously. And our measuring

8   services like Netflix and Hulu to be able to

9   track. It's a very big component for the

10   industry, but also very hard as you can

11   imagine.

12   CHIEF JUDGE BARNETT: But for the

13   period relevant to this case, there was no

14   consideration of DVD usage? I guess that was

15   the in technology at that point or videotapes

16   or any other -- when the TV was on and the

17   source of the signal was something other than

18   cable or broadcast?

19   THE WITNESS: It would not be

20   included. So it's not part of the overall

21   television usage. If there were degrees of

22   more DVD viewing, it would end up showing

declines in traditional television usage.

But those are not -- they're reflected in the numbers that we're producing, but they're not included them if that makes sense.

CHIEF JUDGE BARNETT: Okay.

THE WITNESS: They would impact, you'd see those impacts, but not specifically included.

CHIEF JUDGE BARNETT: Thank you.

BY MR. OLANIRAN:

Q Your general point seems to be that in addition to more stations, let's say, these additional media services are necessarily competing with broadcast stations and that could account for some of the lower numbers for the broadcast stations. Is that a fair statement?

A It's a fair statement that there's been a considerable degree of competition that has come on, you know, through the years and to the extent that it was occurring during the

1   period of this study, I couldn't say, but it

2   has, in fact, been an ongoing change within

3   the marketplace since probably the '80s.

4   Q   Thank you. No further questions,

5   Your Honor.

6   JUDGE FEDER: Going back to Judge

7   Barnett's question, similarly, is there

8   anything in these data that reflect DVR usage,

9   delayed viewing of broadcast programming using

10 a DVR?

11   THE WITNESS: DVRs at that point

12 in time were very small and wouldn't have been

13 a significant player. We would have included

14 videotaping, if there was playback, but it

15 would only be included if it had occurred

16 during the week in question. Remember,

17 somebody is only keeping this diary for a

18 week's time. So effectively, there would be

19 some degree of taping that would occur that

20 would not have been in here. I don't want to

21 say that it was reflecting all of that. I

22 think it's probably a more accurate way to

1   think about it as being live viewing.

2   JUDGE FEDER: Thank you.

3   CHIEF JUDGE BARNETT: Do the

4   questions from the bench raise questions for

5   counsel?

6   MR. BOYDSTON: Yes, but I also

7   have a question to follow up on the redirect.

8   CHIEF JUDGE BARNETT: All right.

9   RECROSS EXAMINATION

10   BY MR. BOYDSTON:

11   Q   Mr. Lindstrom, I wanted to ask you

12   about fragmentation which Mr. Olaniran asked

13   you about.   To lay a foundation for that

14   though I need to ask a question. I've known

15   Nielsen to be around for as long as I know,

16   but why don't you give me a better answer or

17   better information than that.   How long has

18   Nielsen been doing this -- been in this

19   business of TV ratings?

20   A   It goes back into the '50s and

21   they've been in the market research business

22   before that.

1   Q   Okay, and when in the 1950s,

2   that's a whole decade, but to the extent we

3   can collectivize it, from what I know there

4   were three national networks, correct, and

5   then there were independent stations around

6   the country. Is that a fair explanation of

7   the TV landscape at that time?

8   A   I couldn't tell you the exact

9   number of networks. They've kind of come and

10   gone and gone in and out of business, but it

11   certainly has been a reasonable definition of

12   what the marketplace looked like many years

13   ago.

14   Q   Okay, and my questions on this are

15   certainly questions for an expert because this

16   is something that I don't think anyone else

17   here perhaps knows and that's why I'm asking

18   you. In terms of fragmentation, fragmentation

19   was there much fragmentation from say the dawn

20   of the TV era in the '50s to the 1960s or was

21   that fairly constant, if you know?

22   A   Actually, could you restate that?

1   I'm sorry.

2   Q   Sure.   Were the number of TV

3   stations in the United States, did they

4   increase appreciably between the 1950s and the

5   1960s?   I'll make it more specific, say

6   between 1965 and 1969?   Was there a

7   significant increase in stations?

8   A   I couldn't tell you.

9   Q   At some point was there a

10   significant increase in stations over the

11   station landscape from the 1950s?

12   A   Again, I am not an expert on

13   historical television. I've got a pretty good

14   idea on what was going on from '78 when I

15   joined Nielsen on, but prior to that I

16   couldn't answer definitively.

17   Q   Was there an increase in TV

18   stations from say 1978 to 1990 that was

19   noticeable or significant?

20   A   There would have been an increase

21   both in terms of stations and cable sources of

22   programming.

Q   Do you have an estimate as to what
sort of percentage growth there was during
that time period?

A   I couldn't tell you.

Q   How about the difference in the
number of stations and cable systems or cable
channels rather from when you started in 1978
and say 2000, was there an appreciable change
or increase?

A   There would be an appreciable
change, but I couldn't dimension the size of
it. Cable systems went from 20 channels being
a big one to 100 channels being a small one.
The distribution technologies and the
programming to fill it has grown extremely
rapidly.

Q   And what I'm trying to get a
handle on is when that growth occurred. Your
testimony in response to Mr. Olaniran's
question was there's been a huge increase in
the number of stations and that's decreased
viewership on them all, correct?   That was

1 your testimony to Mr. Olaniran's question,

2 correct?

3   A   My answer to why you might find an

4 increase in zero viewing was that there has

5 been increases in fragmentation, but to the

6 degree to be able to give specific growth

7 numbers, I couldn't do offhand to say it

8 occurred in 1988 or whatever the period of

9 time was. It's just there has been a general

10 flow from 1978 when I began working at

11 Nielsen. There was three networks. The three

12 network share was 90 and a program was

13 canceled if it didn't have a 30 share. And

14 nowadays if somebody got a 30 share, that

15 would be a super event. And it has been a

16 continuum based upon, as I said, ease of

17 distribution, digital, as the technology

18 simple growth in cable. Cable penetration has

19 gone from 25 percent during that period of

20 time up to 90, all of which leads to increases

21 in channels. So it's not a clear cut case of

22 going the number of broadcast stations has

1   increased. It's going at that point in time 25

2   percent of people had increases in channels

3   because of cable and now it's become virtually

4   ubiquitous.

5   So there's a lot of factors at

6   play, but there's no question the average

7   number of channels that people can receive has

8   gone up and gone up considerably.

9   Q   And to that point you used a

10   particular metric. You said when you started

11   out if a network program didn't get a 30

12   share, it might be canceled. How would you

13   characterize that situation today? What's the

14   -- I know it's a generalization, but how do

15   you generalize that figure today? What does

16   a network program have to get to avoid

17   cancellation as a general matter?

18   A   Again, it varies all over the

19   place, but for a variety of reasons. It is

20   substantially lower than that. It's in the

21   teens at this point in time, can still be

22   considered a healthy number.

1   Q   My follow up to Judge Feder's

2   question was how -- he asked about DVR viewing

3   and I was curious with regard to the Nielsen

4   meter, how does a Nielsen meter, does a

5   Nielsen meter detect and take note of and

6   record a DVR event?

7   A   It does now. It didn't during the

8   time in question in the early 20002.

9   Q   Thank you. Nothing further.

10   CHIEF   JUDGE   BARNETT: Mr.

11   Harrington?

12   MR.   HARRINGTON: Just   one

13   question?

14   CHIEF JUDGE BARNETT: You may.

15   RECROSS EXAMINATION

16   BY MR. HARRINGTON:

17   Q   Mr. Lindstrom, we've used a couple

18   of different terms here. We talked about

19   ratings and about shares and you talked about

20   a 1 rating was good and now an 18 share is

21   good. Could you explain for the record the

22   difference between a rating point and share?

1   A   Sure. A rating is a percentage of

2   a universe that was watching something, so

3   let's say that there's 100 million households

4   in the United States as a very rough number.

5   If 10 million were watching a particular

6   programming during the average minute, it

7   would be 10 million divided by 100 million or

8   10 percent. That's a 10 rating. It's the

9   percentage of the universe that would be

10   viewing it.

11   A share is really looked at -- and

12   that's an absolute level. A share is a

13   relative one in order to see how you're doing

14   competitively. So taking that same example,

15   if the percentage of people which is the HUT

16   level, Households Using Television, I

17   shouldn't say percentage of people, but

18   percentage of households, was 50, 50 percent

19   of them were viewing during the period in

20   question, and you had 10 percent that were

21   tuned to your channel, it's 10 divided by 50

22   or 20 share. So in that scenario, you would

1   have a 10 rating and a 20 share.

2   Q   Thank you.

3   CHIEF JUDGE BARNETT: Thank you,

4   Mr. Lindstrom.   You may be excused.

5   THE WITNESS: Thank you.

6   (The witness was excused.)

7   CHIEF   JUDGE   BARNETT: Mr.

8   Olaniran.

9   MR. OLANIRAN: We will call Dr.

10 Jeffrey Gray.

11 WHEREUPON,

12   DR. JEFFREY GRAY

13 WAS CALLED FOR EXAMINATION BY COUNSEL FOR THE

14 MOTION PICTURE ASSOCIATION OF AMERICA AND,

15 HAVING FIRST BEEN DULY SWORN, WAS EXAMINED AND

16 TESTIFIED AS FOLLOWS:

17   MR. OLANIRAN: May I proceed, Your

18 Honor?

19   CHIEF JUDGE BARNETT: Yes, you

20 may.

21   MR. OLANIRAN: Thank you.

22   DIRECT EXAMINATION

1   BY MR. OLANIRAN:

2   Q   Good morning, Dr. Gray. My name

3   is Greg Olaniran and I'm counsel for MPAA.

4   Would you please state your name for the

5   record and spell it?

6   A   Yes, it's Jeffrey Gray, J-E-F-F-R-

7   E-Y G-R-A-Y.

8   Q   And what is your educational

9   background?

10   A   I have a Ph.D. in Economics from

11   the University of Pennsylvania and also an

12   undergraduate degree in Economics from the

13   University of California at Santa Cruz.

14   Q   Where do you work?

15   A   I work at Deloitte Financial

16   Advisory Services, LLP.

17   Q   And what position do you currently

18   hold at Deloitte?

19   A   I'm a principal and also the

20   national leader of their Economic and

21   Statistical Consulting Group.

22   Q   And what are your responsibilities

1   in that position?

2   A   Well,   I   have   various

3   administrative   responsibilities   including

4   hiring into the group, setting compensation,

5   overseeing staffing levels, representing the

6   group in leadership functions and meetings.

7   But my primary responsibility really is client

8   service   which   is   providing   economic   and

9   statistical consulting services to companies,

10   government   agencies   and   sometimes   indirectly

11   via law firms.

12   Q   And   where   were   you   prior   to

13   Deloitte?

14   A   Well, prior -- I should say I

15   started at Deloitte in 2002, but then from

16   2006   in   the   summer   through   2009,   I   left

17   Deloitte and was with Huron Consulting Group.

18   Q   Prior   to   your   first   stint   at

19   Deloitte, would you please provide with a

20   sense of your work experience at all of the

21   other places, where you worked over the last

22   several years?

1   A   Sure. I worked for both large and

2   small economic consulting shops. I also spent

3   a year at the White House, the President's

4   Council of Economic Advisors.

5   Q   And describe briefly the subject

6   matter of your specialty.

7   A   Sure. In general, I focus on

8   understanding and studying markets, how prices

9   and quantities are determined in those markets

10   and how market imperfections or distortions

11   affect those equilibrium prices and

12   quantities. I would say my specialty is

13   analyzing data associated with those markets,

14   often large amounts of data, to draw

15   conclusions regarding those alleged or actual

16   imperfections and distortions.

17   Q   And what are the specific fields

18   in terms of -- how would you define those

19   different fields?

20   A   I would say economics, statistics,

21   and econometrics.

22   Q   What is the distinction among --

1   how do you distinguish between -- among those

2   three fields?

3   A   Good question.   I would say

4   economics is the study of the sort of

5   production, allocation, and consumption of

6   goods and services, very broadly speaking.

7   Statistics, also broadly speaking,

8   is the study of the collection, analysis, and

9   the interpretation of data.

10   Econometrics is the intersection

11   of those two disciplines.   It's the

12   application of statistical methods to economic

13   data to provide content to economic

14   relationships being studied.

15   Q   And how long have you worked in

16   these fields?

17   A   Approximately 25 years.

18   Q   Have you taught also in these

19   fields?

20   A   Yes.

21   Q   And where did you teach?

22   A   I taught at the University of

1   Illinois at Urbana-Champaign. I was a tenured

2   track assistant professor there. I also

3   taught while I was a grad student at the

4   University of Pennsylvania. I taught at the

5   University of Pennsylvania as well as co-

6   taught a course in the Business School there

7   called Wharton.

8   Q   Are you published?

9   A   Yes.

10   Q   In what areas?

11   A   I've been published in peer-

12   reviewed journals in the sort of general area

13   applied microeconomics with a special focus on

14   labor economics.

15   Q   And have you served as a referee

16   for peer-reviewed journals?

17   A   Yes. Throughout my career, I've

18   been asked to serve as a referee to judge the

19   appropriate use of economics and statistics

20   when people submit publications.

21   Q   Do you have any experience in

22   media and entertainment industry?

1   A   Some consulting experience. I've

2   done work on behalf of large metropolitan

3   newspapers. I was also engaged by outside

4   counsel for a performance rights organization,

5   also known as a PRO to assess the economic

6   value of a blanket license, giving certain

7   companies the right to perform music from the

8   PRO's library on their internet sites.

9   Q   Have you done any work related to

10 cable television industry?

11   A   Yes. I've also been engaged by

12 outside counsels for CSOs who have been

13 involved in I guess either negotiations and/or

14 contract disputes with basic cable channels

15 concerning the programming on those channels,

16 how that programming has changed over time,

17 and the associated viewership of those

18 programs and channels.

19   Q   And have you previously testified

20 either before this body, the CARP, the CRT, or

21 any other Court or regulatory body?

22   A   I have not testified before this

1   body, but I've testified before both

2   international and Federal Courts in the United

3   States, both written and orally.

4   MR. OLANIRAN: Your Honor, at this

5   point, I'd like to offer Dr. Gray as an expert

6   in the field of economics, statistics, and

7   econometrics?

8   MR. BOYDSTON: No objection.

9   MR. HARRINGTON: No objection.

10   CHIEF JUDGE BARNETT: Dr. Gray is

11   so qualified.

12   BY MR. OLANIRAN:

13   Q   Dr. Gray, what were you asked to

14   do in this proceeding?

15   A   Yes, I was asked to propose an

16   allocation methodology of the cable royalty

17   funds attributable to the program suppliers

18   category between 2000 and 2003, between IPG

19   represented claimants and MPAA represented

20   claimants.

21   I was also asked to review the

22   methodology proposed by IPG and its associated

1   allocations to see if it was reliable.

2   Q   And did you prepare written

3   reports as to your findings?

4   A   Yes, I did.

5   MR. OLANIRAN: May I approach the

6   witness, Your Honor?

7   CHIEF JUDGE BARNETT: You may.

8   BY MR. OLANIRAN:

9   Q   Dr. Gray, I have just handed you

10 MPAA Exhibits premarked as MPAA Exhibits 364

11 and 365. Would you please identify those two

12 exhibits?

13   (Whereupon, the above-referred to

14   documents were marked as Exhibits

15   364 and 365 for identification.)

16   A   Yes, Exhibit 364 is the testimony

17 of Jeffrey S. Gray, Ph.D., amended August 20,

18 2012. Exhibit 365 is the rebuttal testimony

19 of Jeffrey S. Gray, Ph.D., May 15, 2013.

20   Q   Did you prepare these exhibits

21 yourself?

22   A   Yes, I did.   Either I prepared

1   them or directly supervised some of the

2   appendices.

3   Q   And do you have any corrections or

4   additions to either of the exhibits?

5   A   Yes, I have two, on two pages of

6   the amended testimony. The first is on page

7   15, the first full paragraph, it says during

8   the four, quote, sweeps, unquote, months.

9   This refers to the Nielsen diary data. There

10   were actually six months data in the Nielsen

11   diary data. And so for expositional purposes

12   I'd change the four to a six.

13   And on the very next page, page

14   16, two similar changes and this is a carry-

15   over from my first testimony before I had

16   information concern IPG claimants. It's the

17   second line. It starts off in the first line,

18   "for each time slot in the Nielsen diary data

19   I merged program title information for MPAA-

20   represented programs." It should now read

21   "for MPAA and IPG-represented programs."

22   And similarly a little bit further

1   down in the paragraph where I say "MPAA

2   programs, I was provided Tribune data that

3   included information on MPAA program titles."

4   It should say "MPAA and IPG proceeding titles

5   by station." Those are the only corrections.

6   Q   And with those corrections, do you

7   declare MPAA Exhibits 364 and 365 to be true

8   and correct and of your personal knowledge?

9   A   To the best of my ability, yes.

10   MR. OLANIRAN: Move for admission

11 of -- Your Honor, I move for admission of MPAA

12 364 and 365.

13   MR. BOYDSTON: No objection.

14   MR. HARRINGTON: No objection.

15   CHIEF JUDGE BARNETT: 364 and 365

16 are admitted.

17   (The documents, having been marked

18   previously for identification as

19   364 and 365, were received in

20   evidence.)

21   BY MR. OLANIRAN:

22   Q   Dr. Gray, again, what do you

1   understand   to   be   the   purpose   of   this

2   proceeding?

3   A   It's to determine an allocation of

4   the cable royalty funds from 2000 through 2003

5   for the program supplier categories between

6   MPAA and IPG representing claimants.

7   Q   And what is your source of the

8   understanding,   I   mean   what   is   your

9   understanding   of   the   source   of   these

10   royalties?

11   A   I   understand   the   royalty   funds

12   follow from the Section 11 of the compulsory

13   license established by Section 11, I'm sorry

14   111, of the 1976 Copyright Act.

15   Q   And   in   general,   who   are   the

16   beneficiaries of these royalties?

17   A   Well, the copyright owners of the

18   compensable programs.

19   Q   What did you do to prepare for the

20   task that you were charged with?

21   A   Well, in general, I reviewed a lot

22   of testimony.   To do the actual analysis, I

1   reviewed a lot of prior decisions for many

2   years. I reviewed prior testimony, both

3   written and orally in prior testimony, and

4   reviewed some various textbooks and such.

5   Q   And did you reach any conclusions

6   as to what standard the Judges should employ

7   in allocating royalties between MPAA-

8   represented claimants and IPG-represented

9   claimants?

10   A   Yes, the relative market value.

11   Q   And from an economist's

12   perspective, what is your definition of market

13   value and you can tell me what you mean by

14   relative market value?

15   A   Sure. Market value from an

16   economist's perspective is the price at which

17   an asset changes hands between a willing buyer

18   and a willing seller, neither being under any

19   compulsion to trade an both having full

20   information. Relative market value then would

21   be quite frankly the relative market value,

22   the market value of two assets compared to one

1   another.

2   Q   And what, in your opinion, would

3   be an appropriate measure of relative market

4   value in the context of this Phase II

5   proceeding?

6   A   For the Phase II proceedings

7   program viewership provides a reasonable and

8   directly measurable measure of relative market

9   value.

10   Q   And why is that?

11   A   Well, first and foremost, in these

12   proceedings, we're dealing with relatively

13   homogenous programming, both IPG and MPAA have

14   syndicated programming, movies, and specials.

15   So to determine the -- albeit MPAA has quite

16   a bit more of it, but to determine the

17   relative market value what's going to be

18   important from the CSO's perspective

19   ultimately is going to be the underlying

20   subscriber demand of these homogeneous

21   products which is best reflected by the

22   relative viewing.

2

1   Q   What's CSO just for the record?

2   A   I'm sorry, cable system operator.

3   Q   Thank you.

4   A   But secondly, I should also say I did check statistically whether or not IPG's programming mix somehow led to either a slower or faster growth in the subscribers for CSOs and with the data that I had available, I did not find a statistically-significant relationship. So for those two reasons, it seems the relative program viewership provides a very, again, measurable and reasonable measure of relative market value.

14   Q   So you did go on to perform an analysis of program viewership?

16   A   Yes, I did.

17   Q   And describe generally what steps you undertook in doing that analysis?

19   A   Well, first, it was -- I should take a step back and talk about the five data sources I relied upon. The first step, which is a big step is combining five data sets. At

1   the first data source is data from the Data

2   Cable Corporation or CDC data. The CDC data

3   is information concerning the -- from all CSOs

4   who, in the United States, who distantly

5   retransmit signals of information on the

6   signals they distantly retransmit as well as

7   the total number of distant subscribers of

8   those signals. So that's the first data

9   source, the CDC data.

10   From the CDC data, two samples are

11 drawn. And these will generate two additional

12 data sources. The first sample was designed

13 by Marsha Kessler of MPAA and she provided

14 that to Nielsen who generated and provided the

15 Nielsen diary data which then contains

16 information on distant viewing for those

17 particular stations during sweeps months. So

18 this is 6 months a year, 24 hours a day, 7

19 days a week.

20   The second sample from the CDC

21 data I designed which was a random sample, a

22 representative sample, designed to be

1   proportionate to the number of distance

2   subscribers, but it's representative.   I

3   provided of approximately 120 stations per

4   year from 2000 through 2003, provided that

5   sample, that list of stations to Nielsen who

6   provided now a third data set which is the

7   Nielsen ratings data. So for those nationally

8   representative stations, it's information on

9   local ratings provided on a quarter hour basis

10   or 24 hours a day, 7 days a week, and

11   importantly, 12 months a year. So that's data

12   source number three.

13   Data source number four is going

14   to be the Tribune Media data, Tribune Media

15   Services. The Tribune data is essentially a

16   wealth of programming information for every

17   broadcast on those stations.   That is the

18   stations in the Kessler sample and stations in

19   the Gray sample. The wealth of information

20   includes exactly when the broadcast started,

21   how long the broadcast was, the duration,

22   information on the type of broadcast it was,

information on the station, whether or not the

station was an affiliate, information on what

else?   It could be if it was a movie, the

director of the movie, the actors, major

actors in it and so forth.   That's data set

number four.

One more which is the Reznick

Group data analysis.   And they provided two

lists.   One was a list of MPAA compensable

programming, based upon start time, date and

station, and they provided the same for IPG,

start time, date and station.

And those five data sources now, I

combined together for my analysis.

MR. OLANIRAN: You have a

question?

JUDGE STRICKLER: Yes, thank you,

counsel.

Dr. Gray, you mentioned the random

sampling that you did of the 120 distantly

retransmitted stations.   And you had

mentioned, I think it was in a footnote that

1   that was a stratified random sample. Can you

2   explain how you stratified this sample and why

3   you did that?

4   THE WITNESS: Sure. I stratified

5   it based upon the number of distant

6   subscribers, so created buckets. And the

7   reason why I did it is quite frankly I wanted

8   to make sure that the stations were drawn to

9   get a good representative of the population,

10   as well as to get, you know, a good number of

11   stations from each type -- good number of CSOs

12   for each type, that is CSOs who retransmit

13   small stations, small programs as well as the

14   stations -- and large.

15   JUDGE STRICKLER: If you had not

16   stratified would you have gotten more CSOs

17   that were of the smaller type?

18   THE WITNESS: Yes.

19   JUDGE STRICKLER: Thank you.

20   BY MR. OLANIRAN:

21   Q   I just had one quick question

22   about the data set. As to program titles,

1   which data set did they come from? Did they

2   come from the Nielsen data set or did they

3   come from the Tribune data set?

4   A   Program titles, yes, that's

5   amongst the wealth of the information in the

6   Tribune data set. There was no program title

7   information in the Nielsen data.

8   JUDGE STRICKLER: Excuse me,

9   counsel, one more question.

10   MR. OLANIRAN: Sure.

11   JUDGE STRICKLER: You also

12   mentioned among the various data sources was

13   Ms. Kessler's sample of stations and as far as

14   we understand it, her sampling was not a

15   random sample. It was purposeful sample. Do

16   you have any problems with using her sample of

17   stations in light of the fact that it wasn't

18   random?

19   THE WITNESS: I should say I have

20   concerns associated that I dealt with

21   empirically.

22   JUDGE STRICKLER: Let me ask you

1   first, what were the concerns?

2   THE WITNESS: The concerns is that

3   it was not random. And when you don't have a

4   random sample you can't make any inferences

5   concerning stations, for example, outside the

6   sample. And so actually at the outset I

7   should say, counsel asked if I could use the

8   Kessler analysis for my analysis at large and

9   I said I could not for that reason. So that's

10   the, I guess, main motivation for my random

11   sample.

12   You had a follow up?

13   JUDGE STRICKLER: No, I'm nodding

14   because I understand what you're saying.

15   THE WITNESS: Okay. And so what I

16   wind up doing is I'll talk about momentarily

17   is estimate the relationship between factors

18   in my random sample and the Kessler sample.

19   And the concern I wind up having, of course,

20   is that still the Kessler sample is focused on

21   larger CSOs. So the questions that I had is

22   to make sure that there's not something about

1   the relationship.

2   I'm getting sort of off my plan

3   description, but there's not something

4   different about the relationship between

5   distant viewing and local stations -- I'm

6   sorry, distant viewing and local ratings for

7   large stations and small stations. If there

8   is, then I'd start feeling queasy. So I made

9   sure to check that. But ultimately, all of my

10   calculations of viewing, program viewing is

11   done for the representative samples.

12   Kessler samples are just used to

13   make projections.

14   JUDGE STRICKLER: Could you have

15   eliminated your queasiness, to use your word,

16   simply by not using the Kessler sampling at

17   all and just gone with your own sample?

18   THE WITNESS: First, my queasiness

19   was quelled.   But secondly, I needed

20   information on distant viewing. And that's

21   not available in the local ratings data.

22   JUDGE STRICKLER: You continued to

1 use the Kessler data and you think you

2 corrected for it empirically, even though that

3 was your own source of distant ratings?

4 THE WITNESS: Correct. Yes,

5 distant viewing, yes, correct.

6 JUDGE STRICKLER: Distant viewing

7 and therefore distant rating?

8 THE WITNESS: Correct, yes, agree.

9 But in order to get distant rating, I had to

10 combine that with the CDC data, but yes, Your

11 Honor.

12 JUDGE STRICKLER: Thank you.

13 Please proceed, counsel.

14 JUDGE FEDER: Counsel, if I may?

15 Earlier in your testimony, Dr. Gray, you spoke

16 of the programs in this category being fairly

17 homogenous. Could you explain that a little

18 bit?

19 In particular, because we have

20 testimony that there's really a broad range of

21 different types of programs in this category

22 from game shows to motion pictures to

1 situation comedies, etcetera. And what the

2 implication is of the content being relatively

3 homogenous as you describe it.

4 THE WITNESS: Very good question.

5 One is I think the program types and you're

6 right, there are a variety of program types.

7 It's those that wind up being critically

8 important in understanding distant viewing

9 because distant viewing varies by program type

10 quite substantially.

11 So what I meant by homogeneity is

12 from a CSO's perspective in terms of

13 attracting and retaining customers, from a

14 Phase 1 perspective it makes sense that they

15 would want an eclectic group of sports

16 programming and program suppliers'

17 programming, devotional, etcetera. But once

18 they have sort of a mix of program supplier

19 categories, it makes sense to me as an

20 economist that they care more about okay, who

21 -- who is watching it, therefore that shows me

22 how valuable it is.

1   And ultimately, I take care of the

2   who's watching it in terms of the type of

3   programming. So if it's some show like

4   actually instructional program supplier

5   programming, winds up having very low ratings

6   and viewership whereas movies has relatively

7   higher, I take into consideration both those

8   factors when estimating distant viewing. So

9   ultimately they will -- I take into account

10   that they care about distant viewing as a

11   measure.

12   Is that somewhat circular? Does

13   that answer your question?

14   JUDGE FEDER: It is approaching

15   that. One other question that I have is when

16   you're talking about viewing, to what extent

17   are factors like displacement relevant? If

18   you have essentially the viewing public going

19   after two very similar shows on a CSO system

20   and essentially you're kind of dividing up

21   that same viewing audience?

22   THE WITNESS: Right, displacement.

1   A new program will come and might get similar

2   ratings or viewing to that program that it

3   displaced and so that perhaps put a little bit

4   noise around quote unquote true value, but

5   then you would expect if it's a program of

6   lesser quality or popularity, you'd expect the

7   viewership to decrease over time so that our

8   measurement of viewership for that new

9   program, relatively to the displaced one

10 should -- will approach its true measured

11 value over time.

12   JUDGE FEDER: Thank you.

13   BY MR. OLANIRAN:

14   Q   Dr. Gray, let's talk about

15 specifically about the analysis that you did

16 with respect to viewership. What

17 methodological approach did you take with

18 respect your viewing analysis?

19   CHIEF JUDGE BARNETT: Mr.

20 Olaniran, it sounds like we might be changing

21 gears right here and this might be a good time

22 for us to take our morning recess, so we will

1   do that.

2   MR. OLANIRAN: Sounds good, Your

3   Honor.

4   CHIEF JUDGE BARNETT: Fifteen

5   minutes.

6   (Whereupon, the proceedings in the

7   went off the record at 10:40 a.m. and went

8   back on the record at 11:04 a.m.)

9   CHIEF JUDGE BARNETT: Please be

10   seated.

11   Apologies our recess lasted a bit

12   longer than we planned. Judge Strickler was

13   cheating at hopscotch.

14   (Laughter.)

15   Mr. Olaniran?

16   MR. OLANIRAN: Thank you, Your

17   Honor.

18   CHIEF JUDGE BARNETT: And we can

19   run a little longer into the noon hour to make

20   up.

21   MR. OLANIRAN: I do appreciate the

22   extra time.   After all, Dr. Gray is an

1   econometrician, so I'm not sure how much fun

2   it is to listen to him.

3   BY MR. OLANIRAN:

4   Q   Dr. Gray, just before we took the

5   break, we were about to get into the specifics

6   of the viewership analysis that you undertook.

7   And I think I had asked you about a

8   methodological approach that you took towards

9   the analysis.

10   A   Yes.

11   Q   What was your methodological

12   approach to viewership analysis?

13   A   It was regression analysis.

14   Q   Okay.   And let's start with the

15   fundamentals. What is a regression analysis?

16   A   Well, regression analysis is

17   actually a family of statistical tools that

18   are used to calculate the relationship among

19   variables. It calculates how each of a set of

20   independent factors affects the outcome

21   variable of interest, sometimes called the

22   dependent variable.

1   So it's used to predict expected

2   value of an outcome variable given certain

3   levels of these input factors.

4   Q   Okay. And is this a tool that is

5   commonly used in statistics and econometrics?

6   A   Oh, yes.   It's commonly used,

7   widely accepted over 300 years now. It dates

8   back to Gauss.

9   Q   And why is a regression analysis

10   appropriate for your viewership analysis?

11   A   Well, regression analysis is used

12   to predict the value of a variable, so

13   economists use it to predict the value of a

14   variable when it's unknown. That's what we

15   have in this case with respect to distant

16   viewing in many instances.

17   For the non-sweeps periods, which

18   is six months a year, while we have lots of

19   information, we don't have -- concerning

20   programming, we don't have any information

21   concerning distant viewing of that programming

22   from the Nielsen diary data.

1   Actually, also, during the sweeps

2   months, for certain stations, for programming

3   on those stations, we don't have information

4   regarding viewing. Specifically, stations

5   that were in my random sample, but not in the

6   sort of Kessler diary data sample, have

7   information about the programming but not

8   distant viewing.

9   So for those two sort of classes

10 of time and stations, we will use regression

11 analysis to predict what distant viewing is.

12 And there is actually a third set, which is

13 subtle but a very powerful advantage of

14 regression analysis. Even for those

15 programmings -- programs where we know or we

16 have information on distant viewing from the

17 Nielsen diary data, that tends to be based

18 upon relatively small samples.

19   But with regression analysis, what

20 we are able to do is use all of this Nielsen

21 diary data in its aggregate and calculate what

22 distant viewing is expected to be based upon

1   this large amount of data. And so even in

2   those instances where we have sort of diary

3   data on distant viewing, we can predict what

4   distant viewing is likely to be based upon the

5   regression analysis.

6   So it is a wonderfully powerful

7   and useful tool in this instance. And after

8   it we have predictions for distant viewing for

9   every single program, actually on a quarter-

10   hour basis, for seven days a week, 24 hours a

11   day, 12 months a year.

12   Q   Okay. And you had identified five

13   data sets a moment ago. Could you describe

14   procedurally how you arrived -- and taking us

15   through the use of the data sets, performing

16   the analysis, and your end result. How did

17   you use the data sets? What was the process?

18   A   Sure. Well, the first thing I did

19   -- and this was a long while ago -- is I

20   wanted to establish that there was a

21   statistically significant relationship between

22   local ratings and distant viewing.

1   Q   And why did you do that?

2   A   Well, ultimately I did that

3   because we did not have information on distant

4   viewing, as I said, for half the year, and

5   even during sweeps periods for many stations.

6   So my goal ultimately was to predict what

7   distant viewing is expected to be based upon

8   local ratings and other information, but I

9   wanted to establish that that relationship did

10   indeed exist.

11   Q   Did you find the relationship to

12   exist?

13   A   I did, but the -- and the way I

14   did it is I combined sort of three data sets,

15   three of the five that I just mentioned. So

16   the local ratings data, and based upon my

17   random sample; the diary data based upon the

18   Kessler sample; and then also the CDC data

19   with information concerning the number of

20   distant subscribers.

21   So those three data sets combined

22   sort of on a quarter-hour basis yields

1 approximately 70 stations per year that are in

2 common. In the year 2000, a little less than

3 70; in the years 2001 through 2003, more than

4 70. But on average, a little more than 70 per

5 year.

6   So for those stations and those

7 programming -- I'm sorry -- I have about 1.6,

8 or more than 1.6 million quarter-hour

9 observations of programming, or I have local

10 ratings, distant subscribers, and distant

11 viewing.

12   So I looked at the relationship

13 between distant viewing and local ratings,

14 holding constant the number of distant

15 subscribers. Mathematically, that is really

16 looking at distant ratings and local ratings.

17 And when I looked at that relationship, I

18 found a positive and strong statistically

19 significant relationship between distant

20 viewing and local ratings.

21   Q   Okay. We'll get back to that in a

22 second, but I just wanted to be clear, when

1 you referred to 70 stations, the 70-station

2 analysis was just for the correlation, not the

3 ultimate allocation, correct?

4   A   That's correct.

5   Q   Okay. And so after you undertook

6 the correlation analysis, what was the next

7 step in your process?

8   A   Well, the next step is to build

9 the full econometric model, and that's

10 combined in the two additional data sets that

11 I described before, the Tribune data -- and

12 also I guess the Reznick analysis of the

13 Tribune data.

14   So when I combine all five data

15 sets, what I have is information on distant

16 viewing, local ratings, number of distant

17 subscribers, program type, the quarter-hour of

18 the day that the broadcast took place, station

19 affiliation, and other factors that are

20 mentioned in my testimony.

21   And so then I estimated the

22 mathematical relationship between distant

1   viewing in those factors I just mentioned.

2   And then, after that established that

3   mathematical relationship based upon 1.6

4   million observations. I predicted it out to

5   all of the other observations in the entire

6   sample, so that I wound up having information

7   on predicted distant viewing for every single

8   quarter-hour, for every single program, 24

9   hours a day, seven days a week, 12 months a

10   year, for all four years.

11   Q   And that then became the basis for

12   the shares that you proposed for allocation

13   between MPAA-represented claimants and IPG-

14   represented claimants?

15   A   Yes. So that will be for the 120

16   randomly selected stations I have valid

17   programming -- program viewing measures. Add

18   those all up for the MPAA-represented titles,

19   add them all up for the IPG-represented

20   titles, and calculated the ratio to get

21   program viewing, and then, therefore,

22   recommended royalty allocation.

1   Q   It's for 365 days, 24/7?

2   A   365/24/7, 120 randomly selected

3   stations. Yes, sir.

4   Q   Now, after completing your

5   regression analysis, are there any tools --

6   strike that.   Are there any tools that

7   economists or econometricians use to test,

8   essentially, the robustness, if you will, of

9   your analytical approach?

10   A   Well, regressions often are

11   associated with various statistical tests to

12   check their -- you know, their specification

13   in terms of, you know, the goodness-of-fit

14   test, for example, in terms of the t-

15   statistics or z-statistics, depending on the

16   specification, testing the statistical

17   significance of each independent variable.

18   If I use too much jargon, wave

19   your hand or just let me see your glossed

20   eyes.   I apologize.   But those tests are

21   continued in the log files that I turned over

22   to IPG. But in addition to that, there were

1   a whole host of different regressions I ran,

2   quite frankly, to see how robust the results

3   were to changing things like excluding certain

4   stations and/or changing specification.

5   And ultimately -- Judge Strickler

6   asked earlier about the Kessler sample, so one

7   set of tests that I did is I sort of used

8   permutations of the Kessler sample to rely

9   upon it, so just use, for example, the lower

10   quartile of Kessler's stations in terms of the

11   number of distant subscribers and rerun the

12   results to see how the allocations would

13   change.   I did that with upper quartile,

14   middle quartile, et cetera.

15   The one thing that stuck out was

16   WGN. WGN was just, quite frankly, a little

17   oddball in terms of the relationship between

18   the number of distant viewers and local

19   ratings. So, as a result, I wound up running

20   two separate regressions, one for WGN and one

21   for every other distantly retransmitted

22   station.

1   And then, within each of these

2   distantly retransmitted stations, again, the

3   estimates were robust across the different

4   quartiles. And that gave me sort of comfort,

5   if you will, that the Kessler non-random

6   sample might have been perturbing my results.

7   I'm confident that it is not.

8   Q   Okay. And with respect to the

9   regression analysis as a whole, were you able

10   to satisfy yourself that your regression

11   analysis was robust enough?

12   A   Yeah.   I don't know if it's

13   surprising, but there is -- it seems like

14   there is nothing I could do to change the

15   allocation shares by much other than move

16   claimants around.

17   Q   Okay.   Did you make any other

18   comparisons between -- of IPG-claimed programs

19   and MPAA-claimed programs?

20   A   Yes, I did.

21   Q   And what were those?

22   A   I also looked at the number of

1   unique transmissions of IPG and MPAA-

2   represented programming, the number of

3   retransmissions, as well as the total volume

4   of those programs; that is, the number of

5   minutes broadcast or retransmitted.

6   Q   And were these analyses helpful in

7   any way?

8   A   Well, I suppose the CSOs'

9   preferences are revealed by which stations

10   they choose to digitally -- they choose to

11   retransmit, excuse me, distantly, and how many

12   they choose to retransmit distantly.

13   So those three measures provide I

14   guess measures of what the CSOs are

15   effectively purchasing, and so each of those

16   provide a progressively better measure of

17   relative value with program viewership, quite

18   frankly, being better than those three.

19   Q   Okay.

20   A   But they do provide, if you will,

21   a rough signpost of how good our measure is.

22   Q   So you are not -- are you

1   suggesting that these additional analyses

2   could be looked at independent of the

3   regression results, or are they --

4   A   No. They can certainly be looked

5   at as independent of regression results

6   because they are independent of the regression

7   results. But what they do is they provide

8   another measure of relative value, which I

9   think are inferior to those that came out of

10   the regression results.

11   But I think they are valuable

12   insofar as they provide I guess a benchmark

13   for what CSOs might care about.

14   Q   And are the results of all of

15   these analyses reflected in your testimony,

16   your direct testimony?

17   A   They are.

18   Q   And could you please take us

19   through --

20   A   They start on page 22 --

21   Q   -- the analysis?

22   A   -- of my direct.

1   Q   Okay.

2   A   Chart 1, Panel A just reports the

3 number of unique programs aired by

4 representation. The blue bar, which is the

5 taller bar if you are color-blind, is for

6 MPAA-represented programs, the number of

7 unique programs aired by year. And the

8 shorter green bar is IPG-claimed programming.

9 And you'll see roughly -- those were a 15 or

10 14 to one ratio by year between MPAA and IPG

11 unique programs.

12   The second panel then takes the

13 number of unique programs aired and says, "Oh,

14 yeah. How many times are they retransmitted?"

15 Presumably, the more valuable programs will be

16 retransmitted more often, all else equal, and

17 the ratio becomes even starker, between 570-

18 and 618- or 619,000 retransmissions for MPAA-

19 represented programming, and -- what is this

20 -- between about 8,000 and 21,000 for IPG-

21 claimed.

22   And, finally, on the next page,

1   Chart 2 shows the relative total volume of

2   compensable programming for MPAA and IPG-

3   claimed programming. I'm going to -- rather

4   than do the calculations in my head, but

5   you'll see about 23 or 24 million minutes per

6   year for this random sample compared to

7   between 245,000 and 720,000 for IPG, which

8   shows that MPAA has between 97 percent and 99

9   percent of total volume of programs supplied

10   or programming over the years 2000 through

11   2003.

12   And then, finally, I should say,

13   on page 26, Chart 3, shows the viewership

14   shares that I calculated for my direct

15   testimony. I did update these for my rebuttal

16   testimony, updated slightly. But for the

17   direct testimony you will see between 2001 and

18   2003 viewership share for MPAA programs ranges

19   from 98.4 percent up to 99.7 percent.

20   Q   Okay. Thank you, Dr. Gray. I'm

21   now going to turn to your rebuttal testimony,

22   which I believe is MPAA Exhibit 3665. And is

1　it fair to say that your rebuttal testimony

2　concerns the allocation methodology proposed

3　by Mr. Galaz, correct?

4　　　　A　　That is correct.

5　　　　Q　　Okay. And what general conclusion

6　did you reach with regard to the Galaz

7　methodology?

8　　　　A　　I would say three general

9　conclusions. One is that it is flawed and

10　unreliable, both conceptually and in its

11　application. Second is that for those flaws

12　or errors that can be fixed, each and every

13　one, once corrected, leads to a lower IPG

14　share according to his metric of relative

15　value.

16　　　　　　And then, third, based upon my

17　review of his direct testimony, my methodology

18　and calculations do not change. The only

19　change to my proposed royalty allocation share

20　results from CRGs dismissing certain claimants

21　in certain years by IPG, as well as certain

22　IPG-claimed　--　claimants rejecting that

1   representation.

2   Q   Okay.   Please   describe,   if   you

3   will, what your understanding is of the Galaz

4   methodology.

5   A   Yeah.   The Galaz methodology is --

6   of relative value is essentially a relative

7   viewership measure, and I'll try to walk you

8   through why that is the case.   Relative value

9   measures the product of three values.   The

10   first is a time period weight factor.   These

11   are his words.   The second is a station weight

12   factor, and the third is program length.

13   The first, the time period weight

14   factor, is essentially a viewership index.   It

15   represents the percentage of viewership on

16   average that takes -- percentage of daily

17   viewership on average that takes place during

18   certain day parts.

19   The second one, the station weight

20   factor, is the number of distant subscribers

21   of that station.   There's a second one, too,

22   I can talk about in a moment.   But if you

multiply those two together, so you have the
index for viewership during the day, and then
the number of people potentially receiving
that signal, you have a viewership, albeit
imprecisely measured, but you have a
viewership prediction.

The third of program length just
says a program that is 60 minutes long will
have twice as many viewers on average than one
that is 30 minutes long on a permanent basis.
So taken together, is a relative value
measure, is essentially a relative viewership
measure.

Q   Okay. And why do you opine that
the Galaz methodology is flawed?

A   Well, ultimately conceptually
flawed because it is unnecessarily imprecise
in terms of measuring relative viewership. So
as an example, if -- he will restrict programs
that might have very different levels of
popularity.

But if they air at the same time,

1   on the same station, on different days,

2   obviously, but according to his methodology,

3   by definition, they will have the same value

4   on a permanent basis, even if they have very

5   different actual viewership, very different

6   program type, as Judge Feder pointed out

7   earlier.

8   And so these things should take --

9   should be taken into account when predicting

10 viewership and/or measuring value. That is an

11 important flaw.

12   Perhaps rather than go into much

13 detail, I will show you an example or two that

14 is in my rebuttal testimony that might drive

15 home the point. Let me actually skip Table 1.

16 It's there, too. But Table 2, which is on

17 page 8 of my rebuttal testimony.

18   And if you look at the last two

19 rows in Table 2 -- start with those -- a

20 couple of cartoons. One is called Pokemon;

21 one is called Dragon Ball Z. They both -- on

22 different   days   they   were   broadcasting

1   retransmitted, but they both aired at 4:30 in

2   the afternoon, both by the station WPIX.

3   Actually, both were half an hour in duration.

4   So the three values, according to

5   Galaz, duration, station, and time of day.

6   They have to have the exact value. In fact,

7   in the final column you'll see that the IPG

8   estimated relative value is the same for those

9   two.

10   However, you will see in the

11   second-to-the-last column that my estimate for

12   viewership is quite a bit different. It's

13   about -- I've got to do my math --

14   approximately 2,700 additional households are

15   watching Pokemon. That's about a 50 percent

16   differential.

17   So if you add these up, that winds

18   up being substantial. That is a conceptual

19   flaw that can't be fixed, because it's the

20   design of his formula.

21   Q   And that's because his methodology

22   overvalues one program over another because it

1   does not consider whether or not there was

2   estimated viewing for a particular program,

3   because this is only concentrating on program

4   volume. Is that right?

5   A   Well, ultimately, it's because it

6   ignores measures of program popularity, such

7   as actual viewership. But another flaw in the

8   table, or that is revealed in the table, if

9   you look between these two sets of examples,

10   are the Dragonball Z and Judge Joe Brown right

11   above it.

12   Judge Joe Brown is a first-run

13   syndication show. I see a smile from the

14   bench. Perhaps it's familiar.

15   (Laughter.)

16   But Judge Joe Brown also aired at

17   4:30, on a different station, though, on KRON,

18   which is not carried by as many subscribers as

19   is WPIX.

20   So because of that, the IPG

21   methodology gives Dragonball Z much, much

22   higher relative value. What is that? It's

1   almost 30 times higher, despite the fact that

2   only about three or four times as many

3   households are watching Dragonball Z.

4   Again, this is a conceptual flaw

5   because it -- the Galaz methodology puts on,

6   in my opinion, too much emphasis on the size

7   of the stations and ignores sort of within-

8   station differences; that is, the programming

9   popularity differences airing on the same

10   station. It's completely ignored.

11   Q   Okay.

12   A   So those are conceptual flaws.

13   Q   Did you have other flaws? Did you

14   identify any other flaws? I'm sorry.

15   A   I sort of identified item of host

16   as appropriate, or I identified a number of

17   flaws in application. The first and foremost

18   flaw in application is that he relies upon a

19   non-random sample. And we talked about sort

20   of importance of having a random sample

21   earlier.

22   And secondly, actually, the non-

1 random sample is taken from a population of

2 CSOs that is not the entire universe of CSOs,

3 but it restricts his selection of CSOs from

4 just the larger CSOs; that is, the Form 3

5 CSOs. It does not select any stations airing

6 on only Form 1 and/or Form 2 CSOs.

7 But the importance of the non-

8 random sample, as I said earlier, is that you

9 can make no valid statistical conclusions

10 regarding relative viewership or relative

11 value for programming airing on stations

12 outside the sample.

13 His issue with just focusing on

14 Form 3 CSOs, two things. One is you don't

15 capture any programming on the smaller CSOs,

16 but also he winds up overstating his coverage.

17 He mentions he covers -- I don't remember the

18 numbers, but it's in my testimony -- but 33 to

19 35 percent of CSOs, when in fact that is the

20 percentage of Form 3 CSOs. It's a smaller

21 percentage of all CSOs.

22 Another flaw in his methodology

1   has to do with his exclusion of compensable

2   program titles. And I identified this just

3   based upon his data, and what I had noticed

4   is, while he identifies programs such as the

5   Fresh Prince of Bel-Air and Simpsons as

6   compensable MPAA programming, which they are,

7   he fails to identify The Simpsons or The Fresh

8   Prince of Bel-Air as compensable MPAA

9   programming.

10   Similarly, there are numerous

11 foreign titles, actually titles with accents

12 in them, which I am not going to try to

13 pronounce but they're in my testimony, that he

14 excludes. And he appears to have some issue

15 in the software that he uses in terms of

16 reading and accents, but -- and these

17 disproportionately tend to be MPAA-represented

18 programming, but he excludes them from his

19 analysis.

20   So I look at those stations where

21 I overlap with his and find that his share of

22 IPG royalties would decrease between 7.5

1   percent and 14.4 percent. If you follow his

2   methodology to the letter, all his other flaws

3   that I haven't yet identified -- well,

4   including the non-random sample -- but just

5   put back in those compensable programs that

6   should not have been excluded, his share drops

7   by that amount.

8   Next flaw, in addition to

9   excluding compensable programming, he includes

10   programming that I understand to be non-

11   compensable; that is, programs that aired on

12   distantly retransmitted Canadian signals, but

13   they originated outside of the United States.

14   So I understand that they are not compensable

15   and that they are irrelevant to this

16   proceeding.

17   These tend to wind up being -- and

18   it's shown in Table 3 of my rebuttal testimony

19   -- these wind up being disproportionately IPG-

20   represented programming.

21   So if you follow, again, his

22   approach to the letter, and just correct this

1   one mistake, and exclude these programs that

2   I understand should have been excluded but

3   were not, that's a more modest impact, because

4   these Canadian stations aren't -- they're

5   relatively small, but it winds up being a

6   reduction in the IPG share of between 2.7 and

7   7.9 percent per year.

8   Q   Any other flaws?

9   A   I'm going to skip a couple. Let

10   me go to the -- his false assertion regarding

11   the time period weight factor, because the

12   time period weight factor is an important

13   variable in his formula. It's one of the

14   three.

15   He   asserts   in   his   written

16   testimony that he calculates a different time

17   period weight factor for each half hour of the

18   day; that is, the percentage of viewership

19   that takes place on a half-hour basis.

20   When   I   looked   at   his   data   and

21   tried to figure out exactly what he was up to,

22   I found out that there were only six time

1 period weight factors that he uses, so based

2 on very broad day parts.   And this is

3 highlighted in Table -- use all the words --

4 Table 4 on page 22 of my rebuttal report.

5   I'll show you a couple of examples

6 to illustrate how important this is to his

7 conclusions.   We'll look at the first two

8 rows. The first is Andromeda, which is a one-

9 hour science fiction show, which I personally

10 have not seen but it's a favorite of my

11 youngest brothers, but it's MPAA-represented,

12 has a bit of a cult following. And in May of

13 2002, it aired at 5:00 p.m.

14   Also, the next row down I should

15 say, before I go on, at 10:00 a.m., the video

16 Computer Store represented by IPG on February

17 3rd at 10:00 a.m. Very different time, but

18 according to Mr. Galaz's data, he gives them

19 the same time period weight factor.

20   Because the programs are the same

21 length, both airing on WGN, both had the same

22 Galaz time period weight factor, by his

formula they have the exact same relative

value. However, as shown in -- what is that,

the third column from the right? My brother's

favorite show has almost 10 times as many

households viewing it.

A similar example with the next

two. The point there is this use of a broad

time period weight factor leads to, arguably,

indefensible relative value estimates.

If I correct just that measure and

do what he says he did in his direct testimony

-- and that is to put in 48 time period weight

factors, one for each half-hour -- I find --

but include all of his other mistakes, I find

that his calculated share for IPG royalty

would drop between 16.6 percent and 23.8

percent each year between 2000 and 2003.

Q   I just wanted to go back to --

CHIEF JUDGE BARNETT: I'm sorry.

Could you repeat those percentages, or are

they in your written testimony?

THE WITNESS: They are. I will

1 read them by year, though, because I have the

2 page in front of me. In the year 2000, IPG's

3 royalty share would decrease by 17.7 percent.

4 In the year 2001, it would decrease by 23.8

5 percent. In the year 2002, it would decrease

6 by 17.1 percent. And in the year 2003, it

7 would decrease by 16.6 percent.

8   CHIEF JUDGE BARNETT: Thank you.

9   BY MR. OLANIRAN:

10   Q   I will come back to this line in a

11 second, but I wanted to ask you -- remember,

12 you identify the data sets that you used for

13 your regression analysis. Remember that?

14   A   I do.

15   Q   Yes. You received a data set from

16 Reznick Group, which ultimately you used in

17 your analysis, remember that?

18   A   Yes.

19   Q   And did you make any modifications

20 to the data you received from the Reznick

21 Group before using it in your analysis?

22   A   Yes. And this is described, not

1   in my expert report, but in my description, my

2   analysis, that I understand was turned over to

3   IPG.

4   But in performing routine, you

5   know, data integrity checks, and naturally

6   looking -- were actually really looking for

7   information that we could use to accurately

8   predict distant viewing, I noticed that there

9   were a series of what appeared to be network

10 programs in the Reznick/Tribune data.

11   And I had understood that network

12 programs were not compensable and should have

13 been excluded. And these were designated by

14 a type code I think of A, C, or N, which

15 refers to ABC, CBS, and NBC, and confirmed via

16 counsel that, indeed, those were network

17 programs. And so those were dropped from my

18 analysis.

19   Q   And then, going back to your

20 analysis of the Galaz methodology, what did

21 you conclude ultimately as to the methodology?

22   A   I concluded that it was not

1   reliable.

2   Q   Also, you are aware of the Judges'

3   recent decision to reclassify the claims of

4   the U.S. Olympic Committee and the United

5   Negro College Fund programs to the program

6   suppliers category. Did you go back to

7   revisit your analysis with respect to those

8   two claimants to see whether or not your

9   proposal would change?

10   A   I did. And I also went back

11   through additional ones I learned of last

12   night with respect to I think BBC Worldwide,

13   and there was another I'm not remembering --

14   Q   Reel Funds?

15   A   Reel Funds perhaps.

16   Q   And Venevision?

17   A   And Venevision. These all sound

18   familiar. But went back and replicated the

19   analysis, and my calculated MPAA royalty

20   shares did not change to the second decimal

21   point. I think they changed to the third or

22   fourth decimal point.

1   My proposed royalty allocation

2   share, as well as royalty viewing, are

3   unaltered by those inclusions of IPG-claimed

4   programming.

5   Q   So just have you now considered

6   all of the changes based on the orders by the

7   Judges from the March 21st order and the

8   decision -- the determinations that the Judges

9   made yesterday with regard to certain

10   claimants, as well as -- I feel like I'm

11   missing one other one.

12   A   Well, as well as certain claimants

13   who rejected representation.

14   Q   Okay. So having considered all of

15   that, do you now have a final share allocation

16   that you are recommending to the Judges?

17   A   Yes. It is on page 26 of my

18   rebuttal report, the final column. And I will

19   just go ahead and read them, I suppose. This

20   is proposed MPAA royalty shares by year -- the

21   year 2000, 98.93 percent; the year 2001, 99.72

22   percent; year 2002, 99.69 percent; and the

1   year 2003, 99.80 percent.

2   MR. OLANIRAN: Those are all the

3   questions that I have, Your Honor.

4   CHIEF JUDGE BARNETT: Thank you.

5   MR. OLANIRAN: Thank you.

6   CHIEF JUDGE BARNETT: Okay.

7   JUDGE FEDER: Dr. Gray, can you

8   just state the basis for computing and

9   reporting this to two decimal places?

10   THE WITNESS: That's actually a

11   very good question, and the answer is -- and

12   this is in the footnote on page 26. I have a

13   95 percent confidence interval that provides

14   sort of a lower and upper bound.

15   And so in my first report I did it

16   to one decimal point, but the main reason for

17   doing it is just there is a material

18   difference with respect to one and two decimal

19   points, so I decided to report the point

20   estimate to two. But it could certainly be

21   done to one decimal point.

22   MR. OLANIRAN: And, Your Honor, if

1 I may just go back on the record, just one

2 more question.   I   meant   to   make   a

3 clarification.

4   BY MR. OLANIRAN:

5   Q   Your   testimony   with   regard   to

6 IPG's -- the Galaz methodology's time period

7 weight factor, do you understand that since

8 you filed your testimony that IPG has since

9 corrected that?

10   A   I understand that they represented

11 that they tried to correct it, yes.

12   MR. OLANIRAN: Okay. Thank you.

13   CHIEF JUDGE BARNETT: Now, Mr.

14 Boydston.

15   MR. BOYDSTON: Thank you, Your

16 Honor.

17   CROSS-EXAMINATION

18   BY MR. BOYDSTON:

19   Q   Good morning, Dr. Gray. My name

20 is Brian Boydston.   I   represent   the

21 Independent Producers Group. I want to ask

22 you about this concept of -- well, strike

1   that. Let me just ask you a question, sort of

2   a hypothetical.

3   In terms of program homogeneity,

4   would you consider that a children's cartoon

5   broadcast out of Toronto, and a children's

6   cartoon broadcast out of Buffalo, though

7   roughly the same -- aimed at the same age

8   group, would be fairly -- considered to be

9   fairly homogenous programming? Relative to

10   all programming there is?

11   A   Relevant to all programming, I

12   would expect it to be perhaps more homogenous.

13   But, ultimately, I would like to see the

14   distant viewing and/or local ratings

15   associated with those programs. I mean,

16   certainly some cartoons my kids would have

17   told you 10 years ago are more popular than

18   others.

19   Q   Would it be safe to say that a

20   cartoon being broadcast out of Toronto

21   probably, in most cases, is going to be more

22   homogenous with a documentary broadcast out of

1   Buffalo or anywhere else?

2   A   I'm sorry. Can you repeat the

3   question?

4   Q   Sure. Wouldn't you say that two

5   cartoons are probably more homogenous than a

6   cartoon and a documentary, for instance?

7   A   I would expect them to be.

8   Certainly, they sound more similar, two

9   cartoons.

10   Q   Right.

11   A   Of course, it ultimately depends

12   on what one means by "homogeneity," but yes.

13   Q   Well, in your discussion, or I

14   should say your response to questions by

15   counsel, about the homogeneity of the program

16   suppliers group, your testimony was that it is

17   generally homogenous, correct?

18   A   Correct.

19   Q   However, within that group, we

20   have some programs that are very, very

21   different, for instance, a children's show and

22   a documentary. Wouldn't those be considered

1   fairly non -- I can never pronounce that word

2   -- not very homogenous?

3   A   Yeah.   I   certainly   think   a

4   documentary is different from a cartoon.   If

5   that's your question, I will say yes.

6   Q   And   although   certain   Canadian

7   broadcasts are in a different group than the

8   program suppliers category that are in the

9   Canadian claimants group, in many respects,

10   some of those programs are probably more

11   homogenous than programs within the program

12   suppliers group, like a documentary and a

13   cartoon, right?

14   A   That is potentially the case.   I

15   certainly did not make the demarcation of what

16   goes into program suppliers or what goes into

17   a different Phase 1 category.

18   Q   Let me turn to your testimony with

19   regard to the two samples that you used in

20   your analysis, the one that was developed by

21   Ms. Kessler and the one by you.   Now, there

22   were different numbers of stations in each

1 group. You had a few more stations in your

2 group than she did, correct?

3   A   Yeah.   I don't recall her exact

4 number.   I think it varied by year.   But I

5 think in general I had more in my sample than

6 she did.

7   Q   And then, what you wanted to do is

8 compare your list and Ms. Kessler's list and

9 essentially make analyses between the two,

10 correct?

11   A   I would not characterize it that

12 way. What I did was I -- for those stations

13 that we had in common, that is where I could

14 make a -- perform the mathematical check in

15 terms of how local ratings was associated with

16 distant viewing.

17   Q   So in making those comparisons,

18 you weren't taking -- that was where my

19 questions were going. You weren't taking your

20 entire set and Ms. Kessler's entire set; you

21 were just taking those within each set that

22 were the same.

1   A   Right.   That's   why   I   said   my

2   testimony   is   there   is   approximately   70

3   stations per year.

4   JUDGE STRICKLER: Counsel, may I

5   interject for a second?

6   MR. BOYDSTON: Yes.

7   JUDGE STRICKLER: Since you were

8   looking for this overlap between Ms. Kessler's

9   sample stations and your random -- stratified

10   random sampling of stations, would it be fair

11   to say or accurate to say that by looking for

12   the overlap, since Ms. Kessler's sample was

13   not random, and you said that troubled you

14   before, that that somehow -- I don't know if

15   this word is an overstatement, but polluted

16   the randomness, or compromised is perhaps the

17   better word, the randomness of the sample that

18   you yourself had selected.

19   THE WITNESS: That's a very good

20   question.   Hence, I used the word "queasy"

21   early on.   But absolutely, and so that's why

22   I took steps to say, "Okay.   Is the

relationship between local ratings and distant

viewing somehow affected by the fact the

Kessler sample is non-random? And so I took

tests to try to look at what I expected to be

the case and looked at smaller -- sort of

smaller stations within the Kessler sample and

larger stations within the Kessler sample.

JUDGE STRICKLER: Maybe I didn't

appreciate what you said before on direct, or

maybe you didn't say it, but what steps did

you take to try to mitigate the problem of the

lack of sufficient randomness caused by the

overlap?

THE WITNESS: So when -- there is

an overlap of approximately 70 stations, so

what we have there is, you're right, it's a

subset of my stations, of the random stations,

and a subset of her non-random stations.

What you have is distant viewing

hat is potentially non-random, right?

Selected non-randomly. The local ratings is

from a random sample, but now we're a subset

1   of those samples.

2   So what I checked was let me take

3   smaller CSOs from the Kessler sample or -- I'm

4   sorry -- I should say smaller retransmitted

5   stations, I misspoke, so the lower quartile of

6   CSOs, and look at the correlation there and

7   sort of run my analysis just on those lower

8   CSOs.

9   And the idea here is this, is the

10   big concern with the Kessler sample, in terms

11   of randomness, is it was selected really to

12   take the larger stations. And so the concern

13   is, is the relationship between local ratings

14   and distant viewing somehow different with

15   smaller stations? So that is really the only

16   concern.

17   If the relationship is different

18   for smaller stations, then when I make my

19   projections across my random stations I might

20   have a -- to use your word, a polluted

21   prediction. But what I found is if I use just

22   the lower quartile of Kessler, or the next

1   couple or top quartile, I wound up getting

2   essentially the same exact prediction, leading

3   me to the conclusion that the relationship

4   between local ratings and distant viewing is

5   not dependent upon the size of the station

6   being retransmitted in terms -- when I say

7   "size," I mean the number of distant

8   subscribers.

9   The one exception to that, as I

10   said before, was WGN, which just seemed a

11   little wacky, for lack of a better word.

12   That's non-scientific, and so I ran a separate

13   regression for WGN.

14   You are making an expression which

15   I am trying to -- does that make sense to you?

16   JUDGE STRICKLER: It makes sense

17   to me, but I thought Ms. Kessler said a non-

18   random sample was a sample based on the size

19   of the CSO rather than the size of the

20   station. Or am I mistaken?

21   THE WITNESS: It is based upon the

22   -- let me get Kessler here, if I have it in

1   front of me. But it's in terms of the --

2   ultimately, it is going to be the stations.

3   I don't have it in front of me. That's the

4   best of my recollection.

5   MR. BOYDSTON: For what it's

6   worth, it's mine as well.

7   THE WITNESS: Okay.

8   JUDGE STRICKLER: Okay, good.

9   Appreciate it.

10   BY MR. BOYDSTON:

11   Q   Now, as you were saying, the

12   Kessler list was basically chosen in terms of

13   size, correct? And what you determined was,

14   despite the fact it wasn't random, as it

15   turned out, when you compared it to your

16   selection of stations and went through the

17   different quartiles, you found that there

18   wasn't a significant difference created by the

19   fact that she chose it based on size, correct?

20   A   Right.   Because, remember, my

21   ultimate goal is to predict distant viewing

22   for my random sample. And the key here is

1   just to have the relationship, not only

2   between local ratings but all of the factors

3   in distant viewing to be stable across sort of

4   station size.

5   And I found that to be relatively

6   stable, so I was comfortable from a

.7   statistical point of view making the

8   projections based upon these overlapping

9   stations to just my random stations.

10   Q   And you certainly examined the

11   Galaz direct testimony and the Galaz rebuttal

12   testimony, correct?

13   A   I reviewed them, yes.

14   Q   Yeah. To review the methodology,

15   correct?

16   A   Yes.

17   Q   And isn't it true that the

18   stations selected for the IPG methodology were

19   also based on size. It was the top 200 or the

20   top 230, depending upon the sample, correct?

21   A   That's correct, yes.

22   Q   Okay. Like the Kessler selection

1   as well, which was also based on size,

2   although it was smaller, correct?

3   A   Right. That's why I said before I

4   would not draw conclusions from the Kessler

5   sample alone with respect to royalty shares,

6   and I would not draw conclusions from the

7   Galaz sample alone with respect to royalty

8   shares.

9   Q   But when you conducted your test

10   to compare the Kessler selection versus your

11   selection, what you found was the exclusion of

12   those smaller stations, as you called it, by

13   Kessler didn't have a significant impact on

14   the analysis you were running at that time --

15   A   If --

16   Q   -- of the analysis you were

17   running at that time, correct?

18   A   I just want to make sure you

19   understand what it is that I was looking at.

20   What I was looking at is the relationship now

21   between local ratings, number of distant

22   subscribers, quarter-hour of the day, et

1   cetera, the relationship between that and

2   distant viewing. The key is I want stability

3   of that in order to make projections for my

4   random sample. But ultimately my prediction

5   for distant viewing is for a random sample.

6   Q   You stated that at the end of your

7   analysis you -- and this was I think in your

8   introduction to your analysis -- you said at

9   the end of it what we had was we had a

10   measurement of viewing for each individual

11   program, correct?

12   A   In my random sample, yes, on the

13   quarter-hour basis.

14   Q   But for each program, correct?

15   A   Correct.

16   Q   Was that generated into some kind

17   of a document or an electronic file or

18   something like that, I presume? It was

19   generated somehow, correct?

20   A   Yes.   Well, ultimately the

21   projections are made, and then they are added

22   up to get the numbers that are presented or

1 the relative percentages that are presented in

2 my testimonies.

3   Q   Okay. I ask because I have seen

4 no document that has that information on it,

5 i.e. the MPAA's -- or, excuse me, I should be

6 specific, i.e. the MPAA's study -- statement

7 as to how much viewing there was for each

8 program. Is that document anywhere in the

9 materials that have been put before the panel?

10   A   Is that document? No. No. What

11 is put before the panel is the percentage of

12 relative viewing between MPAA and IPG in

13 total.

14   Q   To your knowledge, was that

15 document ever produced to IPG?

16   A   To be clear, what you would be

17 talking about is, you know, a document of

18 about 6.8 million quarter-hour observations of

19 relative -- of programming on the quarter-hour

20 basis. I don't know if that document per se

21 was actually ever produced, period. I mean,

22 it wasn't necessarily retained.

1   Q   But it was generated in electronic

2   format, certainly, because that's how you got

3   the information, correct?

4   A   Well, when you say "generated,"

5   right, so you -- it is perhaps in the ether

6   state of a computer program. It is projected

7   by the regression, and then you write a code

8   to sum up those numbers. So you would get a

9   little loop that sums up the numbers, and

10   then, you know, generates the numbers that are

11   presented in the testimonies.

12   Q   And was that ever -- you said it

13   -- was that calculation of a viewing value for

14   each program ever saved or put into a discrete

15   document that anyone can look at?

16   A   Well, what was turned over was the

17   regression specification, and then -- and

18   turned also the codes to sum up the output of

19   the regression specifications.   That was

20   turned over, yes.

21   Q   It sounds like that means the

22   answer to my question was no, there is no file

1   or document that lists all of these programs

2   that we are talking about, and shows the

3   corresponding value the MPAA methodology

4   attaches to it. That doesn't exist. It's not

5   before the panel, is it?

6   A   To be clear, I have never seen

7   such a document, so I --

8   Q   I'm asking whether it's before the

9   panel, and I guess your answer means it's not,

10   correct?

11   A   I have not seen it, the panel has

12   not seen it, it has never been generated.

13   Q   Could it be generated?

14   A   Yes, I could provide --

15   Q   Has it been generated?

16   A   No, it has not. I could provide a

17   document of 6.8 -- approximately 6.8 million

18   distant viewing for IPG programs as well as

19   for MPAA programs.

20   Q   But, clearly, it was necessary to

21   have it in some form to then arrive at the

22   final percentages you have given to the panel,

1   correct? Otherwise, how do you come up with

2   those percentages?

3   A   I'm somewhat confused by the way

4   you are thinking about it. The way I think

5   about it is you have five raw databases that

6   you combine together. And based upon those

7   five raw data sets, you know, which is a

8   tedious   process,   but   relatively

9   straightforward, you run the regressions that

10   I described and predict out distant viewing.

11   I turned over to you the exact

12   specification of those regressions, and so you

13   predict out distant viewing, add up the

14   distant viewing. This is a program -- it's

15   not any document that I've seen, even in --

16   it's not even in the program, in the loop, to

17   get the relative program shares.

18   Q   Well, I guess the trouble I'm

19   having is I understand how you are saying you

20   arrived at these numbers, but, from my -- what

21   I can tell, there is no way anyone else can

22   figure out how you added this up.

1   I appreciate that the MPAA

2   methodology, as you testified, has come up

3   with a separate value for each of these

4   programs. And then you have added up all of

5   the IPG programs' values, and you have added

6   up all of the MPAA programs' values.

7   But how can I or the Judges make

8   sure that it was done correctly, or even see

9   how much value was given to Program A versus

10 Program B?

11   A   Well, I can tell you how, which

12 is, again, I provided a document which had a

13 roadmap of the steps to take, which is to --

14 you take these five data sets that I

15 described, merge them together based upon

16 station, date, quarter-hour, run the

17 regressions, because quite frankly I don't

18 know what one would do if -- well, I guess

19 perhaps it would simplify it for you. But if

20 you run the regressions, you have the output

21 on predicted viewing, and add them up.

22   And this is important. I had a

team of people in my firm do it, and then I

had a separate, independent team, I said,

"Okay. Here is the raw data. Here is a brief

description. Replicate it." And they did.

Q I'm familiar with the roadmap.

The roadmap, though, does not provide the end

answer, does it? It doesn't provide this

information I am asking for, which is the

specific calculation of value for each program

pursuant to your methodology. It doesn't

include that, does it? And that has never

been provided, has it?

MR. OLANIRAN: Objection. Your

Honor, it has been asked and answered.

CHIEF JUDGE BARNETT: Sustained.

BY MR. BOYDSTON:

Q In your testimony, you talked

about different tests that you ran to

essentially test your regression analysis,

correct?

A Yes.

Q And one of them was the one we

1   have been touching on earlier where you took

2   different permutations of Ms. Kessler's list

3   and ran separate analyses as to different

4   quartiles, correct?

5   A   Correct.

6   Q   And you said you ran a separate

7   regression analysis for WGN, I believe, right?

8   A   That's correct.

9   Q   I didn't see this in your

10   testimony, but am I incorrect, was this in

11   your testimony, your written testimony, I

12   mean?

13   A   The separate for WGN, yes, it was.

14   It was in the appendix to my amended

15   testimony, I believe.

16   Q   Okay. Appreciate that. I must

17   have missed that. I didn't see it there.

18   JUDGE STRICKLER: Is that your

19   Appendix C?

20   THE WITNESS: Appendix C has the

21   abbreviated version. The extended version was

22   turned over to IPG in a log file, but yes.

1   BY MR. BOYDSTON:

2   Q   Now, another comparison that you

3   said you made, sort of -- I think the word you

4   used as a "benchmark" -- was the total volume

5   of unique programs by the MPAA and by IPG,

6   correct?

7   A   That is correct, yes.

8   Q   Now, when you did that, when there

9   were situations in which both the MPAA and IPG

10   had claims on a program, who did you credit

11   that program to in coming up with this

12   comparison? Did you credit it to the MPAA?

13   A   If both IPG and MPAA selected the

14   same program, then I credited it to MPAA, yes.

15   Q   And so, of course, that made the

16   MPAA percentage or total higher than it would

17   be than if had been according to the IPG or if

18   they had each been recorded a half-share,

19   obviously, right?

20   A   Yes. Insofar as it is non-zero,

21   yes.

22   Q   And   you   didn't   include   any

1   Canadian programs in that calculation either,

2   right?

3   A   Not   programs   from   Canadian

4   stations, no.

5   Q   Okay.   And I think you also

6   testified that Canadian station programs, just

7   before -- or, excuse me, that IPG programs,

8   there are a disproportionately higher number

9   of IPG programs coming out of Canadian

10   stations than MPAA programs, correct?

11   A   I believe I testified that a

12   disproportionate number of non-compensable

13   programs were, yes.

14   Q   But that's --

15   A   That I understand to be non-

16   compensable.

17   Q   That is only your understanding,

18   that they are non-compensable.   They are

19   Canadian. And when you said non-compensable,

20   you meant Canadian, with the assumption that

21   they are non-compensable because they are

22   Canadian, right?

1   A   It is my understanding that they

2   are non-compensable if they originated out of

3   Canada, yes.

4   Q   And what is the basis for that?

5   A   It was Marsha Kessler's testimony.

6   Q   Anything else?

7   A   No.

8   Q   Okay. You are not familiar with

9   the Phase 1 definitions of the different

10   categories here, is that correct?

11   A   I don't know the exact definitions

12   of the different categories, no.

13   Q   Now, if it were the case that

14   certain Canadian programs were compensable to

15   IPG, then that comparison that you made of

16   total program volume would be -- need to be

17   adjusted, if that were the case, correct?

18   A   Well, my calculation of program

19   volume is from a random sample of stations.

20   I would have to give it thought whether or not

21   a change in the universe from which it was

22   drawn, how that would affect my ultimate

1   conclusions.

2   Q   Okay.   And these were your charts

3   on page 22, I believe, of your --

4   A   I was looking at 23, but now I'm

5   looking at 22, yes.

6   Q   And then the other comparison was

7   unique programs -- excuse me, unique program

8   retransmissions.   Now, there again, any

9   program that was claimed both by MPAA and IPG,

10   you credited to the MPAA, right?

11   A   That's correct, yes.

12   Q   And you didn't include any

13   Canadian programs, right?

14   A   I do not believe there is any

15   Canadian programs contained in there. I would

16   have to check. I don't know if there are any

17   Canadian programs on non-Canadian stations.

18   I don't know the definition that you are using

19   of a Canadian program.

20   Q   Now, with regard to page 8,

21   Table 2 -- Table 2, I believe, on page 8 --

22   A   This is must be the rebuttal

1   testimony?

2   Q   Yes, which I did not bring with

3   me. You discussed the comparison that you are

4   making between different programs in the

5   different -- in the various time slots to

6   argue that the problem with the IPG approach

7   was that it would be according the same value

8   to two different programs that happen to come

9   in the same time slot, even if they had

10   different viewership, correct?

11   A   In   this   case,   different

12   viewership, yes.

13   Q   Okay. Now, you are familiar with

14   the fact that sometimes when the Nielsen data

15   falls below a certain level of viewers being

16   sampled, there are relative error rates that

17   become a concern at some point, correct?

18   A   Yes, I'm familiar with relative

19   errors and the associated issue with small

20   sample size, yes.

21   Q   And, in fact, there is -- well, I

22   don't know. Sorry, you weren't in the room

1 when this happened. Are you aware that

2 Nielsen itself acknowledges that when you get

3 under 10,000 people, or 10,000 households,

4 there is a high relative error rate, correct?

5 Or actually I shouldn't say correct. Are you

6 aware of that?

7   A   Yes. I have actually -- I wasn't

8 here this morning, or earlier this morning,

9 but I have read Mr. Lindstrom's testimony in

10 prior hearings where he has made those

11 conclusions, yes.

12   Q   Now, in looking at your Table 2

13 here under the column Nielsen Viewing

14 Households, all three are -- or three or the

15 four of those are under 10,000, and one is

16 just a hair above 10,000 at 10,888. That's

17 correct, right?

18   A   That is correct, yes.

19   Q   And so that would fall certainly

20 into the range of the concern over relative

21 error rates expressed by the MPAA itself,

22 correct?

1   A   Yeah. Yes, with relative error.

2 But, again, these are point estimates, and you

3 have to keep in mind what Mr. Lindstrom's

4 concern is with respect to relative error,

5 because I have -- although I was not here

6 earlier this morning, I have read his earlier

7 testimonies, and he has made it clear, I

8 believe, that the relative error issue is with

9 respect to a particular observation, and that

10 this issue with respect to the relative error

11 decreases actually dramatically for each

12 successive observation.

13   Q   But by the same token, it is still

14 a concern when you are focusing in on a

15 particular quarter-hour or half-hour segment,

16 correct?

17   A   Right. That's why one needs to

18 make steps either via regression analysis and

19 aggregate information, or the way Nielsen does

20 it, which is to look at the results in total.

21   Q   Now, you pointed out an error that

22 -- in the application of -- excuse me, let me

1   start over. You pointed out that IPG made an

2   error in the application of its own

3   methodology with regard to the time period

4   weight factor, in that they employed only six

5   different time periods as opposed to 48, which

6   is what their methodology was, correct?

7   A   That's correct, yes.

8   Q   I think that you would agree that

9   it is appropriate, then, that IPG should

10   correct that in its analysis, right?

11   A   That's one of several corrections

12   they should make. But even after making all

13   of their corrections, as I pointed out

14   earlier, it would still be a flawed and

15   unreliable analysis.

16   Q   Well, that remains to be seen.

17   Now, you said that you made a change to the

18   material you received from the Reznick Group.

19   Do you recall that in your testimony here

20   today?

21   A   Yes.

22   Q   Now, was that reflected in your

1   amended written statement?

2   A   It was reflected in my data

3   description document that we spoke about

4   moments ago.

5   Q   Okay.   So not in the amended

6   statement, but in the -- we had some other

7   term we used for it -- in the roadmap.

8   A   Roadmap, sure.

9   MR. BOYDSTON: Your Honor, I've

10   got more than another 20 minutes at least, so

11   I don't know if we want to break for lunch or

12   not.   I happen to be staring practically at

13   the clock is all.

14   CHIEF   JUDGE   BARNETT: I'm

15   definitely ready to break for lunch.   I expect

16   I'm not alone in that.   So we will break at

17   this time, and we will keep our 1:30

18   reconvening time, so we have a full three

19   hours this afternoon.

20   (Whereupon,   at   12:07   p.m.,   the

21   proceedings   in   the   foregoing

22   matter recessed for lunch.)

1   CHIEF JUDGE BARNETT: Mr.

2   Boydston, do you want to continue with cross-

3   examination?

4   MR. BOYDSTON: Thank you, your

5   Honor.

6   BY MR. BOYDSTON:

7   Q   Dr. Gray, with regard to the MPAA

8   methodology, you didn't create it, correct?

9   You sort of inherited it from others who had

10 devised it originally and worked on it before;

11 is that a fair statement?

12   A   No.

13   Q   Okay. In what respect is that not

14 a fair statement?

15   A   I would describe it as myself

16 creating it.

17   Q   Okay.

18   CHIEF JUDGE BARNETT: I'm sorry.

19 I didn't hear that.

20   THE WITNESS: I created the

21 methodology.

22   BY MR. BOYDSTON:

1   Q   Okay. Were there aspects of prior

2   MPAA methodologies that you used in that

3   process?

4   A   No.

5   Q   Okay. It's fair to say, though,

6   that the MPAA has used viewership-based

7   methodologies in the past, correct?

8   A   Yes, that is true.

9   Q   And are you familiar with the

10 methodologies the MPAA has used in the past?

11   A   Yes. For example, the 1989

12 methodology I'm familiar with.

13   Q   And, in fact, this methodology,

14 your methodology, if you will, is similar to

15 it, correct?

16   A   No, I do not believe so.

17   Q   Okay. I beg your pardon. I'm

18 going to have to step over my desk. I forgot

19 to bring something up with me. This is a copy

20 of the decision in the 1989 proceedings, and

21 I'd like you to take a look at it. Are you

22 familiar with this decision from the 1989

proceedings?

A   I'm familiar with the decision.
You'd have to put it in front of me to make
sure that we're talking about the same one.

Q   And that I shall do.   There you
go.   I seem to only have two other copies.
Well, it's not going to be submitted as an
exhibit, and we'll read the relevant portions.
If someone really wants one copy, I kept two
I can give to two people.

MR. OLANIRAN: If I could have a
copy.

MR. BOYDSTON: Sure.   That was
you, Cliff, Mr. Harrington?   Oh.

BY MR. BOYDSTON:

Q   And I apologize, Dr. Gray.   Did
you say that you were familiar with this or
you were not?

A   I believe I reviewed it at one
point in time, but it's probably been over a
year ago.

Q   Okay.   In your own words just a

1 few minutes ago, you referred to this. And I

2 guess what you were saying is that you were

3 familiar with this one in particular, correct?

4 A   Again, I believe so. I reviewed

5 several decisions a year ago. This appears to

6 be one of the ones that I reviewed.

7 Q   Okay. If I could ask you to look

8 at page 15.290, and that's at the very bottom

9 of these pages in the middle, in very small

10 type I'm afraid. But do you see where the

11 numerals are there? It says 57 Fed Reg 15,

12 and then the one I'm referring to is 290.

13 A   Yes. It's in larger font up on

14 the top left, which is even easier on my eyes.

15 Q   Oh, good. I don't have that

16 because I've got it folded over funny. Now,

17 in the middle column, there's a paragraph that

18 begins, "To do this, Nielsen first determines

19 the local viewing to a particular show (in

20 January or October). Then to construct the

21 distant viewing, it refers back to the next

22 earliest four-cycle sweep period (except July,

which Nielsen does not consider a
representative period). And for that same
time period, it ascertains the ratio of
distant to local viewing that occurred during
the same day part. Nielsen then applies the
ratio to the January or October show and
determines the distant viewing."

It seems to me that there are
aspects of that, certainly, that are similar
to your approach. Would you agree or
disagree?

A   No. They seem to be doing some
interpolations over time, whereas mine does
not do that.

Q   It goes on to say, "For example,
if the ratio is 15,000 distant viewers to
every 85,000 local viewers for the earlier
show shown in the comparable day part, and the
show in January or October was viewed by
42,500 households in the local market, Nielsen
would estimate that 7,500 households viewed it
in district markets."

1   It seems to me, from reading this,

2   that what they're doing is taking local

3   ratings and using them to try to extrapolate

4   distant ratings. Would you agree with what I

5   say that that appears to be what they're doing

6   here?

7   A   It appears -- you know, I'd like

8   to sit down with this a little bit more -- but

9   it appears to be over time. They're referring

10   to sort of different four-period cycles.

11   Q   Right.

12   A   And that's something that I did

13   not do, which is sort of a very different

14   methodology.

15   Q   Okay. Would you agree that it's

16   somewhat similar, though, to your approach in

17   that it is trying to take local viewing,

18   develop some tools from that, to then predict

19   distant viewing?

20   A   That's what it appears to be

21   saying, but it's not similar to my

22   methodology. Again, my methodology, as I

1   described before, was done on a quarter-hour

2   basis matched up on the exact same quarter-

3   hour for distant viewing and local ratings.

4   So it seems very different to me.

5   Q   Your methodology does take ratings

6   for distant viewing during the four months,

7   referred to as sweeps weeks or sweeps months,

8   and then, from that, fills in the blanks for

9   the other eight months in the year, correct?

10   A   Well, as I described before, it

11   does a number of things. It aggregates all

12   the information over these periods of time and

13   predicts it not only for the non-sweeps months

14   but even during the sweeps months, as well.

15   Q   And, in fact, you changed your

16   testimony to say you're really using six

17   months, not four, correct? I thought that was

18   something you said --

19   A   No, no, that's absolutely correct.

20   There were six sweeps months for expositional

21   purposes, yes. More data, in my opinion, is

22   better than less data.

1   Q   And do you consider that to be a

2 significant difference using six months as

3 opposed to four then? I know you said more is

4 better. Do you think it's a significant

5 amount better?

6   A   It's preferable. The adverb

7 "significant," I can't opine with respect to

8 that. It's better.

9   Q   Well, I guess, you know, there's,

10 out of 100, 11 is better than 10, but 50 is a

11 lot better than 10. That's what I'm saying,

12 significant. Do you think it's a significant

13 change going from four months to six months?

14 Preferable, I understand. But do you think

15 it's significant or do you not?

16   A   I would be happy -- I'm trying to

17 figure out how to answer that question. It's

18 somewhat vague. It's a 50-percent increase in

19 months, which is a good thing. Is it

20 significant? It's difficult for me to opine

21 whether or not that's a significant

22 difference. I strongly suspect -- this is the

1   reason why I'm hemming and hawing, and pardon

2   me for doing that. I strongly suspect that,

3   if I only used four months, I'd come up with

4   almost exactly the same results. So insofar

5   as that's the case with respect to my

6   conclusions, I don't think it's significant or

7   I would not expect it to be significant.

8   Q   Okay. Now, in your study, the

9   local ratings are taken from 120 stations,

10   correct?

11   A   That's correct. Approximately.

12   Q   And the distant ratings data is

13   taken from 81 to 125 stations that were in Ms.

14   Kessler's list, correct?

15   A   Well, actually, even less than

16   that, but that's correct. That's the upper

17   bound.

18   Q   And you say less than that because

19   you would only do the comparison with those

20   stations chosen by Ms. Kessler that also fell

21   within your group, correct?

22   A   Correct.

1   Q   And I think you said it was 70,

2   correct?

3   A   I said it was, on average, about

4   70 to 71, but it was less than 70 in the year

5   2000, greater than 70 in the years 2001

6   through 2003.

7   Q   Okay. Because they're selected by

8   different -- your list was different, selected

9   by a different means than Ms. Kessler's, and

10 so they're not, one is not the subset of the

11 other, correct?

12 A   I don't quite understand your

13 question. Because of what?

14 Q   You know, I'll withdraw the

15 question. The point's made there are only 70

16 that are in the same group.

17 A   There are approximately 70 --

18 Q   Approximately.

19 A   -- per year that are in both the

20 Kessler sample and then my random sample, yes.

21 Q   Okay. So the relationship that

22 exists between the local ratings in the

1   stations you selected and the distant ratings

2   that Ms. Kessler selected are not on a

3   station-by-station basis but a broadcast by

4   broadcast basis, correct?

5   A   Right. In fact, a quarter-hour by

6   quarter-hour basis.

7   Q   And you said this in different

8   context. I just want to make sure it's the

9   same here. There's no Canadian stations in

10   any part of that analysis, correct?

11   A   That's correct.

12   Q   Or Mexican stations, I presume.

13   A   That's correct, as well.

14   Q   And, again, that's based on your

15   understanding that all Canadian and Mexican

16   programming, broadcasts, if you will, are not

17   compensable?

18   A   It is what it is. I mean --

19   Q   Well, you didn't include them, and

20   the reason you didn't include them is you

21   understood they weren't compensable, correct?

22   A   My understanding is they weren't

1   compensable and/or they're very small, yes.

2   Q   Very small. Okay. Isn't it true

3   that some of the Canadian stations are some of

4   the most heavily re-transmitted stations --

5   A   And when I say very small, I mean

6   very small fraction of program, compensable

7   programs, supplier programming, is my

8   understanding.

9   Q   Let me ask you to look at what is

10   Exhibit 4 to the direct case of Independent

11   Producers Group, and I'll represent to you

12   that this, obviously, was an exhibit to the

13   IPG direct statement. And the document there

14   is a listing of IPG stations surveyed. I

15   think you reviewed this, correct?

16   A   I believe that's the case, yes.

17   It looks very familiar.

18   Q   Okay. And I'm not going to ask

19   you to authenticate the document because you

20   didn't create it, obviously. But just as a

21   general matter, you understand that this is

22   purporting anyway to rank stations by the

1 total distant fees generated station by

2 station, correct? As I say, that's what it

3 purports to be. I'm not asking you to give it

4 a Good Housekeeping Seal of Approval.

5   A   No.   That's certainly what it

6 appears to be, yes.

7   Q   Okay.   And do you see that the

8 fourth station by fees generated is CBUT?

9   A   I do see that, yes.

10   Q   And are you familiar with the call

11 sign designations that begin with a C, that

12 they are Canadian stations?

13   A   That's my understanding, yes.

14   Q   And that the 9th station is also a

15 Canadian?

16   A   Yes.   The 9th, for the record,

17 would be CKSH.

18   Q   And the 17th, CBET, that's also a

19 Canadian station?

20   A   Yes.

21   Q   And so, to the extent this list is

22 accurate, three of the largest -- I should

1   make this very clear. Of the 20 most re-

2   transmitted stations in the United States,

3   three of them are Canadian, it would appear

4   from this document, correct?

5   A   Yes.

6   Q   And, again, the reason that you

7   did not include Canadian stations in your

8   survey or, excuse me, in your study was

9   because you were under the impression that

10   they weren't compensable based upon what you

11   were told by Marsha Kessler, correct?

12   A   Right. And I was also told that

13   they had a relatively small fraction of the

14   Phase 1 program supplier category.

15   Q   Did you make that determination

16   yourself, as well?

17   A   No, it was represented to me.

18   Q   By who?

19   A   By counsel.

20   Q   And -- but you never confirmed

21   that with numbers of your own?

22   A   No, I have not.

1   Q   Okay. Now, you did testify that

2   you found that Canadian broadcasts were over-

3   represented in the IPG stations surveyed,

4   correct?

5   A   I believe what I testified to is,

6   of those programs on the Canadian broadcast,

7   they were disproportionately non-compensable

8   with respect to IPG programs.

9   Q   I misspoke, and you're correct.

10 But when you say non-compensable, what you

11 mean was is they were Canadian broadcasts?

12   A   Right. And that they originated

13 in Canada.

14   Q   So the point being that IPG has a

15 disproportionate number of Canadian broadcasts

16 in the programs it's claiming in this

17 proceeding, correct?

18   A   That originated in Canada. That's

19 my understanding, yes.

20   Q   Now, with regard to the logic of

21 the MPAA methodology, as you say -- well, I

22 shouldn't say that. I was about to say as you

1   said, but that's why I'm asking the question.

2   It's based on household viewership, correct,

3   as a predictor of market value?

4   A   Correct.

5   Q   And your logic for that is that,

6   from a cable system operator's perspective,

7   the more popular a program is the more

8   subscribers will be attracted to a given cable

9   system; is that correct?

10   A   Right. That program viewership is

11   a measure of underlying subscriber demand and

12   then that, in turn, will lead, greater

13   underlying subscriber demand will lead to

14   greater subscriber retention and attraction,

15   yes.

16   Q   Now, I know that you have some

17   familiarity with past decisions, including one

18   I've given you we've talked about a little

19   bit. Isn't it the case that that concept has

20   been rejected in prior Phase 1 proceedings,

21   including the 1989 proceeding?

22   MR. MACLEAN: Objection, relevance

1 from this witness.

2   CHIEF JUDGE BARNETT: Sustained.

3   BY MR. BOYDSTON:

4   Q   Are you familiar with the board

5 survey?

6   A   I've heard about it and read about

7 it.

8   Q   Do you have an understanding as to

9 the methodological basis of the board survey?

10   MR. OLANIRAN: Objection, your

11 Honor. Relevance again.

12   MR. BOYDSTON: Well, if I may, I'm

13 comparing, I wish to ask him to draw a

14 comparison between his study and the board's

15 study for purposes of elucidating the nature

16 of his study; that's all.

17   MR. OLANIRAN: Your Honor, Dr.

18 Gray did not testify to the board's survey.

19 It's completely, completely outside of the

20 scope.

21   MR. BOYDSTON: Well, my argument

22 would be the board survey tries to survey many

1   of these same things using some things that

2   are similar with this and some things that are

3   different, and that's my goal in my inquiry.

4   MR. OLANIRAN: You're not asking

5   Dr. Gray about the board's survey. It's just

6   asking, he's asking him about --

7   MR. BOYDSTON: I can't hear you.

8   I'm sorry.

9   CHIEF JUDGE BARNETT: I don't want

10   a narrative. Thank you, Mr. Olaniran. It is

11   outside the scope of direct examination, and

12   the objection is sustained.

13   MR. BOYDSTON: Okay. Thank you,

14   your Honor.

15   BY MR. BOYDSTON:

16   Q   Are you familiar with the Phase 1

17   2004 - 2005 decision?

18   A   I've reviewed it at one point in

19   time.

20   Q   Okay. Do you recall that in that

21   decision the decision said that many factors

22   come into a CSO's decision to transmit a

1   station, but, ultimately, the most significant

2   concern is net revenue generation?

3   MR.   MACLEAN: Objection,

4   relevance, relevance as to what the decision

5   says.

6   MR. BOYDSTON: I'm trying to get

7   behind, well, I'm trying to get behind what he

8   knows about these things and how they

9   influenced his decision to set up the study

10   the way he set it up.

11   CHIEF JUDGE BARNETT: I'll allow

12   it. Overruled. Go ahead.

13   THE WITNESS: I'm sorry. Can you

14   repeat the question.

15   BY MR. BOYDSTON:

16   Q   Yes, I'll come at it from a

17   different angle to be of assistance. I asked

18   you about the underpinnings of your survey,

19   and the first thing we sort of established or

20   agreed upon was that you see viewership as

21   having an important relationship to value to

22   a cable system or operator, right?

1   A   That's correct, yes.

2   Q   And isn't it the case that in the

3   Phase 1 2004 - 2005 decision, it was

4   acknowledged in that decision that net revenue

5   generation by a CSO is a very important

6   factor, correct?

7   A   That's correct.

8   Q   And --

9   A   And I'd also say that subscriber

10   growth contributes to net revenue

11   maximization.

12   Q   Okay. Now, in such familiarity

13   that you have with past decisions by the CRT

14   and the CARP about the use of Nielsen ratings,

15   isn't that true that some decisions have been

16   critical of the usefulness of Nielsen ratings

17   in assigning value to a cable system operator

18   for a particular broadcast?

19   A   There have been some prior

20   decisions that were critical, yes.

21   Q   I'm going to refer to one in

22   particular, and I'll just read it.   It's

1   fairly straightforward. This is from 69

2   Federal Register at 3613 from the 1998 - 1999

3   Phase 1 proceeding. Quote --

4   A   So this is also Phase 1?

5   Q   This is Phase 1, correct. "The

6   devaluation of the Nielsen study is a result

7   of the panel's consideration of the

8   hypothetical marketplace. Evidence that

9   demonstrated how cable operators valued each

10   program category was, in the panel's view, the

11   best evidence of marketplace value. The

12   Nielsen study was not useful because it

13   measured the wrong thing."

14   Now, were you familiar with that

15   particular viewpoint when you prepared this

16   present study?

17   A   Yes, I was.

18   Q   Are you aware of any evidence that

19   a cable system operator, that cable system

20   operators, excuse me, consider rankings --

21   excuse me. Let me take a sip of water and

22   start all over again. Are you aware of any

1   evidence that cable system operators consider

2   ratings when making the decision of which

3   broadcast or which stations to license and

4   which not to license?

5   A   Well, certainly work that I've

6   done for CSOs in the past, they look very

7   closely at program viewership when negotiating

8   and considering license agreements.

9   Q   And describe for us what work

10   you're referring to, generally.

11   A   Sure. Actually, it's in the

12   context of both a breach of contract, as well

13   as license negotiations. I was retained on

14   behalf of outside counsel for two separate

15   CSOs, and in both those cases they were in a

16   dispute with a basic cable channel concerning

17   the programming on that channel. And some of

18   the evidence they wanted me to look at was

19   both how the programming changed over time and

20   also how the viewership of those programming

21   actually declined over time, and the CSOs were

22   concerned about the decrease in viewership.

1   Q   Okay. But that was after the fact

2 of the decrease in viewership, correct? That

3 was   not   a   concern   of   theirs   going   into

4 purchasing new broadcast --

5   A   But   it   was   part   of   the

6 negotiations, so they wanted to, as they were

7 negotiating with the basic cable channel, they

8 were showing how viewership is decreasing; so,

9 therefore, we want to lower our fees. So they

10 certainly focused intently on viewership, at

11 least in my limited experience.

12   Q   Okay. If I could ask you to take

13 a look at what's been marked as Exhibit 5 to

14 the rebuttal testimony. I think that's the

15 one on your left.

16   A   This?

17   Q   Yes.   And   for   everyone,   the

18 complete information there, that is the IPG

19 rebuttal   to   the   MPAA's   direct   statement,

20 Exhibit 5.

21   A   I don't see an Exhibit 5 here.

22 Oh, I'm sorry.

1   Q   It's a one-pager, so it sometimes

2   gets lost between the others.   And the

3   questions I'm going to ask you about this have

4   to do with the concept of displacement, which

5   you made some comments on in your direct

6   examination, correct?

7   A   Yes, I believe I was answering

8   questions of the judges.

9   Q   Okay.   And this chart here is

10   basically setting forth a situation in which

11   you have issues of displacement, and you can

12   see, by way of saying this, I'm essentially

13   asking you a hypothetical.   These are styled

14   as two different options presented to a cable

15   system operator.   Option one is on top, and

16   option two is on the bottom.   And option one,

17   as it says, contains children's programming,

18   and option two contains talk shows for adults.

19   And the Cartoon Network rating gets a 10 for

20   the children's programming and a 20 for the

21   talk show.   The re-transmitted station rating

22   gets a 10 for the children's programming and

1   a 4 for the talk show. I made a mistake. The

2   cartoon rating gets a 20 for the talk show.

3   Now, you agree, and this is just

4   this model, but under this model the aggregate

5   rating is actually better for option two than

6   option one, even though in option two you have

7   a lower rating on the talk show, correct?

8   A   This is a very simple table, but

9   I'm having a difficult time following.

10   Perhaps it's me. So what do we, I'm trying to

11   figure out what's going on in these columns

12   and rows.

13   Q   Okay.

14   A   So we have option one is -- well,

15   tell me again. Option one is for station --

16   Q   The idea is one is a cable system

17   operator trying to make a choice between

18   licensing either station KAAA in option one or

19   station WBBB in option two. And these are the

20   programs, for the sake of the analogy, that

21   you can, that you're looking at.

22   A   A 20 rating, it's a generous

1   rating. I'm sorry. Go on.

2   Q   Well, it's a hypothetical. The

3   point is is that, on the one hand, you may

4   choose programming which has a lower rating

5   for certain programming because you want the

6   higher rating for other programming, just like

7   the fact that for a particular time slot you

8   may be choosing something with a lower rating.

9   A   Well, yes. So you're referring to

10   bundling of programs or --

11   Q   Right. Because in these licenses,

12   of course, one chooses a station and gets

13   everything the station is offering. You can't

14   pick a la carte between programs, correct?

15   A   Correct, yes. So, ultimately,

16   CSOs are choosing which signals to re-

17   transmit. And so in order to really dive down

18   at the value of the programming on those

19   stations to the CSOs, you know, one has to do

20   a little bit more sophisticated analysis.

21   Q   And the fact of the matter is is

22   that a CSO may be in a position where they

1   actually would choose to purchase programming,

2   a station transmission rather, it contains

3   certain programs that have lower ratings than

4   competing options because, in total, due to

5   displacement, the cable system operator is

6   actually going to get what he feels is a

7   better product, right? Even though it may

8   contain lower-rated programs.

9   A   That's possible.   Then the

10   question at hand is, you know, what is the

11   relative market value of each of the

12   programming. It gets a little complicated

13   with the bundling, no doubt which I referred

14   to in my direct testimony.

15   Q   Right.

16   JUDGE STRICKLER: Can I interject

17   a question?

18   MR. BOYDSTON: Yes.

19   JUDGE STRICKLER: You say it gets

20   more complicated with regard to the bundling.

21   I appreciate that. And you say you mention

22   that in your direct testimony. But other than

1 mentioning it, did you incorporate that

2 bundling difficulty in your analysis or is

3 your analysis simply based on viewership

4 alone?

5   THE WITNESS: I would say, with

6 all due respect, both. And the reason why I

7 say that -- if you disagree with me, please

8 tell me and we'll have it out -- is that,

9 ultimately, we're trying to calculate the

10 relative market value of the programming and,

11 therefore, the relative program for IPG versus

12 MPAA. What we want to do is estimate, you

13 know, how valuable each particular program

14 might be to the CSO. So I like to abstract

15 and say, okay, suppose that they were able to

16 unbundle in some way --

17   JUDGE STRICKLER: So   your

18 assumption is, when you try to figure out

19 relative marketplace value, you're looking at

20 the value of each program unbundled?

21   THE WITNESS: Correct.

22   JUDGE STRICKLER: As if the re-

1   transmitter was, in essence, creating its own

2   station by iteratively buying the rights to

3   re-transmit various shows and might go down a

4   list and say, oh, "Seinfeld," that's the most

5   popular one, I'll take that one and then,

6   after that, "Friends" or what have you and

7   down a list simply to accumulate viewership.

8   Is that a fair statement as to how you're

9   looking at it?

10   THE   WITNESS: It's   a   fair

11   statement in terms of relative value because,

12   in   part   --   let   me   give   you   another

13   hypothetical.   Imagine you had your programs

14   that are very valuable, whether it be the

15   Seinfelds, the what have you, "Jeopardy," for

16   example, and so forth that people really watch

17   in distant markets and on that signal in the

18   middle of the night is some instructional show

19   that nobody wants and nobody watches, I think

20   that   should   be   taken   into   account   when

21   determining the relative market value of the

22   programming.   And that's what my analysis

1   ultimately does. So it does, in a sense,

2   unbundle, yes. Does that make sense?

3   JUDGE STRICKLER: It does make

4   sense. If you look at it from the perspective

5   of the CSO, the CSO wants to maximize

6   subscribers at the end of the day, not

7   viewers.   Viewers, as you're saying, and

8   correct me if you disagree, is a good proxy,

9   viewers is a good proxy for subscribers and

10   your regression bears that out.   But if

11   viewership is, in some sense, redundant -- and

12   I may be misstating IPG's position but I'm

13   trying to understand how you might respond to

14   it.   If viewership is, in some sense,

15   redundant, which goes to this displacement

16   point -- when I try to think of this myself,

17   I think of shows that are somewhat similar

18   that might be in reruns. I don't know. So

19   you have, for example, "I Dream of Jeannie"

20   and "Bewitched," as best as I can recall would

21   seem to be the same exact show with almost the

22   same theme music.

1   So if I'm a re-transmitter, I'm a

2   cable system operator and I want to re-

3   transmit, I've got "I Dream of Jeannie" and

4   that gets me 10,000 viewers.   If I'm

5   interested in "Bewitched" or that horribly

6   boring instructional show that you alluded to

7   before, "Bewitched" may have 20 times the

8   viewers of that horrible instruction show, but

9   it may be the same viewers who you got from "I

10   Dream of Jeannie," in which case the

11   viewership doesn't -- and now we get into the

12   economics of it.   It's sort of like it's a

13   marginal revenue product situation here.

14   You're looking on the margin, and you're

15   saying what additional revenue do I get from

16   adding "Jeannie" to "Bewitched?"   It doesn't

17   matter that it's got a large viewership

18   because the marginal revenue that it produces,

19   in terms of subscribers, is zero because

20   they're already locked in.   And I understand

21   it's a complicated process for a CSO, and we

22   don't have one in front of us, but wouldn't I,

therefore, want the boring horribly-rated instructional show which might only give me another thousand viewers than a thousand more marginal viewers that, as an economist, you know what you're looking for is to try and maximize out the margin, not just to get more viewers.

THE WITNESS: Wonderful question. And the answer is, but the answer is I wouldn't call viewership a proxy for subscribers. I would actually call it a predictor of subscribers, and my analysis bears that out. And that's the big difference.

So the question at hand, you're right, is does this instructional show give any marginal subscribers, and that's why I did the analysis and referred to it, I guess that's in Appendix C.1 --

JUDGE STRICKLER: Is that the second analysis in your --

THE WITNESS: Correct, yes. And

1   so the question is, you know, is there

2   something special about IPG's mix? And I

3   think this is a more germane topic to Phase 1.

4   But is there something special about IPG's mix

5   of what have you, video, computer, and so

6   forth, that increases, you know, subscribers,

7   more marginal subscribers, and I just don't

8   see it.

9   So it really appears to be two

10   similar groups. And so if that's the case,

11   insofar as subscribers do predict -- I'm

12   sorry, not subscribers. Insofar as viewership

13   does predict subscribers, then a CSO should

14   want to get those programs that have, within

15   the program supplier's context, that have

16   viewership. And that's why I underscored the

17   sort of homogeneity argument earlier, both

18   verbally as well as written, is you definitely

19   want to look for the relationship between

20   viewership and subscriber and then see if

21   that's somehow impacted by the different mixes

22   that the two agencies have, and I just don't

1   see it. And so, therefore, let's go and look

2   at viewership insofar as it predicts

3   subscribers.

4   JUDGE STRICKLER: In your

5   hypothetical, going back to basic fundamental

6   principles that you talked about at the start,

7   willing buyer and willing seller, you're

8   willing seller is the owner of the copyright,

9   the syndicator, if you will, perhaps, and the

10   willing buyer is a hypothetical, it's a

11   construct that doesn't really exist. It's a

12   cable system operator buying a la carte shows,

13   programs, titles, rather than buying the

14   bundle, because they're, for the most part,

15   looking at viewership. So it's unrealistic in

16   that regard, but it's hypothetical, which may

17   be what ultimately we have to apply is a

18   hypothetical marketplace.

19   THE WITNESS: Right. And by

20   definition, we have to apply some form of

21   hypothetical market, just given the compulsory

22   license scheme that distorts matters. I agree

1   with that.

2   JUDGE STRICKLER: But it's not the

3   compulsory license that creates that

4   hypothetical problem. It's the fact that

5   you've got a bundle that gets re-transmitted.

6   It's the market structure, not the fact that

7   there's a statutory license. It's the fact

8   that, in reality, the re-transmitter has to do

9   an all or none, has to buy all or none, not

10   the fact that there's a statutory license.

11   THE WITNESS: Right.   Well, the

12   fact that there's a statutory license, I

13   guess, if there wasn't a statutory license,

14   it's unclear what would happen. I agree, in

15   all likelihood, it's the case that it would

16   continue, that somehow the copyright owners

17   would probably sell the right, and this is my

18   guess as an economist, sell the right to re-

19   transmit to those stations who are buying it.

20   And then, you're right, there would be a

21   degree of bundling but which might perturb the

22   incentives, at this point, of the particular

1   buyers in that example.

2   JUDGE STRICKLER: So what you're

3   saying is if you didn't have the compulsory

4   license ex ante, the syndicators would sell

5   the right to re-transmit when the program

6   first airs, so we wouldn't have this sort of

7   problem? But since that apparently doesn't

8   happen, we have to do a hypothetical as to

9   what would happen when the bundle is unbundled

10   --

11   THE WITNESS: Right.

12   JUDGE STRICKLER: -- and you have

13   discrete negotiations?

14   THE WITNESS: Right. And then --

15   I wish we were in Phase 1, quite frankly.

16   CHIEF JUDGE BARNETT: Oh, no,

17   we're not going back.

18   THE WITNESS: Yes. But that's

19   where the, in some sense, the very important

20   bundling is done is with respect to Phase 1.

21   So when you're a, when you're choosing, as a

22   CSO, which signals to re-transmit, you're

1   looking at the sports, whoever else is here,

2   and so forth. But now I have to somehow

3   abstract from that. And so to start talking

4   about talk shows for syndication bundling

5   seems less likely that the CSO is really going

6   to go to, based on CSOs I've worked for in the

·7   past, that level of detail of consternation.

8   But ultimately, insofar as we're

9   in Phase 2, it just seems intuitive that,

10   after you check, and it's important to check

11   that there's not some form of marginal

12   contribution difference, let's use this

13   measure of program viewership.

14   JUDGE STRICKLER: That marginal

15   analysis is what's in the second part of your

16   Exhibit C.1?

17   THE WITNESS: Correct. I wish I

18   had a lot more data to look at the margin

19   analysis because it is critical, yes.

20   MR. BOYDSTON: Thank you.

21   BY MR. BOYDSTON:

22   Q   And to a couple of those points.

Well, first off, it's accurate that higher

ratings for re-transmitted stations don't

translate into higher ratings for the cable

system, do they?

        A   Oh, distant viewing is small, so

yes.

        Q   And just as a parallel, do you

have any familiarity with ASCAP and BMI

distribution systems?

        A   I do. I've consulted for both.

        Q   I thought you might. Obviously,

it's kind of a related, it's a related

situation because they're also --

        A   Well, they're both performance

rights organizations, so I mentioned PROs

earlier.

        Q   Right. And they, essentially,

operate under a compulsory license type

system, correct?

        A   Well, a blanket license really is

where I deal with it. In fact, before we have

this compulsory license, I suspect we'd be in

1   some form of blanket license. That's what I

2   was kind of hinting at before, but yes.

3   Q   And in the distributions under

4   those schemes, they're not based on popularity

5   of the material, of the songs, are they?

6   A   Those get so -- I don't -- that's

7   a different ball of wax, quite frankly.

8   Q   Well, they're based more on the

9   broadcasts that are made, rather than where

10   they are on the charts, correct? A given

11   song.

12   A   Well, people negotiate differently

13   with respect to those, like, for example,

14   sometimes the PROs are interested in just

15   getting the fraction of total revenues for the

16   company that happens to use the songs that are

17   in the repertoire of the PROs. So it's an

18   entirely different market, I think.

19   Q   But, most commonly, the basis is

20   not upon, in the music context, the basis is

21   not on popularity, is it? It's on degree of

22   broadcasts.   Sometimes, there may be a

1   special, there may be a unique deal like

2   you're referring to; but, most commonly, it's

3   not, the compensation is not based on

4   popularity of a song, is it?

5   A   That's a simplification because,

6   ultimately, popularity matters, even when

7   determining blanket licenses, because you are

8   buying the right. It's a blanket license to

9   play any particular song from this large

10 library. But when you value that, it's

11 important to know what's in the library, and

12 you're saying, you know, there are unpopular

13 songs and popular songs. I don't know the

14 difference anymore, but the blanket license

15 fee applies to all of them. So I'm not quite

16 -- it seems completely different to what we're

17 talking about here, but I can grab a cup of

18 coffee and talk all day about it if you want.

19   Q   Well, when a copyright owner

20 licenses his material to a station, the

21 license fee is not contingent upon the

22 subsequent ratings, is it? In other words,

1   and I'm not talking about compulsory license

2   situation, I'm talking about I own a TV show

3   and I go to a local station and I say, "I'll

4   sell you ten episodes for a hundred grand,"

5   the deal that's cut is not, "Well, we'll only

6   give you a hundred grand if you get this kind

7   of a rating."   That's not the way that

8   business works, is it?

9   A   It's   typically   based   on

10   expectations, and then there are often re-

11   negotiations when those expectations are not

12   met and/or cancellations.

13   JUDGE STRICKLER: Are there ever

14   earn-outs or situations where there's a base

15   fee and the license fee can either be higher

16   or a reduction off the base, depending on how

17   the ratings turn out ex post?

18   THE WITNESS: You know, I've never

19   been in that kind of negotiation. I like the

20   way you think. There should be is the answer.

21   I've not been in those type of negotiations,

22   but I defer to someone who has been.

1   BY MR. BOYDSTON:

2   Q   Let's discuss the interplay of the

3   data that you have on the local meters and the

4   data that you have from the distant diaries,

5   and we talked about this enough that we both

6   know what each other is talking about when we

7   refer to those, right?

8   A   I know what you're now talking

9   about, yes.

10   Q   Okay, good. Now, what happens in

11 a -- and, again, in the confines of your

12 study, there's 70 programs or 70 stations, I

13 should say, where stations from your list

14 coincide with stations from Ms. Kessler's

15 list, so that's the local versus distant

16 connection on 70 stations, right?

17   A   Correct.

18   Q   Okay. Now, what happens if we're

19 dealing with a particular program that

20 doesn't, isn't registered by one of those 70

21 stations on a local meter? Fair enough?

22   A   Oh, it's not in the local?

1   Q   Not in the local. Right.

2   A   So it's a program that's not in my

3 random sample?

4   Q   Right, exactly.

5   A   Okay.

6   Q   And then, at the same time, that

7 same program, there are no diaries for it for

8 six months out of the year because the

9 particular dates fall within times outside the

10 sweeps period, right?

11   A   Yes.

12   Q   Now, in that situation, it occurs

13 to me that you don't have a coefficient for

14 local whatsoever and you don't have a

15 coefficient for distant whatsoever. In that

16 situation, for that particular broadcast, how

17 can you make, drive a relationship between

18 local ratings and distant ratings when you

19 have neither one in that particular example?

20 Don't you have to use something from the,

21 something in the 70 to graft onto that?

22   A   Yes, I think you're a little

1   confused, so let me try and clarify, which is

2   your hypothetical is a program that's not on

3   my random sample, so my entire projections are

4   based upon programming that's within my random

5   sample, the 120 stations per year. So you're

6   referring to a program that might be on

7   station, you know, 203. I do not estimate

8   programming for that station, so it's

9   irrelevant.

10   Q   Right. You used what you develop

11   from the 70 to make a projection on what that

12   program is worth?

13   A   No. If it's not in my random

14   sample of 120 then I will not make any

15   projections for it.

16   Q   Then how do we know what that

17   broadcast is worth under your methodology?

18   A   Well, ultimately it's this: it's

19   because I'm calculating the relative

20   viewership share of IPG and MPAA programming

21   and, therefore, relative royalty share. And

22   I calculate from a random sample what that

1 relative   share   is,   and   that's   for

2 approximately 120 stations per year. So in

3 any given year, I calculate the percentage.

4 Say it's 99.80 percent. That's applied then -

5 -

6   Q   Across the board.

7   A   -- across the board because that

8 winds up being the royalty share allocation.

9   Q   But that means -- and it's not

10 125. It's really 70 stations, right?

11   A   No, it's 120 stations.

12   Q   Well, but I thought there were

13 only 70 stations where you have data, where

14 you have an interconnection between the two

15 databases.

16   A   Again, I make projections for, I

17 give estimates of distant viewing for shows on

18 approximately 120 stations each year, 2000,

19 2001, 2002, 2003, seven days a week, 24 hours

20 a day, every year. And so it is that estimate

21 of distant viewing that goes into the

22 calculation of overall viewership shares and

1   royalty shares.

2   Q   Even in that case then, what

3   you're basically doing is you're taking 125

4   stations and you're grafting the circumstances

5   from that as between IPG and MPAA across

6   everything outside of those 125 stations,

7   correct?

8   A   Yes. That's why it's critical

9   that they're randomly chose.

10   Q   Now, the IPG approach says, rather

11   than take 125 stations and, from that,

12   extrapolate it onto everything else, takes up

13   to 200 - 230 stations, which then is

14   comprising a vast majority of all programming.

15   In fact, some 17,000 individual programs

16   versus 3,000 something in --

17   MR. MACLEAN: Objection. Counsel

18   is testifying.

19   MR. BOYDSTON: I'm giving, I'm

20   giving him a hypothetical. I'm asking him to

21   confirm that this is his testimony. I'll

22   start all over if you want and then --

1   CHIEF JUDGE BARNETT: Start all

2   over.

3   MR. BOYDSTON: Sure.

4   CHIEF JUDGE BARNETT: Sustained.

5   Ask the question, Mr. Boydston.

6   BY MR. BOYDSTON:

7   Q   Is it not the case that -- scratch

8   that.   Why extrapolate across the board off

9   125 stations when you could extrapolate across

10   the board using 230 stations, which comprise

11   90 percent of all programs?

12   A   Because of the 10 percent of

13   programs.

14   Q   Yes, but in the 125 example you're

15   only talking about some 3,000 programs versus

16   17,000 programs.   So what about those other

17   14,000 programs that are picked up when you

18   have 225 or 230?

19   A   Well, I don't necessarily agree

20   with you on the program count.   We can talk

21   about that later.   But the key, and I've tried

22   to underscore it, maybe I didn't sufficiently

1   enough, is the word random. I'll pause for

2   effect. It's critical that the sample is

3   randomly chosen. That's the only way to make

4   statistically valid inferences and projections

5   outside the sample. And so my 120-plus

6   stations per year are randomly chosen, and

7   then, ultimately, then I get my overall

8   royalty share that is validly applicable

9   outside those stations.

10   Q   However, you still end up using

11   the Kessler stations, which are not random,

12   which brings an element of randomness into

13   your approach which then you try to remedy by

14   looking at the quartiles of the Kessler

15   selection, correct?

16   JUDGE STRICKLER: You mean that

17   brings in an element of non-randomness.

18   MR. BOYDSTON: Thank you.

19   THE WITNESS: I debated whether or

20   not to correct you.

21   MR. BOYDSTON: I appreciate that.

22   THE WITNESS: Well, as I testified

1   before, that's why I was very careful and ran

2   lots of tests to check on the impact of using

3   the diary information from the Kessler sample.

4   BY MR. BOYDSTON:

5   Q   And those quartile tests, we're

6   talking about a quartile of the Kessler

7   stations, correct?

8   A   Correct, yes.

9   Q   And so we're talking about a low

10   of 20 and a high of maybe 25 stations in those

11   quartile tests, correct?

12   A   Right. With perhaps two-hundred

13   fifty, three-hundred thousand quarter hour of

14   broadcasts, which is a lot of data.

15   Q   Well, but it's only 20 or 25

16   stations, and we're dealing with a population

17   here of about 900-plus stations, correct?

18   A   Again, the question at hand is, as

19   you sort of use stations with very different

20   levels of distant subscribers, is there a

21   material impact on the estimate of the

22   relationship between local ratings and distant

1   viewing and other factors? And I didn't see

2   it. And as an econometrician, I didn't have

3   any concern, or I should say it eased concerns

4   that I did have with confusing --

5   Q   I, I --

6   A   Allow me to finish, please. With

7   respect to using the distant viewer data.

8   Q   But if the answer is yes to my

9   question, I believe, that means these

10   quartiles or 20 to 25 stations to check the

11   ability to make a prediction or a value that

12   spreads over 900 stations. True or false,

13   those are the numbers involved?

14   A   Again, that's why I tried to

15   finish is --

16   Q   Is the answer no?

17   A   No, the answer is I'm using those

18   to look at the specification of the

19   regression. And so I'm not using the

20   quartiles to make predictions. I'm using them

21   to test the reasonableness and the robustness

22   of the regression, and I found the regression

1   model to be robust with the exception of WGN,

2   and that's the very reason why I had a

3   separate regression run for WGN. So I was

4   very cognizant of the issues associated with

5   the Kessler sample and took steps to make sure

6   it was not a concern.

7   I even looked at the lower decile,

8   too, if you want to make the sample even

9   smaller. That might, you know, raise concern

10   on your part, but I think one has to look at

11   these things.

12   Q   But you don't quarrel factually

13   with the numbers I'm talking about when I say

14   20 to 25 and 900?

15   A   Well, those are numbers, but I

16   don't see the relevance of them.

17   Q   Okay.

18   A   I quarrel with relevance, I

19   suppose.

20   Q   Now, Nielsen data does not

21   distinguish demographic groups, does it?

22   A   No, it does not. I should say not

1   the data that I receive with respect to the

2   diary. Other Nielsen data does.

3   Q   And isn't it true that, for

4   advertising purposes, demographics are an

5   important aspect of what advertising rates

6   are, correct?

7   A   Yes.

8   Q   And, in fact, ratings are only

9   significant to the extent of the demographic

10   which they are representing, correct? Or

11   advertising --

12   A   Yes, advertising --

13   Q   I am.

14   A   Yes. And, actually, advertising

15   revenue is of concern directly to CSOs, as

16   well. But I think the subscriber count,

17   perhaps, is more important.

18   Q   And wasn't this -- well, let me,

19   I'm going to read a small section from you

20   here from the 1989 decision. It's 57 Fed Reg

21   at 15.301. "The Nielsen study improved the

22   analyses greatly and gave the 1983 Tribunal

1   what it calls it's starting point. Why was it

2   only a starting point and not the final

3   answer? Because we recognized that viewing,

4   per se, did not necessarily correspond to

5   marketplace value. Even in the broadcast

6   industry which relies heavily on viewing data,

7   ratings do not precisely predict value because

8   the viewers' age, income, and other

9   demographics. However, in the cable industry,

10   viewing is even a lesser predictor of value,

11   as discussed earlier. Cable's goal is to

12   attract and retain subscribers and will offer

13   niche services, often unrelated to the volume

14   of viewing, to induce segments of the

15   population to subscribe."

16   Now, based on that logic in that

17   quotation and what we were just talking about,

18   doesn't that raise serious questions as to the

19   impact of ratings on determining value?

20   A   What I would say, based upon in my

21   listening to that quote, that quote says pleas

22   run regression and put it in Appendix C.2.

1   Q   Please do your study.

2   A   But yes.

3   Q   Although it's certainly critical

4   of a focus on viewership to determine value,

5   correct?

6   A   Well, it said it's a starting

7   point, and it said you should certainly take,

8   you know, look at subscribers. And it also

9   referenced broadcast issues, as well, which

10   may or may not be relevant.

11   JUDGE STRICKLER: Counsel, just

12   before you go on, we got onto the topic of

13   advertising revenue for a moment. I don't

14   want to lose the point because I have a

15   question, and I don't know if this witness has

16   the answer for me. But do CSOs sell

17   advertising time or receive advertising

18   revenue for re-transmitted stations?

19   THE WITNESS: Actually, my

20   understanding is it might cannibalize some of

21   the advertising revenues they get on other

22   stations they carry. My understanding is that

1   they do not, but I should say that's my

2   understanding. I'm not an expert with respect

3   to how the advertising revenue from digitally

4   re-transmitted programs --

5   JUDGE STRICKLER: It's your

6   understanding that, for example, if WPIX out

7   of New York was re-transmitted out to Los

8   Angeles, that there's no new advertising that

9   shows up in Los Angeles.   It's the same

10   advertising that was showing up in WPIX in New

11   York?

12   THE WITNESS: Correct.   That's my

13   understanding.

14   BY MR. BOYDSTON:

15   Q   How did you decide how many

16   stations to use in this MPAA study?

17   A   I was actually debating.   There

18   was a balance between more is better and cost,

19   and I was estimating that 120, just based upon

20   some calculations that I did well over a year

21   ago, would likely yield relatively precise

22   estimates. But whenever you choose a sample

size, I tell clients time and time again it's
more of an art sometimes than science. So you
don't know how precise it's going to be until
you get the data, and, well, actually, I'm
suspecting that 100 or 120 should be
sufficient to give me a 95-percent confidence
interval with a couple-point swings is what I
estimated based upon some prior information
that I had.

Q   And what was the prior
information?

A   I think it was information from,
you know, prior studies.

Q   Prior MPAA studies?

A   Yes, correct. So, yes, it really
just had to do with what, historically, what's
the MPAA's share of viewing and, therefore,
what fraction, what percentage am I likely to
get in this study; and, therefore, how many
samples do I need in order to have a
reasonably tight confidence interval with
respect to that?

1   Q   Just to use a number to work with,

2   I think in your testimony you were critical of

3   IPG in terms of its station population. And

4   as I recall in that critique, I think you

5   identified approximately the number of Form 3

6   stations during this time period of 2000 -

7   2003. Does that sound familiar? Was it fair

8   to say it's something on the order of 900

9   stations during this time period?

10   A   I don't recall being critical of

11   the number of stations they selected. I was

12   critical of how they selected the stations.

13   Q   Fair enough. That's not really

14   where I'm going. Where I'm going is can we

15   agree that the number of Form 3 re-transmitted

16   stations at issue during this time period was

17   about 900 or 900 and change?

18   A   That's my recollection, yes.

19   Q   Mine, too, for what it's worth.

20   Now, you referred to coming, you know, using

21   prior studies, prior MPAA studies to come up

22   with your number of stations in this study.

1   Do you recall the number of stations the MPAA

2   was using in the 1983 proceedings? I don't

.3   want to play 20 questions. Let me represent

4   to you that it was 117. Does that sound

5   somewhere within the ballpark?

6   A   That's my vague recollection, yes.

7   Q   Now, at that time, do you have a

8   sense as to what the population of re-

9   transmitted stations was at that time?

10   A   Sitting here today, I don't

11   recall.

12   Q   Okay. Would 600 some-odd stations

13   sound about right?

14   A   It could be right. I'd want to

15   check. As far as this is on the record, I

16   would say I don't exactly recall.

17   Q   Fair enough. I'll represent to

18   you, for what it's worth, that it was. If I'm

19   wrong, someone will point it out, I know. So

20   the difference in stations is something on the

21   order of 50 percent, 600 and something to 900

22   something, between the '83 MPAA study and the

1   current time period of the MPAA study. Yet,

2   the number of stations is only a few more.

3   Instead of 117, you've got 125. Did you take

4   that sort of thing into consideration?

5   Because it seems to me if you had you would

6   have picked more stations than 125 is the

7   point.

8   A   No, this is one of those nuances

9   of sampling is that, as the population gets

10   larger and larger, your necessary sample size

11   in order to get the same confidence interval

12   does not change by very much.

13   Q   Well, do you recall -- I'll read

14   you a brief quote from the '83 cable

15   proceedings decision. It says that the MPAA

16   "conceded that its study, which used 117

17   stations, cannot be perfectly projected to the

18   other stations, even for Phase 1 purposes,"

19   suggesting that 117 was too few. If 117 was

20   too few at 600-something stations, wouldn't

21   125 be too few at 900 stations?

22   A   I'd have to see the context of the

1   quote. I suspect they're saying 117 can't be

2   projected from because it was non-randomly

3   chosen, but I'd have to see the context of the

4   quote. If it was randomly chosen, there's a

5   good chance that you could project to the

6   other 600. In fact, I certainly could have.

7   Q   What if it was randomly chosen?

8   A   Again, that's, that was my -- I

9   just answered that.

10   Q   Sorry. You're right. Now, I'm

11   going to ask you, and, if you remember, great,

12   if you don't -- I just want to get a sense

13   from you, I'm bandying about the number of

14   stations, the number Nielsen diary stations

15   for the various years, and I'll read these to

16   you and just tell me if you think they're out

17   of whack. But I think they've been

18   documented, but is it not the case that in

19   2000 the Nielsen diary stations sampled were

20   81, in 2001 it was 99, 2002 it was 122. And

21   then in 2003, that's when it reached its high

22   point of 125; is that correct?

A   It sounds like you're referring

now to the Kessler sample of --

Q   Yes, you're right. This is the

Nielsen diary stations --

A   Yes, that sounds just about right

for the Kessler sample.

Q   Do you think it's a mistake to

continue to use fewer, you know -- and I'm

focusing on the Kessler set now but I think it

applies somewhat to the set of yours, as well.

Don't you think it's an error to be using

another station that's less than the MPAA has

been criticized for in the past, on past

studies? In other words, to the extent that

the MPAA has been criticized in the past for

a number of studies being used, and then it

goes forward using less than that, isn't that

a problem?

A   Not necessarily. I think a big

criticism, you know, with all due respect to

Kessler's sampling strategy, you know -- I'm

saying the same thing over and over again. I

NEAL R. GROSS
COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
(202) 234-4433   WASHINGTON, D.C. 20005-3701   www.nealrgross.com

apologize for those of you up here and over here. The big criticism I have from the Kessler study is it's not randomly chosen. The fact that she went from 80 to 130, I'd much rather have 80 randomly chosen every single year than 200 non-randomly chosen.

JUDGE STRICKLER: A question in that regard, in regard to the Kessler non-random sample. When you found out what the sample was and how it was constructed, that is not randomly, before you figured out how you could go about ameliorating the problems with that, as you've already testified to, did you go back to MPAA and say, "This isn't really what you should be doing. You really need to do a random sampling. Why don't you go sample again?" before you went ahead to try to fix it?

THE WITNESS: Well, actually, what they said, quite frankly, you know -- this isn't closed door so I'm trying to decide how much to say. But they said, "Well, you know,

1 it captures," I can't remember, "70 to 80

2 percent, you know, or maybe more. Can't you

3 just say that that's enough?" and the number

4 of times I said, no, you can't, like I'm doing

5 today, they finally said, okay, what else can

6 we do?

7   So you're saying why didn't we go

8 back and do another diary data. Is that your

9 question?

10   JUDGE STRICKLER: Well, yes, but

11 you said something, and I'm trying to figure

12 out exactly what you meant when you said when

13 it was behind closed doors, so I want to

14 figure out how much I actually want to tell

15 you. I want you to tell me everything. So

16 why didn't you tell me it was said behind

17 closed doors if you were editing your answer?

18   THE WITNESS: Oh, no, I wasn't

19 really editing the answer, other than they

20 were encouraging, they were really encouraging

21 me to try to use the Kessler sample and not

22 necessarily go on, you know, and get this

1   local ratings sample that's randomly chosen.

2   And I said that that really helps

3   solve two things. One is, you know, the

4   interpolations we could talk about was done in

5   1989, and it made my head spin when I read

6   about it. So that needed to be improved, and

7   you could do that with the local ratings data.

8   Insofar as there's statistically significant

9   correlation, and this was at high north, I

10   said then I might be able to mop up and use

11   this Kessler data. I said I'm not sure but

12   there's a good chance I'll able to.

13   JUDGE STRICKLER: Did they tell

14   you behind closed doors why it was that they

15   wanted to continue to use the Kessler study

16   after you explained to them that the non-

17   randomness was a problem?

18   THE WITNESS: Well, I inferred it

19   was cost. I don't think they said that, but,

20   you know, I inferred that they didn't

21   necessarily want to go back to Nielsen and get

22   a bunch of local ratings data because I don't

1   know what Nielsen charges, but I'm sure it's

2   non-zero. So I suspect it -- I didn't ask

3   that.

4   JUDGE STRICKLER: You inferred

5   that. Nobody implied that? Well, I don't

6   mean by the cost, but, I mean, you say it was

7   a cost function. I don't mean to make light

8   of it. You inferred that, but was there

9   anything said as to why they wanted to keep

10   the Kessler non-random sample in the analysis?

11   You inferred it was cost. Was there anything

12   said explicitly?

13   THE WITNESS: Nothing said

14   explicitly. They were just, you know, kind of

15   pushing me to use it, and I said that, you

16   know, you can push somebody else, if you will,

17   so . . .

18   JUDGE STRICKLER: Who pushed you?

19   THE WITNESS: Well, not a push.

20   JUDGE STRICKLER: I don't mean it

21   in the aggressive sense, but who was it that

22   was urging you? Was it Ms. Kessler herself?

1   THE WITNESS: No.

2   JUDGE STRICKLER: Do you recall

3   who it was?

4   THE WITNESS: I feel like I'm

5   being cross-examined, but I suppose I am. No,

6   ultimately, it was actually, counsel for MPAA

7   was saying, you know, can you use this, and so

8   it wasn't really a push. And I just said, no,

9   I can't, not without additional data. So,

10   yes, no one from MPAA actually was twisting my

11   arm, but, based upon the back and forth, I

12   presumed, you know, either it was time or

13   money that they didn't want to go out and get

14   more data.

15   JUDGE STRICKLER: But whatever the

16   reasons, no one at MPAA, counsel or otherwise,

17   had said why it was --

18   THE WITNESS: Oh, no, I don't have

19   any dirty dark secrets. I apologize.

20   BY MR. BOYDSTON:

21   Q   Given the answers you just gave

22   and given the fact that yesterday, when asked

1   who the architect of this study was, Ms.

2   Kessler said, "I believe his name is Carson,"

3   a man who's since passed away, would you

4   change your answer at all to the question as

5   to who designed this study?

6   A   Which study are you referring to

7   now?

8   Q   This study, the one you called

9   your study.

10   A   Yes. No, it's my study. I didn't

11   talk to Mr. Carston you said?

12   Q   Well, he's deceased now, I

13   understand.

14   A   Yes. Well, I didn't talk to him

15   pre- or post-deceased.

16   Q   Isn't it accurate, isn't it

17   accurate that sampling fewer stations means

18   that fewer programs are accorded royalties

19   under the MPAA methodology?

20   A   I would think not now. I don't

21   think that's accurate. Again, we're

22   calculating shares.

1   Q   Well, you've analyzed the IPG

2   study, correct?

3   A   I've reviewed the IPG study, yes.

4   Q   Would you disagree with me that

5   the IPG study, for all its problems according

6   to you, does accord royalties and does justify

7   the payment of royalties on more programs than

8   the MPAA methodology does?

9   A   I'm not aware of that. You know,

10   there's nothing -- I'm familiar with the

11   actual payment of royalties. My understanding

12   is we're calculating the royalty shares

13   attributable.

14   Q   That's a better word, yes. I

15   apologize. My nomenclature was off. I'll try

16   it again.

17   A   And so, for example, my

18   understanding is, you know, the titles that

19   comprise MPAA's viewing share is not going to

20   be all the titles that receive payment for

21   their re-transmissions for those copyrighted

22   or, sorry, yes, copyrighted materials.

1   Q   Do   you   disagree,   would   you

2   disagree with the proposition that the number

3   of   different   programs   encompassed   by   the

4   stations covered by the IPG list of stations

5   of   200   to   235   is   multiple   times   as   many

6   stations as are encompassed by these stations

7   in the MPAA study?

8   A   I   would   disagree   with   that

9   premise.

10   Q   Okay. Have you done a calculation

11   as far as that goes?

12   A   Yes, I have.

13   Q   And   what   is   your   conclusion   in

14   that regard?

15   A   If   you   look   at   MPAA   and   IPG

16   compensable programming, you'll see that 120

17   random stations actually have more MPAA and

18   IPG compensable programming per year than does

19   the 200-plus stations in the IPG sample.

20   Q   Okay. Now, isn't it true that, in

21   2003, your various worksheets reflect the fact

22   that you actually started with 128 stations,

1   not 125 stations and that three were knocked

2   off because they had 100-percent zero viewing?

3   Does that ring a bell?

4   A   No, it does not.

5   Q   Do you recall that in the 2002

6   diary sample, the Nielsen data that was

7   produced included five stations with 100-

8   percent zero viewing? Do you recall that?

9   A   I recall that there was, we did

10 have some stations that might have been non-

11 commercial stations, but I would have to go

12 and double-check.

13   Q   Did you run any analysis in order

14 to determine the existence of zero-viewing

15 data that you relied on for the MPAA viewer

16 study?

17   A   By zero viewing, you mean non-

18 recorded viewing in the Nielsen diary data?

19   Q   Correct.

20   A   Yes, I have absolutely no problem

21 with the instances of zero viewing or non-

22 recorded viewing in the Nielsen diary data,

1   and that's the big reason why I did a

2   regression analysis to predict viewing.

3   Q   I appreciate that.   My question

4   was just slightly a little bit different,

5   which was did you run an analysis of the

6   amount of zero viewing? I understand you have

7   a problem with it. That's not the question.

8   The question is did you run an analysis to

9   determine how much of it there was?

10   A   I don't know if I looked at the

11   number of zeros, per se, but certainly spent

12   a lot of time sort of rolling up my sleeves

13   and looking at the data. It's one reason why,

14   you   know,   the   particular   regression

15   specification I chose was chosen in order to

16   take into consideration the instances of

17   zeros.

18   Q   And I apologize. It may just be

19   my fatigue at the moment. So was that a yes

20   or a no or is it neither? Did you run an

21   analysis to --

22   A   Well, the answer was no Nielsen,

per se, in terms of counting the number of

zeros.

Q   Okay.

A   However, I did analyze just the

whole pattern of distant viewing in the

Nielsen diary data, and one of the reasons why

I chose the regression specification that I

did had to do with the number of zeros in

terms of reviewing. But that's some --

Q   Got it. For my simple point, no,

you didn't do a tabulation or a calculation of

how much the reviewing was going on, correct?

A   Sometimes, yeses and nos don't

quite cut it.

Q   Well, yes, sometimes they do. Did

you do that or not? I've asked you five

times, and you're not really telling me. I

just want to know did you actually do it or

you didn't. If you didn't, fair enough.

A   Well, that's why I was trying to

answer lucidly, and I suppose I didn't, which

is this: I definitely looked at the pattern of

1   distant viewing, and so I would have noticed -

2   - I don't know if I counted the exact number

3   of zeros, but there's certainly a lot of zero

4   or non-recorded viewing, and that's one

5   reason, you know, that we ran the, not just

6   multiple regression analysis but Poisson

7   regression analysis, yes.

8   Q   So we know from the prior decision

9   that the 1997 proceedings, decision of 2001,

10 September, said if the MPAA is going to

11 continue to go down this path, it needs to

12 bring zero viewing into line, and, yet, you

13 never calculated the incidents, the amount,

14 the number of zero viewing instances in these

15 years, correct?

16   A   Again, let me --

17   MR.   MACLEAN: Objection,

18 mischaracterization of the decision. And at

19 any rate, that's asking for a legal opinion.

20   MR. BOYDSTON: Well, it's not a

21 mischaracterization of the opinion.

22   CHIEF JUDGE BARNETT: It's been

1   asked and answered.

2   MR. BOYDSTON: Very well.

3   BY MR. BOYDSTON:

4   Q   I   may   have   covered   this

5   previously. If I did, I apologize. Sometimes

6   the witnesses run together a tad.   Do you

7   recall that in the 1997 decision it was found

8   that the aggregate of zero viewing equaled 73

9   percent?

10   A   That could well be.

11   Q   Okay. And I mentioned before that

12   that decision directed the MPAA to reduce the

13   incidence of zero viewing. All things aside,

14   do you have a recollection of that or not?

15   A   I don't have a recollection of

16   that, no.

17   Q   Okay. So as far as you knew,

18   there was no directive to the MPAA to decrease

19   the incidence of zero viewing, correct?

20   A   I'd hope the directive would be to

21   address the issues, and that's one thing that

22   I do with my chosen regression specification.

1   Q   Well, I'll read you a short

2 sentence from the '97 decision, "In the

3 future, if the MPAA is going to use Nielsen

4 ratings, it must reduce the incidence of zero

5 viewing or provide an acceptable explanation

6 for the high incidence of zero viewing." Does

7 that sound familiar to you or no?

8   A   Well, I love the second part of

9 that, though. I'd be happy to talk about an

10 acceptable reason for the zeros.

11   Q   I understand. The question is

12 just were you familiar with that directive

13 overall?

14   A   I got excited about the second

15 part. They said something nice. I'm sorry.

16 The question is am I familiar with that?

17   Q   Yes, were you familiar with that

18 directive in that decision?

19   A   I read that sometime ago, yes.

20   Q   Okay.

21   JUDGE STRICKLER: Which decision?

22 Can you give us the cite on that again,

1 please?

2 MR. BOYDSTON: Yes. That's the

3 September 2001 order in the 1997 proceedings.

4 JUDGE STRICKLER: Do you have the

5 Federal Register cite?

6 MR. BOYDSTON: I do not have it at

7 this time. I will give it to you right after

8 the break; how about that?

9 JUDGE STRICKLER: If you have it.

10 Otherwise, I can get it, but thank you.

11 MR. BOYDSTON: I'll get it. I

12 just, under the gun at the moment, I don't

13 have it.

14 BY MR. BOYDSTON:

15 Q Did you make any efforts in this

16 study to try to reduce -- and I understand

17 your opinion zero viewing, I understand it

18 doesn't bother you, and I understand you have

19 no problem with it, so I'm not asking you

20 about that. My question is simply did you do

21 anything in your study to try to reduce the

22 incidence of zero viewing, or are you aware of

1 whether or not Nielsen did anything to do

2 that?

3   A   Well, I did definitely.   And

4 that's this: you know, the regression

5 specification results that I described

6 earlier, let me give you some of the findings

7 because, again, I am estimating with my

8 regression distant viewing on a program-by-

9 program basis so I can now tell you how often

10 I have zero viewing. I can tell you this: in

11 over 99-percent of the programs in my random

12 sample there were multiple houses predicted to

13 have distant viewing. So I would say distant

14 viewing has decreased to less than one

15 percent, based upon my analysis.

16   JUDGE STRICKLER: What has been

17 reduced to less than one percent?

18   THE WITNESS: Oh, instances of

19 zero distant viewing.

20   JUDGE FEDER: Excuse me.

21 Instances by program, by station?

22   THE WITNESS: By program.

1   Actually, specific, to be technical, by

2   quarter-hour of program, but that would be by

3   program, as well.

4   JUDGE FEDER: Thank you.

5   JUDGE STRICKLER: What did you say

6   the incidence was of zero viewing in your

7   study?

8   THE WITNESS: I can tell you that

9   this part, it's more than 99 percent or

10 multiple. It's multiple households. The

11 actual zeros, it's less than half percent. I

12 can get that calculation for you.

13   MR. BOYDSTON: Judge Strickler, I

14 have that citation. 66 Fed Reg 66449. It's

15 at the bottom of the middle column.

16   JUDGE STRICKLER: Thank you.

17   MS. PLOVNICK: Your Honor, if I

18 may, that decision was actually admitted as a

19 preliminary hearing exhibit. It's number was

20 306, and it's vacation was admitted as Exhibit

21 307, so you should have copies in the record.

22   JUDGE STRICKLER: Thank you.

1   BY MR. BOYDSTON:

2   Q   You've reviewed the testimony of

3   Mr. Galaz, and I don't know if I asked you

4   this before: did you also review the testimony

5   of Laura Robinson?

6   A   Yes, I have, both of them.

7   Q   Do you have any disagreement with

8   the representations in those testimonies that

9   the 2000 - 2003 Nielsen diary data aggregate

10   zero viewing ranged between 78 percent and 82

11   percent?

12   A   Again, yes, that's for the Nielsen

13   diary data including both compensable and non-

14   compensable programming, so that is including

15   programming that is not at issue in this

16   proceeding.

17   Q   But the answer is you don't have

18   an issue with --

19   A   I don't have an issue with it.

20   The only issue I have would be with the

21   relevancy, I suppose.

22   Q   Do you have any -- do you disagree

1   that the range of zero viewing for stations in

2   the MPAA viewer study was between less than

3   one percent and as much as 99.9 percent?

4   A   I'm sorry. Can you repeat that

5   question?

6   Q   Yes, sure. That the range of zero

7   viewing incidences amongst the stations in the

8   MPAA study went from as low as one percent to

9   as high as 99.9 percent.

10   A   Yes, I'm not sure how that's been

11   calculated, so I'd have to -- by the MPAA

12   study, are you referring to the Nielsen data

13   now?

14   Q   Yes. The stations used in the

15   MPAA study from Nielsen, correct.

16   A   Yes, because there's confusion

17   with respect to what you're calling the MPAA

18   study. You're often pointing to the Kessler

19   samples, so it sounds like -- are you now

20   pointing to the Kessler sample?

21   Q   My apologies. Yes, it would be

22   the Kessler sample.

1   A   I'd have to double-check. I know

2   that there are instances in the Kessler sample

3   where she has stations with almost 100-percent

4   zero viewing that are not in my sample. I

5   think you might have referred to some of those

6   earlier. So, again, I think it's important to

7   focus on the approximately 120 random selected

8   stations each year.

9   Q   To the extent --

10   A   That's   what   my   conclusions

11   ultimately are based on.

12   Q   To the extent that the incidence

13   of zero viewing found in the MPAA study or the

14   MPAA stations from Nielsen were, excuse me, 73

15   percent in the 1997 proceeding and for the

16   years in this proceeding are 78 percent to 82

17   percent, it would seem a simple matter of

18   acknowledging the numbers that the incidence

19   of zero viewing in these years is higher than

20   that for the '97 proceeding, correct?

21   A   No. Again, two things. Number

22   one is your statistics are referring to

1 programming that's not at issue in this

2 proceeding is my understanding. And,

3 secondly, most importantly, you know, if you

4 read back the quote you gave me earlier, we

5 took steps to address the instances of zero

6 recorded viewer.

7   Q   But those steps were taken by you

8 after you received the Nielsen information,

9 correct?

10   A   That's correct, too, yes.

11   Q   And the Nielsen information itself

12 did have those incidences of zero viewing

13 we're talking about, up to 82 percent in this

14 proceeding and 73 percent in the prior? And

15 I know that you did things to them after that.

16 I'm not asking about that. I'm asking about

17 what came out of Nielsen was in those numbers,

18 correct?

19   A   I had a fewer, as I recall, I had

20 a fewer percentage of incidences of zero or

21 non-recorded viewing in my samples. I don't

22 recall the exact numbers.

1   Q   Okay. Well, were you aware of

2 what those numbers were in the Kessler sample?

3   A   I don't see the relevance.

4   Q   Well, that's kind of for everybody

5 else to decide. Do you know what those

6 numbers were was the question, not whether you

7 think they're relevant.

8   A   Oh, I don't, you know, disagree

9 with your representation.

10   Q   That the incidence of zero viewing

11 in the Nielsen numbers for these years is

12 higher than it was for the '97 year, correct?

13   A   Right. And, again, to me, that's

14 data that I don't rely upon in my testimony.

15   JUDGE STRICKLER: If I may, I have

16 a question with regard to that. So you're

17 acknowledging that 78 to 82 percent of the

18 Nielsen figures show zero viewing, and you

19 said that included compensable programming in

20 this proceeding and certain non-compensable,

21 and the non-compensables would be because it

22 was local or network or Canadian or Mexican,

and they didn't qualify. What part of that, if you know, what part of that 78 to 82 percent for the Nielsen survey that showed zero viewership was out of the compensable category and what part of it was out of the non-compensable category?

THE WITNESS: I could determine that. I don't know sitting here.

JUDGE STRICKLER: Could determine it.

THE WITNESS: Yes, I could --

JUDGE STRICKLER: How would you determine it?

THE WITNESS: Oh, with the data. So in the data, all their statistics are based upon, you know, the raw Kessler diary data, and so I'd restrict that down to the compensable programming and calculate the zeros.

JUDGE STRICKLER: You know the 78 to 82 percent includes both, but the allocation that's between compensable and non-

1   compensable is not something that you know

2   sitting here today?

3   THE WITNESS: Not sitting here

4   today, no.

5   JUDGE STRICKLER: When you found

6   out about the existence of the zero viewing,

7   was it important to you to be able to

8   distinguish what portion of it came out of the

9   compensable programming and what portion of it

10   came out of the non-compensable programming?

11   THE   WITNESS: Often,   not

12   particularly because I'm just focusing on the

13   compensable programming category. You know,

14   the zero viewing, let me do a little analogy.

15   I want to make sure we're all on the same

16   page.

17   And this is the way I think of

18   what Nielsen is up to is imagine, if you will,

19   you want to know how many people in the U.S.

20   are left-handed, and so you can go to four,

21   five different cities and randomly select four

22   people and say, "Are you left-handed?"   In

1 four of those studies, the four people you

2 randomly select are not left-handed. They're

3 all right-handed. Not a shock. But then one

4 city, Chicago perhaps, two of the four are

5 left-handed.

6   And so what happens is in the

7 aggregate you have 2 out of 20, which is 10

8 percent. That's about what you see in terms

9 of left-handedness in the U.S. as a whole.

10 And there's this focus and focus on you have

11 four out of five cities where there's no left-

12 handed people.

13   Two things. There are left-handed

14 people in those four cities. They're just not

15 in the sample. So it's very important what

16 Nielsen, I think, says -- I wish I listened to

17 Paul Lindstrom, he probably would be more

18 eloquent than I am -- is it's critical to

19 aggregate up the information before you draw

20 inferences and conclusions. So if you

21 aggregate up this little hypothetical into the

22 20 people, you get 10 percent; or you can run

1   regressions and predict in every single city

2   what fraction of people are left-handed and

3   you'll predict around 10 percent in every

4   city.

5   So to answer your question in a

6   very long-winded way, and I apologize for

7   that, was I concerned about the instances of

8   zero viewing? No, because distant viewing is

9   something that, it's relatively light and

10   unusual. I don't know if I've ever actually

11   done it.

12   And so it's no surprise at all,

13   given the number of choices, how often we see

14   televisions not tuned to these programs. But

15   that's one of the reasons I did the Poisson

16   regression is to acknowledge that it's sort of

17   right skewed for lots of people in that tail.

18   CHIEF JUDGE BARNETT: On that

19   happy note, we're going to take our afternoon

20   recess, 15 minutes.

21   (Whereupon, the foregoing matter

22   went off the record at 2:52 p.m. and went back

1   on the record at 3:12 p.m.)

2   CHIEF JUDGE BARNETT: Mr.

3   Boydston?

4   MR. BOYDSTON: Thank you, Your

5   Honor.

6   BY MR. BOYDSTON:

7   Q   In our discussions about zero

8   viewing, you stated in response to one of my

9   questions that in your final analysis you only

10   detected zero viewing at one percent of the

11   time. Or you only -- you only had detected or

12   assigned zero viewing at one percent. Do you

13   recall that?

14   A   For less than one percent.

15   Q   For less than one percent. Now --

16   A   Of quarter-hour -- of broadcasts

17   on a quarter-hour basis I should say, but yes.

18   Q   Okay. Now, to the extent that the

19   raw Nielsen data for the four to six months

20   during this time period ranged from 78 to 82

21   percent, for four months that we knew about,

22   and your regression analysis was going back to

1   fill in the blanks for the eight to -- for I

2   guess six to eight months we don't know about,

3   how do you get something so low as less than

4   one percent if we know during four months it's

5   as high as 82 percent?

6   And, I mean, and I'll just give

7   you -- and this is my simple math, and you can

8   give me the more complex math. If you've got

9   -- I'll just, you know, 78 to 82, I'll say 80.

10   It's also handy because it's a round number.

11   If we know from the Nielsen data

12   that for four months out of the year we got 80

13   percent zero viewing incidences, let's say

14   that in your regression analysis for the other

15   eight, you determine there is zero viewing,

16   well, that would mean that for eight months

17   you have zero zero viewing, and for four

18   months you have 80 percent zero viewing.

19   When you average that out, it

20   seems to me that it would still come to much

21   more than a couple percent. So tell me why

22   I'm wrong.

1   A   It goes back to my description of

2   my methodology. I won't repeat it, but it's

3   the third thing. So the regression is used to

4   do three things. One, as you intimated, it's

5   to predict what distant viewing is for the

6   non-sweeps months, which is about six months

7   a year.

8   Also used it to predict what

9   distant viewing is in those instances that I

10   don't have distant viewing information even

11   during the sweeps months.

12   And the third one, and I try to

13   stress the one that I said was subtle, yet

14   very important, is even in those instances

15   where we have Nielsen diary data on distant

16   viewing, I used the regression model to

17   predict what distant viewing is or expected to

18   be in those instances.

19   And the reason why I do it, I said

20   -- and go back and read my own testimony -- is

21   that those Nielsen diary estimations of

22   distant viewing on those -- sort of those

1 small cells of programs, or quarter-hour

2 programs, are based on relatively small

3 samples.

4   So I want to use a lot more data

5 -- just like my left-handed example -- a lot

6 more data to predict what distant viewing

7 really was. So, actually, I predict positive

8 distant viewing in -- for programs on a

9 quarter-hour basis when Nielsen's relatively

10 small sample says there is zero distant

11 viewing.

12   Q   So what you're saying, then,

13 although the actual Nielsen data for four of

14 these months may say 80 percent zero viewing,

15 what you are doing by trying to come up with

16 a bigger database is go back and basically

17 say, "That's what that says, but, really, that

18 is not what it is. It's really less than --

19 it's less than one percent."

20   A   Right. And let me give you one

21 example.

22   Q   Right? That's correct? I don't

1   know if I'm saying it right. Did I say it

2   correctly?

3   A   Well, repeat the question. I want

4   to make sure I --

5   Q   Yeah. You said "right" real

6   quick, and then you jumped off, and I didn't

7   know --

8   A   I apologize.

9   Q   We've got this data from Nielsen

10 that says for these four months zero viewing

11 is 80 percent. My understanding of your

12 explanation is that what you do is you

13 aggregate together more information than just

14 that particular body of data that says 80

15 percent viewing, 80 percent zero viewing.

16   And with that bigger body of data,

17 you reanalyze your zero viewing. And when you

18 did that, you found that for that same period

19 where the raw Nielsen data said 80 percent

20 zero viewing, when you had this bigger

21 aggregate number it was only one percent.

22   Did I say that more or less

1   correctly?

2   A   More or less. And the critical

3   part there -- and I just want to make sure the

4   Judges understand -- is that when there are

5   instances of zero viewing, according to

6   Nielsen -- and I think Mr. Lindstrom would say

7   the same thing -- it is not that there was

8   zero viewing.   It's that there was zero

9   recorded viewing.

10   And   so   what   the   regression

11   analysis does is say, "Okay. Let's find out

12   what the expectation of distant viewing is in

13   those instances." And so you can think of an

14   example where Nielsen, because of its small

15   sample, might have zero distant viewing for,

16   for example, I Dream of Jeannie.

17   And what the Russian does is say,

18   okay, for that one particular example, on the

19   quarter-hour basis, we go back and we look at

20   local ratings.   It is five percent.   It's

21   relatively high.

22   It is a syndicated programming of

1   a certain type.   It is broadcast --

2   retransmitted or broadcast and retransmitted

3   at 4:3 in the afternoon where there is

4   reasonable viewership.   And it is on this

5   station, KPIX, that has lots of distant

6   subscribers, together with other variables.

7   Please look at my regression results.

8   For all of these host of

9   variables, I am going to tell you what I

10   expect distant viewing for I Dream of Jeannie

11   to be. And it might be 1,000 households, even

12   though Nielsen records zero from their small

13   sample.

14   Mine is statistically valid, and

15   I'm comfortable with it, which if you

16   aggregate them all up, they will be very

17   similar for that subset of cases where we have

18   distant viewing.

19   Q   In doing all of that, you are able

20   to say 80 percent, no, it's not 80 percent,

21   not even 20 percent, it's less than one.

22   That's what you concluded, correct?

1   A   My conclusion is distant viewing,

2   based upon my sample of randomly selected

3   stations, has an incidence of less than one

4   percent of distant viewing. Zero.

5   Q   And just to clarify, you did then

6   do an analysis of distant viewing. I had

7   asked you that before and you said no, and

8   maybe it was in a different context. But,

9   obviously, you did do an analysis of distant

10 viewing.

11   A   I thought your question was about

12 zero viewing. I --

13   Q   I'm sorry. It is. I'm getting

14 mixed up. I had asked you earlier on if you

15 did an analysis of the instances of zero

16 viewing, and you said no. But now you have

17 described what we have just been talking

18 about. What I interpret that to mean is that

19 you didn't do an analysis of distant viewing

20 in the Nielsen data itself; you did the

21 analysis you have just described now on

22 essentially reanalyzing distant viewing or

1   zero viewing. Apologize.

2   A   I think you are misconstruing my

3   testimony. Actually, that was back when I

4   kept on giving long answers and you wanted a

5   yes or no. And my long answer was,

6   essentially, I did look at the data, I saw the

7   instances of zero viewing. I may not have

8   counted them, but I took my regression model

9   -- I mean, that's the reason why I used this

10 particular regression model was to deal with

11 these instances of zero viewing. That's what

12 I did.

13   Q   Did you ever calculate what

14 percentage of the programs measured in the

15 Nielsen diary data, no matter whether they

16 were one broadcast or a thousand, ended up

17 according a zero value? Or showing a zero

18 value?

19   A   You are referring now to Nielsen

20 diary data. So you're saying in the raw

21 Nielsen diary data?

22   Q   Yeah. Program, by program.

1   A   I don't recall doing that.

2   Q   Let me ask you to take a look at

3   Exhibit 4 to the IPG rebuttal testimony.

4   Actually, strike that. I am going to take a

5   look at that. You can if you want to, but you

6   don't need to actually.

7   Now, you worked with Kelvin

8   Patterson from Reznick, correct?

9   A   Mr. Patterson provided me via

10 counsel several databases. I don't working

11 with him directly.

12   Q   Okay. You received from Reznick,

13 though, the raw Nielsen data, correct? I'm

14 sorry. That's -- I'm mistaken, I apologize.

15   I believe what you received from

16 Reznick was raw broadcast data from Tribune,

17 is that correct?

18   A   Tribune. That's correct.

19   Q   And that was for the group of 81

20 to 125 stations selected by Ms. Kessler,

21 correct? And also the 125 by you, correct?

22   A   That's correct. It was two data

1   files.

2   Q   Okay.   Now,   Mr.   Patterson

3   testified that he had excluded from those data

4   sets provided by Reznick to you broadcasts of

5   non-compensable   programming.   Was   that

6   actually the case?

7   A   I think as I described in my

8   direct, and also as in the roadmap document

9   that I provided to you, he also -- he said he

10   did that, but he actually failed to exclude

11   certain network programming that I discovered

12   in analyzing the data.

13   Q   Okay. Now, the Nielsen data that

14   you used on this, let me ask you to look at

15   Exhibit 2 to the rebuttal there, not Exhibit

16   4, sorry.   Exhibit 2 is just a list of

17   electronic files that were produced to IPG.

18   And I believe within that list that you see in

19   Exhibit 2 are the Nielsen diary data and

20   Nielsen local ratings data electronic files.

21   Is that the case? Am I correct?

22   A   It should be, yes.

1   Q   Okay. And just, you know, so that

2   we can move beyond should be, if you can just

3   take a look at it to see if it is actually

4   represented there or not. It may be; it may

5   not.

6   A   Yes. Under the subheading, it

7   appears to be under Lindstrom, comma, Gray.

8   Q   Okay.

9   A   There is the Nielsen diary data

10   followed by the Nielsen local ratings data.

11   Q   You recognize those titles to

12   those electronic databases?

13   A   Yes.

14   Q   Okay. Now, with regard to them, I

15   believe within them are -- pardon me just for

16   a minute. Now, the MPAA asserted a claim to,

17   I think we've been told, 1,600 different

18   titles. Is that familiar to you? That was in

19   Appendix C of Ms. Kessler's --

20   A   It seems low. So that doesn't

21   sound familiar.

22   Q   Now, this was not programs. I may

1   have said that --

2   A   Claims --

3   Q   -- it was titles, 11,600 titles.

4   A   That number is bigger.

5   (Laughter.)

6   Q   My apologies to everyone. Things

7   are catching up with me.

8   A   Well, I'm trying to pay attention.

9   Yeah. I recall that number from the Kessler

10   testimony.

11   Q   Okay. Thank you. I apologize

12   again, everybody.

13   That was in Appendix C to the

14   Kessler testimony. Does that sound familiar?

15   A   It could be. I'd have to

16   doublecheck the Kessler testimony. I recall

17   reading it in her testimony.

18   Q   Now, was that provided to you in

19   an electronic file? I mean, was it just a big

20   stack of paper, or was it probably an

21   electronic file, I presume?

22   A   I believe it was electronic, but

1   I'd have to ask the team. I had to -- a team

2   of data folks who did a lot of the analysis.

3   Q   Okay. To manipulate a number like

4   that, I presume it could conceivably be done

5   by hand, but it would be very long, tedious,

6   and generally would be done using an

7   electronic file, correct?

8   A   Yeah. If I were to receive a hard

9   copy of that, I would certainly code it into

10   an electronic copy.

11   Q   To be able to use it.

12   A   Right. I would -- yeah, I would

13   -- it's been a long time since I worked with

14   11,000 entries by hand. But, yeah, if I -- if

15   during the course of some litigation or

16   regulatory proceedings I received hard copies,

17   which has happened to me in the past, then I

18   would manually -- or have it coded into the

19   computer.

20   Q   It's a labor-saving step if you

21   get it electronically, correct?

22   A   I would say yes.

1   Q   Do you know whether or not such an

2   electronic file was ever provided to IPG in

3   this matter?

4   A   I don't know what was provided to

5   IPG.

6   Q   Fair enough. Now, when you used

7   that file of 11,600 titles to do your

8   analysis, I presume that it generated -- or I

9   believe we know that it resulted in an

10   electronic file called detail of diary

11   matches, correct?

12   A   I'll have to find this on the

13   list.

14   Q   I don't know, it may not be on the

15   list. I don't know. But I'm just -- just

16   from your memory, was there some sort of file

17   generated in that regard?

18   A   Well, actually, I think that was

19   prepared by Reznick is my recollection.

20   Q   Fair enough. It was a little

21   unclear to me. And then it was provided to

22   you to then use, correct?

1   A   That's correct.   And, you know,

2   that would be then the list of compensable

3   MPAA programming by broadcast and station.

4   Q   Okay.   I beg your pardon.   Just

5   bear with me for a moment.

6   (Pause.)

7   Now, looking at Exhibit 2 again,

8   there is a file with the title Nie100. Do you

9   see that?

10   A   I see Niel00.txt.   Is that what

11   you're referring to?

12   Q   It is.   Is that an example of the

13   Nielsen diary data for 2000?

14   A   Yes.

15   Q   And   is   it   accurate   that   the

16   Nielsen file format is the legend for data

17   appearing in Nie100?

18   A   Again, that's Niel00.txt. The way

19   to remember it perhaps for you is that's for

20   Nielsen double zero.

21   Q   Makes sense.   Thank you.

22   A   Sure.   But   to   answer   your

1   question, yes, the -- my recollection is the

2   Nielsen file format had a data legend and/or

3   layout.

4   Q   Okay.   I'd like to introduce a --

5   or mark a new exhibit, and I believe we are at

6   505.   I hope we're at 505.

7   CHIEF JUDGE BARNETT: I think so.

8   (Whereupon, the above-referred to

9   document was marked as IPG Exhibit

10   No. 505 for identification.)

11   BY MR. BOYDSTON:

12   Q   And my question is if this is the

13 Nielsen -- it says Nielsen file format.   But

14 I believe that these are the 13 fields in that

15 document, is that familiar to you?

16   A   Reasonably familiar.   I would have

17 handed this over to my data folks, so I would

18 not have perused it.

19   Q   Do the 13 fields here look like

20 the 13 fields that you would typically have in

21 this   sort   of   a   document?   There   is   not

22 something in here that you are looking -- you

1   say, "Left-handed monkeys? We don't have that

2   file. We never had that sort of a column."

3   A   I think the answer to that is yes.

4   Q   Thank you. I'd like to introduce

5   or mark another exhibit, 506.

6   (Whereupon, the above-referred to

7   document was marked as IPG Exhibit

8   No. 506 for identification.)

9   Now, I'll represent to you that

10 this is a printout of the file you were just

11 talking about, Nielsen00. And based upon your

12 familiarity with that file, does this look

13 familiar, or does it look like what you would

14 expect to see from such a printout?

15   A   It has been a long time since I

16 looked at the actual Nielsen data, so I would

17 actually have to doublecheck with the team who

18 actually read in the data to see if this

19 represents all of the fields, and so forth.

20   Q   Well, that is kind of where I was

21 going with my question is it only seems to

22 have eight fields. Can you think of any

1   reason -- to the extent that the Nielsen file

2   format I marked as Exhibit 505 represents

3   there's 13 fields, and this document, which is

4   a printout of this electronic file, Niel00,

5   doesn't seem to have 13 fields, do you have

6   any hypothesis as to why that would be?

7   A   No. I'd have to doublecheck. I

8   could start guessing what the fields would be,

9   but no reason to guess at this point.

10   Q   So you don't have any personal

11   knowledge as to why there are five fields

12   different between these two.

13   A   I   don't   have   any   personal

14   knowledge at the moment, no.

15   Q   Okay. Were you involved at all

16   with MPAA's production of electronic files to

17   IPG in this matter? Did you assist in that in

18   any way?

19   A   Only insofar as I told them which

20   of the raw files that one needed in order to

21   replicate my analysis.

22   Q   Okay.

1   A   And so I underscored which were

2   the files.

3   Q   Is it fair to say that you didn't

4   perform some sort of function to knock out

5   five fields before production occurred?

6   A   No. I didn't make any adjustments

7   to the raw data. There is a good chance -- I

8   could check with the team and get back to you,

9   you or the Judges -- that this is the raw data

10 we relied upon. But I don't recall right now.

11   Q   Now, your testimony is that you

12 implemented your regression analysis with the

13 electronic files provided to you by Kelvin

14 Patterson from Reznick. I think I've asked

15 that more than once perhaps, but that's the

16 case, correct?

17   A   Among other electronic files, yes.

18   Q   And were two of the files you were

19 provided with from Reznick entitled detail of

20 diary matches and detail of local matches?

21   A   Correct. By year, 2000 through

22 2003, four of each.

1   Q   And what is the name of the

2   electronic file that resulted after the

3   implementation of the regression analysis?

4   A   I don't know what you mean by

5   that.

6   Q   Well, you took those files and you

7   performed a regression analysis.

8   A   Correct.

9   Q   What was the product of the

10 regression analysis?

11   A   Well, the product of the

12 regression analysis -- we talked about this

13 earlier today -- ultimately was going to be

14 sort of predicted distant viewing on the

15 quarter-hour basis.

16   And then, within the program, sum

17 that up for IPG and MPAA to calculate

18 viewership shares each year.

19   Q   So did that result in some sort of

20 electronic file or electronic process?

21   A   It resulted in an electronic

22 number. I think the number that is now in the

1 report.

2   Q   Well, but just further back

3 upstream, if you will, wasn't there a point at

4 which -- weren't there intermediary things

5 that were produced to then arrive at the final

6 number?

7   I know the final number is a big

8 -- is this adding up, like you described

9 before, but higher up the stream weren't there

10 other points at which you took these two files

11 we just identified -- detail of diary matches

12 and detail of local matches -- and then put

13 them into a regression analysis to come up

14 with the platform upon which you would make

15 the final determination?

16   A   Yeah. I would actually go back to

17 my testimony earlier today, which is that

18 there are five data sources that combine

19 together. And so then those five data

20 sources, once combined together, form the

21 basis for running the regression analysis. So

22 we were -- and those five data sources were

1   actually listed on this file here.

2   Q   In your statement you said, and I

3   quote, "For each of these stations and years,

4   I obtained the Nielsen local ratings data. I

5   then merged the local ratings data with the

6   Tribune data." When you did that, did that

7   produce some sort of an electronic file with

8   the results of it?

9   A   Yeah. Oh, if -- when I say I

10   combined all five, I don't combine all five

11   instantaneously.

12   Q   Right. That's what I was getting

13   at.

14   A   Sure. It goes like this, start

15   with one, you add another, you add a third, a

16   fourth, and actually there are two in the

17   fifth, and then you add the fifth. And then

18   you add those all together.

19   Q   Right.

20   A   So when I say combine them, they

21   are done sequentially.

22   Q   And so focusing on this process I

1 just read, which I will read again for

2 everyone's clarity, "For each of these

3 stations and years, I obtained the Nielsen

4 local ratings data. I then merged the local

5 ratings data with the Tribune data." Is that

6 number one in your finger analogy, or is that

7 further down the line? I think it's number

8 one, but --

9   A   The short answer is it doesn't

10 matter.

11   Q   Okay. Fair enough.

12   A   The order of the merging doesn't

13 matter. You will get the same end result. It

14 could be one and two, it could be two and

15 three, but so -- yeah, it's one of the four

16 merges out of the five.

17   Q   That's one of the four, though,

18 correct?

19   A   Correct.

20   Q   Now, when you did that merge, did

21 it create an electronic file?

22   A   Yeah.   It will be a temporary

1   file. Yeah, absolutely. So it --

2   Q   Can you make it move from

3   temporary to permanent?

4   A   Can you?

5   Q   Yes.

6   A   You could. Imagine if you have

7   Data Set 1, call it Data Set 1, Data Set 2.

8   So in your program you set those two, and then

9   you merge by -- if I can describe the code to

10   you, by station, date, quarter-hour. And you

11   have to normalize the quarter-hour because

12   there is inconsistency across some of the

13   data. And say merge, and then those two are

14   now together, and you have a new data set.

15   And then you -- and so this now is

16   called Data Set 3. You can call it whatever

17   you want. You could call it temp.

18   Q   Okay.

19   A   Or your monkey.

20   Q   Now, this temporary data file, it

21   wasn't saved, then, it was temporary, correct?

22   A   Yeah. Hard drives are cheap these

1   days.   You could save it, but there's no

2   reason to.

3   Q   Okay. But just to be clear, it

4   could have been saved; it was not, true?

5   A   Yes. It could have been saved.

6   Q   Okay.

7   A   But I see no reason to save it.

8   Q   And then, if I could have you look

9   back at Exhibit 2 again in the rebuttal

10   testimony.   That's the list of various

11   electronic folders and files produced by MPAA.

12   I presume, since it wasn't saved, the file

13   created by this process we have just been

14   discussing is nowhere on this document of

15   course, right? Because it wasn't saved and it

16   wasn't produced, correct?

17   A   Well, it depends on what you mean

18   by "nowhere on." It is in there insofar as

19   one and two are on there. But, yeah, but --

20   Q   But not the joinder.

21   A   Oh, yeah. I -- yeah. If you

22   wanted to give me a bunch of joinders, I could

1   buy a big terabyte hard drive and turn it

2   over. But I don't quite see the point of

3   that. All I --

4   Q   I'm not asking if you know the

5   point of it. I'm asking if it was done, and

6   I think the answer is simply no, it was not,

7   right?

8   A   I gave you Data Set 1 and Data Set

9   2, and I said combine them. But I did not

10   provide you the combined Data Set 1 and 2,

11   correct.

12   Q   Did you provide the program with

13   which to combine the two?

14   A   No. Instead, I provided I guess a

15   roadmap, if you will.

16   Q   Okay.

17   A   Or a description.

18   Q   The roadmap, did that include the

19   computer program to do that process with?

20   A   No. It essentially said something

21   along the lines of merge or combine, and so I

22   would think someone who is experienced with

1   working with data would have no problem.

2   Again, as I described earlier, one

3   of the reasons why I wanted to make sure

4   before -- that was replicable is I had a

5   separate team within my firm. I gave them the

6   roadmap and the data and said, "Can you

7   replicate it?" Gave it to them and they did.

8   So I felt reasonably comfortable that one

9   should if not get it exactly, get it darn

10   close.

11   And given how robust the results

12   are, it would be surprising to me for anyone

13   who sort of followed the steps to get very,

14   very close to the results.

15   Q   What were the qualifications of

16   the people that you gave it to to replicate?

17   A   Ph.D. in economics, together with

18   people with data experience.

19   Q   Probably something a man on the

20   street could not do. Fair enough?

21   A   Depends which man on the street, I

22   would respond. But I would say a randomly

1   chosen person would probably have difficulty

2   merging a bunch of data sets together, yes.

3   Q   Now, I think one of the next

4   steps, or at least it came -- this is the way

5   it came sequentially in your testimony -- was

6   you say, "I can, therefore, calculate a

7   distant ratings measure as the number of

8   distant viewers of the stations of each 15-

9   minute time interval from the diary data

10   provided by the total" -- excuse me --

11   "divided by the total number of distant

12   subscribers of that station from the CDC

13   data."

14   Could you explain to us -- this

15   explains a lot of it. But could you explain

16   to us what that process was?

17   A   That's a good question. Actually,

18   I wrote this some time ago. And what I --

19   Q   Is it fair to say that the idea

20   here was to create a distant rating for a

21   particular time period?

22   A   Well, the description says I could

1 do it, but what's interesting -- when I reread

2 this I go, what? Why did I write it that way?

3 Sometimes when you write something it seems

4 very clear to you at the time. You read it

5 nine months later and you say, "I could have

6 been a little clearer." And I apologize for

7 that.

8 But ultimately what I did was I --

9 as how I described it earlier in my testimony,

10 that I looked at the relationship between

11 distant viewing and local ratings holding

12 constant the number of distant subscribers.

13 Mathematically, that is really looking at

14 distant ratings and local ratings.

15 So there is truth in what I wrote,

16 but it is -- if I had to rewrite it again, I

17 would probably edit it slightly.

18 JUDGE STRICKLER: Can I interject

19 a question?

20 THE WITNESS: Yes.

21 JUDGE STRICKLER: Looking at your

22 Appendix C, you had your other control

1   variables. You have a constant, time of day,

2   quarter-hour, year, program type, and station

3   affiliation, indicated variables. Do you see

4   that sort of as a legend at the bottom of your

5   --

6   THE WITNESS: Yes.

7   JUDGE STRICKLER: -- first table,

8   C.1? did you ever hold local ratings constant

9   to see whether or not those other variables

10   had   an   impact   on   distant   viewers,   in

11   particular time of day?

12   THE WITNESS: Yes. And it does.

13   They are all very significant.

14   JUDGE STRICKLER: So if you held

15   local ratings constant --

16   THE WITNESS: Right.

17   JUDGE STRICKLER: -- and you

18   simply looked at it for a correlation between

19   time of day and distant viewers, you say there

20   is a tight fit?

21   THE WITNESS: Yes. Absolutely.

22   JUDGE STRICKLER: Tighter than the

1   correlation between local ratings and distant

2   viewers?

3   THE WITNESS: Tighter. Well, two

4   things. One is, when you say hold local

5   ratings constant, that's effectively what I'm

6   doing with the regression. So I'm holding the

7   log of local ratings constant. And I don't

8   know -- there is also -- I turned over the log

9   file. Maybe it should have been -- I don't

10   want to -- I can't remember how many

11   variables. It's small. This actually winds

12   up being, you know, 60, 80 -- 60 or 80

13   variables, so I didn't put it in the appendix.

14   But it is in the log file that was turned over

15   to IPG, as I understand.

16   To answer the question, each of

17   those quarter-hour dummy variables, I think

18   each and every one -- I'd doublecheck -- was

19   statistically significant, even holding

20   constant log of local ratings.

21   When you say a tighter fit, I'd

22   say even -- this is the important part. Even

1 holding constant, the quarter-hour of the day

2 -- so what's four times 24 would be the

3 number. Even holding all of those constant --

4 JUDGE STRICKLER: 96.

5 THE WITNESS: 96. So there is 96

6 -- actually, 95 dummy variables because you

7 have to remove one. So holding all of those

8 time periods constant, local ratings is still

9 very, very important. So that's what that

10 coefficient tells you is holding the quarter-

11 hour constant, what is the -- and these other

12 factors, what is the relationship between

13 local ratings and distant viewing?

14 JUDGE STRICKLER: But if there is

15 a correlation -- maybe I'm missing something

16 here, but if there's a correlation between

17 time -- leaving aside the local ratings issue

18 for a second, if there is a correlation

19 between time of day and number of distant

20 viewers, is that at all similar to the time

21 weight factor that was attempted by IPG in its

22 analysis?

1   THE WITNESS: Good question. And

2   so that's why I said -- I described in my

3   testimony that his proposal in some ways is a

4   --

5   JUDGE   STRICKLER: Crude

6   approximation?

7   THE   WITNESS: --   crude

8   approximation. So in --

9   JUDGE STRICKLER: That was my next

10   question.

11   THE WITNESS: Yeah.

12   JUDGE STRICKLER: So you have

13   already at length told us why it was crude.

14   Now I think you are telling us why it was

15   still approximate.

16   THE WITNESS: Right. Well, and

17   kind of crude and approximate are going

18   together, but yes.

19   JUDGE STRICKLER: So if there was

20   a correlation, as you say, between time of day

21   and the number of distant viewers, do you know

22   what it was? Or offhand you don't know?

1   THE WITNESS: Well, again, what I

2   would have is 96 dummy variables. So I

3   actually have 95 with a constant, 96

4   correlations. And so what you'll see is in --

5   you know, from midnight through 6:00 a.m. it's

6   negative. And so it becomes positive. So the

7   kind of trends you expect to see, but each

8   quarter-hour was statistically significant.

9   Does that answer your question?

10   JUDGE STRICKLER: I think it does.

11   Let me ask you, if there was this good

12   correlation between time of day and distant

13   viewers, and that is part of what IPG did, to

14   try to make that correlation --

15   THE WITNESS: Yeah.

16   JUDGE STRICKLER: -- why didn't

17   you include it in Appendix C? Why didn't you

18   show that same -- have those coefficients in

19   here as well?

20   THE WITNESS: Well, as I said

21   earlier, maybe I should have because there

22   would have been about 200 -- not 200, I'm

1   trying to remember the number, but maybe 120

2   variables. And so I just thought for focus

3   one could do it. But it might be in someone's

4   manila folders.

5   JUDGE STRICKLER: It couldn't have

6   been reduced to a line or two item on the

7   table the way you have it here on Exhibit --

8   THE WITNESS: No. Because I

9   estimated for every single quarter-hour. So

10   I estimated the relationship between the

11   quarter-hour, like from midnight to --

12   JUDGE STRICKLER: 12:15.

13   THE WITNESS: -- 12:15. Thank

14   you. Sorry, I'm getting a little tired. From

15   12:15, 12:30, each of those is in there. So

16   I have 95 dummy variables. Each has a

17   coefficient between that and distant viewing.

18   And, actually, I printed it out

19   and my eyes blurred. And I did that because

20   I didn't want your eyes to blur. We could

21   certainly produce it to you, but -- two

22   things. He has it over there, so he could

1   show it to you.

2   MR. BOYDSTON: Your Honor, I would

3   like to mark this as Exhibit 507.

4   (Whereupon, the above-referred to

5   document was marked as IPG Exhibit

6   No. 507 for identification.)

7   JUDGE STRICKLER: You   were

8   anticipating this.

9   THE WITNESS: Should I wait for

10   the question, or should I start walking

11   through it.

12   JUDGE STRICKLER: Wait for the

13   question, please.

14   BY MR. BOYDSTON:

15   Q   Mr. Gray, I feel like the guy

16   coming on after the show has begun, but you

17   see what has been marked as Exhibit 507.

18   Could you tell us what this is?

19   A   Sure. Well, the first part of

20   this is the Poisson regression analysis that

21   I as describing. In particular, this first

22   regression is the one for -- not for WGN. So

1   that's the one that I used to estimate the

2   relationship between local ratings, market

3   size, time of day, and now you see I am

4   actually turning the pages on time of day,

5   year, affiliation, and program type.

6   So I estimate that relationship --

7   between that and the distant viewing. And

8   distant viewing is wght_house_proj. Nice

9   intuitive label.

10   MR. BOYDSTON: And, Your Honor, I

11   would like to move that Exhibit 507 be

12   admitted.

13   MR. OLANIRAN: No objection.

14   MR. HARRINGTON: No objection.

15   CHIEF JUDGE BARNETT: Exhibit 507

16   is admitted.

17   (Whereupon, the above-referred to

18   document, previously marked as IPG

19   Exhibit   No.   507   for

20   identification, was admitted into

21   evidence.)

22   BY MR. BOYDSTON:

1   Q   Now, and if I missed something in

2 your explanation of what this is, I apologize.

3 Where in the process of your calculations does

4 this come in? You gave me a really handy hand

5 model before. Perhaps you could help me by

6 telling me where this fits into that.

7   A   Sure. It comes in at the first,

8 which is all five data sources combined. Now,

9 once you have them all combined, you have all

10 -- and I say this in the direct testimony, you

11 have all of these different variables, and

12 then you run the regression.

13   So you would run this first code

14 that says -- that little dot on the side,

15 Poisson weight house, et cetera. So that --

16 and so what that does is tells your nice

17 little computer to run a Poisson regression

18 with the following control variables.

19   And so the variable of interest,

20 as I described before, the outcome variable is

21 distant viewing, which Nielsen calls weighted

22 household projection.

1   Q   Now, I see in here the 95 or --

2   well, you said 96 -- 95, 96 different

3   computations. Those are the ones that start

4   on the first page and run down -- the numbers

5   run -- numbers 1 through 22 run down the left-

6   hand side of the page, is that correct?

7   A   Right.

8   Q   And then continue on to the

9   following page?

10   A   Right. Those are normalized

11   quarters, so quarter zero is midnight to

12   12:15, or, I'm sorry, quarter one, which is --

13   as I described earlier, you always have to,

14   for those of you who love statistics, you

15   always have to drop one dummy variable.

16   And so we dropped the midnight to

17   12:15, because all these dummy variables

18   measure is what that time of day is relative

19   to something. So that's why you drop one. So

20   it's relative to midnight to 12:15.

21   Q   Now, on the fourth -- excuse me,

22   the third page of this exhibit, at the

1   beginning it says 86, and then it goes down to

2   96. And then after that it says year, and it

3   says 2001, 2002, 2003. I assume those refer

4   to those particular years, correct?

5   A   Correct.

6   Q   Is there a reason why 2002 isn't

7   there?

8   A   Do you mean 2000?

9   Q   Excuse me. 2000.

10   A   Yeah. For the same reason, which

11   is when you have dummy variables -- and I can

12   define dummy variables -- what you are doing

13   is estimating how those years are relative to

14   something. So you always drop one. So those

15   three estimates are how the regression is

16   impactive relative to the year 2000.

17   Q   Understood. Underneath that it

18   says IND, UPN, and WB.

19   A   Yes.

20   Q   Those sound like Independent, the

21   UPN Network, and Warner Brothers. Is that

22   what those are for?

1   A   That's correct, yes.

2   Q   And what is the purpose of those

3   figures?

4   A   Again, we are trying to sort of

5   estimate as precisely as possible distant

6   viewing. So we are looking at variables in

7   the data sets, and this is from the Tribune

8   data, those particular variables.

9   Whether or not if the program was

10   broadcast and retransmitted, or if it was

11   broadcast on UPN, does that have an impact on

12   distant viewing? And one can think of reasons

13   why it might. For example, perhaps the

14   quality of a program was different on UPN than

15   other programs. Apparently not with respect

16   to distant viewing.

17   So, anyway, they are in there just

18   to try to as precisely estimate as possible

19   distant viewing.

20   Q   And then, beneath that it says

21   what looks like an abbreviation of program

22   type 1, 2, 3, et cetera. What are those

1   referring to?

2   A   Right.   Those   are   the   various

3   different program   types   included   in   the

4   program supplier category from the Tribune

5   data.

6   Q   So   they   correspond   with   the

7   Tribune nomenclature which runs 1 to 30 for

8   different types of programs, correct?

9   A   Yes.

10   Q   Now, beneath the dashed line that

11   cuts across the page towards the bottom, there

12   then appears to be a dot and it says "predict

13   double view," underline hat, underline POI,

14   and then a semicolon. What does that refer

15   to?

16   A   That is a very complicated process

17   that the computer -- you only have to write

18   that one code to tell them to do it. That is

19   actually predicting for every single quarter-

20   hour what distant viewing is based upon that

21   regression result. So that one line does the

22   sort of projections that we described earlier.

1   Q   And so is that essentially -- the

2   way this is portrayed here on this page, is

3   that essentially reflecting a command for that

4   process to take place?

5   A   Yes.

6   Q   Where is the product of that? Did

7   it exist in another temporary file, or is it

8   some other file?

9   A   Again, it would exist in the RAM

10   of this computer, so it never existed on the

11   hard drive. So by "RAM" I mean random access

12   memory. So it -- what the computer does is

13   for these millions and millions of

14   observations -- in this case where we're doing

15   quarter-hour stuff -- it makes these

16   projections and holds on to them, and then

17   later there is code to tell it to sum it up

18   and create the relative viewership numbers.

19   Q   So the product of applying this

20   predictable view, etcetera, as you said, was

21   never saved on the hard drive. It was in the

22   RAM. It could have been saved on the hard

1   drive, correct, if the hard drive was big

2   enough?

3   MR. OLANIRAN: Objection.   Your

4   Honor, asked and answered.

5   CHIEF JUDGE BARNETT: Sustained.

6   BY MR. BOYDSTON:

7   Q   Was it saved?

8   A   It was not saved, no.

9   Q   Okay.   Did anyone ever tell you

10   that those sorts of things should be saved in

11   your study and in the process of doing your

12   study?

13   A   I have never heard such a position

14   before, in large part because it is easily

15   replicable.   So, again, if you start with the

16   raw data, merge all -- you press the code, you

17   generate it again.

18   So, for example, if I were an

19   expert and someone else gave me those millions

20   of numbers, my response is, why are you giving

21   me these millions of numbers?   Give me your

22   raw data, and give me your specification.

1 That's what I did.

2   Q   But if you're not an expert, then

3 you wouldn't know what this is, would you?

4   A   I'd defer to the people out here

5 to the right in terms of this, but possibly.

6   Q   Underneath that there is a -- it

7 says -- it appears, parenthetical, option and

8 assumed, semicolon, predicted number of

9 events, paren, end paren. What does that

10 refer to?

11   A   That's essentially just the

12 program telling you, "Just so you know, we're

13 doing this for everybody."

14   Q   Got it. And then underneath that,

15 dot P-O-I-S-O -- excuse me.

16   A   Poisson?

17   Q   Poisson, P-O-I-S-S-O-N, then dash

18 or a space, W-G-H-T, space, house, space, log,

19 underline, L-R-F, et cetera. What does that

20 refer to?

21   A   Actually, if you'll look back up

22 to the prior -- the very beginning of the log

1   file, this is repeating the same regression

2   but doing it only for WGN. And so if you look

3   at actually towards the end of this command,

4   actually it's a command that sort of flips

5   over two lines -- just so you know, that

6   little caret, the sign to the side, lets you

7   know that it is a part of the same command.

8   But it says if WGN equals equals

9   one, so that's telling the computer run this

10   Poisson   regression   --   Poisson   was   a

11   statistician back in the 1800s -- run this

12   regression, but only do it for WGN.

13   Q   Okay.   And   that   was   done,   I

14   presume.

15   A   Yes.   If you start turning over

16   the pages, you will see that it was done, yes.

17   Q   And   as   you   say,   turn   over   the

18   pages. Actually, before we turn the pages, a

19   line or two down then it says -- it starts

20   saying, note, colon, and different things come

21   in. What do those refer to?

22   A   Sure.

656

1   Q   Why don't we just start with the

2   first one, note, colon, aff omitted because of

3   colinearity.

4   A   Colinearity -- yeah. What that

5   tells you is that there is no variation in the

6   sort of affiliate for this particular

7   regression. The reason why that is is it's

8   all WGN. Program types, it will be the same

9   thing. What that's telling you is that there

10   is no program type of one, two, or three, on

11   any of these broadcasts.

12   So the computer is saying, "I

13   can't estimate a coefficient for that," so it

14   just drops it. You could do it manually, but

15   this is just a much more efficient way. And

16   it goes on. So there are a lot of different

17   types of programs that apparently are not

18   carried on WGN.

19   Q   Okay. Let me -- at some point, I

20   think about page 4, we start getting page

21   numbers on this, which is handy, but the first

22   three, for whatever reason, they aren't there.

NEAL R. GROSS
COURT REPORTERS AND TRANSCRIBERS
1323 RHODE ISLAND AVE., N.W.
(202) 234-4433   WASHINGTON, D.C. 20005-3701   www.nealrgross.com

1   If you turn to the sixth page,

2   which conveniently says page 6 at the bottom

3   of it, again, we see the reference to the 30

4   Tribune program types. We see above that

5   references to the years 2001 to 2003. But,

6   then again, underneath the dashed line I think

7   it is that same -- but you correct me if I'm

8   wrong -- in that same command, dot, predict

9   double view, hat, Poi, WGN. What does it

10   mean, where it is put there on that page?

11   A   Oh. What that is telling me is

12   that -- essentially create a new variable

13   called view, hat, underscore, Poi, slash WGN.

14   And the reason is that we are going to combine

15   it later, and I don't want to confuse these

16   different projections.

17   So what this is is saying, if WGN

18   is one, make -- oh, I'm sorry. I can't tell

19   you to rewind. It's getting late in the day.

20   So this is now being run on the

21   same database. And we have -- for everybody

22   but WGN, we have predicted viewing. And so

1   what the computer would have done, if you look

2   actually back up at the very first -- this is

3   a long time ago -- at the very first page,

4   you'll see it was run August 21, 2012.

5   The first regression is WGN is

6   equal to zero. And then we did the -- we

7   predicted distant viewing for everyone in that

8   regression. But what the computer is going to

9   do -- well, for WGN, it is missing, so it will

10   set the value equal to missing.

11   So this step says, okay, we've now

12   just run the regression. From this regression

13   with WGN, stick the value of the predicted

14   back into -- I hope this makes sense to you

15   all -- into -- because I don't want to have to

16   say it again -- into view, hat, underscore,

17   Poi. Was that close to clear?

18   Q   Well, it is what it is.

19   A   Okay.

20   JUDGE STRICKLER: May I ask a

21   question?

22   MR. BOYDSTON: Thank you.

1   JUDGE STRICKLER: Not on that,

2   actually, but on this document. Just so I

3   understand, and maybe you can explain in lay

4   terms perhaps, the significance, or lack

5   thereof.

6   If you'd turn to page 2 of

7   Exhibit 507 in evidence --

8   THE WITNESS: Yes.

9   JUDGE STRICKLER: -- there is line

10   item 80. And this is based on quarter of an

11   hours -- quarter-hour segments starting from

12   midnight, correct?

13   THE WITNESS: Correct.

14   JUDGE STRICKLER: So correct me if

15   I'm wrong, but that would be the 8:00 p.m. to

16   8:15 viewing time period, is that right?

17   THE WITNESS: That's right, yes.

18   JUDGE STRICKLER: Okay. What is

19   the significance of the 1.221914 coefficient?

20   THE WITNESS: Sure. What that

21   tells you is distant viewing goes up by 1.22

22   percentage points for that particular quarter-

1   hour, all else equal. So it's easily

2   interpretable, because this is a Poisson.

3   What a Poisson regression means, maybe I

4   should take a step back, is you are running a

5   regression of the -- of distant viewing on the

6   exponent of all of these independent

7   variables.

8   And so, as a result, when you

9   interpret these coefficients, you are really

10   doing this -- it's the change in the log of

11   the dependent variable over the change in the

12   X variable.

13   I'll say that for those of you up

14   there who love statistics. And so the

15   interpretation, then, is it is different for

16   the first two variables. It's different for

17   the log variables. For the non-log variables,

18   it means -- this means how much does a one

19   unit change in this affect the percentage

20   point difference in weighted house projection.

21   So, again, I don't know if I

22   should have said so much. A 1.22 percent

1   increase, all else equal, distant viewing goes

2   up for that quarter-hour.

3   JUDGE STRICKLER: And on the next

4   page, when you do it by year, 2001, 2002,

5   2003, is that in any sense the average of all

6   of those 15-minute time intervals?

7   THE WITNESS: No. That is sort of

8   just capturing general time trend. And so

9   what this is showing you is, relative to the

10 year 2000, distant viewing actually has

11 decreased slightly in percentage terms.

12   JUDGE STRICKLER: Okay. So that

13 is simply a comparison to 2000, not an

14 average.

15   THE WITNESS: Correct.

16   JUDGE STRICKLER: Is there any

17 statistical merit, in your opinion, to

18 averaging out the 96 different time periods?

19 And I guess you would have to drop the -- you

20 would use absolute value rather than the

21 negative and the positive to try to get -- to

22 figure out what the average fit is between

1   time of day and distant viewing?

2   THE WITNESS: Oh. I think the

3   simpler way -- I mean, I think you're asking

4   this way -- if not, correct me. I think a

5   simpler way would be to drop the other

6   independent variables.

7   JUDGE STRICKLER: Right. Yeah.

8   THE WITNESS: And so would there

9   be merit? Yes, there would be some merit.

10   The problem is, I would want to ideally more

11   precisely estimate distant viewing. And what

12   you'll see -- gosh, let's look at log local

13   ratings, because I find this huge, is that

14   even holding constant the quarter-hour --

15   JUDGE STRICKLER: Where are you

16   now?

17   THE WITNESS: I'm sorry. This is

18   on page 1, and this will be the very first

19   independent variable.   So right under

20   weight_house_projected.

21   JUDGE STRICKLER: Right.

22   THE WITNESS: You have log_LR.

1   JUDGE STRICKLER: Right. And

2   that's the same thing -- that's the number

3   that we find as your coefficient estimate on

4   Table C.1.

5   THE WITNESS: Correct.

6   JUDGE STRICKLER: Right.

7   THE WITNESS: And it matches,

8   then, Kelvin's. And, anyway, but what that

9   says is even holding those quarter-hours

10   constant, and because it's a log, then it is

11   going to be log on log, so it's actually an

12   elasticity. So a one percent increase in log

13   ratings leads to half a percent increase in

14   distant viewing, which is -- and that is

15   holding everything constant.

16   JUDGE STRICKLER: That is

17   measuring the change in log rate, local

18   ratings relative to distant viewers.

19   THE WITNESS: Right.

20   JUDGE STRICKLER: My question is,

21   what is the fit with regard to time of day?

22   THE WITNESS: I could find out.

1   But by "fit," do you mean like how much of it

2   does it explain?

3   JUDGE STRICKLER: Right. And,

4   again, the reason I'm asking this is not

5   academic interest, it's because it strikes me

6   -- and I think you've said so -- that it is in

7   some sense part and parcel of what IPG was

8   trying to get at with regard to a time factor.

9   So I want to see how significant it is, not

10   from their numbers necessarily, but with your

11   numbers.

12   THE WITNESS: Oh. I --

13   JUDGE STRICKLER: So what is the

14   answer? How significant is it? And is it

15   more significant or less significant or as

16   significant as your correlation between local

17   ratings and distant viewers?

18   THE WITNESS: I see your question.

19   It took me a while. You've asked me two or

20   three times. I finally understand. The

21   answer is I could do the test to find out

22   which one sort of has more, actually, I would

1 say explanatory power.

2   But from my perspective, I would

3 say why stop with time period. You know, in

4 addition to time period, let's control for,

5 you know, other aspects that predict distant

6 viewing. But is it more or less? I don't

7 know sitting here. It could be more, but,

8 even if it is more, I'd say let's start with

9 it and build from there. Does that make

10 sense?

11   JUDGE STRICKLER: It makes sense,

12 but you could do it on all of your various

13 variables that you either controlled or didn't

14 control, depending on which one you were

15 trying to -- which change you were trying to

16 isolate, right?

17   THE WITNESS: Correct. Absolutely

18 correct.

19   JUDGE STRICKLER: And it didn't

20 seem important to you -- let me ask you that

21 -- didn't it seem important to you to do that

22 kind of correlation between time of day and

1   distant viewership in light of what IPG was

2   arguing?

3   THE WITNESS: Oh. What I would

4   say is -- what the regression shows is,

5   actually, IPG is right that time of day

6   matters. It matters a lot. So no question,

7   I agree with that.

8   And so, but what this also shows

9   is, in addition to time of day, local ratings

10   matters a lot. They both matter, so -- which

11   one matters more? Even if time -- you know,

12   I don't know. If time of day doesn't --

13   unless it matters more, I still don't see why

14   we wouldn't control for local ratings.

15   JUDGE STRICKLER: Well, I'm not

16   saying you wouldn't, but you would want to

17   have a control with regard to -- so that you

18   could isolate each variable.

19   THE   WITNESS: Yeah.   No,

20   absolutely. So is your question, why don't I

21   just -- why don't I report all of these in my

22   --

1   JUDGE STRICKLER: Yes.

2   THE WITNESS: I now wish I had is

3 the long answer. I guess the answer is, is

4 flipping it, I guess I thought you would find

5 this mind-numbing looking at these three pages

6 of coefficients. But, by all means, I think

7 each and every one is important. I also think

8 -- as I say in my report, I think program type

9 is important, and I don't report those either.

10   JUDGE STRICKLER: I understand

11 that.   And how did you determine your

12 constant?

13   THE WITNESS: It's the variant.

14   JUDGE STRICKLER: Of the --

15   THE WITNESS: I'm sorry. Are you

16 asking me, where is the constant?

17   JUDGE STRICKLER: Yes.

18   THE WITNESS: This is -- clearly,

19 you have a statistics background. That's at

20 the very end of the coefficients is the

21 default for this particular statistical

22 software. So this is on page 3, underscore,

1   constant. I'm sorry, underscore, C-O-N-S.

2   JUDGE STRICKLER: Page 3?

3   THE WITNESS: Yes. So it's on

4   page 3, right above all of those little hash

5   lines.

6   JUDGE STRICKLER: Yeah.

7   THE WITNESS: That's the constant.

8   JUDGE STRICKLER: Thank you.

9   CHIEF JUDGE BARNETT: Dr. Gray, I

10   just want to say that this is probably mind-

11   numbing for everyone except Judge Strickler.

12   (Laughter.)

13   Lest you get carried away.

14   THE WITNESS: Should I say no

15   offense taken? I don't know.

16   (Laughter.)

17   BY MR. BOYDSTON:

18   Q   Mr. Gray, have you been advised,

19   or are you familiar with the regulatory

20   requirements governing this proceeding in

21   terms of conducting surveys and conducting

22   studies of this type?

1   A   You know, I don't recall if I have

2   been advised. But sitting here today, I don't

3   recall the specific requirements.

4   Q   Okay. With regard to the colloquy

5   between you and Judge Strickler, the

6   possibility came up of whether or not it might

7   have made sense to perform the calculation in

8   this regard but focusing on the day part

9   viewing, and you responded to the Judge's

10   question in that regard.

11   And you were asked whether or not

12   -- you know, you were asked whether or not you

13   had done that or you had explained that and

14   you said, "I wish I had." Do you recall that

15   answer?

16   A   Well, to be clear, that "I wish I

17   had" is I wish I had reported this entire

18   regression results in my Appendix C is what I

19   meant by that.

20   Q   Correct. Right, right. Is there

21   any reason in particular you didn't?

22   A   As I said before, just for

1   presentation purposes.

2   Q   Okay.   Now,   let's   see,   we   are

3   getting towards the end of the day. I'm going

4   to see if I can move this along a little bit.

5   So what I'm going to do is going to be a

6   little on the abbreviated side, but I think we

7   can make it work.

8   What   I'm   interested   in

9   establishing, and perhaps you could focus on

10   Exhibit   2,   the   list   of   the   different

11   databases, I have asked you a couple of

12   questions about different steps along your

13   process where something could have been saved

14   but wasn't. Understood? I'm not going to ask

15   that again on purpose. If I do, I apologize.

16   I'm going to ask you about several

17   steps in your process and several calculations

18   you made and whether or not an electronic file

19   representing that activity is represented on

20   Exhibit 2. And as I say, I'm going to try not

21   to repeat myself, it's just I don't know if

22   some of these terms -- I'm not sure if I'm

1   saying the same thing as I said before, so I

2   beg your pardon if I do.

3   A   I just want to make sure I

4   understand. So you're going to go through a

5   series of questions where you ask is -- like

6   you merged these two together. There's a

7   temporary file. Did you save it, did you

8   provide it, et cetera?

9   Q   Yes. That's correct. See, the

10 first item is you went through a process to

11 exclude non-compensable programming. You

12 testified to that. Is there -- did that

13 result in some sort of an electronic file that

14 is represented on Exhibit 2?

15   A   No.

16   Q   You were given a list of 11,600

17 MPAA-represented titles. I think you

18 testified that you did have an electronic file

19 of the 11,600 MPAA-represented titles. But

20 you didn't know anything about the production

21 of that one way or the other, is that correct?

22   A   My understanding is that the

1   titles list, that should be there under the

2   2000 detail of diary matches, and then the

3   2000 detail of local matches.

4   Q   Now, you're referring to one of

5   the indications on Exhibit 2?

6   A   Yes.

7   Q   I'm sorry. Can you tell me who

8   it's under? Is that under Kessler, Martin,

9   and Gray?

10   A   I want to make sure I get this

11   right. The Patterson-Gray I believe are the

12   listings of compensable titles for IPG and

13   MPAA. Is that what you're asking about or --

14   Q   Well, do you know whether or not

15   any of the electronic databases listed on

16   Exhibit 2 under Patterson-Gray are the list of

17   -- electronic list of 11,600 MPAA titles or

18   not?

19   A   Again, I don't recall -- I don't

20   know if I received the electronic list of

21   11,600. I'm not sure.

22   Q   Okay.   At   some   point,   you

1   calculated your regression analysis. And I

2   know that's kind of a very broad term, but,

3   obviously, you calculated your electronic --

4   excuse me, you calculated your regression

5   analysis. And then I believe you testified

6   that resulted in a temp file, correct? Which

7   was not saved, correct?

8   A   Again, it resulted in -- and we

9   just looked over the log files, so maybe I

10   could better articulate it or it is better

11   envisionable, is that when the computer ran

12   that code of predict double -- and "double"

13   means lots of precision -- view, hat, P-O-I --

14   P-O-I is for Poisson.

15   So when I do that, then the

16   regression has in its memory for every single

17   quarter-hour the prediction. It was not saved

18   to the hard drive at all. Does that answer

19   your question?

20   Q   I think so. It was not saved on

21   the hard drive. And if it wasn't saved to the

22   hard drive, certainly it wasn't produced.

1   A   No.

2   Q   You merged the Nielsen diary data

3   with the Tribune Media list of stations,

4   correct? Want me to say it again?

5   A   I lost focus.

6   Q   Sure.   No problem.   Merged the

7   Nielsen diary data with the Tribune Media list

8   of stations.

9   A   Right.

10   Q   Did that result in an electronic

11   file?

12   A   Yeah. It -- you're starting to do

13   -- there were fingers, and I just want to make

14   sure -

15   Q   Right.

16   A   Yeah. So these two fingers must

17   -- would have resulted in a temporary file

18   that I don't -- I can't imagine was produced.

19   Q   Okay.   You merged the Nielsen

20   meter data with the Tribune Media list of

21   stations. That's probably --

22   A   Another two fingers, yes.

1   Q   And was that saved?

2   MR. OLANIRAN: Objection. Your

3   Honor, I think all of these questions have

4   been asked and answered.   Dr. Gray has

5   described extensively, probably at least four

6   or five times now, how he performed the

7   regression analysis. And this is just another

8   way --

9   CHIEF JUDGE BARNETT: I don't need

10   a narrative, Mr. Olaniran.

11   Do you want to respond to the

12   objection?

13   MR. BOYDSTON: There's three that

14   I'm pretty sure I haven't asked, and, if I

15   have, it's not because I'm trying to be

16   pedantic but because it is complicated and

17   sometimes it's described one way and sometimes

18   it's described another.

19   CHIEF JUDGE BARNETT: Overruled.

20   Go ahead.

21   BY MR. BOYDSTON:

22   Q   Should I reread it -- or restate

1   it? I am reading it, but would you like me to

2   restate that?

3   A   Please.

4   Q   That you merged the Nielsen meter

5   data with the Tribune Media list of stations.

6   A   Right. Yes. So that merge would

7   result in another temporary file to be merged

8   again later, and that temporary file was not

9   saved or produced.

10   Q   Thank you.   You created the

11   distant rating figures from the Nielsen diary

12   data   and   the   CDC   distant   household

13   information.

14   A   Is that my writing?

15   Q   No, it's probably not.   It is

16   probably my scribbling from --

17   A   Okay.

18   Q   -- trying to read your writing, or

19   I should say interpret your writing. You

20   created the distant rating figures from the

21   Nielsen diary data and the CDC distant

22   household information.

1   A   I don't understand that. I don't

2   remember doing anything like that. I'm a

3   little confused by that description.

4   Q   Okay. Did you create a -- what

5   you would call distant rating figures?

6   A   What I'd call what? I'm sorry.

7   Q   Did you calculate what you would

8   call distant rating figures?

9   A   I'm not sure what -- again, by

10   "distant ratings," are you referring now to

11   the regression results? I thought we just

12   asked and answered in terms of the Poisson

13   regression predictions on the quarter-hour

14   basis. Those numbers?

15   Q   I think that's right, yeah.

16   A   Okay. Again, that one was -- that

17   was asked and answered about eight times.

18   Q   Fair enough.

19   A   Yeah.

20   Q   Okay. We don't need to do it

21   again, then. Sorry. But you allocated value

22   between the IPG-claimed and the MPAA-claimed

1   programming. I think you said that was

2   essentially the -- either the last step or the

3   penultimate step, correct?

4   A   By allocating, are you talking now

5   about the total -- the percentage to MPAA and

6   the percentage to IPG?

7   Q   Yeah, the value.

8   A   Yeah. That will be in the expert

9   testimony. That's the 99.8 percent or so by

10 year.

11   Q   Okay. So is that the final step

12 or is it the next-to-final step?

13   A   Well, once I calculate the total

14 viewership and calculate the percentages, that

15 is going to be the final step.

16   Q   Makes sense to me. Just checking.

17 Did that process -- I assume that process

18 involved also the creation of a computer

19 operation that resulted in some sort of a file

20 or temporary file. Am I correct?

21   A   Well, again, what that -- so what

22 that process is is you have all of those

1   numbers, so you tell the computer "Add them up

·2   and divide by the sum of those two added-up

3   numbers, and spit out that number," and that

4   number I think is actually in the log file.

5   So the number -- and I can read

6   them because it will be in the testimony, if

7   you want me to read them again --

8   Q   I don't need you to. I understand

9   what you're saying. The numbers that were

10   summed, the list of numbers that were summed

11   to come to that result, are those --

12   A   This is now number nine, because,

13   again, that is the predicted distant viewing

14   for every single show on a quarter-hour basis.

15   Q   And I think I asked about that

16   before and said, "Does that exist in some sort

17   of an electronic or paper format" and the

18   answer was no?

19   A   You have asked many times. The

20   answer is no. Again, that's this millions of

·21 observations, and it's retained in RAM.

22   Q   And it's retained in RAM, was not

1   saved, was not produced, correct?

2   A   Right.

3   Q   Okay.   And in addition to not

4   being produced, it wasn't otherwise -- it

5   wasn't produced to IPG.   In addition to that,

6   it wasn't otherwise presented to the Judges

7   either, correct, in that form?

8   A   In terms of millions and millions

9   of quarter-hour distant viewing?   That was not

10   produced to the Judges, no.

11   Q   Yeah.   Other than your testimony

12   about it, it has not been produced to the

13   Judges in another form.

14   A   I have not produced them millions

15   and millions of numbers, no.

16   Q   And this is a close cousin, but

17   it's a different question, is it -- did you

18   ever produce any document or computer file

19   which states the value for all of the

20   particular broadcasts, or any of the

21   particular broadcasts, that we are dealing

22   with in these proceedings?   Where one could go

1 down and say, okay, despite we -- one can look

2 and see that the Tribune data says, okay, we

3 got that broadcast that date; the MPAA value

4 for that is 35. Is there any such document?

5   A   No, there is not any such document

6 that I am aware of.

7   JUDGE STRICKLER: Counsel, may I

8 ask a question?

9   MR. BOYDSTON: Sure.

10   JUDGE STRICKLER: Dr. Gray, you

11 said that you had a team, another team, take

12 a look at your data and run it, and they came

13 up to the same conclusions that you did,

14 correct?

15   THE WITNESS: Correct.

16   JUDGE STRICKLER: Was that also

17 within your organization where you work?

18   THE WITNESS: It was within my

19 organization, yes.

20   JUDGE STRICKLER: And as far as

21 you know, did you supply or has MPAA supplied

22 in this proceeding the documents to IPG which

1   you supplied that other team in order to

2   replicate your analysis?

3   THE WITNESS: My understanding is

4   yes.

5   BY MR. BOYDSTON:

6   Q   You said your understanding. Is

7   there any reason to qualify it?

8   A   Because I did not see them do it.

9   JUDGE STRICKLER: Who   is   the

10   "they"?

11   THE WITNESS: MPAA.   You said,

12   "Did MPAA provide it to IPG?" They told me

13   they did. So that's why I don't like to say

14   yes unless I witnessed it myself.

15   MR.   BOYDSTON: Makes   perfect

16   sense.

17   BY MR. BOYDSTON:

18   Q   In your description of the MPAA

19   methodology, you characterize it as a measure

20   of "potential relative viewership." Is that

21   -- do you recall that that was a quote I

22   pulled out of your --

1   A   By the MPAA or IPG?

2   Q   The IPG. I switched gears.

3   A   Yeah. You're switching. Okay.

4 So I'm -- repeat it, please.

5   Q   I'll reissue it.   In your

6 description of the IPG methodology, you

7 characterized it as a measure of "potential

8 relative viewership."

9   A   It sounds like my description,

10 yes.

11   Q   Okay.   Where is viewership, in

12 your view, in IPG's station and weight factor?

13   A   Well, it's in there -- it's

14 actually on the potential side. That's why I

15 said potential viewership. The viewership is

16 in the time period weight factor, and the time

17 period weight factor, again, is a -- sort of

18 a viewership index.

19   Multiply that by the population of

20 distant viewers, which is the station weight

21 factor; together, you get this potential

22 viewership measure.

1   Q   Where does viewership come into

2 the length of a program?

3   A   It comes in, in a sense, on a -- I

4 hope I was careful earlier -- on sort of a per

5 minute basis, if you will. So if you have a

6 certain number of viewers over a half hour,

7 and over the full -- sort of over a full hour,

8 you will have twice as many on sort of a one-

9 half hour basis.

10   Q   You referred to time period weight

11 factor. Where does actual viewership come

12 into the time period weight factor?

13   A   Well, it comes in insofar as he --

14 this time period weight factor is -- the way

15 it's described is a fraction of the sort of

16 average viewing that takes place over a 24-

17 hour period, average for the particular day

18 part divided by the total viewing over that

19 24-hour period. So it's a percentage of

20 viewing during that day part.

21   Q   All right. So you seem to be

22 attempting to characterize the decisions that

1   get made by the CSOs as being viewership-

2   based, correct? That's your paradigm.

3   A   Well, in terms of how relative

4   value can and should be measured, given the

5   homogeneity of programs at issue, yes.

6   Q   And you stated in your direct

7   testimony that the higher the viewership of a

8   program the more valuable it is to a CSO

9   because it leads to higher subscriber

10   retention and attraction. And you've talked

11   about that I think in your testimony.

12   I haven't -- I am not aware of you

13   citing any outside authority for that

14   proposition. Is there some?

15   A   Well, I would say, one, as I

16   described earlier -- my earlier experiences

17   with a couple of CSOs, I did cite a couple

18   program suppliers in my testimony, I think in

19   a footnote, saying how, from their

20   perspective, when negotiating licenses outside

21   this particular setting of compulsory

22   licenses, that body size matters.

1   And also, finally, the regression

2   analysis, C.2, looks at the relationship

3   between viewership and subscribers.

4   Q   You referred back to your

5   testimony about working with certain CSOs.

6   How many have you worked with?

7   A   Two.

8   Q   If I could have you take a look at

9   your rebuttal testimony. I don't know whether

10   it's -- it may be up there; I don't know.

11   A   Yes.

12   Q   Okay. Well, good. You include a

13   Table 1, I think, at page 7.

14   A   Yes.

15   Q   And you identify Nielsen viewing

16   households, correct?

17   A   Yes.

18   Q   And the purpose of that is to

19   demonstrate how IPG's time period weight

20   factor is invalid against "household

21   viewership," correct?

22   A   "Invalid" is a strong word for

1   this particular example. The purpose of the

2   example was just to show how -- give a couple

3   of illustrations of how a program that airs at

4   the same time on the same station might have

5   very different viewing.

6   Q   And the numbers there are 2,108,

7   765, 8,635, and 18,621, correct?

8   A   Correct. And, again, these are

9   anecdotes, but yes.

10   Q   And isn't it true that even

11 Nielsen itself acknowledges that when you get

12 under 10,000 households the relative error

13 rates begin to get high, correct?

14   MR. OLANIRAN: Objection. Your

15 Honor, asked and answered.

16   CHIEF JUDGE BARNETT: Sustained.

17   BY MR. BOYDSTON:

18   Q   Well, based on that, wouldn't that

19 suggest that these figures are invalid, that

20 the conclusion that you are trying to draw is

21 invalid to the extent that there is a very

22 high error rate when you get below that

1 threshold?

2   A   No.

3   Q   And why not?

4   A   Well, these are from essentially

5 sample observations, measured with relative

6 error but -- and these are sample observations

7 that ultimately you are going to be aggregated

8 up, as we do later, and they show or

9 demonstrate that the point estimates, whether

10 or not they are measured with relative error,

11 are very different.

12   Q   Well, would you change your

13 opinion, to the extent that the relative error

14 rate for those under 10,000 is as high as 63

15 percent?

16   A   I would not change my opinion if

17 the relative error rate was approaching 100

18 percent, which is what actually Mr. Lindstrom

19 testified to, in I believe it was the 1989

20 proceeding.

21   Q   Now, with regard back to the time

22 period weight factor, you pointed out the

1   error that was made in the IPG calculation.

2   And I believe we talked about this before, but

3   I am mixing up my experts at the moment.

4   You did identify, though, that IPG

5   had only included six day part times in

6   calculating its time period weight factor, not

7   48.

8   A   That's correct, yes.

9   Q   Yes. And that's right, we agreed

10   that a mistake like that ought to be

11   corrected. Now --

12   A   I would think most mistakes should

13   be corrected, though.

14   Q   With regard to the number of

15   stations studied, you've said that you think

16   that the number of stations that were in the

17   MPAA study was sufficient. But from a broader

18   standpoint, to the extent that things like

19   cost, time, other factors like that, were no

20   object, would it ever be better to have a

21   study based on only 81 stations versus three

22   times that, 240, 230? Considering that cost

1   and time and effort are not an issue.

2   A   Two things. One is that, bear in

3   mind that my analysis is based on

4   approximately 120 random stations per year.

5   The Kessler sample did have one year where it

6   was 81.

7   But to answer your question, and I

8   think I said this on the record, more data is

9   better if it's randomly chosen. I'd rather

10   have 120 randomly chosen stations than 2- or

11   300 non-randomly chosen stations.

12   Q   You criticized the IPG study

13   because it was not including Form 1 and 2

14   cable systems, correct?

15   A   I did note that, yes.

16   Q   Now, where does the information on

17   Form 1 -- the information on Form 1 and Form 2

18   cable systems, in terms of their distant

19   program -- or their distant retransmissions,

20   where does that come from, if you know?

21   A   From the Cable Data Corporation.

22   Q   And, in fact, it does not come

1   from the documents that are filled out and

2   turned in to the Copyright Office like Form 3

3   stations do, correct?

4   A   I believe that is right.

5   Q   They come -- those Form 1 and

6   Form 2 figures come from some sort of process

7   that the CDC does on itself, correct?

8   A   That's my understanding.

9   Q   Do you know any of the details of

10   that methodology?

11   A   I do not know.

12   JUDGE STRICKLER: Counsel, can I

13   ask a question?

14   MR. BOYDSTON: Yes.

15   JUDGE STRICKLER: Before we get

16   too far away from Table 1 in your rebuttal

17   testimony, Dr. Gray --

18   THE WITNESS: Yes.

19   JUDGE STRICKLER: -- on page 7,

20   you list the broadcast dates. Do you see the

21   second column? I'll wait until you get there.

22   THE WITNESS: Yes.

1   JUDGE STRICKLER: Would you know

2   -- you probably don't know off the top of your

3   head, but do you know whether those dates were

4   weekdays or weekend days?

5   THE WITNESS: The answer is they

6   are uniform. We did actually check, so I --

7   they are either both weekday or both weekend.

8   One or the other. But I don't know. Someone

9   with access to the internet can Google it.

10   JUDGE STRICKLER: But you thought

11   your pairings were consistent, so November 16,

12   2003, and April 26, 2003, were either both

13   weekdays or both weekends, and the same for

14   the other pairing.

15   THE WITNESS: Right. That's my --

16   yeah, that's my recollection. Yes.

17   JUDGE STRICKLER: Do you recall --

18   you've done a rebuttal criticizing and

19   commenting on IPG's methodology. Do you know

20   whether they distinguish within that   --

21   whether IPG distinguishes its methodology with

22   regard to broadcast time between times on

1   weekends and times during weekdays?

2   THE WITNESS: Well, that's -- it's

3   somewhat of a complicated answer. But the

4   answer is, not in the way they described it;

5   but, yes, in the way they did it. And so by

6   that what I mean is their description of doing

7   the time period weight factor on a half-hour

8   basis doesn't distinguish.

9   However, their six broad day parts

10   appear to have -- so there are just six values

11   as opposed to 48, but those six vary by

12   weekend and weekday. That makes sense.

13   JUDGE STRICKLER: And do they give

14   different weight factors for, say, 3:00 in the

15   afternoon on a Sunday versus 3:00 in the

16   afternoon on a Tuesday?

17   THE WITNESS: Well, they are very

18   broad. So it would be like -- it was like

19   several hours long --

20   JUDGE STRICKLER: How many hours?

21   THE WITNESS: Well, there are six

22   throughout the entire or six time period

1   weight factors throughout the entire week. I

2   think there might have been -- better if he

3   does it. Maybe I'll stop. I don't remember.

4   JUDGE STRICKLER: Okay. Thank

5   you.

6   BY MR. BOYDSTON:

7   Q   Isn't it true that Ms. Kessler's

8   station sample relied on Form 3 data and not

9   Form 1 and Form 2?

10   A   That's my understanding, yes.

11   Q   Now, with regard to your argument

12   or your observation or critique, if you will,

13   that   the   IPG   study   excluded   certain

14   compensable program titles, isn't it true that

15   both   the   MPAA   and   IPG   obtained   data   from

16   Tribune Media?

17   A   I don't know what IPG received or

18   obtained, other than what was given to them

19   from us, from MPAA, excuse me.

20   Q   Okay. In your review of the IPG

21   testimony, for what it's worth, did you see

22   reference there to inclusion of the Tribune

1 Media data in the methodology?

2   A   Yes.

3   Q   And   did   IPG   include   title

4 information with any variation from what you

5 saw in Appendix C to the Kessler testimony?

6   A   I'm not quite sure I understand

7 the question. What do you mean by, "Did they

8 include title variation?"

9   Q   Well, did IPG's -- when IPG was

10 calculating the value of the MPAA titles, was

11 there any variation that you noticed in those

12 titles with that that was in the MPAA data,

13 specifically, in Ms. Kessler's Appendix C?

14   A   I'm sorry. No, I honestly don't

15 answer -- understand the question. And it's

16 -- I don't know if it's me or you.   I

17 apologize.

18   Q   Okay. My understanding is that

19 you had a criticism, and I think I can

20 illustrate it like this, you'll recall in your

21 direct testimony your suggesting that there

22 was -- that IPG was flawed because they had

1   given credit for a program maybe called Fresh

2   Prince of Bel-Air but not The Fresh Prince of

3   Bel-Air.

4   A   Okay.

5   Q   Did you actually see derivations

6   like that between the actual list in Exhibit

7   C to the Kessler testimony versus the database

8   of MPAA programs that IPG was using?   You

9   would actually see that?

10   A   Yes, I actually saw the sort of

11   derivations -- I saw examples of The Fresh

12   Prince of Bel-Air and Fresh Prince of Bel-Air

13   in the IPG data. Is that what you're asking?

14   Yes.

15   Q   Okay. Has anyone ever told you

16   from the MPAA why it is that the MPAA simply

17   didn't provide those exact titles to IPG in

18   electronic format, so that such error could

19   never possibly occur?

20   A   I don't quite -- why would the

21   error occur, not occur -- oh, do you mean in

22   -- I don't quite understand the question

1   again.

2   Q   Did anyone at the MPAA ever

3   explain to you why they refused to provide IPG

4   with an electronic version of all of those

5   titles to guarantee that they would be

6   accurate when IPG used them?

7   A   I didn't have any conversations

8   with MPAA regarding this.

9   Q   With regard to the inclusion of or

10   non-inclusion -- with regard to -- I should

11   just say regarding Canadian television station

12   broadcasts -- actually, you have already

13   testified about that.

14   You did state that you saw that

15   Canadian broadcasts were more prevalent in

16   IPG's programs than in the MPAA's. Do you

17   recall the percentage?

18   A   What I stated was -- I want to

19   make sure I get this right -- is the non-

20   compensable programming that IPG attributes to

21   their relative value measure is greater for

22   IPG programming than it is for MPAA

1   programming.

2   Q   Now, with regard to you said you

3   got a critique about inclusion of claims

4   dismissed by the Judges, is it not the case

5   that IPG's revised numbers have excluded the

6   program broadcast dismissed by the Judges

7   pursuant to their March 21, 2013, order?

8   A   I haven't been able to replicate

9   their resubmitted numbers yet.   So I don't

10   know if they --

11   Q   Okay.

12   A   -- excluded them.

13   Q   You have asserted that Raul Galaz

14   -- implicitly was your word -- implicitly

15   stated   that   there   was   little   or   no

16   relationship between the relative number of

17   subscribers and fees generated by a station.

18   Do you know where exactly he stated that?

19   Because we don't.

20   A   Oh.   I would have to see his -- I

21   don't -- do you have his direct testimony in

22   front of you?

1   Q   It's there in front of you. I

2   don't think -- it's 4:30 -- we're probably

3   going to look at it. But off the top of your

4   head right now, are you certain that you

5   actually read him -- you've said he said so

6   implicitly. Do you remember where in his

7   analysis you got that? And, if you don't,

8   that's good.

9   A   I think so.

10   Q   It's the end of the day.

11   A   Well, maybe if you could tell me

12 where in my testimony I said it, because I

13 would hope I would footnote it.

14   Q   I believe you said it on page 17.

15   A   Thank you. I don't see it on

16 page 17. Hold on.

17   CHIEF JUDGE BARNETT: How much

18 more do you have, Mr. Boydston?

19   MR. BOYDSTON: One more question.

20   CHIEF JUDGE BARNETT: Okay.

21   THE WITNESS: Well, let me find

22 that, because it's certainly my recollection

1   that he tried to suggest that they were very

2   different. And I thought I had a quote in

3   here as well.

4   BY MR. BOYDSTON:

5   Q   Well, you know, I think we,

6   unfortunately, are coming back tomorrow for --

7   probably for redirect, so I don't mind letting

8   you figure it out overnight if you'd like

9   that.

10   MR.   OLANIRAN: Your Honor, I

11   actually have the page --

12   THE WITNESS: Oh, thank you.

13   MR. OLANIRAN: -- that is being

14   referenced.   It's page 18 of Dr. Gray's

15   testimony I think is what Mr. Boydston is

16   referring to.

17   CHIEF JUDGE BARNETT: Okay.

18   THE WITNESS: Is this the direct

19   testimony or the amended?

20   MR. OLANIRAN: Rebuttal.

21   THE WITNESS: What are we looking

22   at now?

BY MR. BOYDSTON:

Q   Why don't we just put this over until tomorrow?

A   No. I'll get it, but that's -- and maybe that's why I can't find it. So it's page 18 on the rebuttal. Thank you.

Q   Okay.

A   In case there is not a tomorrow. You never know, counselor.

(Laughter.)

So I have a quote from the Galaz testimony. Oh. Is it "On a station-by-station basis, due to the vast discrepancy between the number of cable retransmission subscribers and the amount of fees generated by each of the cable stations upon which transmitted broadcasts appeared," to me when he talks about the vast discrepancy between the two, he is implicitly saying that there is a big difference.

Q   Well, isn't it accurate that some stations have high subscriber rankings and low

1   fee generation ranking, and vice versa?

2   A   Well, there's a mathematical

3   correlation of .998 between the two. So --

4   Q   But on an individual basis, isn't

5   it true that there are some stations that

6   happen to have a particular disparity between

7   fees generated and number of subscribers? Not

8   in the aggregate, but I'm saying on a station-

9   by-station basis.

10   A   But the point of this is to say he

11   has two station weight factors. And I don't

12   want my testimony to get too long. All my

13   comments that relate to --

14   Q   Okay. Well, let me just cut it

15   short, because I understand -- and you have

16   given your methodology and you have given your

17   explanation, and that's fair. What I'm asking

18   now is a very discrete question.

19   Is it not true that there are some

20   stations that, peculiarly enough, may have fee

21   generation at a high level but subscribership

22   at a low level, and vice versa? Does that or

1   does that not occur? Not what does it mean,

2   what did -- just isn't that the truth?

3   A   But that has nothing to do with

4   what I'm saying here, though.

5   Q   I guess the answer is --

6   A   Well, yeah, there's differences,

7   but my point is that --

8   Q   There are differences. There are

9   circumstances like that, correct?

10   A   -- it's redundant. That's why I

11   say the two metrics are redundant. So there

12   is no need for me to talk about both in

13   detail. There really --

14   Q   Well, actually, there is a need

15   because I'm allowed to ask you questions, and

16   I'm allowed to get answers.

17   CHIEF JUDGE BARNETT: All right.

18   It's the end of the day. Let me ask, is there

19   going to be cross-examination from the

20   devotionals?

21   MR. MacLEAN: No, Your Honor.

22   CHIEF JUDGE BARNETT: And how much

1   redirect are you going to have, Mr. Olaniran?

2   MR. OLANIRAN: Probably about 15

3   minutes worth, if that.

4   CHIEF JUDGE BARNETT: Fifteen?

5   One five?

6   MR. OLANIRAN: One five, yes.

7   CHIEF JUDGE BARNETT: Okay. We

8   are going to be at recess, then, until 9:00 in

9   the morning.

10   Thank you.

11   (Whereupon, at 4:35 p.m., the

12 proceedings in the foregoing matter were

13 adjourned, to reconvene at 9:00 a.m., the

14 following day.)

15

16

17

18

19

20

21

22

A

abbreviated 512:21 670:6
abbreviation 650:21
ABC 489:15
ability 377:14 443:9 571:11
able 394:20 408:16 422:8 429:6 462:20 470:9 549:15 585:10,12 606:7 615:19 622:11 698:8
above-entitled 364:15
above-referred 394:2 441:13 625:8 626:6 645:4 646:17
absolute 432:12 661:20
absolutely 382:22 498:21 528:19 591:20 633:1 639:21 665:17 666:20
abstract 549:14 558:3
academic 664:5
accents 483:11,16
accept 413:20
acceptable 389:2 596:5,10
accepted 381:2 461:7
access 652:11 692:9
accord 589:6
accorded 588:18
accords 409:22 410:18 411:13 412:13
account 383:7 423:16 457:9 478:9 550:20
accounting 420:9

accumulate 388:19 550:7
accumulated 392:6
accumulating 388:20
accurate 386:3 392:7,8 394:18 410:13 424:22 498:11 534:22 559:1 588:16,17 588:21 624:15 697:6 701:21
accurately 489:7
acknowledge 608:16
acknowledged 396:8 541:4
acknowledges 518:2 687:11
acknowledging 602:18 604:17
Act 444:14
activity 670:19
actors 450:4,5
actual 369:15 436:15 444:22 478:5 480:7 589:11 599:11 612:13 626:16 684:11 696:6
add 399:13 410:11 410:15 420:2 467:17,19 479:17 509:13 510:21 631:15,15,17,18 679:1
added 505:21 509:22 510:4,5
added-up 679:2
adding 379:1 390:21 391:7 392:10 552:16 630:8
addition 379:5 381:9 423:13 468:22 484:8 665:4 666:9 680:3

680:5
additional 370:5 378:21 379:7,10 379:12 381:6 383:5 384:11 423:14 448:11 466:10 472:1 479:14 490:11 552:15 587:9
additions 442:4
address 595:21 603:5
adjourned 704:13
adjusted 515:17
adjustment 405:4
adjustments 628:6
administrative 435:3
admission 443:10 443:11
admit 395:22
admitted 394:8,9 396:11 397:6,8 443:16 599:18,20 646:12,16,20
adults 545:18
advantage 462:13
adverb 529:6
advertising 372:2 573:4,5,11,12,14 575:13,17,17,21 576:3,8,10
advised 668:18 669:2
Advisors 436:4
Advisory 434:16
aff 656:2
affect 408:18 436:11 515:22 660:19
affiliate 450:2 656:6
affiliation 466:19 639:3 646:5
affixed 404:3 408:5
afraid 525:10
afternoon 417:19

479:2 521:19 608:19 615:3 693:15,16
age 494:7 574:8
agencies 435:10 554:22
aggravated 410:11 411:19
aggregate 371:15 376:12,14 377:22 378:12 383:16 384:10 385:13 387:8,12 388:17 388:18 389:3 394:14 395:3,6,6 417:12 462:21 519:19 546:4 595:8 600:9 607:7 607:19,21 613:13 613:21 615:16 702:8
aggregated 413:17 414:1 688:7
aggregates 381:16 383:4 528:11
aggregating 412:2
aggregation 391:5 412:6 415:4
aggressive 586:21
ago 389:5 426:13 463:13,19 494:17 521:4 524:21 525:1,5 576:21 596:19 637:18 658:3
agree 379:6 455:8 520:8 526:10 527:4,15 546:3 555:22 556:14 568:19 578:15 666:7
agreed 540:20 689:9
agreements 543:8
ahead 413:2 491:19 540:12 583:17 675:20

aimed 378:17 494:7
air 477:22
aired 473:3,7,13 479:1 480:16 484:11 486:13
airing 481:9 482:5 482:11 486:21
airings 391:1
airs 557:6 687:3
albeit 446:15 477:4
alleged 436:15
allocated 677:21
allocating 445:7 678:4
allocation 437:5 440:16 444:3 466:3 467:12,22 470:15 475:2,19 491:1,15 566:8 605:22
allocations 441:1 469:12
allow 404:22 540:11 571:6
allowed 400:9 703:15,16
alluded 552:6
ameliorating 583:12
amended 441:17 442:6 512:14 521:1,5 700:19
America 366:5 433:14
amount 412:9 415:10 463:1 484:7 529:5 592:6 594:13 701:15
amounts 436:14
analogy 546:20 606:14 632:6
analyses 471:6 472:1,15 497:9 512:3 573:22
analysis 367:15 379:21 381:20

390:16 391:3
394:11 402:6,13
403:12,13,14,17
403:19 404:4,6,12
404:18,19,21
405:14 406:12,15
406:19 409:5
437:8 444:22
447:15,18 450:8
450:14 453:8,8
458:15,18 460:6,9
460:12,13,15,16
461:9,10,11
462:11,14,19
463:5,16 466:2,6
466:12 468:5
470:9,11 472:21
483:19 488:13,17
488:21 489:2,18
489:20 490:7,19
496:20 500:7
504:14,16 505:7,8
511:19 512:7
519:18 520:10,15
532:10 547:20
549:2,3 550:22
553:12,18,21
558:15,19 586:10
591:13 592:2,5,8
592:21 594:6,7
598:15 609:9,22
610:14 614:11
616:6,9,15,19,21
622:2 623:8
627:21 628:12
629:3,7,10,12
630:13,21 641:22
645:20 673:1,5
675:7 682:2 686:2
690:3 699:7
analytical 468:9
analyze 387:7
593:4
analyzed 589:1
analyzing 436:13
619:12
Andromeda 486:8

and/or 439:13
469:4 478:10
482:6 494:14
533:1 562:12
625:2
anecdotes 687:9
Angeles 365:21
576:8,9
angle 540:17
answer 372:11
382:16 399:14
403:3 408:16
412:22 413:11
425:16 427:16
429:3 457:13
492:11 507:22
508:9 511:7
529:17 553:9,9
562:20 571:8,16
571:17 574:3
575:16 584:17,19
588:4 592:22
593:21 600:17
608:5 617:5
624:22 626:3
632:9 635:6
640:16 643:9
664:14,21 667:3,3
669:15 673:18
679:18,20 690:7
692:5 693:3,4
695:15 703:5
answered 381:2
396:4 415:12
511:14 581:9
595:1 653:4 675:4
677:12,17 687:15
answering 384:3
545:7
answers 383:2
395:2 396:5
587:21 617:4
703:16
ante 557:4
anticipating 645:8
anymore 561:14
anyway 392:20

533:22 650:17
663:8
apologies 459:11
601:21 621:6
apologize 468:20
524:16 583:1
587:19 589:15
592:18 595:5
608:6 613:8 617:1
618:14 621:11
638:6 647:2
670:15 695:17
apparently 557:7
650:15 656:17
appear 378:5 535:3
693:10
APPEARANCES
365:1
appeared 370:16
370:19 396:8
489:9 701:17
appearing 624:17
appears 378:7
483:14 525:5
527:5,7,9,20
534:6 554:9 620:7
651:12 654:7
appendices 442:2
appendix 512:14
512:19,20 553:19
574:22 620:19
621:13 638:22
640:13 643:17
669:18 695:5,13
applicable 569:8
application 399:7
437:12 475:11
481:17,18 519:22
520:2
applied 438:13
566:4
applies 526:5
561:15 582:10
apply 555:17,20
applying 652:19
appreciable 428:8
428:10

appreciably 427:4
appreciate 397:13
459:21 499:9
502:9 510:1
512:16 548:21
569:21 592:3
approach 441:5
458:10,17 460:8
460:12 468:9
484:22 517:6
526:10 527:16
567:10 569:13
approaching
457:14 688:17
appropriate 438:19
446:3 461:10
481:16 520:9
Approval 534:4
approximate
642:15,17
approximately
372:3 387:17
437:17 449:3
465:1 479:14
498:2 499:15
508:17 530:11
531:17,18 566:2
566:18 578:5
602:7 690:4
approximation
642:6,8
April 692:12
architect 588:1
area 438:12
areas 438:10
arguably 487:8
argue 517:6
arguing 666:2
argument 538:21
554:17 694:11
arm 587:11
ARNOLD 365:9
arrive 508:21
630:5
arrived 463:14
509:20
art 577:2

articulate 673:10
ASCAP 559:8
ascertains 526:3
aside 595:13
641:17
asked 380:10,17
382:11 413:12
415:11 425:12
431:2 438:18
440:13,15,21
453:7 460:7 469:6
511:14 540:17
587:22 593:16
595:1 600:3 616:7
616:14 628:14
653:4 664:19
669:11,12 670:11
675:4,14 677:12
677:17 679:15,19
687:15
asking 409:19
415:22 416:2
426:17 508:8
511:8 534:3 537:1
539:4,6,6 545:13
567:20 594:19
597:19 603:16,16
635:4,5 662:3
664:4 667:16
672:13 696:13
702:17
aspect 382:8
408:11 573:5
aspects 405:5 523:1
526:9 665:5
asserted 620:16
698:13
assertion 485:10
asserts 485:15
assess 439:5
asset 445:17
assets 445:22
assigned 609:12
assigning 541:17
assist 627:17
assistance 540:17
assistant 438:2

associated 402:11
  436:13 439:17
  440:22 452:20
  468:11 494:15
  497:15 517:19
  572:4
Association 366:5
  433:14
assume 372:15
  376:7 417:12
  649:3 678:17
assumed 654:8
assumption 514:20
  549:18
attaches 508:4
attempt 396:21
attempted 641:21
attempting 684:22
attention 621:8
attorney 368:21
attract 574:12
attracted 537:8
attracting 456:13
attraction 537:14
  685:10
attributable 440:17
  589:13
attributes 697:20
audience 372:7,10
  388:11 406:12
  407:19 457:21
August 441:17
  658:4
authenticate 396:3
  533:19
authority 685:13
available 421:6
  447:8 454:21
Avenue 364:14
  365:20
average 430:6
  432:6 465:4
  476:16,17 477:9
  531:3 610:19
  661:5,14,22
  684:16,17
averaging 661:18

avoid 399:5 409:21
  430:16
aware 408:12,15
  490:2 518:1,6
  542:18,22 589:9
  597:22 604:1
  681:6 685:12
a.m 364:16 368:2
  418:2,2,8,17,20
  418:21 459:7,8
  486:15,17 643:5
  704:13

B

B 510:10
back 368:3 377:21
  400:12 412:4
  415:9 424:6
  425:20 447:20
  459:8 461:8
  465:21 484:5
  487:18 488:10
  489:19 490:6,10
  490:18 493:1
  525:21 555:5
  557:17 583:14
  584:8 585:21
  587:11 603:4
  608:22 609:22
  611:1,20 612:16
  614:19 617:3
  628:8 630:2,16
  634:9 654:21
  655:11 658:2,14
  660:4 686:4
  688:21 700:6
background 434:9
  667:19
balance 576:18
ball 478:21 560:7
ballpark 579:5
bandying 581:13
bar 473:4,5,8
BARNETT 364:19
  368:3,11 381:1
  395:19 397:3,7,11
  397:17 398:8,17

400:4,8 404:22
  411:7 412:18,21
  413:3 417:2 419:6
  421:13,16 422:12
  423:6,10 425:3,8
  431:10,14 433:3,7
  433:19 440:10
  441:7 443:15
  458:19 459:4,9,18
  487:19 488:8
  492:4,6 493:13
  511:15 521:14
  522:1,18 538:2
  539:9 540:11
  557:16 568:1,4
  594:22 608:18
  609:2 625:7
  646:15 653:5
  668:9 675:9,19
  687:16 699:17,20
  700:17 703:17,22
  704:4,7
Barnett's 424:7
base 386:20 387:6
  394:19 562:14,16
based 369:17
  385:10 389:8
  394:11 399:21
  400:14 401:10
  418:6 429:16
  450:10 451:5
  462:17,22 463:4
  464:7,16,17 467:3
  475:16 483:3
  486:1 491:6
  501:18,21 502:19
  503:8,19 504:1
  509:6 510:15
  532:14 535:10
  537:2 549:3 558:6
  560:4,8 561:3
  562:9 565:4
  574:16,20 576:19
  577:8 587:11
  598:15 602:11
  605:15 612:2
  616:2 626:11

651:20 659:10
  685:2 687:18
  689:21 690:3
basic 439:14
  543:16 544:7
  555:5
basically 502:12
  545:10 567:3
  612:16
basis 396:2 404:2
  406:16 407:19
  411:9 449:9
  463:10 464:22
  467:11 477:10
  478:4 485:19
  492:8 505:13
  506:20 515:4
  528:2 532:3,4,6
  538:9 560:19,20
  598:9 609:17
  612:9 614:19
  629:15 630:21
  677:14 679:14
  684:5,9 693:8
  701:13 702:4,9
BBC 490:12
bear 624:5 690:2
bears 551:10
  553:13
beg 407:21 523:17
  624:4 671:2
began 429:10
beginning 422:4,5
  649:1 654:22
begins 525:18
begun 645:16
behalf 365:2,14
  366:4 370:19
  415:16 416:4,11
  439:2 543:14
belatedly 395:22
belief 401:20
believe 386:1
  394:15,17 400:15
  401:4,11 409:10
  474:22 512:7,15
  514:11 516:3,14

516:21 519:8
  523:16 524:19
  525:4 533:16
  536:5 545:7 571:9
  588:2 618:15
  619:18 620:15
  621:22 623:9
  625:5,14 672:11
  673:5 688:19
  689:2 691:4
  699:14
bell 591:3
Bel-Air 483:5,8
  696:2,3,12,12
bench 425:4 480:14
benchmark 472:12
  513:4
beneath 650:20
  651:10
beneficiaries
  444:16
best 408:9 412:6
  443:9 446:21
  502:4 542:11
  551:20
better 392:10,10
  425:16,17 471:16
  471:18 498:17
  501:11 528:22
  529:4,5,8,10,11
  546:5 548:7
  576:18 589:14
  673:10,10 689:20
  690:9 694:2
Bewitched 551:20
  552:5,7,16
beyond 379:11
  620:2
big 392:17 422:9
  428:13 447:22
  500:10 553:13
  582:19 583:2
  592:1 621:19
  630:7 635:1 653:1
  701:20
bigger 612:16
  613:16,20 621:4

562:12
cannibalize 575:20
capture 482:15
captures 584:1
capturing 661:8
care 456:20 457:1
    457:10 472:13
career 438:17
careful 570:1 684:4
caret 655:6
CARP 371:11
    416:3 439:20
    541:14
carried 480:18
    656:18 668:13
carry 442:14
    575:22
Carson 588:2
Carston 588:11
carte 547:14
    555:12
cartoon 494:4,6,20
    495:6 496:4,13
    545:19 546:2
cartoons 478:20
    494:16 495:5,9
case 382:17 386:2
    398:4,6 404:5,6
    409:21 422:13
    429:21 461:15
    476:8 496:14
    499:5 515:13,17
    517:11 530:5
    533:10,16 537:19
    541:2 552:10
    554:10 556:15
    567:2 568:7
    581:18 619:6,21
    628:16 652:14
    698:4 701:8
cases 383:13
    494:21 543:15
    615:17
catching 621:7
categories 444:5
    456:19 515:10,12
category 440:18

455:16,21 490:6
496:8,17 535:14
542:10 605:5,6
606:13 651:4
cause 389:21 421:9
caused 499:12
causing 415:6
    422:2
CBET 534:18
CBS 489:15
CBUT 534:8
CD 364:8
CDC 448:2,2,9,10
    448:20 455:10
    464:18 637:12
    676:12,21 691:7
cell 402:9
cells 402:19 421:8
    612:1
census 369:22
certain 380:16
    408:17 439:6
    461:2 462:2 469:3
    475:20,21,21
    476:18 491:9,12
    496:6 515:14
    517:15 547:5
    548:3 604:20
    615:1 619:11
    684:6 686:5
    694:13 699:4
certainly 373:18
    389:11 404:19
    412:1 416:8
    426:11,15 472:4
    492:20 494:16
    495:8 496:3,15
    503:10 507:2
    518:19 526:9
    534:5 543:5
    544:10 575:3,7
    581:6 592:11
    594:3 622:9
    644:21 673:22
    699:22
cetera 469:14
    505:1 647:15

650:22 654:19
671:8
chance 581:5
    585:12 628:7
change 417:11,14
    424:2 428:8,11
    442:12 469:13
    470:14 475:18,19
    490:9,20 515:21
    520:17 529:13
    578:17 580:12
    588:4 660:10,11
    660:19 663:17
    665:15 688:12,16
changed 403:11
    404:17 421:22
    439:16 490:21
    528:15 543:19
changes 403:7
    417:20 442:14
    445:17 491:6
changing 458:20
    469:3,4
channel 432:21
    543:16,17 544:7
channels 421:5,5
    428:7,12,13
    429:21 430:2,7
    439:14,15,18
characterize
    430:13 497:11
    682:19 684:22
characterized
    683:7
charged 444:20
charges 586:1
chart 473:2 474:1
    474:13 545:9
charts 516:2
    560:10
cheap 633:22
cheating 459:13
check 447:5 454:9
    468:12 497:14
    516:16 558:10,10
    570:2 571:10
    579:15 628:8

692:6
checked 500:2
checking 678:16
checks 489:5
Chicago 607:4
Chief 364:20 368:3
    368:11 381:1
    395:19 397:3,7,11
    397:17 398:8,17
    400:4,8 404:22
    411:7 412:18,21
    413:3 417:2 419:6
    421:13,16 422:12
    423:6,10 425:3,8
    431:10,14 433:3,7
    433:19 440:10
    441:7 443:15
    458:19 459:4,9,18
    487:19 488:8
    492:4,6 493:13
    511:15 521:14
    522:1,18 538:2
    539:9 540:11
    557:16 568:1,4
    594:22 608:18
    609:2 625:7
    646:15 653:5
    668:9 675:9,19
    687:16 699:17,20
    700:17 703:17,22
    704:4,7
children's 494:4,5
    495:21 545:17,20
    545:22
choice 546:17
choices 608:13
choose 471:10,10
    471:12 547:4
    548:1 576:22
chooses 547:12
choosing 547:8,16
    557:21
chose 502:19 567:9
    592:15 593:7
chosen 502:12
    530:20 569:3,6
    581:3,4,7 583:3,5

583:6 585:1
592:15 595:22
637:1 690:9,10,11
circular 457:12
circumstances
    567:4 703:9
citation 599:14
cite 596:22 597:5
    685:17
cities 606:21
    607:11,14
citing 685:13
city 607:4 608:1,4
CKSH 534:17
claim 620:16
claimant 416:22
claimants 365:3
    415:17 416:5,15
    440:19,20 442:16
    444:6 445:8,9
    467:13,14 470:16
    475:20,22 490:8
    491:10,12 496:9
claimed 473:21
    474:3 516:9
claiming 536:16
claims 490:3
    513:10 621:2
    698:3
clarification 493:3
clarified 381:8
clarify 395:1 565:1
    616:5
clarity 632:2
classes 462:9
clear 369:13
    380:21 389:9
    398:9 419:13
    429:21 465:22
    506:16 508:6
    519:7 535:1 634:3
    638:4 658:17
    669:16
clearer 638:6
clearly 508:20
    667:18
client 368:8 435:7

clients 577:1
Cliff 524:14
CLIFFORD 365:4
clock 521:13
close 378:3 636:10
  636:14 658:17
  680:16
closed 583:21
  584:13,17 585:14
closely 543:7
code 489:14 507:7
  622:9 633:9
  647:13 651:18
  652:17 653:16
  673:12
coded 622:18
codes 507:18
coefficient 564:13
  564:15 641:10
  644:17 656:13
  659:19 663:3
coefficients 643:18
  660:9 667:6,20
coffee 561:18
cognizant 572:4
coincide 563:14
colinearity 656:3,4
collected 373:15
collection 437:8
collectivize 426:3
collects 373:11
College 490:5
colloquy 669:4
colon 655:20 656:2
color-blind 473:5
column 376:10
  380:3 395:2 479:7
  479:11 487:3
  491:18 518:13
  525:17 599:15
  626:2 691:21
columns 546:11
combine 455:10
  466:14 509:6
  630:18 631:10,20
  635:9,13,21
  657:14

combined 392:12
  450:14 464:14,21
  466:10 630:20
  631:10 635:10
  647:8,9
combining 447:22
come 381:7,14
  384:5,16 396:9,13
  400:21 402:12
  423:21 426:9
  452:1,2,3 458:1
  488:10 509:1
  510:2 517:8 530:3
  539:22 540:16
  578:21 610:20
  612:15 630:13
  647:4 655:20
  679:11 684:1,11
  690:20,22 691:5,6
comedies 456:1
comes 647:7 684:3
  684:13
comfort 470:4
comfortable 503:6
  615:15 636:8
coming 379:10,14
  384:6 411:22
  414:21 513:11
  514:9 578:20
  645:16 700:6
comma 620:7
command 652:3
  655:3,4,7 657:8
comment 372:16
commenting 408:9
  692:19
comments 545:5
  702:13
commercial 591:11
Committee 490:4
common 465:2
  497:13
commonly 461:5,6
  560:19 561:2
companies 435:9
  439:7
company 560:16

comparable 526:18
comparatively
  387:11
compare 420:12
  497:8 504:10
compared 418:3
  445:22 474:6
  502:15
comparing 538:13
comparison 405:18
  513:2,12 515:15
  516:6 517:3
  530:19 538:14
  661:13
comparisons
  405:15 470:18
  497:17
compensable 402:5
  405:8 408:13
  444:18 450:9
  474:2 483:1,6,8
  484:5,9,11,14
  489:12 514:16
  515:14 532:17,21
  533:1,6 535:10
  590:16,18 600:13
  600:14 604:19
  605:4,18,22 606:1
  606:9,13 624:2
  672:12 694:14
  697:20
compensation
  412:13 435:4
  561:3
competing 423:15
  548:4
competition 423:20
competitively
  432:14
complete 544:18
completed 368:8
  404:4
completely 376:7
  400:3 481:10
  538:19,19 561:16
completing 468:4
complex 610:8

complicated
  413:15 548:12,20
  552:21 651:16
  675:16 693:3
component 399:11
  422:9
components 414:19
comprise 568:10
  589:19
comprising 567:14
compromised
  498:16
compulsion 445:19
compulsory 444:12
  555:21 556:3
  557:3 559:18,22
  562:1 685:21
computations
  648:3
computer 486:16
  507:6 554:5
  622:19 635:19
  647:17 651:17
  652:10,12 655:9
  656:12 658:1,8
  673:11 678:18
  679:1 680:18
computing 492:8
conceded 580:16
conceivably 622:4
concentrating
  480:3
concept 493:22
  537:19 545:4
conceptual 479:18
  481:4,12
conceptually
  475:10 477:16
concern 442:16
  453:19 500:10,12
  500:16 517:17
  518:20 519:4,14
  540:2 544:3 571:3
  572:6,9 573:15
concerned 543:22
  608:7
concerning 439:15

  448:3 453:5
  461:19,21 464:19
  543:16
concerns 452:20
  453:1,2 475:2
  571:3
conclude 489:21
concluded 489:22
  615:22
conclusion 378:11
  378:16,20 390:1
  475:5 501:3
  590:13 616:1
  687:20
conclusions 436:15
  445:5 475:9 482:9
  486:7 504:4,6
  516:1 518:11
  530:6 602:10
  607:20 681:13
conducted 504:9
conducting 668:21
  668:21
confidence 492:13
  577:6,21 580:11
confident 470:7
confines 563:11
confirm 369:11
  377:13 567:21
confirmation
  407:16
confirmed 489:15
  535:20
confuse 413:4
  657:15
confused 509:3
  565:1 677:3
confusing 571:4
confusion 601:16
Congress 364:2,13
connected 399:6
connection 369:1
  563:16
consider 480:1
  494:4 526:1 529:1
  542:20 543:1
considerable 379:1

569:2 575:3 578:2
578:10,12 607:18
614:2
critically 456:7
criticism 582:20
583:2 695:19
criticized 582:13
582:15 690:12
criticizing 692:18
critique 578:4
694:12 698:3
cross 367:2 368:16
381:3 416:8 417:6
522:2
cross-examination
493:17 703:19
cross-examined
587:5
CRT 416:4 439:20
541:13
crude 642:5,7,13
642:17
Cruz 434:13
CSO 447:1 457:19
501:19 541:5
547:22 549:14
551:5,5 552:21
554:13 557:22
558:5 685:8
CSOs 439:12 447:7
448:3 451:11,12
451:16 453:21
471:8,14 472:13
482:2,2,3,4,5,6,14
482:15,19,20,21
500:3,6,8 543:6
543:15,21 547:16
547:19 558:6
573:15 575:16
685:1,17 686:5
CSO's 446:18
456:12 539:22
cult 486:12
cumbersome 414:2
cup 561:17
curious 431:3
current 580:1

currently 372:1,9
374:7 434:17
custom 403:13,14
403:17
customers 456:13
cut 429:21 562:5
593:14 702:14
cuts 651:11
cycles 527:10
C-O-N-S 668:1
C.1 553:19 558:16
639:8 663:4
C.2 574:22 686:2

D

D 365:17
daily 476:16
dark 587:19
darn 636:9
dash 654:17
dashed 651:10
657:6
data 367:11 369:1
369:15 371:12
373:11,12,15
375:6,19,19,22
376:1 378:9,17,18
379:10,19,20
380:4,5,6,13,20
381:22 383:15
384:4 385:13
386:4,15 387:7
389:7 390:2 391:2
394:12 396:10,14
396:17,17 399:1,2
399:6,11,17,21
405:9 406:1,5,8
407:17,22 408:4
409:2,12 410:21
410:22 413:13
417:9 424:8
436:13,14 437:9
437:13 442:9,10
442:11,18 443:2
447:8,20,22 448:1
448:1,1,2,2,8,9,10
448:12,15,21

449:6,7,11,13,14
449:15 450:5,8,13
451:22 452:1,2,3
452:6,7,12 454:21
455:1,10 461:22
462:6,17,21 463:1
463:3,13,15,17
464:14,16,17,18
464:21 466:10,11
466:13,14 483:3
485:20 486:18
488:12,15,20
489:5,10 509:7
510:14 511:3
517:14 521:2
528:21,22 530:12
558:18 563:3,4
566:13 570:14
571:7 572:20
573:1,2 574:6
577:4 584:8 585:7
585:11,22 587:9
587:14 591:6,15
591:18,22 592:13
593:6 600:9,13
601:12 604:14
605:14,15,16
609:19 610:11
611:15 612:4,6,13
613:9,14,16,19
616:20 617:6,15
617:20,21 618:13
618:16,22 619:3
619:12,13,19,20
620:9,10 622:2
624:13,16 625:2
625:17 626:16,18
628:7,9 630:18,19
630:22 631:4,5,6
632:4,5,5 633:7,7
633:7,13,14,16,20
635:8,8,10 636:1
636:6,18 637:2,9
637:13 647:8
650:7,8 651:5
653:16,22 674:2,7
674:20 676:5,12

676:21 681:2,12
690:8,21 694:8,15
695:1,12 696:13
database 612:16
657:21 696:7
databases 509:5
566:15 618:10
620:12 670:11
672:15
date 419:16 450:10
450:12 510:16
633:10 681:3
dates 461:7 564:9
691:20 692:3
DAVID 364:22
dawn 426:19
day 377:4,17 392:3
395:11 417:10,21
418:3 448:18
449:10 463:11
466:18 467:9
476:18 477:2
479:5 485:18
486:2 504:22
526:5,18 551:6
561:18 566:20
639:1,11,19 641:1
641:19 642:20
643:12 646:3,4
648:18 657:19
662:1 663:21
665:22 666:5,9,12
669:8 670:3
684:17,20 689:5
693:9 699:10
703:18 704:14
days 373:16 377:4
377:17 388:18
391:22 392:1,6
419:22 448:19
449:10 463:10
467:9 468:1 478:1
478:22 566:19
634:1 692:4
DC 364:14 365:7
365:11 366:14
deal 559:21 561:1

562:5 617:10
dealing 393:6,8
446:12 563:19
570:16 680:21
dealt 452:20
debated 569:19
debating 576:17
decade 426:2
decades 370:17
deceased 588:12
decide 388:10
576:15 583:21
604:5
decided 492:19
decile 572:7
decimal 490:20,22
492:9,16,18,21
decision 371:10
490:3 491:8
523:20,22 524:2
539:17,21,21,22
540:4,9 541:3,4
543:2 573:20
580:15 594:8,9,18
595:7,12 596:2,18
596:21 599:18
decisions 445:1
525:5 537:17
541:13,15,20
684:22
declare 443:7
decline 389:18
declined 420:18,19
543:21
declines 423:1
declining 421:10
decrease 375:4
458:7 483:22
488:3,4,5,7
543:22 544:2
595:18
decreased 428:21
598:14 661:11
decreases 519:11
decreasing 544:8
default 667:21
defer 562:22 654:4

define 414:8
436:18 649:12
definitely 521:15
554:18 593:22
598:3
definition 426:11
445:12 478:3
516:18 555:20
definitions 515:9
515:11
definitively 427:16
degree 379:1
389:18 423:20
424:19 429:6
434:12 556:21
560:21
degrees 422:21
delayed 424:9
Deloitte 434:15,18
435:13,15,17,19
demand 446:20
537:11,13
demarcation
496:15
demographic
572:21 573:9
demographics
573:4 574:9
demonstrate
686:19 688:9
demonstrated
542:9
DENISE 366:21
dependent 460:22
501:5 660:11
depending 385:15
401:9 402:3
413:16 468:15
503:20 562:16
665:14
depends 495:11
634:17 636:21
derivations 696:5
696:11
derived 373:9
describe 436:5
447:17 456:3

463:13 476:2
522:15 543:9
633:9
described 466:11
488:22 509:10
510:15 528:1,10
598:5 616:17,21
619:7 630:8 636:2
638:9 642:2
647:20 648:13
651:22 675:5,17
675:18 684:15
685:16 693:4
describing 645:21
description 367:8
454:3 489:1 511:4
521:3 611:1
635:17 637:22
677:3 682:18
683:6,9 693:6
design 479:20
designated 489:13
designations
534:11
designed 388:5
448:12,21,22
588:5
desk 523:18
despite 481:1
502:14 681:1
detail 478:13 558:7
623:10 628:19,20
630:11,12 672:2,3
703:13
details 371:4,18
406:19 407:8
408:16 691:9
detect 431:5
detected 609:10,11
determination
535:15 630:15
determinations
491:8
determine 381:20
405:16 444:3
446:15,16 575:4
591:14 592:9

605:7,9,13 610:15
667:11
determined 436:9
502:13
determines 525:18
526:7
determining
550:21 561:7
574:19
devaluation 542:6
develop 527:18
565:10
developed 496:20
devised 522:10
devotional 365:2
415:17 416:5
456:17
devotionals 416:9
703:20
diaries 372:20,22
373:10,10,22
374:21 563:4
564:7
diary 369:1,5 370:3
370:4 371:12
373:9,11,19 374:8
374:11,16 376:1
385:13 394:11
396:16 424:17
442:9,11,18
448:15 461:22
462:6,17,21 463:2
464:17 570:3
573:2 581:14,19
582:4 584:8 591:6
591:18,22 593:6
600:9,13 605:16
611:15,21 617:15
617:20,21 619:19
620:9 623:10
624:13 628:20
630:11 637:9
672:2 674:2,7
676:11,21
differ 414:5
difference 401:5
402:3 420:10

428:5 431:22
492:18 502:18
529:2,22 553:14
558:12 561:14
579:20 660:20
701:20
differences 401:8
402:19 405:20
481:8,9 703:6,8
different 376:17
383:14 387:21
391:20 401:19,21
401:22 413:17
415:3,5,5 431:18
436:19 454:4
455:21 469:1
470:3 477:20
478:1,5,5,22
479:12 480:17
485:16 486:17
495:21 496:4,7,17
496:22 500:14,17
502:17 511:18
512:2,3 515:9,12
517:4,5,8,10,11
520:5 527:10,13
528:4 531:8,8,9
532:7 539:3
540:17 545:14
554:21 560:7,18
561:16 570:19
590:3 592:4
606:21 616:8
620:17 627:12
647:11 648:2
650:14 651:3,8
655:20 656:16
657:16 660:15,16
661:18 670:10,12
680:17 687:5
688:11 693:14
700:2
differential 479:16
differently 560:12
differs 414:18
difficult 402:20
413:10 414:2

415:6 529:20
546:9
difficulty 387:13
549:2 637:1
digital 429:17
digitally 471:10
576:3
dimension 428:11
direct 367:2,19
369:12 372:6
373:2 375:12
380:14 414:17
433:22 472:16,22
474:14,17 475:17
487:11 499:9
503:11 533:10,13
539:11 544:19
545:5 548:14,22
619:8 647:10
685:6 695:21
698:21 700:18
directed 375:4
595:12
directive 595:18,20
596:12,18
directly 384:6
442:1 446:8
573:15 618:11
director 450:4
dirty 587:19
disagree 385:18
526:11 549:7
551:8 589:4 590:1
590:2,8 600:22
604:8
disagreement
385:12 600:7
disbelieve 385:16
disciplines 437:11
discovered 619:11
discrepancy 701:13
701:18
discrete 369:17
507:14 557:13
702:18
discuss 563:2
discussed 389:1

517:3 574:11
discussing 634:14
discussion 495:13
discussions 609:7
dismissed 698:4,6
dismissing 475:20
disparity 702:6
displaced 458:3,9
displacement
    457:17,22 545:4
    545:11 548:5
    551:15
disproportionate
    514:12 536:15
disproportionately
    483:17 484:19
    514:8 536:7
dispute 543:16
disputes 439:14
distance 449:1
distant 389:21
    403:22 407:19
    448:7,16 451:5
    454:5,6,20 455:3
    455:5,6,7,9 456:8
    456:9 457:8,10
    461:15,21 462:8
    462:11,16,22
    463:3,4,8,22
    464:3,7,20 465:10
    465:10,13,14,16
    465:19 466:15,16
    466:22 467:7
    469:11,18 476:20
    489:8 494:14
    497:16 499:1,19
    500:14 501:4,7
    502:21 503:3
    504:21 505:2,5
    508:18 509:10,13
    509:14 525:21
    526:4,7,16 527:4
    527:19 528:3,6
    530:12 532:1
    534:1 550:17
    559:5 563:4,15
    564:15,18 566:17

566:21 570:20,22
571:7 593:5 594:1
598:8,13,13,19
608:8 611:5,9,10
611:15,17,22
612:6,8,10 614:12
614:15 615:5,10
615:18 616:1,4,6
616:9,19,22
629:14 637:7,8,11
637:20 638:11,12
638:14 639:10,19
640:1 641:13,19
642:21 643:12
644:17 646:7,8
647:21 650:5,12
650:16,19 651:20
658:7 659:21
660:5 661:1,10
662:1,11 663:14
663:18 664:17
665:5 666:1
676:11,12,20,21
677:5,8,10 679:13
680:9 683:20
690:18,19
distantly 392:19
    448:4,6 450:20
    469:21 470:2
    471:11,12 484:12
distinction 436:22
distinguish 437:1
    572:21 606:8
    692:20 693:8
distinguishes
    692:21
distortions 436:10
    436:16
distorts 555:22
distributed 393:10
distribution 364:7
    368:5 371:2 411:4
    428:14 429:17
    559:9
distributions 560:3
district 526:22
dive 372:3 547:17

divide 679:2
divided 421:7
    432:7,21 637:11
    684:18
dividing 457:20
divvy 401:16
document 375:10
    394:1,3,6,10
    395:15,17 396:4,6
    397:2,20 400:14
    401:2 505:17
    506:4,8,10,15,17
    506:20 507:15
    508:1,7,17 509:15
    510:12 521:3
    533:13,19 535:4
    619:8 625:9,15,21
    626:7 627:3
    634:14 645:5
    646:18 659:2
    680:18 681:4,5
documentary
    494:22 495:6,22
    496:4,12
documented
    581:18
documents 398:10
    398:13 441:14
    443:17 681:22
    691:1
doing 377:12
    387:13 407:2
    418:7 421:20
    425:18 432:13
    447:18 453:16
    492:17 526:12
    527:2,5 530:2
    567:3 583:15
    584:4 612:15
    615:19 618:1
    640:6 649:12
    652:14 653:11
    654:13 655:2
    660:10 677:2
    693:6
door 583:21
doors 584:13,17

585:14
dot 647:14 651:12
    654:15 657:8
double 378:3,4
    383:18 624:20
    651:13 657:9
    673:12,12
doublecheck
    621:16 626:17
    627:7 640:18
double-check
    591:12 602:1
doubt 548:13
downstream
    403:20 407:1
    411:17
Dr 367:5,20,22
    385:7 403:13,16
    404:10,11,15,16
    404:19,20 405:14
    406:1,4,9,12,15
    406:19,20 433:9
    433:12 434:2
    440:5,10,13 441:9
    443:22 450:19
    455:15 458:14
    459:22 460:4
    474:20 492:7
    493:19 522:7
    524:16 538:17
    539:5 668:9 675:4
    681:10 691:17
    700:14
Dragon 478:21
Dragonball 480:10
    480:21 481:3
dramatically
    519:11
draw 390:1 436:14
    504:4,6 538:13
    607:19 687:20
drawn 448:11
    451:8 515:22
Dream 551:19
    552:3,10 614:16
    615:10
drew 418:18

drive 478:14
    564:17 635:1
    652:11,21 653:1,1
    673:18,21,22
drives 633:22
drop 487:16 648:15
    648:19 649:14
    661:19 662:5
dropped 489:17
    648:16
drops 484:6 656:14
Dry 391:14,19
due 548:4 549:6
    582:20 701:13
DULY 433:15
dummy 640:17
    641:6 643:2
    644:16 648:15,17
    649:11,12
duration 449:21
    479:3,5
DVD 422:14,22
DVR 424:8,10
    431:2,6
DVRs 424:11

E

earlier 393:15
    455:15 469:6
    478:7 481:21
    482:8 512:1 518:8
    519:6,6 520:14
    526:17 554:17
    559:16 574:11
    598:6 602:6 603:4
    616:14 629:13
    630:17 636:2
    638:9 643:21
    648:13 651:22
    684:4 685:16,16
earliest 525:22
early 431:8 498:21
earn-outs 562:14
ease 429:16
eased 571:3
easier 525:14
easily 653:14 660:1

eclectic 456:15
econometric 466:9
econometrician
460:1 571:2
econometricians
468:7
econometrics
436:21 437:10
440:7 461:5
economic 434:20
435:8 436:2,4
437:12,13 439:5
economics 434:10
434:12 436:20
437:4 438:14,19
440:6 552:12
636:17
economist 456:20
553:4 556:18
economists 461:13
468:7
economist's 445:11
445:16
edit 638:17
editing 584:17,19
educational 434:8
effect 569:2
effectively 413:15
424:18 471:15
640:5
efficient 656:15
effort 690:1
efforts 597:15
eight 528:9 610:1,2
610:15,16 626:22
677:17
Eighth 366:13
either 394:18
399:16 414:20
439:13,20 441:22
442:4 447:6 514:1
519:18 546:18
562:15 587:12
665:13 667:9
678:2 680:7 692:7
692:12
elasticity 663:12

electronic 505:17
507:1 619:17,20
620:12 621:19,21
621:22 622:7,10
623:2,10 627:4,16
628:13,17 629:2
629:20,20,21
631:7 632:21
634:11 670:18
671:13,18 672:15
672:17,20 673:3
674:10 679:17
696:18 697:4
electronically
622:21
element 569:12,17
eliminate 388:21
eliminated 454:15
eloquent 607:18
elucidating 538:15
emphasis 481:6
empirically 452:21
455:2
employ 445:6
employed 520:4
encompassed 590:3
590:6
encompassing
404:11
encouraging
584:20,20
ended 617:16
engaged 439:3,11
entertainment
438:22
entire 467:5 482:2
497:20,20 565:3
669:17 693:22
694:1
entirely 560:18
entitled 376:11
628:19
entries 376:17
381:12 622:14
entry 370:3,4 378:4
378:6 379:8 398:4
envisionable

673:11
episodes 562:4
equal 473:16 658:6
658:10 660:1
661:1
equaled 371:16
595:8
equals 655:8,8
equilibrium 436:11
era 426:20
error 413:8 414:10
414:11,14,15,17
414:20,20 517:16
518:4,21 519:1,4
519:8,10,21 520:2
582:11 687:12,22
688:6,10,13,17
689:1 696:18,21
errors 388:13
413:14,18,22
414:9 475:12
517:19
ESQ 365:4,5,5,9,17
366:7,8,10
essence 550:1
essentially 449:15
457:18,20 468:8
476:6,14 477:12
497:9 501:2
511:19 545:12
559:17 616:22
617:6 635:20
652:1,3 654:11
657:12 678:2
688:4
establish 463:20
464:9
established 444:13
467:2 540:19
establishing 670:9
estimate 374:6,13
374:14 393:17
410:12 428:1
453:17 479:11
492:20 526:21
549:12 565:7
566:20 570:21

646:1,6 650:5,18
656:13 662:11
663:3
estimated 466:21
479:8 480:2 577:8
644:9,10
estimates 403:21
406:11 407:18
470:3 487:9 519:2
566:17 576:22
649:15 688:9
estimating 457:8
576:19 598:7
649:13
estimations 611:21
et 469:14 504:22
647:15 650:22
654:19 671:8
etcetera 456:1,17
652:20
ether 507:5
event 429:15 431:6
events 415:2 654:9
everybody 604:4
621:12 654:13
657:21
everyone's 632:2
evidence 443:20
542:8,11,18 543:1
543:18 646:21
659:7
ex 557:4 562:17
exact 426:8 479:6
487:1 497:3 501:2
509:11 515:11
528:2 551:21
594:2 603:22
696:17
exactly 374:4 378:3
403:17 415:22
449:20 485:21
530:4 564:4
579:16 584:12
636:9 698:18
examination 368:8
368:16 417:6
419:8 425:9

431:15 433:13,22
522:3 539:11
545:6
examine 381:3
examined 416:8
433:15 503:10
examines 411:17
411:18
example 380:2
384:12 388:22
414:13 432:14
453:5 468:14
469:9 477:19
478:13 487:6
523:11 526:15
550:16 551:19
557:1 560:13
564:19 568:14
576:6 589:17
612:5,21 614:14
614:16,18 624:12
650:13 653:18
687:1,2
examples 480:9
486:5 696:11
exceedingly 413:15
414:2
exception 412:1
501:9 572:1
excess 378:2,16
392:21
exchanged 397:22
excited 596:14
exclude 485:1
619:10 671:11
excluded 484:6
485:2 489:13
619:3 694:13
698:5,12
excludes 483:14,18
excluding 469:3
484:9
exclusion 483:1
504:11
excuse 376:22
382:19 403:13
414:7 452:8

471:11 506:5
514:7 516:7
519:22 535:8
542:20,21 598:20
602:14 637:10
648:21 649:9
654:15 673:4
694:19
excused 433:4,6
exhibit 367:8 375:9
375:13,15,17
377:21 378:7
393:22 394:3
395:14,17,19,22
397:4 398:21,22
400:13 441:16,18
474:22 524:8
533:10,12 544:13
544:20,21 558:16
599:19,20 618:3
619:15,15,16,19
624:7 625:5,9
626:5,7 627:2
634:9 644:7 645:3
645:5,17 646:11
646:15,19 648:22
659:7 670:10,20
671:14 672:5,16
696:6
exhibits 397:21
398:3 441:10,10
441:12,14,20
442:4 443:7
exist 464:10,12
508:4 555:11
652:7,9 679:16
existed 652:10
existence 381:21
591:14 606:6
exists 531:22
expect 410:10
458:5,6 494:12
495:7 521:15
530:7 615:10
626:14 643:7
expectation 614:12
expectations

562:10,11
expected 461:1
462:22 464:7
499:4 611:17
experience 400:15
417:8 418:6
435:20 438:21
439:1 544:11
636:18
experienced 635:22
experiences 685:16
expert 413:7
426:15 427:12
440:5 489:1 576:2
653:19 654:2
678:8
expertise 406:18
experts 689:3
explain 431:21
451:2 455:17
637:14,15 659:3
664:2 697:3
explained 585:16
669:13
explains 637:15
explanation 426:6
596:5 613:12
647:2 702:17
explanatory 665:1
explicitly 586:12
586:14
exponent 660:6
expositional 442:11
528:20
expressed 518:21
expression 501:14
extended 512:21
extensive 373:16
extensively 675:5
extent 373:14
398:11 408:15,17
410:17 411:15
421:7 423:22
426:2 457:16
534:21 573:9
582:14 602:9,12
609:18 627:1

687:21 688:13
689:18
extra 459:22
extrapolate 527:3
567:12 568:8,9
extrapolated 370:5
extremely 428:15
eyes 468:20 525:14
644:19,20
E-Y 434:7

F

fact 372:4 378:3
379:19,20 389:3
389:16 397:19
399:17 402:12,18
405:6 406:10
407:14,15 410:12
412:14 424:2
452:17 479:6
481:1 482:19
499:2 502:14,19
517:14,21 523:13
528:15 532:5
544:1 547:7,21
556:4,6,7,10,12
559:21 567:15
573:8 581:6 583:4
587:22 590:21
690:22
factor 476:10,12,14
476:20 485:11,12
485:17 486:19,22
487:8 493:7 520:4
541:6 641:21
664:8 683:12,16
683:17,21 684:11
684:12,14 686:20
688:22 689:6
693:7
factors 430:5
453:17 457:8,17
460:20 461:3
466:19 467:1
486:1 487:13
503:2 539:21
571:1 641:12

689:19 693:14
694:1 702:11
factually 572:12
failed 619:10
fails 483:7
fair 371:9 395:12
400:10 412:8,11
418:21 423:18,19
426:6 475:1
498:10 522:11,14
523:5 550:8,10
563:21 578:7,13
579:17 593:19
623:6,20 628:3
632:11 636:20
637:19 677:18
702:17
fairly 392:7 426:21
455:16 494:8,9
496:1 542:1
fall 518:19 564:9
falls 517:15
false 485:10 571:12
familiar 371:1
401:15 480:14
490:18 511:5
515:8 517:13,18
523:9,12,22 524:2
524:17 525:3
533:17 534:10
538:4 539:16
542:14 578:7
589:10 596:7,12
596:16,17 620:18
620:21 621:14
625:15,16 626:13
668:19
familiarity 537:17
541:12 559:8
626:12
family 460:17
far 380:9 382:3
392:18 395:4
399:19 401:1
452:13 579:15
590:11 595:17
681:20 691:16

faster 447:7
fatigue 592:19
favorite 486:10
487:4
February 420:7
486:16
Fed 525:11 573:20
599:14
Feder 364:21 424:6
425:2 455:14
457:14 458:12
478:6 492:7
598:20 599:4
Federal 440:2
542:2 597:5
Feder's 431:1
fee 561:15,21
562:15,15 702:1
702:20
feed 383:13 405:18
405:19
feeds 383:11 402:7
feel 491:10 587:4
645:15
feeling 454:8
feels 548:6
fees 534:1,8 544:9
698:17 701:15
702:7
fell 530:20
felt 636:8
fence-sitter 416:19
fewer 582:8 588:17
588:18 603:19,20
fiction 486:9
field 399:8,13,19
440:6
fields 399:16 409:6
436:17,19 437:2
437:16,19 625:14
625:19,20 626:19
626:22 627:3,5,8
627:11 628:5
Fifteen 459:4 704:4
fifth 392:3 631:17
631:17
fifty 570:13

figure 371:19
376:21 377:20
390:13 430:15
485:21 509:22
529:17 546:11
549:18 584:11,14
661:22 700:8
figured 583:11
figures 376:13
389:4 604:18
650:3 676:11,20
677:5,8 687:19
691:6
file 367:12 505:17
507:22 512:22
621:19,21 622:7
623:2,7,10,16
624:8,16 625:2,13
626:2,10,12 627:1
627:4 629:2,20
631:1,7 632:21
633:1,20 634:12
640:9,14 652:7,8
655:1 670:18
671:7,13,18 673:6
674:11,17 676:7,8
678:19,20 679:4
680:18
filed 493:8
files 375:19 468:21
619:1,17,20
627:16,20 628:2
628:13,17,18
629:6 630:10
634:11 673:9
fill 428:15 610:1
filled 691:1
fills 528:8
final 395:2 406:12
479:7 491:15,18
508:22 574:2
609:9 630:5,7,15
678:11,15
finally 473:22
474:12 584:5
664:20 686:1
Financial 434:15

find 380:6 387:3
391:1 410:7 429:3
447:9 464:11
483:21 487:13,14
614:11 623:12
662:13 663:3,22
664:21 667:4
699:21 701:5
findings 441:3
598:6
finger 632:6
fingers 674:13,16
674:22
finish 571:6,15
firm 511:1 636:5
firms 435:11
first 375:21 376:14
378:7 393:3 407:6
433:15 435:18
442:6,7,15,17
446:11 447:19,21
448:1,8,12 453:1
454:18 463:18
476:10,13 481:17
486:7,8 492:15
525:18 540:19
557:6 559:1 639:7
645:19,21 647:7
647:13 648:4
656:2,21 658:2,3
658:5 660:16
662:18 671:10
first-run 480:12
fit 414:16 639:20
640:21 661:22
663:21 664:1
fits 647:6
five 391:22 392:6
447:20,22 450:13
463:12 464:15
466:14 509:5,7
510:14 591:7
593:16 606:21
607:11 614:20
627:11 628:5
630:18,19,22
631:10,10 632:16

647:8 675:6 704:5
704:6
fix 583:17
fixed 475:12
479:19
flaw 478:11 479:19
480:7 481:4,18
482:22 484:8
flawed 475:9
477:15,17 520:14
695:22
flaws 475:11
481:12,13,14,17
484:2 485:8
flipping 667:4
flips 655:4
Floor 364:12
366:13
flow 429:10
focus 436:7 438:13
575:4 602:7
607:10,10 644:2
670:9 674:5
focused 453:20
544:10
focusing 388:5,8
482:13 519:14
582:9 606:12
631:22 669:8
folded 525:16
folders 634:11
644:4
folks 622:2 625:17
follow 377:9
382:21 425:7
431:1 444:12
453:12 484:1,21
followed 400:7
620:10 636:13
following 486:12
546:9 647:18
648:9 704:14
FOLLOWS 433:16
follow-up 382:9
font 525:13
footnote 450:22
492:12 685:19

699:13
foregoing 521:21
608:21 704:12
foreign 483:11
foremost 446:11
481:17
forgive 409:9
forgot 523:18
form 396:6 482:4,6
482:6,14,20
508:21 555:20
558:11 560:1
578:5,15 630:20
680:7,13 690:13
690:17,17,17
691:2,5,6 694:8,9
694:9
formally 414:8
format 367:12
380:5 507:2
624:16 625:2,13
627:2 679:17
696:18
formula 479:20
485:13 487:1
forth 450:5 545:10
550:16 554:6
558:2 587:11
626:19
forward 582:17
found 371:15
409:17 417:9
465:18 485:22
500:21 502:17
503:5 504:11
536:2 571:22
583:9 595:7
602:13 606:5
613:18
foundation 425:13
four 369:5,6 442:8
442:12 449:13
450:6 467:10
481:2 518:15
528:6,17 529:3,13
530:3 606:20,21
607:1,1,4,11,14

609:19,21 610:4
610:12,17 612:13
613:10 628:22
632:15,17 641:2
675:5
fourth 364:12
376:10 392:3
490:22 534:8
631:16 648:21
four-cycle 525:22
four-period 527:10
fraction 533:6
535:13 560:15
577:18 608:2
684:15
fragmentation
389:20 420:9,14
425:12 426:18,18
426:19 429:5
frankly 445:21
451:7 469:2,16
471:18 510:17
557:15 560:7
583:20
frequently 413:13
Fresh 483:5,7
696:1,2,11,12
Friends 550:6
front 375:10
395:15 403:1,4
488:2 502:1,3
524:3 552:22
698:22 699:1
full 369:22 406:18
442:7 445:19
466:9 521:18
684:7,7
fun 460:1
function 586:7
628:4
functions 435:6
Fund 490:5
fundamental 555:5
fundamentally
401:21 416:19
fundamentals
460:15

funds 364:8 368:5
　440:17 444:4,11
　490:14,15
funny 525:16
further 390:17
　404:7 405:13
　407:1 411:16
　417:1 424:4 431:9
　442:22 630:2
　632:7
future 375:6 596:3

G

Galaz 366:20
　375:11,13 379:22
　385:4,11 395:20
　475:3,6 476:3,5
　477:15 479:5
　481:5 486:22
　489:20 493:6
　503:11,11 504:7
　600:3 698:13
　701:11
Galaz's 486:18
game 455:22
gauge 414:16
Gauss 461:8
gears 458:21 683:2
general 396:5
　401:19 402:21
　423:12 429:9
　430:17 436:7
　438:12 444:15,21
　475:5,8 497:5
　533:21 661:8
generalization
　430:14
generalize 430:15
generally 378:2
　417:17 447:17
　495:17 543:10
　622:6
generate 448:11
　653:17
generated 394:10
　448:14 505:16,19
　507:1,4 508:12,13

508:15 534:1,8
623:8,17 698:17
701:15 702:7
generates 507:10
generation 540:2
　541:5 702:1,21
generous 546:22
germane 554:3
getting 421:6 454:2
　501:1 560:15
　616:13 631:12
　644:14 656:20
　657:19 670:3
give 377:13 418:14
　425:16 429:6
　515:20 524:10
　534:3 550:12
　553:2,16 562:6
　566:17 577:6
　596:22 597:7
　598:6 610:6,8
　612:20 634:22
　653:21,22 687:2
　693:13
given 387:2,5
　393:12 399:3
　410:8 412:3,5
　461:2 508:22
　510:9 537:8,18
　555:21 560:10
　566:3 587:21,22
　608:13 636:11
　671:16 685:4
　694:18 696:1
　702:16,16
gives 377:5 480:21
　486:18
giving 439:6
　567:19,20 617:4
　653:20
glossed 468:19
GN 383:10,10,12
　383:13 393:1
　405:15
go 370:13 375:16
　388:19 389:15
　390:19 408:17

413:2,18 447:14
478:12 485:10
486:15 487:18
490:6 491:19
493:1 524:6
540:12 547:1
550:3 555:1 558:6
562:3 575:12
583:12,14,16
584:7,22 585:21
587:13 591:11
594:11 606:20
611:20 612:16
614:19 630:16
638:2 671:4
675:20 680:22
goal 464:6 502:21
　539:3 574:11
goes 411:16 425:20
　496:16,16 526:15
　551:15 566:21
　582:17 590:11
　611:1 631:14
　649:1 656:16
　659:21 661:1
going 375:5 376:19
　383:11 384:3
　387:17 389:1
　390:22 398:1,3
　400:5 402:16
　411:22 412:4,9
　415:9 424:6
　427:14 429:22
　430:1 446:17,19
　449:13 457:18
　474:3,21 483:12
　485:9 489:19
　494:21 497:19
　502:2 523:18
　524:7 529:13
　533:18 541:21
　544:3 545:3
　546:11 548:6
　555:5 557:17
　558:5 573:19
　577:3 578:14,14
　581:11 589:19

593:12 594:10
596:3 608:19
609:22 615:9
618:4 626:21
629:13 642:17
657:14 658:8
663:11 670:3,5,5
670:14,16,20
671:4 678:15
688:7 699:3
703:19 704:1,8
good 368:18,19
　419:10 427:13
　431:20,21 434:2
　437:3 451:9,10,11
　456:4 458:21
　459:2 471:21
　492:11 493:19
　498:19 502:8
　525:15 529:19
　534:4 551:8,9
　563:10 581:5
　585:12 628:7
　637:17 642:1
　643:11 686:12
　699:8
goodness-of-fit
　468:13
goods 437:6
Google 692:9
gosh 662:12
gotten 422:3
　451:16
governing 668:20
government 435:10
grab 561:17
grad 438:3
graft 564:21
grafting 567:4
grand 393:11 562:4
　562:6
Grass 391:20
Gray 367:5,20,22
　404:10,15,16
　406:1,4,9,21
　433:10,12 434:2,6
　440:5,10,13 441:9

441:17,19 443:22
449:19 450:19
455:15 458:14
459:22 460:4
474:20 492:7
493:19 522:7
524:16 538:18
539:5 620:7
645:15 668:9,18
672:9 675:4
681:10 691:17
Gray's 403:14,16
　404:11,19,20
　405:14 406:12,15
　406:19 700:14
great 581:11
greater 373:22
　374:22 390:22
　421:7 531:5
　537:12,14 697:21
greatly 573:22
green 473:8
Greg 419:10 434:3
GREGORY 366:7
group 365:15
　368:21 434:21
　435:4,6,17 450:8
　456:15 488:16,21
　493:21 494:8
　495:16,19 496:7,9
　496:12 497:1,2
　520:18 530:21
　531:16 533:11
　618:19
groups 554:10
　572:21
Grow 391:20
grown 428:15
growth 428:2,18
　429:6,18 447:7
　541:10
guarantee 697:5
guess 422:14
　439:13 453:10
　466:12 471:14
　472:12 508:9
　509:18 510:18

525:2 529:9
553:18 556:13,18
610:2 627:9
635:14 661:19
667:3,4 703:5
guessing 627:8
gun 597:12
guy 645:15
G-R-A-Y 434:7

H

hair 518:16
half 418:19 464:4
479:3 485:17
599:11 663:13
684:6,9
half-hour 485:19
487:13 519:15
693:7
half-share 513:18
hand 400:14 401:1
468:19 547:3
548:10 553:15
570:18 622:5,14
647:4 648:6
handed 441:9
607:12 625:17
handle 428:18
handled 402:5
hands 445:17
handy 610:10
647:4 656:21
happen 393:3
517:8 521:12
556:14 557:8,9
702:6
happened 518:1
622:17
happens 560:16
563:10,18 607:6
happy 393:5
529:16 596:9
608:19
hard 414:5 422:10
622:8,16 633:22
635:1 652:11,21
652:22 653:1

673:18,21,22
Harrington 365:4
367:4 397:15,18
398:12 415:11
417:3,4,7 431:11
431:12,16 440:9
443:14 524:14
646:14
hash 668:4
hat 499:20 651:13
657:9,13 658:16
673:13
hawing 530:1
head 377:15 416:7
474:4 585:5 692:3
699:4
headaches 422:2
healthy 430:22
hear 522:19 539:7
heard 397:16 538:6
653:13
hearing 364:12,16
599:19
hearings 518:10
heavily 533:4 574:6
held 639:14
help 647:5
helpful 471:6
helps 585:2
hemming 530:1
high 370:11,13
371:11 388:12
389:12 392:20
518:4 570:10
581:21 585:9
596:6 601:9 610:5
614:21 687:13,22
688:14 701:22
702:21
higher 389:11
401:12 402:17
457:7 480:22
481:1 513:16
514:8 547:6 559:1
559:3 562:15
602:19 604:12
630:9 685:7,9

highlighted 486:3
hinting 560:2
hiring 435:4
historical 427:13
historically 577:16
hold 434:18 639:8
640:4 699:16
holding 465:14
638:11 640:6,19
641:1,3,7,10
662:14 663:9,15
holds 652:16
HOLMES 366:8
home 478:15
homogeneity
456:11 494:3
495:12,15 554:17
685:5
homogeneous
446:20
homogenous
446:13 455:17
456:3 494:9,12,22
495:5,17 496:2,11
honestly 374:19
695:14
Honor 368:10,15
379:15 393:21
396:2,12 397:15
398:5 404:14
411:3 412:17
415:12 417:4
424:5 433:18
440:4 441:6
443:11 455:11
459:3,17 492:3,22
493:16 511:14
521:9 522:5
538:11,17 539:14
599:17 609:5
645:2 646:10
653:4 675:3
687:15 700:10
703:21
HONORABLE
364:19,21,22
Honors 395:16

hope 595:20 625:6
658:14 684:4
699:13
hopscotch 459:13
horrible 552:8
horribly 552:5
horribly-rated
553:1
host 469:1 481:15
615:8
hour 376:16 377:3
378:1 379:9 381:7
387:3,5 388:11
390:5,10 391:16
404:2 410:6 412:3
412:5 417:11,12
418:8,19,19
419:16 449:9
459:19 463:10
479:3 485:17
486:9 528:3
570:13 641:11
651:20 660:1
684:6,7,9,17
hours 372:4 376:21
377:3,3,16,17
378:13 379:2
383:17 387:9,16
388:3 390:8 402:4
403:21,22 405:7
405:10,12,16
418:1,3 419:22
448:18 449:10
463:10 467:9
521:19 566:19
659:11 693:19,20
house 436:3 647:15
654:18 660:20
household 537:2
647:22 676:12,22
686:20
households 370:6
370:10 373:13,20
374:11,16 386:22
404:1 419:17,21
432:3,16,18
479:14 481:3

487:5 518:3,14
526:20,21 599:10
615:11 686:16
687:12
Housekeeping
534:4
houses 598:12
huge 428:20 662:13
Hulu 421:18 422:8
hundred 374:15
562:4,6
Huron 435:17
HUT 420:21
432:15
hypothesis 627:6
hypothetical 494:2
542:8 545:13
547:2 550:13
555:5,10,16,18,21
556:4 557:8 565:2
567:20 607:21

I

idea 390:18 419:14
427:14 500:9
546:16 637:19
ideally 662:10
identification
394:4 441:15
443:18 625:10
626:8 645:6
646:20
identified 463:12
481:15,16 483:2
484:3 578:5
630:11
identifies 483:4
identify 408:3
441:11 481:14
483:7 488:12
686:15 689:4
ignored 481:10
ignores 480:6
481:7
II 364:9 368:6
446:4,6
Illinois 438:1

illustrate 486:6
695:20
illustrations 687:3
imagine 384:9
422:11 550:13
606:18 633:6
674:18
impact 423:7 485:3
504:13 570:2,21
574:19 639:10
650:11
impacted 554:21
impactive 649:16
impacts 423:8
imperative 387:8
389:15
imperfections
436:10,16
implementation
629:3
implemented
628:12
implication 456:2
implicitly 698:14
698:14 699:6
701:19
implied 382:12
586:5
implies 404:19
implying 379:18
importance 481:20
482:7
important 410:4
446:18 456:8
478:11 485:12
486:6 510:22
540:21 541:5
557:19 558:10
561:11 573:5,17
602:6 606:7
607:15 611:14
640:22 641:9
665:20,21 667:7,9
importantly 449:11
603:3
imprecise 477:17
imprecisely 477:5

impression 535:9
improved 573:21
585:6
inaccurate 394:16
incentives 556:22
incidence 371:11
372:19 375:4
387:14 389:10
392:20 400:22
401:13 410:1
420:10 595:13,19
596:4,6 597:22
599:6 602:12,18
604:10 616:3
incidences 601:7
603:12,20 610:13
incidents 394:14
401:22 594:13
include 407:22
422:5,6 487:14
511:11 513:22
516:12 532:19,20
535:7 635:18
643:17 686:12
695:3,8
included 386:5
405:14,17 406:2
422:20 423:4,9
424:13,15 443:3
591:7 604:19
651:3 689:5
includes 408:7
449:20 484:9
605:21
including 369:8
378:21 435:3
484:4 537:17,21
600:13,14 690:13
inclusion 694:22
697:9 698:3
inclusions 491:3
inclusive 373:4
income 574:8
inconsistency
633:12
inconsistent 372:8
386:18

incorporate 549:1
incorrect 512:10
increase 389:18
427:4,7,10,17,20
428:9,20 429:4
529:18 661:1
663:12,13
increased 430:1
increases 429:5,20
430:2 554:6
IND 649:18
indefensible 487:9
Independence
364:14
independent
365:14 368:21
374:9 392:9
400:16,20 401:6
416:17 426:5
460:20 468:17
472:2,5,6 493:21
511:2 533:10
649:20 660:6
662:6,19
index 476:14 477:2
683:18
indicated 639:3
indications 672:5
indirectly 435:10
individual 387:16
388:2,11 404:1
410:6 411:14
420:18,19 421:2
421:10 505:10
567:15 702:4
individually 383:16
individuals 414:22
induce 574:14
industry 422:10
438:22 439:10
574:6,9
inferences 453:4
569:4 607:20
inferior 472:9
inferred 585:18,20
586:4,8,11
influenced 540:9

information 369:4
369:5 378:10
394:20 396:9,13
396:14,15 399:1
425:17 442:16,19
443:3 445:20
448:3,5,16 449:8
449:16,19,22
450:1,2 452:5,7
454:20 461:19,20
462:3,7,16 464:3
464:8,19 466:15
467:6 489:7 506:4
507:3 511:8
519:19 528:12
544:18 570:3
577:8,11,12 603:8
603:11 607:19
611:10 613:13
676:13,22 690:16
690:17 695:4
inherited 522:9
input 461:3
inquire 421:14
inquiry 376:9
539:3
insofar 472:12
513:20 530:4
554:11,12 555:2
558:8 585:8
627:19 634:18
684:13
instance 370:2
386:14 392:18
408:7 420:5 463:7
495:6,21
instances 369:9
376:11,12,14
377:22 380:4,16
381:17 383:6,8
384:9,13 385:22
387:1 392:15
393:19 396:19
402:11 411:20
419:19,20 461:16
463:2 591:21
592:16 594:14

598:18,21 602:2
603:5 608:7 611:9
611:14,18 614:5
614:13 616:15
617:7,11
instantaneously
631:11
instruction 552:8
instructional 457:4
550:18 552:6
553:2,16
integrity 489:5
intently 544:10
interconnection
566:14
interest 460:21
647:19 664:5
interested 552:5
560:14 670:8
interesting 638:1
interject 498:5
548:16 638:18
intermediary 630:4
international 440:2
internet 439:8
692:9
interplay 563:2
interpolation
418:18
interpolations
526:13 585:4
interpret 616:18
660:9 676:19
interpretable 660:2
interpretation
376:18 437:9
660:15
intersection 437:10
interval 492:13
577:7,21 580:11
637:9
intervals 661:6
intimated 611:4
introduce 625:4
626:4
introduction 505:8
intuitive 558:9

646:9
invalid 686:20,22
  687:19,21
involved 399:18
  408:10 439:13
  571:13 627:15
  678:18
involvement 398:1
IPG 367:9 375:20
  379:20 380:1,13
  394:10 397:22
  440:18,22 442:16
  443:4 444:6
  446:13 450:11
  467:13 468:22
  471:1 473:10,20
  474:2,7 475:13,21
  479:7 480:20
  483:22 484:19
  485:6 486:16
  487:15 489:3
  493:8 503:18
  506:12,15 508:18
  510:5 512:22
  513:5,9,13,17
  514:7,9 515:15
  516:9 517:6 520:1
  520:9 533:13,14
  536:3,8,14 544:18
  549:11 565:20
  567:5,10 578:3
  589:1,3,5 590:4
  590:15,18,19
  618:3 619:17
  623:2,5 625:9
  626:7 627:17
  629:17 640:15
  641:21 643:13
  645:5 646:18
  664:7 666:1,5
  672:12 678:6
  680:5 681:22
  682:12 683:1,2,6
  689:1,4 690:12
  692:21 694:13,15
  694:17,20 695:3,9
  695:22 696:8,13

696:17 697:3,6,20
  697:22
IPG's 447:5 488:2
  493:6 551:12
  554:2,4 683:12
  686:19 692:19
  695:9 697:16
  698:5
IPG-claimed
  470:18 473:8
  475:22 491:3
  677:22
IPG-represented
  442:21 445:8
  467:19
irrelevant 484:15
  565:9
isolate 665:16
  666:18
issue 388:7,21
  482:13 483:14
  517:19 519:8,10
  578:16 600:15,18
  600:19,20 603:1
  641:17 685:5
  690:1
issues 545:11 572:4
  575:9 595:21
item 481:15 644:6
  659:10 671:10
iteratively 550:2
i.e 506:5,6

J

J 365:5
January 525:20
  526:6,19
jargon 468:18
Jeannie 551:19
  552:3,10,16
  614:16 615:10
Jeffrey 367:5,20,22
  433:10,12 434:6
  441:17,19
Jeopardy 550:15
JESSE 364:21
Joe 480:10,12,16

joinder 634:20
joinders 634:22
joined 427:15
journals 438:12,16
judge 364:20 368:3
  368:11 381:1
  382:19 383:1,18
  384:8,18,21 390:3
  391:10,18 394:22
  395:9,12,19 397:3
  397:7,11,17 398:8
  398:17 400:4,8
  404:22 411:7
  412:18,21 413:3
  414:7 417:2 419:6
  421:13,16 422:12
  423:6,10 424:6,6
  425:2,3,8 431:1
  431:10,14 433:3,7
  433:19 438:18
  440:10 441:7
  443:15 450:17
  451:15,19 452:8
  452:11,22 453:13
  454:14,22 455:6
  455:12,14 457:14
  458:12,19 459:4,9
  459:12,18 469:5
  478:6 480:10,12
  480:16 487:19
  488:8 492:4,6,7
  493:13 498:4,7
  499:8 501:16
  502:8 511:15
  512:18 521:14
  522:1,18 538:2
  539:9 540:11
  548:16,19 549:17
  549:22 551:3
  553:20 555:4
  556:2 557:2,12,16
  558:14 562:13
  568:1,4 569:16
  575:11 576:5
  583:7 584:10
  585:13 586:4,18
  586:20 587:2,15

594:22 596:21
  597:4,9 598:16,20
  599:4,5,13,16,22
  604:15 605:9,12
  605:20 606:5
  608:18 609:2
  625:7 638:18,21
  639:7,14,17,22
  641:4,14 642:5,9
  642:12,19 643:10
  643:16 644:5,12
  645:7,12 646:15
  653:5 658:20
  659:1,9,14,18
  661:3,12,16 662:7
  662:15,21 663:1,6
  663:16,20 664:3
  664:13 665:11,19
  666:15 667:1,10
  667:14,17 668:2,6
  668:8,9,11 669:5
  675:9,19 681:7,10
  681:16,20 682:9
  687:16 691:12,15
  691:19 692:1,10
  692:17 693:13,20
  694:4 699:17,20
  700:17 703:17,22
  704:4,7
judges 445:6 490:2
  491:7,8,16 510:7
  545:8 614:4 628:9
  680:6,10,13 698:4
  698:6
Judge's 669:9
July 525:22
jumped 613:6
June 364:11
justify 589:6
J-E-F-F-R 434:6

K

KAAA 546:18
keep 393:3 410:4
  411:8 412:2,4
  519:3 521:17
  586:9

keeping 386:19
  424:17
Kelvin 618:7
  628:13
Kelvin's 663:8
kept 524:9 617:4
Kessler 448:13
  449:18 453:8,18
  453:20 454:12,16
  455:1 462:6
  464:18 469:6,8
  470:5 496:21
  499:3,6,7 500:3
  500:10,22 501:17
  501:22 502:12
  503:22 504:4,10
  504:13 530:20
  531:20 532:2
  535:11 569:11,14
  570:3,6 572:5
  582:2,6,9 583:3,8
  584:21 585:11,15
  586:10,22 588:2
  601:18,20,22
  602:2 604:2
  605:16 618:20
  621:9,14,16 672:8
  690:5 695:5 696:7
Kessler's 452:13
  469:10 497:8,20
  498:8,12 512:2
  515:5 530:14
  531:9 563:14
  582:21 620:19
  694:7 695:13
key 399:10 414:19
  502:22 505:2
  568:21
kids 494:16
KIMBERLY
  366:10
kind 374:3 388:14
  414:16 426:9
  457:20 505:16
  559:12 560:2
  562:6,19 586:14
  604:4 626:20

642:17 643:7
665:22 673:2
knew 382:13
595:17 609:21
knock 628:4
knocked 591:1
know 369:13 374:4
379:13 381:6
382:3,4,5,14
390:7 393:1
397:11 399:16
402:13 403:1,4
404:16 406:13,20
406:22 407:3,5,9
407:10,11 413:18
416:9 423:21
425:15 426:3,21
430:14 451:10
462:15 468:12,13
470:12 489:5
498:14 506:17,20
507:10 509:7
510:18 515:11
516:16,18 517:22
521:11 527:7
529:3,9 531:14
537:16 547:19
548:10 549:13
551:18 553:5
554:1,6 561:11,12
561:13 562:18
563:6,8 565:7,16
572:9 575:8,15
577:3,13 578:20
579:19 582:8,20
582:21 583:20,22
584:2,22 585:3,20
586:1,14,16 587:7
587:12 589:9,18
592:10,14 593:18
594:2,5,8 598:4
600:3 602:1 603:3
603:15 604:5,8
605:2,8,16,20
606:1,13,19
608:10 610:2,4,9
610:11 613:1,7

620:1 623:1,4,9
623:14,15 624:1
629:4 630:7 635:4
640:8,12 642:21
642:22 643:5
654:3,12 655:5,7
660:21 665:3,5,7
666:11,12 668:15
669:1,12 670:21
671:20 672:14,20
673:2 681:21
686:9,10 690:20
691:9,11 692:1,2
692:3,8,19 694:17
695:16 698:10,18
700:5 701:9
knowledge 381:13
411:15 412:7
443:8 506:14
627:11,14
known 425:14
439:5
knows 404:20
426:17 540:8
Knupp 366:11
KPIX 615:5
KRON 480:17

L

la 547:14 555:12
label 646:9
labor 438:14
labor-saving
622:20
lack 499:12 501:11
659:4
landscape 426:7
427:11
large 436:1,14
439:2 451:14
453:8 454:7 463:1
552:17 561:9
653:14
larger 373:18
390:6 453:21
482:4 499:7
500:12 525:13

580:10,10
largest 392:19
534:22
lasted 459:11
late 657:19
Laughter 397:9
413:5 416:10
459:14 480:15
621:5 668:12,16
701:10
Laura 385:7 600:5
law 435:11
lay 425:13 659:3
layout 625:3
lead 402:18 537:12
537:13
leader 434:20
leadership 435:6
leading 501:2
leads 429:20
475:13 487:8
663:13 685:9
learned 490:11
leaving 641:17
LeConte 365:20
led 447:6
left 400:13 435:16
525:14 544:15
607:11 648:5
left-handed 606:20
606:22 607:2,5,13
608:2 612:5 626:1
left-handedness
607:9
legal 411:9 594:19
legend 624:16
625:2 639:4
length 476:12
477:7 486:21
642:13 684:2
lesser 458:6 574:10
Lest 668:13
letter 484:2,22
letting 700:7
let's 411:8 417:12
423:13 432:3
458:14 460:14

555:1 558:12
563:2 610:13
614:11 662:12
665:4,8 670:2
level 372:16,18
388:6,8 393:9
408:3 418:11
432:12,16 517:15
558:7 702:21,22
levels 373:1,6
386:19 387:2
393:6,12 409:16
418:17,20 420:21
435:5 461:3
477:20 570:20
library 364:2,13
439:8 561:10,11
license 439:6
444:13 543:3,4,8
543:13 555:22
556:3,7,10,12,13
557:4 559:18,20
559:22 560:1
561:8,14,21 562:1
562:15
licenses 547:11
561:7,20 685:20
685:22
licensing 546:18
light 421:19 452:17
586:7 608:9 666:1
likelihood 390:22
556:15
limitations 388:9
limited 544:11
Lindstrom 367:3
368:18 380:14
383:2 396:3
404:14 411:3
417:8 419:10
421:17 425:11
431:17 433:4
607:17 614:6
620:7 688:18
Lindstrom's
396:19 518:9
519:3

line 371:22 379:16
380:20 390:17
404:2,7 442:17,17
488:10 594:12
632:7 644:6
651:10,21 655:19
657:6 659:9
linear 418:18 419:1
lines 414:4 635:21
655:5 668:5
list 449:5 450:9
497:8,8 502:12
512:2 530:14
531:8 534:21
550:4,7 563:13,15
590:4 619:16,18
623:13,15 624:2
634:10 670:10
671:16 672:1,16
672:17,20 674:3,7
674:20 676:5
679:10 691:20
696:6
listed 631:1 672:15
listen 460:2
listened 607:16
listening 574:21
listing 377:22
533:14
listings 672:12
lists 450:9 508:1
litigation 622:15
little 376:20 401:19
415:13,21 442:22
455:17 458:3
459:19 465:2,4
469:16 501:11
507:9 527:8
537:18 547:20
548:12 564:22
592:4 606:14
607:21 623:20
638:6 644:14
647:14,17 655:6
668:4 670:4,6
677:3 698:15
live 425:1

LLP 365:10,19
366:11 434:16
local 383:12 405:19
449:9 454:5,6,21
463:22 464:8,16
465:9,13,16,20
466:16 469:18
494:14 497:15
499:1,21 500:13
501:4 503:2
504:21 525:19
526:4,17,20 527:2
527:17 528:3
530:9 531:22
562:3 563:3,15,21
563:22 564:1,14
564:18 570:22
585:1,7,22 604:22
614:20 619:20
620:10 628:20
630:12 631:4,5
632:4,4 638:11,14
639:8,15 640:1,4
640:7,20 641:8,13
641:17 646:2
662:12 663:17
664:16 666:9,14
672:3
locked 552:20
log 468:21 512:22
640:7,8,14,20
654:18,22 660:10
660:17 662:12
663:10,11,11,12
663:17 673:9
679:4
logic 536:20 537:5
574:16
log_LR 662:22
long 425:15,17
437:15 449:21
463:19 477:8,10
617:4,5 622:5,13
626:15 658:3
667:3 693:19
702:12
longer 459:12,19

long-winded 608:6
look 375:8,21,21
376:1 377:21
380:2 388:3
400:12 478:18
480:9 483:20
486:7 499:4 500:6
507:15 519:20
523:21 525:7
533:9 543:6,18
544:13 551:4
554:19 555:1
558:18 571:18
572:10 575:8
590:15 614:19
615:7 617:6 618:2
618:5 619:14
620:3 625:19
626:12,13 634:8
654:21 655:2
658:1 662:12
681:1,12 686:8
699:3
looked 386:16
426:12 432:11
465:12,17 470:22
472:2,4 485:20
499:5 572:7
592:10 593:22
626:16 638:10
639:18 673:9
looking 379:19
382:8 383:15
386:21 387:1
395:18 419:15
465:16 489:6,6
498:8,11 504:19
504:20 516:4,5
518:12 546:21
549:19 550:9
552:14 553:5
555:15 558:1
569:14 592:13
624:7 625:22
638:13,21 650:6
667:5 700:21
looks 378:14 384:3

533:17 650:21
686:2
loop 507:9 509:16
Los 365:21 576:7,9
lose 575:14
lost 545:2 674:5
lot 373:5 387:3
430:5 444:21
445:1 529:11
558:18 570:14
592:12 594:3
612:4,5 622:2
637:15 656:16
666:6,10
lots 461:18 570:2
608:17 615:5
673:13
love 596:8 648:14
660:14
low 386:19 387:10
391:14 393:12
418:2,4,9 457:5
570:9 601:8 610:3
620:20 701:22
702:22
lower 423:16
430:20 469:9
475:13 492:14
500:5,7,22 544:9
546:7 547:4,8
548:3 572:7
lower-rated 548:8
lowest 418:11,20
low-rated 388:12
390:10,13 391:13
lucidly 593:21
LUCY 366:8
lunch 521:11,15,22
Lutzker 365:9,10
365:10
LYNCH 365:5
L-R-F 654:19

_____
M
_____
M 364:19 365:4
MacLEAN 365:5
537:22 540:3

567:17 594:17
703:21
Madison 364:13
main 390:1 402:2
453:10 492:16
major 371:16
450:4
majority 567:14
making 497:17
501:14 503:7
517:4 520:12
543:2
man 588:3 636:19
636:21
manila 644:4
manipulate 622:3
manually 622:18
656:14
March 369:8
378:22 491:7
698:7
margin 552:14
553:6 558:18
marginal 552:13
552:18 553:4,17
554:7 558:11,14
mark 367:8 393:22
625:5 626:5 645:3
marked 375:9
394:3,7 441:14
443:17 544:13
625:9 626:7 627:2
645:5,17 646:18
market 425:21
436:10 445:10,12
445:14,15,20,21
445:22 446:3,8,17
447:13 526:20
537:3 548:11
549:10 550:21
555:21 556:6
560:18 646:2
marketplace
389:20 420:14
424:3 426:12
542:8,11 549:19
555:18 574:5

markets 436:8,9,13
526:22 550:17
Marsha 448:13
515:5 535:11
Martin 672:8
matched 528:2
matches 623:11
628:20,20 630:11
630:12 663:7
672:2,3
material 492:17
520:18 560:5
561:20 570:21
materials 506:9
589:22
math 376:20 377:8
479:13 610:7,8
mathematical
379:4 466:22
467:3 497:14
702:2
Mathematically
465:15 638:13
matter 364:6,15
368:4 375:20
385:4,8 430:17
436:6 521:22
533:21 547:21
552:17 602:17
608:21 617:15
623:3 627:17
632:10,13 666:10
704:12
matters 408:14
555:22 561:6
666:6,6,10,11,13
685:22
MATTHEW 365:5
maximization
541:11
maximize 551:5
553:6
mean 378:8 382:20
389:11 395:4
398:15 409:12
412:5 420:13
444:8 445:13

494:15 501:7
506:21 512:12
532:18 533:5
536:11 569:16
586:6,6,7,20
591:17 610:6,16
616:18 617:9
621:19 629:4
634:17 649:8
652:11 657:10
662:3 664:1 693:6
695:7 696:21
703:1
meaning 386:10
420:22
meaningful 398:1
means 378:6
409:14 495:12
507:21 508:9
531:9 566:9 571:9
588:17 660:3,18
660:18 667:6
673:13
meant 420:16
456:11 493:2
514:20 584:12
669:19
measurable 446:8
447:12
measure 389:2
446:3,8 447:13
457:11 471:16,21
472:8 476:7
477:12,13 487:10
537:11 558:13
637:7 648:18
682:19 683:7,22
697:21
measured 369:22
373:3,14 376:16
414:12 458:10
477:5 542:13
617:14 685:4
688:5,10
measurement
372:10 378:22
421:22 458:8

505:10
measures 421:18
467:17 471:13,14
476:9 480:6
measuring 374:10
422:7 477:18
478:10 663:17
media 423:14
438:22 449:14,14
674:3,7,20 676:5
694:16 695:1
meetings 435:6
memory 623:16
652:12 673:16
mention 548:21
mentioned 369:12
372:11,12 389:4
393:14 450:19,22
452:12 464:15
466:20 467:1
559:15 595:11
mentioning 549:1
mentions 482:17
merge 510:15
632:20 633:9,13
635:21 653:16
676:6
merged 442:19
631:5 632:4 671:6
674:2,6,19 676:4
676:7
merges 632:16
merging 632:12
637:2
merit 661:17 662:9
662:9
met 562:12
meter 371:22
373:15 389:1
431:4,4,5 563:21
674:20 676:4
metered 372:12,20
373:12 374:5
meters 372:22
374:1,17,22 563:3
method 409:14
methodological

458:17 460:8,11
538:9
methodologies
523:2,7,10
methodology 411:4
411:5 412:13
440:16,22 475:2,7
475:17 476:4,5
477:15 478:2
479:21 480:21
481:5 482:22
484:2 489:20,21
503:14,18 508:3
510:2 511:10
520:3,6 522:8,21
523:12,13,14
527:14,22,22
528:5 536:21
565:17 588:19
589:8 611:2
682:19 683:6
691:10 692:19,21
695:1 702:16
methodology's
493:6
methods 437:12
metric 430:10
475:14
metrics 703:11
metropolitan 439:2
Mexican 532:12,15
604:22
micro 388:6,8
microeconomics
438:13
middle 469:14
525:9,17 550:18
599:15
midnight 643:5
644:11 648:11,16
648:20 659:12
million 386:22
387:19 432:3,5,7
432:7 465:8 467:4
474:5 506:18
508:17
millions 652:13,13

653:19,21 679:20
680:8,8,14,15
mind 377:12
386:20 393:3
401:17 410:5
519:3 668:10
690:3 700:7
mind-numbing
667:5
mine 384:17 502:6
526:13 578:19
615:14
minute 381:7 389:5
432:6 620:16
637:9 684:5
minutes 380:10
381:14 459:5
471:5 474:5 477:8
477:10 521:10
525:1 608:20
704:3
mischaracterizat...
594:18,21
misconstruing
617:2
misnomer 409:1
missed 512:17
647:1
missing 491:11
641:15 658:9,10
misspoke 500:5
536:9
misstating 551:12
mistake 485:1
546:1 582:7
689:10
mistaken 501:20
618:14
mistakes 487:14
689:12
Mitchell 366:11
mitigate 499:11
mix 447:6 456:18
554:2,4
mixed 616:14
mixes 554:21
mixing 689:3

mode 408:18
model 466:9 546:4
546:4 572:1
611:16 617:8,10
647:5
modest 485:3
modifications
488:19
moment 394:7
463:13 476:22
575:13 592:19
597:12 624:5
627:14 689:3
momentarily
453:16
moments 521:4
Monday 420:6,6
money 587:13
monkey 633:19
monkeys 626:1
months 379:5,6,12
383:5 384:11
442:8,10 448:17
448:18 449:11
461:18 462:2
463:11 467:9
528:6,7,9,13,14
528:17,20 529:2
529:13,13,19
530:3 564:8
609:19,21 610:2,4
610:12,16,18
611:6,6,11 612:14
613:10 638:5
mop 585:10
morning 368:18,19
417:18 418:12
419:10 434:2
458:22 493:19
518:8,8 519:6
704:9
motion 366:4
433:14 455:22
motivation 453:10
move 395:22
443:10,11 470:15
620:2 633:2

646:11 670:4
moved 394:8
movie 450:3,4
movies 446:14
  457:6
MPAA 367:17
  369:1 370:20
  375:4,14 385:20
  386:5 395:20
  397:22 398:12
  403:12 406:8
  409:22 410:18
  411:6,13 412:7,12
  416:12,18,20
  419:11 434:3
  440:19 441:10,10
  442:19,21 443:1,3
  443:4,7,11 444:6
  445:7 446:13,15
  448:13 450:9
  471:1 473:10,18
  474:2,8,18,22
  483:6,8 490:19
  491:20 506:12
  508:3,19 510:1,6
  513:5,9,12,13,14
  513:16 514:10
  516:9,10 518:21
  522:7 523:2,6,10
  536:21 549:12
  565:20 567:5
  576:16 577:14
  578:21 579:1,22
  580:1,15 582:12
  582:15 583:14
  587:6,10,16
  588:19 589:8
  590:7,15,17
  591:15 594:10
  595:12,18 596:3
  601:2,8,11,15,17
  602:13,14 620:16
  624:3 629:17
  634:11 672:13,17
  678:5 681:3,21
  682:11,12,18
  683:1 689:17

694:15,19 695:10
695:12 696:8,16
696:16 697:2,8,22
MPAA's 411:4,4
  506:5,6 544:19
  577:17 589:19
  627:16 697:16
MPAA-claimed
  470:19 677:22
MPAA-represen...
  375:12 467:13,18
  473:6 483:17
  486:11 671:17,19
multiple 411:21,21
  590:5 594:6
  598:12 599:10,10
multiplied 377:3,4
  377:5
multiply 377:9
  477:1 683:19
music 439:7 551:22
  560:20

N

N 365:6 366:12
  489:14
name 368:20
  399:17 405:10
  434:2,4 493:19
  588:2 629:1
names 399:7
  402:10 404:3
narrative 411:10
  539:10 675:10
national 372:16,18
  405:18 417:12
  426:4 434:20
nationally 374:8
  418:17 449:7
naturally 489:5
nature 538:15
NBC 489:15
near 391:8
necessarily 402:21
  423:15 506:22
  568:19 574:4
  582:19 584:22

585:21 664:10
necessary 387:11
  405:15 410:15
  508:20 580:10
need 387:4 398:13
  398:18 399:5
  414:6 425:14
  515:16 577:20
  583:15 618:6
  675:9 677:20
  679:8 703:12,14
needed 454:19
  585:6 627:20
needs 519:17
  594:11
negative 643:6
  661:21
negotiate 560:12
negotiating 543:7
  544:7 685:20
negotiation 562:19
negotiations
  439:13 543:13
  544:6 557:13
  562:11,21
Negro 490:5
neighborhood
  386:21 418:14
neither 445:18
  564:19 592:20
net 415:2 540:2
  541:4,10
Netflix 421:18
  422:8
network 400:17
  401:7,13,22 402:7
  402:17 405:7
  406:3 408:7,13
  429:12 430:11,16
  489:9,11,16
  545:19 604:22
  619:11 649:21
networks 393:10
  426:4,9 429:11
network-affiliated
  401:12,20
never 397:20 496:1

508:6,12 511:11
535:20 562:18
594:13 626:2
652:10,21 653:13
696:19 701:9
new 458:1,8 544:4
  576:7,8,10 625:5
  633:14 657:12
newspapers 439:3
next-to-final
  678:12
NGUYEN 366:10
nice 596:15 646:8
  647:16
niche 574:13
Nielsen 367:11,12
  367:13 368:22
  371:12 373:11
  375:6,19 376:1
  379:20 380:2,6,15
  381:21 382:2
  385:13 386:5,15
  389:6 390:7
  394:11 396:10,14
  396:15,16,18
  397:1 399:1,21
  400:21 403:13,20
  406:1,6 409:2,3,6
  409:12,14 410:21
  410:22 411:6
  416:19 421:17
  425:15,18 427:15
  429:11 431:3,4,5
  442:9,10,18
  448:14,15 449:5,7
  452:2,7 461:22
  462:17,20 517:14
  518:2,13 519:19
  525:18 526:1,5,20
  541:14,16 542:6
  542:12 572:20
  573:2,21 581:14
  581:19 582:4
  585:21 586:1
  591:6,18,22
  592:22 593:6
  596:3 598:1 600:9

600:12 601:12,15
602:14 603:8,11
603:17 604:11,18
605:3 606:18
607:16 609:19
610:11 611:15,21
612:13 613:9,19
614:6,14 615:12
616:20 617:15,19
617:21 618:13
619:13,19,20
620:9,10 624:13
624:16,20 625:2
625:13,13 626:16
627:1 631:4 632:3
647:21 674:2,7,19
676:4,11,21
686:15 687:11
Nielsen's 406:11
  612:9
Nielsen00 626:11
Niel00 627:4
Niel00.txt 624:10
  624:18
Nie100 624:8,17
night 490:12
  550:18
nine 638:5 679:12
nodding 453:13
noise 458:4
nomenclature
  589:15 651:7
non 481:22 482:7
  484:10 496:1
  501:17 514:15
  583:8 585:16
  591:10,17,21
  600:13 605:22
  697:19
noncompensable
  405:12 406:2,5
  408:1,6
non-Canadian
  516:17
non-compensable
  514:12,18,19,21
  515:2 536:7,10

604:20 605:6
606:10 619:5
671:11
non-compensables
604:21
non-inclusion
697:10
non-log 660:17
non-random 470:5
481:19 484:4
499:3,18,20
586:10
non-randomly
499:21 581:2
583:6 690:11
non-randomness
569:17
non-recorded
594:4 603:21
non-scientific
501:12
non-sweeps 461:17
528:13 611:6
non-zero 513:20
586:2
noon 459:19
normalize 633:11
normalized 648:10
normally 413:7
north 585:9
Northwest 365:6
365:10 366:12
nos 593:13
notation 405:4
note 397:18 431:5
608:19 655:20
656:2 690:15
notice 364:16
noticeable 427:19
noticed 483:3
489:8 594:1
695:11
November 692:11
nowadays 429:14
nuances 580:8
number 370:5
373:20 376:15

378:1,12 392:11
414:12 415:8
417:16 420:22
426:9 427:2 428:6
428:21 429:22
430:7,22 432:4
448:7 449:1,12,13
450:6 451:5,10,11
464:19 465:14
466:16 469:11,18
470:22 471:2,4
473:3,6,13 476:20
477:3 481:16
497:4 501:7
504:21 514:8,12
528:11 536:15
578:1,5,11,15,22
579:1 580:2
581:13,14 582:16
584:3 590:2
592:11 593:1,8
594:2,14 599:19
602:21 608:13
610:10 613:21
621:4,9 622:3
629:22,22 630:6,7
632:6,7 637:7,11
638:12 641:3,19
642:21 644:1
654:8 663:2 679:3
679:4,5,12 684:6
689:14,16 698:16
701:14 702:7
numbers 369:17
378:2 380:10
383:19 389:9
414:3 417:13
423:3,17 429:7
482:18 496:22
505:22 507:8,9,10
509:20 535:21
571:13 572:13,15
602:18 603:17,22
604:2,6,11 648:4
648:5 652:18
653:20,21 656:21
664:10,11 677:14

679:1,3,9,10
680:15 687:6
698:5,9
numbing 668:11
numerals 525:11
numeric 409:6
numerous 483:10

O

O 366:7
object 379:16
689:20
objection 396:1
397:4 404:13
411:2,9,10 412:16
440:8,9 443:13,14
511:13 537:22
538:10 539:12
540:3 567:17
594:17 646:13,14
653:3 675:2,12
687:14
objections 411:8
observation 519:9
519:12 694:12
observations 465:9
467:4,5 506:18
652:14 679:21
688:5,6
obtained 631:4
632:3 694:15,18
obvious 369:14
obviously 372:5
478:2 513:19
533:12,20 559:11
616:9 673:3
occur 410:10
421:11 424:19
696:19,21,21
703:1
occurred 386:11
424:15 428:18
429:8 526:4 628:5
occurrences 384:1
occurring 381:18
423:22
occurs 564:12

October 369:8
378:22 379:12
381:11 525:20
526:6,19
oddball 469:17
offense 668:15
offer 440:5 574:12
offering 547:13
offhand 384:20
399:22 429:7
642:22
Office 691:2
oftentimes 381:10
oh 421:15 461:6
473:13 524:14
525:15 544:22
550:4 557:16
559:5 563:22
584:18 587:18
598:18 604:8
605:14 631:9
634:21 657:11,18
662:2 664:12
666:3 696:21
698:20 700:12
701:12
okay 368:11 375:2
376:8 381:19
382:18 394:21
398:19 399:8,19
401:18 418:16
420:4 423:6 426:1
426:14 453:15
456:20 460:14
461:4 463:12
465:21 466:5
470:8,17 471:19
473:1 474:20
475:5 476:2
477:14 481:11
491:14 492:6
493:12 498:22
502:7,8 503:22
506:3 511:3
512:16 514:5
515:8 516:2
517:13 521:5

522:13,17 523:1,5
523:17 524:22
525:7 527:15
530:8 531:7,21
533:2,18 534:7
536:1 539:13,20
541:12 544:1,12
545:9 546:13
549:15 563:10,18
564:5 572:17
579:12 584:5
590:10,20 593:3
595:11,17 596:20
604:1 609:18
614:11,18 618:12
619:2,13 620:1,8
620:14 621:11
622:3 624:4 625:4
627:15,22 632:11
633:18 634:3,6
635:16 653:9
655:13 656:19
658:11,19 659:18
661:12 669:4
670:2 672:22
674:19 676:17
677:4,16,20
678:11 680:3
681:1,2 683:3,11
686:12 694:4,20
695:18 696:4,15
698:11 699:20
700:17 701:7
702:14 704:7
Olaniran 366:7
368:7,10 379:15
380:12,19 381:4
396:1,12 398:13
404:13 411:2
412:16 419:7,9,11
421:15 423:11
425:12 433:8,9,17
433:21 434:1,3
440:4,12 441:5,8
443:10,21 450:15
451:20 452:10
458:13,20 459:2

459:15,16,21
460:3 488:9 492:2
492:5,22 493:4,12
511:13 524:11
538:10,17 539:4
539:10 646:13
653:3 675:2,10
687:14 700:10,13
700:20 704:1,2,6
Olaniran's 428:19
429:1
Olympic 490:4
omitted 656:2
once 408:4 410:4
410:11 456:17
475:13 628:15
630:20 647:9
678:13
ones 490:11 525:6
648:3
one-page 393:22
one-pager 545:1
ongoing 424:2
on-demand 422:6
operate 559:18
operation 678:19
operator 447:2
540:22 541:17
542:19 545:15
546:17 548:5
552:2 555:12
operators 542:9,20
543:1
operator's 537:6
opine 477:14 529:7
529:20
opinion 446:2
481:6 528:21
594:19,21 597:17
661:17 688:13,16
opposed 372:20
400:16 520:5
529:3 693:11
option 545:15,16
545:16,18 546:5,6
546:6,14,15,18,19
654:7

options 545:14
548:4
orally 440:3 445:3
order 371:2 375:3
381:20 387:3,7
405:16 432:13
455:9 491:7 505:3
547:17 577:20
578:8 579:21
580:11 591:13
592:15 597:3
627:20 632:12
682:1 698:7
orders 491:6
organization 439:4
681:17,19
organizations
559:15
originally 384:3
522:10
originated 484:13
515:2 536:12,18
ought 689:10
outcome 460:20
461:2 647:20
output 507:18
510:20
outset 453:6
outside 439:3,12
453:5 482:12
484:13 538:19
539:11 543:14
564:9 567:6 569:5
569:9 685:13,20
overall 419:3
421:11 422:20
566:22 569:7
596:13
overlap 483:21
498:8,12 499:13
499:15
overlapping 503:8
overnight 700:8
Overruled 540:12
675:19
overseeing 435:5
overstatement

498:15
overstating 482:16
overstepped
407:13
overstepping
409:20
overvalues 479:22
owner 555:8
561:19
owners 444:17
556:16
o'clock 418:10,12

P

page 375:17,21
378:7 403:10
442:6,13,13
472:20 473:22
474:13 478:17
486:4 488:2
491:17 492:12
516:3,20,21 525:8
606:16 648:4,6,9
648:22 651:11
652:2 656:20,20
657:1,2,10 658:3
659:6 661:4
662:18 667:22
668:2,4 686:13
691:19 699:14,16
700:11,14 701:6
pages 442:5 525:9
646:4 655:16,18
655:18 667:5
paid 410:19
Paint 391:14,19
pairing 692:14
pairings 692:11
panel 473:2,12
506:9,11 508:5,9
508:11,22
panel's 542:7,10
paper 377:13
621:20 679:17
paradigm 685:2
paragraph 442:7
443:1 525:17

parallel 559:7
parcel 664:7
pardon 407:21
523:17 530:1
620:15 624:4
671:2
paren 654:9,9
parenthetical
654:7
part 370:14 376:8
405:13 406:15
413:8 420:20
421:21 422:20
526:5,18 532:10
544:5 550:12
555:14 558:15
572:10 596:8,15
599:9 605:1,2,5
614:3 640:22
643:13 645:19
653:14 655:7
664:7 669:8
684:18,20 689:5
particular 370:3,4
388:8 391:13
419:15,16,16,20
419:21,21,22
420:3 430:10
432:5 448:17
455:19 480:2
519:9,15 525:3,19
541:18,22 542:15
547:7 549:13
556:22 561:9
563:19 564:9,16
564:19 592:14
613:14 614:18
617:10 637:21
639:11 645:21
649:4 650:8 656:6
659:22 667:21
669:21 680:20,21
684:17 685:21
687:1 702:6
particularly 403:10
606:12
parties 398:11

416:22
parts 476:18 486:2
693:9
passed 588:3
path 594:11
pattern 593:5,22
Patterson 618:8,9
619:2 628:14
Patterson-Gray
672:11,16
Paul 367:3 607:17
pause 569:1 624:6
pay 621:8
payment 589:7,11
589:20
pays 413:18
PC 422:5
peculiarly 702:20
pedantic 675:16
peer 438:11
peer-reviewed
438:16
pencil 377:14
penetration 429:18
Pennsylvania
434:11 438:4,5
penultimate 678:3
people 369:18
371:22 389:1
415:20 417:16
420:22 430:2,7
432:15,17 438:20
477:3 511:1 518:3
524:10 550:16
560:12 606:19,22
607:1,12,14,22
608:2,17 636:16
636:18 654:4
percent 371:16,19
372:4 385:14,14
385:21,21 386:6
389:6,12,12,15
391:8,11,18 392:5
392:21 393:8,16
394:15 414:15
429:19 430:2
432:8,18,20 474:8

474:9,19,19
479:15 482:19
484:1,1 485:7
487:16,17 488:3,5
488:6,7 491:21,22
491:22 492:1,13
566:4 568:11,12
579:21 584:2
591:8 595:9
598:15,17 599:9
599:11 600:10,11
601:3,3,8,9
602:15,16,17
603:13,14 604:17
605:3,21 607:8,22
608:3 609:10,12
609:14,15,21
610:4,5,13,18,21
612:14,19 613:11
613:15,15,19,21
614:20 615:20,20
615:21 616:4
660:22 663:12,13
678:9 688:15,18
percentage 393:17
395:3,5 428:2
432:1,9,15,17,18
476:15,16 482:20
482:21 485:18
506:11 513:16
566:3 577:18
603:20 617:14
659:22 660:19
661:11 678:5,6
684:19 697:17
percentages 393:7
487:20 506:1
508:22 509:2
678:14
perfect 682:15
perfectly 580:17
perform 439:7
447:14 497:14
628:4 669:7
performance 439:4
559:14
performed 381:19

629:7 675:6
performing 463:15
489:4
period 374:7,21
385:12 390:20
420:13 422:13
424:1 428:3 429:8
429:19 432:19
476:10,13 485:11
485:12,17 486:1
486:19,22 487:8
487:12 493:6
506:21 520:3
525:22 526:2,3
564:10 578:6,9,16
580:1 609:20
613:18 637:21
659:16 665:3,4
683:16,17 684:10
684:12,14,17,19
686:19 688:22
689:6 693:7,22
periods 376:16
377:1 378:1,22
379:9 381:7
411:22 461:17
464:5 520:5
528:12 641:8
661:18
permanent 477:10
478:4 633:3
permutations
469:8 512:2
person 406:21
637:1
personal 443:8
627:10,13
personally 382:1
382:11 486:9
perspective 445:12
445:16 446:18
456:12,14 537:6
551:4 665:2
685:20
perturb 556:21
perturbing 470:6
perused 625:18

Phase 364:9 368:6
446:4,6 456:14
496:17 515:9
535:14 537:20
539:16 541:3
542:3,4,5 554:3
557:15,20 558:9
580:18
phrase 373:17
404:11
Ph.D 434:10
441:17,19 636:17
pick 365:19 409:15
547:14
picked 568:17
580:6
Picture 366:4
433:14
pictures 455:22
piece 402:16,16
404:6 405:3 421:8
Pillsbury 365:6
Pittman 365:6
place 370:20 407:6
414:5 430:19
466:18 476:17
485:19 652:4
684:16
places 435:21
492:9
plan 454:2
planned 459:12
platform 630:14
play 430:6 561:9
579:3
playback 424:14
player 424:13
pleas 574:21
please 384:22
411:9 434:4
435:19 441:11
455:13 459:9
472:18 476:2
549:7 571:6 575:1
597:1 615:7
645:13 676:3
683:4

PLOVNICK 366:8
599:17
plus 374:11 379:7
388:2
Poi 651:13 657:9
657:13 658:17
point 369:14 393:5
393:13 398:18
404:3 409:8 414:1
418:9 422:4,4,15
423:12 424:11
427:9 430:1,9,21
431:22 440:5
478:15 487:7
490:21,22 492:16
492:19,21 503:7
517:17 519:2
524:20 536:14
539:18 547:3
551:16 556:22
574:1,2 575:7,14
579:19 580:7
581:22 593:10
627:9 630:3 635:2
635:5 656:19
660:20 672:22
688:9 702:10
703:7
pointed 478:6
519:21 520:1,13
688:22
pointing 601:18,20
points 414:14
492:19 558:22
630:10 659:22
point's 531:15
Poisson 594:6
608:15 645:20
647:15,17 654:16
654:17 655:10,10
660:2,3 673:14
677:12
Pokemon 478:20
479:15
polluted 498:15
500:20
pools 411:14

popular 494:17
537:7 550:5
561:13
popularity 458:6
477:21 480:6
481:9 560:4,21
561:4,6
population 369:16
369:18 370:1
386:20 451:9
482:1 570:16
574:15 578:3
579:8 580:9
683:19
portion 606:8,9
portions 524:8
portrayed 652:2
position 397:19
434:17 435:1
547:22 551:12
653:13
positive 407:15
465:18 612:7
643:6 661:21
possibility 669:6
possible 383:14
548:9 650:5,18
possibly 370:12
654:5 696:19
post 562:17
post-deceased
588:15
potential 682:20
683:7,14,15,21
potentially 383:21
402:7 477:3
496:14 499:20
power 665:1
powerful 462:13
463:6
practically 521:12
pre 588:15
precise 576:21
577:3
precisely 574:7
650:5,18 662:11
precision 673:13

predecessor 416:4
predict 461:1,12,13
   462:11 463:3
   464:6 489:8
   502:21 509:10,13
   527:18 554:11,13
   574:7 592:2 608:1
   608:3 611:5,8,17
   612:6,7 651:12
   657:8 665:5
   673:12
predictable 652:20
predicted 467:4,7
   510:21 598:12
   629:14 654:8
   657:22 658:7,13
   679:13
predicting 478:9
   651:19
prediction 477:6
   500:21 501:2
   505:4 571:11
   673:17
predictions 463:8
   571:20 677:13
predictor 537:3
   553:12 574:10
predicts 528:13
   555:2
preferable 529:6
   529:14
preferences 471:9
preliminary 599:19
premarked 441:10
premise 590:9
prepare 397:2
   441:2,20 444:19
prepared 379:22
   396:15 441:22
   542:15 623:19
present 366:18
   542:16
presentation 670:1
presented 378:9
   505:22 506:1
   507:11 545:14
   680:6

President's 436:3
press 653:16
Presumably 473:15
presume 505:18
   532:12 621:21
   622:4 623:8
   634:12 655:14
presumed 587:12
pretty 380:16
   427:13 675:14
prevalent 697:15
previous 372:16
previously 439:19
   443:18 595:5
   646:18
price 445:16
prices 436:8,11
primary 435:7
Prince 483:5,8
   696:2,2,12,12
principal 434:19
principles 555:6
printed 644:18
printout 375:18
   626:10,14 627:4
prior 416:5 420:11
   420:12 427:15
   435:12,14,18
   445:1,2,3 518:10
   523:1 537:20
   541:19 577:8,10
   577:13,14 578:21
   578:21 594:8
   603:14 654:22
PRO 439:5
probably 370:13
   387:20 389:20
   400:16 408:9
   420:9 424:3,22
   494:21 495:5
   496:10 524:20
   556:17 607:17
   621:20 636:19
   637:1 638:17
   668:10 674:21
   675:5 676:15,16
   692:2 699:2 700:7

704:2
problem 499:11
   517:6 556:4 557:7
   582:18 585:17
   591:20 592:7
   597:19 636:1
   662:10 674:6
problems 452:16
   583:12 589:5
procedurally
   463:14
proceed 384:22
   433:17 455:13
proceeding 369:2
   380:1 410:20
   411:5 440:14
   443:4 444:2 446:5
   484:16 536:17
   537:21 542:3
   600:16 602:15,16
   602:20 603:2,14
   604:20 668:20
   681:22 688:20
proceedings 370:16
   370:20 371:3,10
   371:15 375:3
   389:5,7 411:1
   415:9 416:3,3,13
   446:6,12 459:6
   521:21 523:20
   524:1 537:20
   579:2 580:15
   594:9 597:3
   622:16 680:22
   704:12
process 405:11
   463:17 466:7
   509:8 523:3
   552:21 629:20
   631:22 634:13
   635:19 637:16
   647:3 651:16
   652:4 653:11
   670:13,17 671:10
   678:17,17,22
   691:6
produce 414:4

631:7 644:21
   680:18
produced 380:13
   403:21 407:22
   408:19 411:6
   414:13 506:15,21
   591:7 619:17
   630:5 634:11,16
   673:22 674:18
   676:9 680:1,4,5
   680:10,12,14
Producers 365:14
   368:21 493:21
   533:11
produces 552:18
producing 384:5
   391:2 404:8 405:8
   423:3
product 377:5
   391:4 476:9 548:7
   552:13 629:9,11
   652:6,19
production 437:5
   627:16 628:5
   671:20
products 446:21
professor 438:2
program 370:3
   375:12 390:20
   391:5 399:7,17
   402:10 404:3
   405:10 408:3,4
   410:20 411:14
   412:14 413:16
   415:3 429:12
   430:11,16 440:17
   442:19 443:3
   444:5 446:7
   447:11,15 451:22
   452:4,6 454:10
   456:5,6,9,16,18
   457:4 458:1,2,5,9
   463:9 466:17
   467:8,17,21
   471:17 476:12
   477:7,8 478:6
   479:22 480:2,3,6

483:2 490:5 494:3
   495:15 496:8,11
   496:16 505:11,14
   506:8 507:6,14
   509:14,16,17
   510:9,10 511:9
   513:10,11,14
   515:16,18 516:7,9
   516:19 533:6
   535:14 537:7,10
   542:10 543:7
   549:11,13,20
   554:15 557:5
   558:13 563:19
   564:2,7 565:2,6
   565:12 568:20
   598:9,21,22 599:2
   599:3 617:22,22
   629:16 633:8
   635:12,19 639:2
   646:5 650:9,14,21
   651:3,4 654:12
   656:8,10 657:4
   667:8 684:2 685:8
   685:18 687:3
   690:19 694:14
   696:1 698:6
programming
   383:14 388:18
   402:5 406:3,3,5
   408:1,6,7,13
   420:15 424:9
   427:22 428:15
   432:6 439:15,16
   446:13,14 447:6
   449:16 450:10
   456:16,17 457:3,5
   461:20,21 462:2,7
   465:7,9 467:17
   471:2 473:8,19
   474:2,3,10 481:8
   482:11,15 483:6,9
   483:18 484:9,10
   484:20 491:4
   494:9,10,11
   506:19 532:16
   533:7 543:17,19

543:20 545:17,20
545:22 547:4,5,6
547:18 548:1,12
549:10 550:22
565:4,8,20 567:14
590:16,18 600:14
600:15 603:1
604:19 605:18
606:9,10,13
614:22 619:5,11
624:3 671:11
678:1 697:20,22
698:1
programmings
412:9 462:15
programs 388:17
389:16 391:9
393:16,18 394:13
395:3,5 402:17
409:22 411:18,18
417:17 439:18
442:20,21 443:2
444:18 451:13
455:16,21 462:15
470:18,19 471:4
473:3,6,7,11,13
473:15 474:9,18
477:19 483:4
484:5,11 485:1
486:20 489:10,12
489:17 490:5
494:15 495:20
496:10,11 508:1
508:18,19 510:4,5
510:6 513:5 514:1
514:3,6,7,9,10,13
515:14 516:7,13
516:15,17 517:4,8
533:7 536:6,8,16
546:20 547:10,14
548:3,8 550:13
554:14 555:13
563:12 567:15
568:11,13,15,16
568:17 576:4
588:18 589:7
590:3 598:11

608:14 612:1,2,8
617:14 620:22
650:15 651:8
656:17 685:5
696:8 697:16
program-by 598:8
progressively
471:16
project 581:5
projected 507:6
580:17 581:2
projection 565:11
647:22 660:20
projections 454:13
500:19 503:8
505:3,21 565:3,15
566:16 569:4
651:22 652:16
657:16
pronounce 483:13
496:1
proportionate
449:1
proposal 490:9
642:3
propose 440:15
proposed 397:21
398:3 440:22
467:12 475:2,19
491:1,20
proposition 590:2
685:14
PROs 559:15
560:14,17
provide 413:8
435:19 437:13
471:13,16,20
472:7,12 508:14
508:16 511:6,7
596:5 635:10,12
671:8 682:12
696:17 697:3
provided 368:22
375:19 379:20
386:5 396:16
398:2,10,12 403:6
406:1,8 407:18

413:12 443:2
448:13,14 449:3,4
449:6,9 450:8,11
510:12 511:12
618:9 619:4,9
621:18 623:2,4,21
628:13,19 635:14
637:10
provides 378:19
446:7 447:11
492:13
providing 378:18
435:8
proxy 551:8,9
553:10
PRO's 439:8
public 457:18
publications
438:20
published 438:8,11
pulled 682:22
purchase 548:1
purchasing 471:15
544:4
purporting 533:22
purports 534:3
purpose 380:1
388:16 396:10
444:1 650:2
670:15 686:18
687:1
purposeful 452:15
purposes 388:4
409:5 442:11
528:21 538:15
573:4 580:18
670:1
pursuant 364:16
511:10 698:7
push 586:16,19
587:8
pushed 586:18
pushing 586:15
put 383:17 396:21
458:3 484:5
487:12 506:9,11
507:14 524:3

574:22 630:12
640:13 657:10
701:2
puts 481:5
putting 409:6
P-O-I 673:13,14
P-O-I-S-O 654:15
P-O-I-S-S-O-N
654:17
P-R-O-C-E-E-D-...
368:1
p.m 486:13 521:20
608:22 609:1
659:15 704:11

Q

qualifications
636:15
qualified 404:14
440:11
qualify 605:1 682:7
quality 458:6
650:14
quantities 436:9,12
quarrel 572:12,18
quarter 372:4
376:16,21 377:2
377:16 378:1,12
379:2,9 381:7
383:17 387:3,5,9
387:16 388:3,11
390:5,7,10 391:16
402:4 403:21,22
404:2 405:7,9,12
405:16 410:6
412:3,5 417:11,11
418:19 419:16,22
449:9 463:9 528:2
570:13 641:10
648:11,12 651:19
659:10,22
quarters 648:11
quarter-hour
376:22 464:22
465:8 466:17
467:8 504:22
505:13 506:18,19

510:16 519:15
528:1 532:5,6
599:2 609:16,17
612:1,9 614:19
629:15 633:10,11
639:2 640:17
641:1 643:8 644:9
644:11 652:15
659:11 661:2
662:14 673:17
677:13 679:14
680:9
quarter-hours
663:9
quartile 469:10,13
469:14 500:5,22
501:1 570:5,6,11
quartiles 470:4
502:17 512:4
569:14 571:10,20
queasiness 454:15
454:18
queasy 454:8
498:20
quelled 454:19
question 369:20
374:12 380:14
382:21 390:4
394:18 401:18
403:3 405:1
413:10 415:22
424:7,16 425:7,14
428:20 429:1
430:6 431:2,8,13
432:20 437:3
450:16 451:21
452:9 456:4
457:13,15 492:11
493:2 494:1 495:3
496:5 498:20
507:22 529:17
531:13,15 537:1
540:14 548:10,17
553:8,15 554:1
568:5 570:18
571:9 575:15
583:7 584:9 588:4

592:3,7,8 596:11
596:16 597:20
601:5 604:6,16
608:5 613:3
616:11 625:1,12
626:21 637:17
638:19 640:16
642:1,10 643:9
645:10,13 658:21
663:20 664:18
666:6,20 669:10
673:19 680:17
681:8 690:7
691:13 695:7,15
696:22 699:19
702:18
questioning 379:17
380:20
questions 381:3
382:9 395:1 396:4
417:5 419:12
424:4 425:4,4
426:14,15 453:21
492:3 495:14
497:19 545:3,8
574:18 579:3
609:9 670:12
671:5 675:3
703:15
quick 419:12
451:21 613:6
quickly 377:11,12
quite 369:13
370:16 397:1
418:9 445:21
446:15 451:7
456:10 469:2,16
471:17 479:12
510:17 531:12
557:15 560:7
561:15 583:20
593:14 635:2
695:6 696:20,22
quotation 574:17
quote 392:16 442:8
458:4 542:3
574:21,21 580:14

581:1,4 603:4
631:3 682:21
700:2 701:11

R

---

raise 425:4 572:9
574:18
RAM 652:9,11,22
679:21,22
ran 469:1 501:12
511:18 512:3,6
570:1 594:5
673:11
random 448:21
450:19 451:1
452:15,18 453:3,4
453:10,18 462:5
464:17 474:6
481:20 482:1,8
498:9,10,13
499:17,22 500:19
501:18 502:14,22
503:9 505:4,5,12
515:19 531:20
564:3 565:3,4,13
565:22 569:1,11
583:9,16 590:17
598:11 602:7
652:11 690:4
randomly 467:16
468:2 567:9 569:3
569:6 581:4,7
583:3,5,11 585:1
606:21 607:2
616:2 636:22
690:9,10
randomness
498:16,17 499:12
500:11 569:12
585:17
range 370:13
385:19 455:20
518:20 601:1,6
ranged 600:10
609:20
ranges 474:18
rank 533:22

ranking 702:1
rankings 542:20
701:22
rapidly 428:16
rate 518:4 594:19
663:17 687:22
688:14,17
rated 391:15
rates 413:8 517:16
518:21 573:5
687:13
rating 393:6,9
414:13 431:20,22
432:1,8 433:1
455:7,9 545:19,21
546:2,5,7,22
547:1,4,6,8 562:7
637:20 676:11,20
677:5,8
ratings 369:14
372:12,20 373:9,9
402:18 425:19
431:19 449:7,9
454:6,21 455:3
457:5 458:2
463:22 464:8,16
465:10,13,16,16
465:20 466:16
469:19 494:14
497:15 499:1,21
500:13 501:4
503:2 504:21
527:3,4 528:3,5
530:9,12 531:22
532:1 541:14,16
543:2 548:3 559:2
559:3 561:22
562:17 564:18,18
570:22 573:8
574:7,19 585:1,7
585:22 596:4
614:20 619:20
620:10 631:4,5
632:4,5 637:7
638:11,14,14
639:8,15 640:1,5
640:7,20 641:8,13

641:17 646:2
662:13 663:13,18
664:17 666:9,14
677:10
ratio 374:21 467:20
473:10,17 526:3,6
526:16
Raul 366:20 375:11
385:4 698:13
raw 375:19 378:9
379:19 380:4,13
380:20 381:21
389:6 394:11
396:10,17,17
399:1,21 406:1
509:5,7 511:3
605:16 609:19
613:19 617:20
618:13,16 627:20
628:7,9 653:16,22
reach 445:5 475:6
reached 581:21
read 442:20 488:1
491:19 518:9
519:6 524:8 538:6
541:22 573:19
580:13 581:15
585:5 596:1,19
603:4 611:20
626:18 632:1,1
638:4 676:18
679:5,7 699:5
reading 483:16
527:1 621:17
676:1
ready 521:15
real 613:5
reality 556:8
realize 400:20
really 387:7,11
389:22 409:3
410:15 432:11
435:7 455:20
465:15 489:6
500:11,15 524:9
528:16 547:17
550:16 554:9

555:11 558:5
559:20 566:10
577:15 578:13
583:14,15 584:19
584:20 585:2
587:8 593:17
612:7,17,18
638:13 647:4
660:9 703:13
reanalyze 613:17
reanalyzing 616:22
reason 376:8
385:16,18 386:1
394:15,17 398:16
401:4 402:2
414:18 420:20
451:7 453:9
492:16 530:1
532:20 535:6
549:6 572:2 592:1
592:13 594:5
596:10 611:19
617:9 627:1,9
634:2,7 649:6,10
656:7,22 657:14
664:4 669:21
682:7
reasonable 378:11
378:20 426:11
446:7 447:12
615:4
reasonableness
571:21
reasonably 392:7
577:21 625:16
636:8
reasons 383:3
393:2 413:19
430:19 447:10
587:16 593:6
608:15 636:3
650:12
rebuttal 367:21
375:11,14 385:3,6
385:11 395:20
397:5 441:18
474:15,21 475:1

478:14,17 484:18
486:4 491:18
503:11 516:22
544:14,19 618:3
619:15 634:9
686:9 691:16
692:18 700:20
701:6
recall 371:4,8,9,14
371:18 374:19
375:7 382:8
384:13 403:8,14
415:18 416:14,16
497:3 520:19
539:20 551:20
578:4,10 579:1,11
579:16 580:13
587:2 591:5,8,9
595:7 603:19,22
609:13 618:1
621:9,16 628:10
669:1,3,14 672:19
682:21 692:17
695:20 697:17
RECD 367:8
receive 430:7 573:1
575:17 589:20
622:8
received 397:20,21
406:6 443:19
488:15,20 520:18
603:8 618:12,15
622:16 672:20
694:17
receiving 477:3
recess 458:22
459:11 608:20
704:8
recessed 521:22
reclassify 490:3
recognition 399:20
recognize 398:22
399:2 620:11
recognized 574:3
recollection 373:8
374:14 386:11,12
502:4 578:18

579:6 595:14,15
623:19 625:1
692:16 699:22
recommended
467:22
recommending
491:16
reconvene 704:13
reconvening
521:18
record 368:4 431:6
431:21 434:5
447:1 459:7,8
493:1 534:16
579:15 599:21
608:22 609:1
690:8
recorded 392:2,4
513:18 591:18,22
603:6 614:9
records 615:12
RECROSS 367:2
425:9 431:15
redirect 367:2
419:8 425:7 700:7
704:1
reduce 595:12
596:4 597:16,21
reduced 418:18
598:17 644:6
reduction 485:6
562:16
redundant 551:11
551:15 703:10,11
Reel 490:14,15
refer 403:16
541:21 563:7
649:3 651:14
654:10,20 655:21
referee 438:15,18
reference 657:3
694:22
referenced 371:11
575:9 700:14
references 403:11
657:5
referred 380:19

466:1 525:1 528:7
548:13 553:18
578:20 602:5
684:10 686:4
referring 399:8
403:5,18,19
525:12 527:9
543:10 547:9
561:2 565:6 582:1
588:6 601:12
602:22 617:19
624:11 651:1
672:4 677:10
700:16
refers 442:9 489:15
525:21
reflect 369:15
424:8 590:21
reflected 423:3
446:21 472:15
520:22 521:2
reflecting 424:21
652:3
reflection 392:8
414:17 420:17
reflects 394:12
refresh 374:13
refused 697:3
Reg 525:11 573:20
599:14
regard 398:21
431:3 475:6 491:9
493:5 496:19
516:20 520:3
522:7 536:20
548:20 555:16
583:8,8 590:14
604:16 620:14
623:17 663:21
664:8 666:17
669:4,8,10 688:21
689:14 692:22
694:11 697:9,10
698:2
regarding 397:22
405:5 436:15
462:4 482:10

485:10 697:8,11
Register 542:2
597:5
registered 563:20
regression 367:15
460:13,15,16
461:9,11 462:10
462:14,19 463:5
468:5 470:9,10
472:3,5,6,10
488:13 501:13
507:7,17,19
511:19 512:7
519:18 551:10
571:19,22,22
572:3 574:22
592:2,14 593:7
594:6,7 595:22
598:4,8 608:16
609:22 610:14
611:3,16 614:10
615:7 617:8,10
628:12 629:3,7,10
629:12 630:13,21
640:6 645:20,22
647:12,17 649:15
651:21 655:1,10
655:12 656:7
658:5,8,12,12
660:3,5 666:4
669:18 673:1,4,16
675:7 677:11,13
686:1
regressions 468:10
469:1,20 509:9,12
510:17,20 608:1
regular 379:11
regulatory 439:21
622:16 668:19
reissue 683:5
rejected 397:5
491:13 537:20
rejecting 475:22
relate 702:13
related 439:9
559:12,12
relationship 372:6

373:2 414:11
447:10 453:17
454:1,4 460:18
463:21 464:9,11
465:12,17,19
466:22 467:3
469:17 499:1
500:13,17 501:3
503:1 504:20
505:1 531:21
540:21 554:19
564:17 570:22
638:10 641:12
644:10 646:2,6
686:2 698:16
relationships 419:2
437:14
relative 388:13
412:8,12 413:8,14
413:17,21 414:9
414:10,15,20
432:13 445:10,14
445:20,21 446:3,8
446:17,22 447:11
447:13 471:17
472:8 474:1
475:14 476:6,6,8
477:11,12,18
479:8 480:22
482:10,10 487:1,9
494:9 506:1,12,19
509:17 517:16,18
518:4,20 519:1,4
519:8,10 548:11
549:10,11,19
550:11,21 565:19
565:21 566:1
648:18,20 649:13
649:16 652:18
661:9 663:18
682:20 683:8
685:3 687:12
688:5,10,13,17
697:21 698:16
relatively 387:10
393:12 418:2,4
446:12 456:2

457:6 458:9
462:18 485:5
503:5 509:8
535:13 576:21
608:9 612:2,9
614:21
relevance 412:17
537:22 538:11
540:4,4 572:16,18
604:3
relevancy 600:21
relevant 369:6
422:13 457:17
494:11 524:8
575:10 604:7
reliable 441:1
490:1
relied 447:21
591:15 628:10
694:8
relies 481:18 574:6
rely 469:8 604:14
remains 520:16
remedy 569:13
remember 415:19
416:6 424:16
482:17 488:11,13
488:17 502:20
581:11 584:1
624:19 640:10
644:1 677:2 694:3
699:6
remembering
490:13
remove 641:7
removed 406:4
repeat 487:20
495:2 540:14
601:4 611:2 613:3
670:21 683:4
repeating 655:1
repeats 390:9
repertoire 560:17
rephrase 412:19
replicable 636:4
653:15
replicate 511:4

627:21 636:7,16
682:2 698:8
replicated 490:18
report 413:9 486:4
489:1 491:18
492:15,19 630:1
666:21 667:8,9
reported 409:17
669:17
reporting 492:9
reports 441:3
473:2
represent 369:17
375:17 394:9
493:20 533:11
579:3,17 626:9
representation
412:8,12 473:4
476:1 491:13
604:9
representations
600:8
representative
448:22 449:2,8
451:9 454:11
526:2
represented 375:22
401:2 440:19,19
442:20 445:8
467:14 471:2
473:19 484:20
486:16 493:10
535:17 536:3
620:4 670:19
671:14
representing 376:4
395:5 435:5 444:6
573:10 670:19
represents 379:8
476:15 626:19
627:2
requalify 407:14
requirements
668:20 669:3
reread 638:1
675:22
rerun 469:11

reruns 551:18
research 425:21
respect 396:16
458:16,18 461:15
470:8 490:7,12
492:18 504:5,7
519:4,9,10 522:13
529:7 530:5 536:8
549:6 557:20
560:13 571:7
573:1 576:2
577:22 582:20
601:17 650:15
respects 496:9
respond 551:13
636:22 675:11
responded 669:9
respondent 410:8
response 428:19
495:14 609:8
653:20
responsibilities
434:22 435:3
responsibility
435:7
rest 399:15
restate 426:22
675:22 676:2
restrict 477:19
605:17
restricts 482:3
resubmitted 698:9
result 413:21 415:2
463:16 469:19
542:6 629:19
632:13 651:21
660:8 671:13
674:10 676:7
679:11
resulted 623:9
629:2,21 673:6,8
674:17 678:19
results 387:14
469:2,12 470:6
472:3,5,7,10,14
475:20 519:20
530:4 598:5 615:7

631:8 636:11,14
669:18 677:11
retain 574:12
retained 506:22
543:13 679:21,22
retaining 456:13
retention 537:14
685:10
retransmission
701:14
retransmissions
471:3 473:18
516:8 690:19
retransmit 448:5,6
451:12 471:11,12
retransmitted
392:19 450:21
469:21 470:2
471:5 473:14,16
479:1 484:12
500:4 501:6 615:2
615:2 650:10
revealed 471:9
480:8
revenue 540:2
541:4,10 552:13
552:15,18 573:15
575:13,18 576:3
revenues 560:15
575:21
review 385:10
440:21 475:17
503:14 600:4
694:20
reviewed 371:5
385:3,6 438:12
444:21 445:1,2,4
503:13 524:19
525:4,6 533:15
539:18 589:3
600:2
reviewing 417:9
593:9,12
revised 698:5
revisit 490:7
rewind 657:19
rewrite 638:16

Reznick 450:7
466:12 488:16,20
520:18 618:8,12
618:16 619:4
623:19 628:14,19
Reznick/Tribune
489:10
re-transmissions
589:21
re-transmit 550:3
557:5,22
re-transmitted
533:4 545:21
556:5 559:2
575:18 576:4,7
578:15
re-transmitter
552:1 556:8
right 372:12 374:7
377:7 379:3
387:19 391:21
398:15 399:19
401:1 410:19
422:3 425:8 439:7
456:6 457:22
458:21 480:4,10
487:3 495:10
496:13 498:1
499:16,20 502:20
504:3 507:5 512:7
513:19 514:2,22
516:10,13 518:17
519:17 520:10
527:11 532:5
535:12 536:12
537:10 540:22
547:11 548:7,15
553:16 555:19
556:11,17,18,20
557:5,11,14
559:17 561:8
563:7,16 564:1,4
564:10 565:10
566:10 570:12
579:13,14 581:10
582:3,5 597:7
604:13 608:17

612:20,22 613:1,5
622:12 628:10
631:12,19 634:15
635:7 639:16
642:16 648:7,10
651:2 654:5
659:16,17 662:7
662:19,21 663:1,6
663:19 664:3
665:16 666:5
668:4 669:20,20
672:11 674:9,15
676:6 677:15
680:2 684:21
689:9 691:4
692:15 697:19
699:4 703:17
rights 410:18 439:4
550:2 559:15
right-handed 607:3
ring 591:3
roadmap 510:13
511:5,6 521:7,8
619:8 635:15,18
636:6
Robinson 385:7
600:5
robust 469:2 470:3
470:11 572:1
636:11
robustness 468:8
571:21
rolling 592:12
room 364:12
517:22
rough 432:4 471:21
roughly 473:9
494:7
round 610:10
routine 489:4
row 486:14
rows 478:19 486:8
546:12
royalties 410:19
444:10,16 445:7
483:22 588:18
589:6,7,11

royalty 364:1,8
368:5 410:18
411:14 440:16
444:4,11 467:22
475:19 487:15
488:3 490:19
491:1,2,20 504:5
504:7 565:21
566:8 567:1 569:8
589:12
rule 412:1
run 459:19 500:7
509:9 510:16,20
572:3 574:22
591:13 592:5,8,20
595:6 607:22
647:12,13,17
648:4,5,5 655:9
655:11 657:20
658:4,12 681:12
running 377:8
469:19 504:14,17
630:21 660:4
runs 651:7
Russian 614:17

S

S 441:17,19
safe 494:19
sake 546:20
sample 369:21
373:13,18 374:5
377:1 387:4,6,10
387:18,20 388:20
390:5 414:22
415:5 448:12,20
448:21,22 449:5
449:18,19 451:1,2
452:13,15,15,16
453:4,6,11,18,18
453:20 454:17
462:5,6 464:17,18
467:6 469:6,8
470:6 474:6
481:19,20 482:1,8
482:12 484:4
497:5 498:9,12,17

499:3,6,7,22
500:3,10 501:18
501:18 502:22
503:20 504:5,7
505:4,5,12 515:19
517:20 531:20,20
564:3 565:3,5,14
565:22 569:2,5
570:3 572:5,8
576:22 580:10
582:2,6 583:9,10
583:16 584:21
585:1 586:10
590:19 591:6
598:12 601:20,22
602:2,4 604:2
607:15 612:10
614:15 615:13
616:2 688:5,6
690:5 694:8
sampled 517:16
581:19
samples 374:10
392:9 448:10
454:11,12 462:18
496:19 500:1
577:20 601:19
603:21 612:3
sampling 410:5
450:20 452:14
454:16 498:10
580:9 582:21
583:16 588:17
Santa 434:13
satellite 383:13
405:18
satisfy 470:10
save 634:1,7 671:7
saved 507:14
633:21 634:4,5,12
634:15 652:21,22
653:7,8,10 670:13
673:7,17,20,21
675:1 676:9 680:1
saw 617:6 695:5
696:10,11 697:14
saying 373:8

383:20 391:11
404:5 405:22
407:14 409:3
413:2 420:17
421:9 453:14
502:11 509:19
525:2 527:21
529:11 545:12
551:7 552:15
557:3 561:12
581:1 582:22
584:7 587:7
612:12 613:1
617:20 655:20
656:12 657:17
666:16 671:1
679:9 685:19
701:19 702:8
703:4
says 375:17 442:7
473:13 477:8
487:11 525:11
540:5 545:17
567:10 574:21
580:15 607:16
612:10,17 613:10
613:14 625:13
637:22 647:14
649:1,2,3,18
650:20 651:12
654:7 655:8,19
657:2 658:11
663:9 681:2
scale 374:3
scenario 392:5
411:20 421:3
432:22
schedules 408:5
scheme 393:11
555:22
schemes 560:4
School 438:6
science 486:9 577:2
scope 538:20
539:11
scratch 568:7
scribbling 676:16

SDC 398:6,7,12
se 364:14 506:20
574:4 592:11
593:1
Seal 534:4
seated 459:10
second 378:4,6
379:8 397:16
402:14 442:17
448:20 465:22
473:12 475:11
476:11,19,21
488:11 490:20
498:5 553:21
558:15 596:8,14
641:18 691:21
secondly 447:4
454:19 481:22
603:3
second-to-the-last
479:11
secrets 587:19
section 444:12,13
573:19
see 372:18 373:1
376:10 378:2
380:14 387:15
391:11 400:13,19
401:10,11 423:8
432:13 441:1
468:19 469:2,12
473:9 474:5,17
479:7,10 480:13
490:8 494:13
510:8 512:9,17
525:10 534:7,9
540:20 544:21
545:12 554:8,20
555:1 571:1
572:16 580:22
581:3 590:16
604:3 607:8
608:13 619:18
620:3 624:9,10
626:14,18 634:7
635:2 639:3,9
643:4,7 645:17

646:3 648:1
655:16 657:3,4
658:4 662:12
664:9,18 666:13
670:2,4 671:9
681:2 682:8
691:20 694:21
696:5,9 698:20
699:15
seen 386:14 486:10
506:3 508:6,11,12
509:15 520:16
segment 519:15
segments 390:5
574:14 659:11
Seinfeld 550:4
Seinfelds 550:15
select 482:5 606:21
607:2
selected 386:7
467:16 468:2
498:18 499:21
500:11 503:18
513:13 531:7,8
532:1,2 578:11,12
602:7 616:2
618:20
selection 482:3
502:16 503:22
504:10,11 569:15
sell 556:17,18
557:4 562:4
575:16
seller 445:18 555:7
555:8
semicolon 651:14
654:8
sense 409:2 423:5
435:20 456:14,19
501:15,16 551:1,2
551:4,11,14
557:19 579:8
581:12 586:21
624:21 658:14
661:5 664:7
665:10,11 669:7
678:16 682:16

684:3 693:12
sentence 596:2
separate 383:11
414:6 469:20
501:12 510:3
511:2 512:3,6,13
543:14 572:3
636:5
September 371:2
375:3 594:10
597:3
sequentially 631:21
637:5
series 489:9 671:5
serious 574:18
serve 438:18
served 438:15
service 435:8
services 422:8
423:14 434:16
435:9 437:6
449:15 574:13
serving 369:16
set 390:2 399:11
406:5 407:17,22
414:3 449:6 450:5
451:22 452:1,2,3
452:6 460:19
462:12 469:7
488:15 497:20,20
497:21 540:9,10
582:9,10 633:7,7
633:7,8,14,16
635:8,8,10 658:10
sets 447:22 463:13
463:15,17 464:14
464:21 466:10,15
480:9 488:12
509:7 510:14
619:4 637:2 650:7
setting 435:4
545:10 685:21
Settling 365:2
415:17 416:5
seven 463:10 467:9
566:19
share 429:12,13,14

430:12 431:20,22
432:11,12,22
433:1 474:18
475:14,19 483:21
484:6 485:6
487:15 488:3
491:2,15 565:20
565:21 566:1,8
569:8 577:17
589:19
shares 411:13
431:19 467:12
470:15 474:14
490:20 491:20
504:5,8 509:17
566:22 567:1
588:22 589:12
629:18
Shaw 365:6
shock 607:3
shops 436:2
short 596:1 632:9
702:15
shorter 473:8
show 390:10
391:13,14,15
392:4 400:22
409:7 457:3
478:13 480:13
486:5,9 487:4
495:21 525:19
526:6,18,19
545:21 546:1,2,7
550:18 551:21
552:6,8 553:2,16
562:2 604:18
643:18 645:1,16
679:14 687:2
688:8
showed 386:6
605:3
showing 391:13
422:22 544:8
576:10 617:17
661:9
shown 484:18
487:2 526:18

shows 390:13
391:20 392:16
409:2,11 410:20
455:22 456:21
457:19 474:1,8,13
508:2 545:18
550:3 551:17
555:12 558:4
566:17 576:9
666:4,8
side 400:14 647:14
648:6 655:6 670:6
683:14
sign 534:11 655:6
signal 383:16
422:17 477:4
550:17
signals 389:21
448:5,6,8 484:12
547:16 557:22
significance 468:17
659:4,19
significant 415:10
424:13 427:7,10
427:19 463:21
465:19 502:18
504:13 529:2,4,7
529:12,12,15,20
529:21 530:6,7
540:1 573:9 585:8
639:13 640:19
643:8 664:9,14,15
664:15,16
signpost 471:21
Silberberg 366:11
similar 442:14
457:19 458:1
487:6 495:8
523:14 526:9
527:16,21 539:2
551:17 554:10
615:17 641:20
similarly 424:7
442:22 483:10
simple 389:8
429:18 546:8
593:10 602:17

610:7
simpler 662:3,5
simplification
561:5
simplify 510:19
simply 394:19
421:3,9 454:16
549:3 550:7
597:20 635:6
639:18 661:13
696:16
Simpsons 483:5,7
simultaneously
422:7
single 413:16 463:9
467:7,8 583:6
608:1 644:9
651:19 673:16
679:14
sip 542:21
sir 468:3
sit 407:8 527:8
sites 439:8
sitting 579:10
605:8 606:2,3
665:7 669:2
situation 384:15
410:14 413:20
421:8 430:13
456:1 545:10
552:13 559:13
562:2 564:12,16
situations 383:10
413:14 415:21
513:9 562:14
six 403:10 417:18
417:18 442:10,12
461:18 485:22
520:4 528:16,20
529:2,13 564:8
609:19 610:2
611:6 689:5 693:9
693:10,11,21,22
sixth 657:1
size 372:6 373:2
387:18,20 415:1
428:11 481:6

501:5,7,18,19
502:13,19 503:4
503:19 504:1
517:20 577:1
580:10 646:3
685:22
sizes 373:18 387:5
387:10 388:20
415:6
skewed 608:17
skip 478:15 485:9
slash 657:13
sleeves 592:12
slightly 389:22
474:16 592:4
638:17 661:11
slot 442:18 517:9
547:7
slots 517:5
slower 447:6
small 373:5 392:16
392:16 393:7
409:17 424:12
428:13 436:2
451:13,13 454:7
462:18 485:5
517:19 525:9
533:1,2,5,6
535:13 559:5
573:19 612:1,2,10
614:14 615:12
640:11
smaller 451:17
482:15,20 499:5,6
500:3,4,15,18
504:2,12 572:9
smile 480:13
software 483:15
667:22
solve 585:3
somebody 383:15
424:17 429:14
586:16
someone's 644:3
somewhat 457:12
509:3 527:16
529:18 551:17

582:10 693:3
some-odd 579:12
song 560:11 561:4
561:9
songs 560:5,16
561:13,13
sophisticated
547:20
sorry 395:16
407:21 413:1
416:1 427:1
444:13 447:2
454:6 465:7
481:14 487:19
495:2 500:4
517:22 522:18
539:8 540:13
544:22 547:1
554:12 581:10
589:22 596:15
601:4 616:13
618:14 619:16
644:14 648:12
657:18 662:17
667:15 668:1
672:7 677:6,21
695:14
sort 372:19 383:18
390:17 391:6
428:2 437:4
438:12 454:2
456:18 462:6,9
463:2 464:14,22
469:7 470:4 481:7
481:15,19 492:14
494:1 499:5 500:7
503:3 513:3 522:9
527:10,13 540:19
552:12 554:17
557:6 570:19
580:4 592:12
608:16 611:22
623:16 625:21
626:2 628:4
629:14,19 631:7
636:13 639:4
650:4 651:22

655:4 656:6 661:7
664:22 671:13
678:19 679:16
683:17 684:4,7,8
684:15 691:6
696:10
sorts 653:10
sound 377:7 490:17
495:8 578:7 579:4
579:13 596:7
620:21 621:14
649:20
sounds 458:20
459:2 507:21
582:1,5 601:19
683:9
source 372:1
422:17 444:7,9
448:1,9 449:12,13
455:3
sources 420:20
421:19 422:1
427:21 447:21
448:12 450:13
452:12 630:18,20
630:22 647:8
space 654:18,18,18
speak 406:18
407:17
speaking 391:3
437:6,7
special 438:13
554:2,4 561:1
specials 446:14
specialty 436:6,12
specific 386:13
387:9 396:6 404:9
419:17 427:5
429:6 436:17
506:6 511:9 599:1
669:3
specifically 382:7
386:17 391:2
416:7,16 423:8
458:15 462:4
695:13
specification

468:12,16 469:4
507:17 509:12
571:18 592:15
593:7 595:22
598:5 653:22
specifications
507:19
specifics 393:1
418:15 460:5
speculate 400:1,5,7
speculation 399:4
400:2 408:18
spell 434:5
spent 436:2 592:11
spin 585:5
spit 679:3
spoke 420:1,8
455:15 521:3
sponsored 396:22
sports 456:15
558:1
spreads 571:12
stab 397:12
stability 505:2
stable 503:3,6
stack 621:20
staffing 435:5
standard 372:9
414:11,14,17,20
445:6
standpoint 379:4
689:18
staring 521:12
starker 473:17
start 450:10,12
454:8 460:14
472:20 478:19
520:1 542:22
555:6 558:3
567:22 568:1
627:8 631:14
645:10 648:3
653:15 655:15
656:1,20 665:8
started 428:7
430:10 435:15
449:20 590:22

starting 418:8
574:1,2 575:6
659:11 674:12
starts 442:17
655:19
state 397:19 434:4
492:8 507:6
697:14
stated 505:6 609:8
685:6 697:18
698:15,18
statement 375:12
402:15,22 403:5,7
407:13 408:20
411:8 423:18,19
506:6 521:1,6
522:11,14 533:13
544:19 550:8,11
631:2
states 427:3 432:4
440:3 448:4
484:13 535:2
680:19
station 373:3 386:4
386:18 388:12
392:19 401:6,7
407:20,20 412:10
419:15,18 427:11
443:5 450:1,2,11
450:12 466:18
469:22 476:11,19
476:21 478:1
479:2,5 480:17
481:8,10 501:5,20
503:4 510:16
514:6 534:1,2,8
534:14,19 540:1
545:21 546:15,18
546:19 547:12,13
548:2 550:2
561:20 562:3
565:7,8 578:3
582:12 598:21
615:5 624:3
633:10 637:12
639:2 683:12,20
687:4 694:8

697:11 698:17
701:13 702:8,11
stations 372:5,7
373:4 385:19
386:6,7 392:16,17
393:4 400:13,16
400:17,20 401:12
401:14,16,20
402:1 404:1 405:9
411:19,21 419:21
420:18 421:2,4,10
423:13,15,17
426:5 427:3,7,10
427:18,21 428:6
428:21 429:22
448:17 449:3,5,8
449:17,18,18
450:21 451:8,11
451:13,14 452:13
452:17 453:5
454:5,7,7 462:2,3
462:4,10 464:5
465:1,6 466:1
467:16 468:3
469:4,10 470:2
471:9 481:7 482:5
482:11 483:20
485:4 496:22
497:1,12 498:3,9
498:10 499:6,7,15
499:17,17,18
500:5,12,15,18,19
502:2,16 503:9,9
503:18 504:12
514:4,10 515:19
516:17 530:9,13
530:20 532:1,9,12
533:3,4,14,22
534:12 535:2,7
536:3 543:3
547:19 556:19
559:2 563:12,13
563:14,16,21
565:5 566:2,10,11
566:13,18 567:4,6
567:11,13 568:9
568:10 569:6,9,11

570:7,10,16,17,19
571:10,12 575:18
575:22 576:16
578:6,9,11,12,16
578:22 579:1,9,12
579:20 580:2,6,17
580:18,20,21
581:14,14,19
582:4 588:17
590:4,4,6,6,17,19
590:22 591:1,7,10
591:11 601:1,7,14
602:3,8,14 616:3
618:20 631:3
632:3 637:8 674:3
674:8,21 676:5
689:15,16,21
690:4,10,11 691:3
701:16,22 702:5
702:20
station-by 701:12
station-by-station
532:3
statistic 391:12
statistical 434:21
435:9 437:12
460:17 468:11,16
482:9 503:7
661:17 667:21
statistically 447:5
463:21 465:18
569:4 585:8
615:14 640:19
643:8
statistically-signi...
447:9
statistician 655:11
statistics 436:20
437:7 438:19
440:6 461:5
468:15 602:22
605:15 648:14
660:14 667:19
statutory 556:7,10
556:12,13
step 382:20 390:16
405:11 411:16

447:20,21,22
466:7,8 523:18
622:20 658:11
660:4 678:2,3,11
678:12,15
steps 447:17
498:22 499:10
510:13 519:18
572:5 603:5,7
636:13 637:4
670:12,17
stick 658:13
sticking 394:1
stint 435:18
stop 665:3 694:3
Store 486:16
story 387:21
395:10
straight 396:9
straightforward
509:9 542:1
strategy 582:21
stratified 451:1,2,4
451:16 498:9
stream 630:9
streaming 421:18
422:1
street 365:6,10
366:12 636:20,21
stress 393:4 611:13
stricken 402:8
Strickler 364:22
382:19 383:1,18
384:8,18,21 390:3
391:10,18 394:22
395:9,12 414:7
450:17 451:15,19
452:8,11,22
453:13 454:14,22
455:6,12 459:12
469:5 498:4,7
499:8 501:16
502:8 512:18
548:16,19 549:17
549:22 551:3
553:20 555:4
556:2 557:2,12

558:14 562:13
569:16 575:11
576:5 583:7
584:10 585:13
586:4,18,20 587:2
587:15 596:21
597:4,9 598:16
599:5,13,16,22
604:15 605:9,12
605:20 606:5
638:18,21 639:7
639:14,17,22
641:4,14 642:5,9
642:12,19 643:10
643:16 644:5,12
645:7,12 658:20
659:1,9,14,18
661:3,12,16 662:7
662:15,21 663:1,6
663:16,20 664:3
664:13 665:11,19
666:15 667:1,10
667:14,17 668:2,6
668:8,11 669:5
681:7,10,16,20
682:9 691:12,15
691:19 692:1,10
692:17 693:13,20
694:4
strike 468:6 493:22
618:4
strikes 664:5
strip 388:18
strong 407:13
465:18 686:22
stronger 408:20
strongly 529:22
530:2
structure 556:6
stuck 469:15
student 438:3
studied 437:14
689:15
studies 416:17
577:13,14 578:21
578:21 582:14,16
607:1 668:22

study 375:5 385:20
388:4,9 389:9
409:22 410:18
411:13 413:22
424:1 437:4,8
506:6 530:8 535:8
538:14,15,16
540:9 542:6,12,16
563:12 573:21
575:1 576:16
577:19 578:22
579:22 580:1,16
583:3 585:15
588:1,5,6,8,9,10
589:2,3,5 590:7
591:16 597:16,21
599:7 601:2,8,12
601:15,18 602:13
653:11,12 689:17
689:21 690:12
694:13
studying 436:8
stuff 652:15
styled 545:13
subheading 620:6
subject 436:5
submit 438:20
submitted 524:7
subscribe 574:15
subscriber 446:20
537:11,13,14
541:9 554:20
573:16 685:9
701:22
subscribers 447:7
448:7 449:2 451:6
464:20 465:10,15
466:17 469:11
476:20 480:18
501:8 504:22
537:8 551:6,9
552:19 553:11,12
553:17 554:6,7,11
554:12,13 555:3
570:20 574:12
575:8 615:6
637:12 638:12

temporary 632:22
633:3,20,21 652:7
671:7 674:17
676:7,8 678:20
ten 370:11 562:4
tend 390:6 418:4
419:1 483:17
484:17
tending 420:21
tends 418:13
462:17
tenths 393:8
tenured 438:1
terabyte 635:1
term 414:8 521:7
673:2
terminology 405:1
terms 370:12
373:20 376:9
382:7 384:1
389:17 410:9
413:12 419:2
420:8,15 426:18
427:21 431:18
436:18 456:12
457:2 468:13,14
469:10,17 477:18
483:15 494:3
497:15 500:10
501:6 502:1,12
550:11 552:19
578:3 593:1,9
607:8 654:5 659:4
661:11 668:21
670:22 677:12
680:8 685:3
690:18
terribly 388:5
test 468:7,14 504:9
511:19 571:21
664:21
testified 368:22
381:9 415:8,16
416:2,11 433:16
439:19,22 440:1
510:2 514:6,11
536:5 569:22

583:13 619:3
671:12,18 673:5
688:19 697:13
testify 404:15
416:21 536:1
538:18
testifying 411:3,6
416:20 567:18
testimonies 506:2
507:11 519:7
600:8
testimony 367:19
367:21 369:12
373:7,21 375:11
375:14 380:9,9
385:4,7,11 395:20
396:19 397:5
403:11 405:2
409:1 428:19
429:1 441:16,18
442:6,15 444:22
445:2,3 455:15,20
466:20 472:15,16
474:15,16,17,21
475:1,17 478:14
478:17 482:18
483:13 484:18
485:16 487:11,21
493:5,8 495:16
496:18 498:2
503:11,12 511:17
512:10,11,11,15
515:5 517:1 518:9
520:19 528:16
544:14 548:14,22
567:21 578:2
600:2,4 604:14
611:20 617:3
618:3 621:10,14
621:16,17 628:11
630:17 634:10
637:5 638:9 642:3
647:10 678:9
679:6 680:11
685:7,11,18 686:5
686:9 691:17
694:21 695:5,21

696:7 698:21
699:12 700:15,19
701:12 702:12
testing 468:16
tests 468:11,20
469:7 499:4
511:18 570:2,5,11
textbooks 445:4
thank 368:11,14
369:10 384:21
385:1 386:3 395:9
397:10,14 419:4
420:8 423:10
424:4 425:2 431:9
433:2,3,5,21
447:3 450:17
451:19 455:12
458:12 459:16
474:20 488:8
492:4,5 493:12,15
522:4 539:10,13
558:20 569:18
597:10 599:4,16
599:22 609:4
621:11 624:21
626:4 644:13
658:22 668:8
676:10 694:4
699:15 700:12
701:6 704:10
theirs 544:3
theme 551:22
thereof 659:5
thing 402:14
463:18 469:15
529:19 540:19
542:13 580:4
582:22 595:21
611:3 614:7 656:9
663:2 671:1
things 393:11
406:2 469:3 478:8
482:14 528:11
539:1,1,2 540:8
572:11 585:3
595:13 602:21
603:15 607:13

611:4 621:6 630:4
640:4 644:22
653:10 655:20
689:18 690:2
think 369:11
384:19 389:14
396:5,21 399:5
402:20 403:2
404:14 409:8
412:7,11 424:22
425:1 426:16
450:22 455:1
456:5 460:7 472:9
472:11 489:14
490:12,21 496:3
497:4,5 505:7
509:4 513:3 514:5
520:8 529:4,12,14
530:6 531:1
533:15 544:14
550:19 551:16,17
554:3 560:18
562:20 564:22
572:10 573:16
577:12 578:2,4
581:16,17 582:7,9
582:11,19 585:19
588:20,21 602:5,6
604:7 606:17
607:16 614:6,13
617:2 619:7
620:17 623:18
625:7 626:3,22
628:14 629:22
632:7 635:6,22
637:3 640:17
642:14 643:10
650:12 656:20
657:6 662:2,3,4
664:6 667:6,7,8
670:6 671:17
673:20 675:3
677:15 678:1
679:4,15 685:11
685:18 686:13
689:12,15 690:8
694:2 695:19

699:2,9 700:5,15
thinking 383:22
509:4
third 449:6 462:12
475:16 476:12
477:7 487:3
490:21 611:3,12
631:15 648:22
thought 398:9
413:1 501:17
515:20 528:17
559:11 566:12
616:11 644:2
667:4 677:11
692:10 700:2
thousand 370:11
370:14 374:16
553:3,3 570:13
617:16
three 392:1 399:9
399:13 426:4
429:11,11 437:2
449:12 464:14,15
464:21 471:13,18
475:8 476:9 479:4
481:2 485:14
518:14,14 521:18
534:22 535:3
591:1 611:4
632:15 649:15
656:10,22 664:20
667:5 675:13
689:21
three-hundred
570:13
threshold 688:1
tight 414:16 577:21
639:20
tighter 639:22
640:3,21
time 370:4,17
371:5 374:5,7,12
374:14,21 376:16
377:1 378:1 379:4
379:13 381:10
385:12 387:8
388:17 389:3,14

390:20 391:6,15
393:5,13 404:3
409:13 410:16
411:18,21 413:4
414:21 415:10
420:18 421:19
424:12,18 426:7
428:3 429:9,20
430:1,21 431:8
439:16 442:18
450:10,12 458:7
458:11,21 459:22
462:10 476:10,13
477:22 479:5
485:11,12,16,22
486:17,19,22
487:8,12 493:6
504:14,17 517:5,9
520:3,5 521:17,18
524:20 526:3,13
527:9 528:12
539:19 543:19,21
546:9 547:7 564:6
575:17 577:1,1
578:6,9,16 579:7
579:9 580:1
587:12 592:12
597:7 609:11,20
622:13 626:15
637:9,18,21 638:4
639:1,11,19 641:8
641:17,19,20
642:20 643:12
646:3,4 648:18
658:3 659:16
661:6,8,18 662:1
663:21 664:8
665:3,4,22 666:5
666:9,11,12
683:16,16 684:10
684:12,14 686:19
687:4 688:21
689:6,19 690:1
692:22 693:7,22
times 377:16,17,17
403:12 412:10
415:8 473:14

481:1,2 487:4
552:7 564:9 584:4
590:5 593:17
641:2 664:20
675:6 677:17
679:19 689:5,22
692:22 693:1
tired 644:14
title 442:19 452:6
624:8 695:3,8
titles 443:3,4
451:22 452:4
467:18,20 483:2
483:11,11 555:13
589:18,20 620:11
620:18 621:3,3
623:7 671:17,19
672:1,12,17
694:14 695:10,12
696:17 697:5
today 430:13,15
520:20 579:10
584:5 606:2,4
629:13 630:17
669:2
token 519:13
told 494:17 535:11
535:12 620:17
627:19 642:13
682:12 696:15
tomorrow 700:6
701:3,8
tool 461:4 463:7
tools 460:17 468:5
468:6 527:18
top 416:7 501:1
503:19,20 525:14
545:15 692:2
699:3
topic 554:3 575:12
Toronto 494:5,20
total 383:4 395:6
395:10 448:7
471:3 474:1,9
506:13 513:4,16
515:16 519:20
534:1 548:4

560:15 637:10,11
678:5,13 684:18
totalling 384:11
touching 512:1
tough 388:15
track 422:9 438:2
trade 445:19
traditional 423:1
translate 559:3
translates 411:1
transmission 548:2
transmissions
471:1
transmit 539:22
547:17 552:3
556:19
transmitted 535:2
579:9 701:17
transmitter 550:1
trend 661:8
trends 643:7
Tribunal 573:22
Tribune 443:2
449:14,14,15
452:3,6 466:11,13
618:16,18 631:6
632:5 650:7 651:4
651:7 657:4 674:3
674:7,20 676:5
681:2 694:16,22
tried 393:4 485:21
493:11 568:21
571:14 700:1
tries 538:22
trouble 509:18
troubled 498:13
true 375:2 392:14
392:17,22 393:14
410:2,3,22 443:7
458:4,10 503:17
523:8 533:2
541:15 571:12
573:3 590:20
634:4 687:10
694:7,14 702:5,19
truth 638:15 703:2
try 373:4 376:20

476:7 483:12
499:4,11 527:3
549:18 551:16
553:5 565:1
569:13 583:17
584:21 589:15
597:16,21 611:12
643:14 650:18
661:21 670:20
trying 373:3
388:10 413:21
428:17 501:15
527:17 529:16
540:6,7 546:10,17
549:9 551:13
583:21 584:11
593:20 612:15
621:8 644:1 650:4
664:8 665:15,15
675:15 676:18
687:20
Tuesday 364:10
693:16
tuned 432:21
608:14
turn 395:14 474:21
496:18 537:12
562:17 635:1
655:17,18 657:1
659:6
turned 391:22
468:21 489:2
502:15 507:16,18
507:20 509:11
512:22 640:8,14
691:2
turning 646:4
655:15
TV 421:19 422:16
425:19 426:7,20
427:2,17 562:2
twice 477:9 684:8
twisting 587:10
two 379:5,6,12
383:5,11 384:11
387:22 391:20
393:2,6 405:5

413:4 417:5
437:11 441:11
442:5,5,14 445:22
447:10 448:10,11
450:8 457:19
462:9 466:10
469:20 477:1
478:13,18 479:9
480:9 482:14
486:7 487:7 490:8
492:9,18,20 495:4
495:8 496:19
497:9 517:8 524:6
524:9,10 543:14
545:14,16,18
546:5,6,19 554:9
554:22 566:14
585:3 602:21
607:4,13 618:22
627:12 628:18
630:10 631:16
632:14,14 633:8
633:13 634:19
635:13 640:3
644:6,21 655:5,19
656:10 660:16
664:19 671:6
674:16,22 679:2
686:7 690:2
701:19 702:3,11
703:11
two-hundred
570:12
tying 405:10
type 384:4,15 390:2
391:3 402:15
418:13 449:22
451:11,12,17
456:9 457:2
466:17 478:6
489:14 525:10
559:18 562:21
615:1 639:2 646:5
650:22 656:10
667:8 668:22
types 373:1 455:21
456:5,6 651:3,8

656:8,17 657:4
typical 393:9
typically 562:9
625:20

U

ubiquitous 430:4
ultimate 466:3
502:21 515:22
ultimately 391:5
446:19 454:9
457:1,9 464:2,6
469:5 477:16
480:5 488:16
489:21 494:13
495:11 502:2
505:4,20 540:1
547:15 549:9
551:1 555:17
558:8 561:6
565:18 569:7
587:6 602:11
629:13 638:8
688:7
unaltered 491:3
unbundle 549:16
551:2
unbundled 549:20
557:9
unclear 415:21
556:14 623:21
undergraduate
434:12
underline 651:13
651:13 654:19
underlying 446:19
537:11,13
underneath 649:17
654:6,14 657:6
underpinnings
540:18
underscore 568:22
657:13 658:16
667:22 668:1
underscored
554:16 628:1
understand 369:20

370:15 391:4
395:1 398:17,18
415:9 444:1,11
452:14 453:14
484:10,14 485:2
489:2 493:7,10
504:19 509:19
514:15 529:14
531:12 533:21
551:13 552:20
588:13 592:6
596:11 597:16,17
597:18 614:4
640:15 659:3
664:20 667:10
671:4 677:1 679:8
695:6,15 696:22
702:15
understanding
373:21 376:3,13
406:10,14,17
407:7 411:12
419:18 436:8
444:8,9 456:8
476:3 514:17
515:1 532:15,22
533:8 534:13
536:19 538:8
575:20,22 576:2,6
576:13 589:11,18
603:2 613:11
671:22 682:3,6
691:8 694:10
695:18
understood 369:10
383:3 489:11
532:21 649:17
670:14
undertook 447:18
460:6 466:5
unfortunately
700:6
uniform 692:6
unique 394:13
414:21 471:1
473:3,7,11,13
513:5 516:7,7

561:1
unit 660:19
United 427:3 432:4
440:2 448:4
484:13 490:4
535:2
universe 432:2,9
482:2 515:21
University 434:11
434:13 437:22
438:4,5
unknown 461:14
unnecessarily
477:17
unpopular 561:12
unquote 392:16
442:8 458:4
unrealistic 555:15
unrelated 574:13
unreliable 475:10
520:15
unusual 608:10
update 474:15
updated 474:16
UPN 649:18,21
650:11,14
upper 469:13
492:14 530:16
upstream 630:3
Urbana-Champa...
438:1
urging 586:22
usage 420:17 422:5
422:14,21 423:1
424:8
use 375:6 388:15
438:19 453:7
454:15 455:1
461:13 462:10,20
463:15,17 468:7
468:18 469:9
486:3 487:7 489:7
500:20,21 541:14
558:12 560:16
564:20 570:19
576:16 578:1
582:8 584:21

585:10,15 586:15
587:7 596:3 612:4
622:11 623:22
661:20
useful 463:7 542:12
usefulness 541:16
uses 483:15 486:1
U.S 490:4 606:19
607:9

V

vacation 599:20
vague 529:18 579:6
valid 467:16 482:9
569:4 615:14
validly 569:8
valuable 456:22
472:11 473:15
549:13 550:14
685:8
value 409:22 411:1
439:6 445:10,13
445:14,15,20,21
445:22 446:4,9,17
447:13 458:4,11
461:2,12,13
471:17 472:8
475:15 476:6,8
477:11 478:3,10
479:6,8 480:22
482:11 487:2,9
507:13 508:3
510:3,9 511:9
517:7 537:3
540:21 541:17
542:11 547:18
548:11 549:10,19
549:20 550:11,21
561:10 571:11
574:5,7,10,19
575:4 617:17,18
658:10,13 661:20
677:21 678:7
680:19 681:3
685:4 695:10
697:21
valued 542:9

values 476:9 479:4
510:5,6 693:10
variable 460:21,22
461:2,12,14
468:17 485:13
647:19,20 648:15
657:12 660:11,12
662:19 666:18
variables 460:19
615:6,9 639:1,3,9
640:11,13,17
641:6 643:2 644:2
644:16 647:11,18
648:17 649:11,12
650:6,8 660:7,16
660:17,17 662:6
665:13
variant 667:13
variation 656:5
695:4,8,11
varied 497:4
varies 430:18 456:9
variety 430:19
456:6
various 435:2
445:4 452:12
468:11 517:5
550:3 581:15
590:21 634:10
651:2 665:12
vary 402:16 693:11
vast 567:14 701:13
701:18
Venevision 490:16
490:17
verbally 554:18
VERNON 366:21
versa 702:1,22
version 512:21,21
697:4
versus 389:12
405:19 420:11
504:10 510:9
549:11 563:15
567:16 568:15
689:21 693:15
696:7

vice 702:1,22
VICTORIA 365:5
video 422:1 486:15
  554:5
videotapes 422:15
videotaping 424:14
view 503:7 542:10
  651:13 652:20
  657:9,13 658:16
  673:13 683:12
viewed 393:10
  410:9 422:7
  526:19,21
viewer 385:20
  571:7 591:15
  601:2 603:6
viewers 469:18
  477:9 517:15
  526:16,17 551:7,7
  551:9 552:4,8,9
  553:3,4,7 574:8
  637:8 639:10,19
  640:2 641:20
  642:21 643:13
  663:18 664:17
  683:20 684:6
viewership 412:15
  428:22 439:17
  446:7 447:11,15
  457:6 458:7,8,16
  460:6,12 461:10
  471:17 474:13,18
  476:7,14,15,17
  477:2,4,6,12,18
  478:5,10 479:12
  480:7 482:10
  485:18 517:10,12
  537:2,10 540:20
  543:7,20,22 544:2
  544:8,10 549:3
  550:7 551:11,14
  552:11,17 553:10
  554:12,16,20
  555:2,15 558:13
  565:20 566:22
  575:4 605:4 615:4
  629:18 652:18

666:1 678:14
682:20 683:8,11
683:15,15,18,22
684:1,11 685:1,7
686:3,21
viewership-based
  523:6
viewing 369:15,17
  371:12,16 372:5
  372:19 373:6
  375:5 376:5,11
  380:3,15 381:21
  385:14,19,21
  386:6,19 387:1,9
  387:14 388:3,21
  389:6,10,16,19,22
  390:4 391:1,7,9
  391:11 392:2,3,5
  392:6,15,21 393:7
  393:12,16,19
  394:14 395:4,6,7
  396:18 400:22
  401:6,13,22 402:9
  402:19 403:22
  405:5,7,9 409:1,3
  409:7,11,17 410:1
  410:7,12,15,21,22
  411:22 412:4,9
  415:2 417:9,10
  418:1,8,11,17,20
  419:2,14,17,19
  420:11,20 421:6
  421:10 422:22
  424:9 425:1 429:4
  431:2 432:10,19
  446:22 448:16
  454:5,6,10,10,20
  455:5,6 456:8,9
  457:8,10,16,18,21
  458:2,18 461:16
  461:21 462:4,8,11
  462:16,22 463:3,4
  463:8,22 464:4,7
  465:11,13,20
  466:16 467:1,7,17
  467:21 480:2
  487:5 489:8 491:2

494:14 497:16
499:2,19 500:14
501:4 502:21
503:3 505:2,5,10
506:7,12 507:13
508:18 509:10,13
509:14 510:21
518:13 525:19,21
526:4,7 527:17,19
528:3,6 559:5
566:17,21 571:1
574:3,6,10,14
577:17 589:19
591:2,8,17,18,21
591:22 592:2,6
593:5 594:1,4,12
594:14 595:8,13
595:19 596:5,6
597:17,22 598:8
598:10,13,14,19
599:6 600:10
601:1,7 602:4,13
602:19 603:12,21
604:10,18 606:6
606:14 608:8,8
609:8,10,12
610:13,15,17,18
611:5,9,10,16,17
611:22 612:6,8,11
612:14 613:10,15
613:15,17,20
614:5,8,9,12,15
615:10,18 616:1,4
616:6,10,12,16,19
616:22 617:1,7,11
629:14 638:11
641:13 644:17
646:7,8 647:21
650:6,12,16,19
651:20 657:22
658:7 659:16,21
660:5 661:1,10
662:1,11 663:14
665:6 669:9
679:13 680:9
684:16,18,20
686:15 687:5

viewpoint 542:15
virtually 430:3
volume 471:3
  474:1,9 480:4
  513:4 515:16,19
  574:13

W

wacky 501:11
wait 645:9,12
  691:21
walk 476:7
walking 645:10
want 369:11 376:20
  380:21 424:20
  456:15 493:21
  504:18 505:2
  521:11 522:2
  532:8 539:9 544:9
  547:5 549:12
  552:2 553:1
  554:14,19 561:18
  567:22 572:8
  575:14 579:3,14
  581:12 584:13,14
  584:15 585:21
  587:13 593:18
  606:15,19 612:4
  613:3 614:3 618:5
  633:17 640:10
  644:20 657:15
  658:15 662:10
  664:9 666:16
  668:10 671:3
  672:10 674:4,13
  675:11 679:7
  697:18 702:12
wanted 425:11
  451:7 463:20
  464:9 465:22
  487:18 488:11
  497:7 543:18
  544:6 585:15
  586:9 617:4
  634:22 636:3
wants 404:15 524:9
  550:19 551:5

Warner 649:21
Washington
  364:14 365:7,11
  366:14
wasn't 452:17
  502:14,18 506:22
  518:7 556:13
  573:18 584:18
  587:8 630:3
  633:21 634:12,15
  634:16 670:14
  673:21,22 680:4,5
  680:6
watch 417:17
  550:16
watched 392:1,2
watches 550:19
watching 391:14,19
  391:19 409:4,13
  432:2,5 456:21
  457:2 479:15
  481:3
water 542:21
wave 468:18
wax 560:7
way 373:17 383:22
  386:8 388:21,22
  390:18 391:12
  401:19 407:13,16
  410:5,7 411:19
  417:14 418:21
  421:17,21 424:22
  464:13 471:7
  497:12 509:3,4,21
  519:19 540:10
  545:12 549:16
  562:7,20 569:3
  606:17 608:6
  624:18 627:18
  637:4 638:2 644:7
  652:2 656:15
  662:3,4,5 671:21
  675:8,17 684:14
  693:4,5
ways 642:3
WB 649:18
WBBB 546:19

wealth 449:16,19
452:5
week 374:9 376:22
377:4,17 390:8,19
390:20 391:22
424:16 448:19
449:10 463:10
467:9 566:19
694:1
weekday 692:7
693:12
weekdays 692:4,13
693:1
weekend 692:4,7
693:12
weekends 692:13
693:1
weeks 369:6 376:4
377:5,18 378:10
378:10,18 379:7,9
379:12 387:22
388:1,19 392:9,11
420:3,6 528:7
week's 424:18
weight 476:10,11
476:13,19 485:11
485:12,17 486:1
486:19,22 487:8
487:12 493:7
520:4 641:21
647:15 683:12,16
683:17,20 684:10
684:12,14 686:19
688:22 689:6
693:7,14 694:1
702:11
weighted 647:21
660:20
weights 370:12
weight_house_pr...
662:20
went 392:8 428:12
459:7,7 490:10,18
502:16 583:4,17
601:8 608:22,22
671:10
weren't 497:18,19

517:22 532:21,22
535:10 630:4,9
we'll 391:14 465:21
486:7 524:8 549:8
562:5
we're 374:10
379:19 380:21
386:20 391:2,11
398:1 400:4 409:6
419:13,14 421:20
422:4,5 423:3
446:12 499:22
524:4 549:9
557:17 558:8
561:16 563:18
570:5,9,16 588:21
589:12 603:13
606:15 608:19
625:6 652:14
654:12 699:2
we've 393:3 397:20
431:17 537:18
613:9 620:17
658:11
wght_house_proj
646:8
WGN 383:19
384:12 392:18
469:16,16,20
486:21 501:10,13
512:7,13 572:1,3
645:22 655:2,8,12
656:8,18 657:9,13
657:17,22 658:5,9
658:13
whack 371:20
581:17
Wharton 438:7
whatsoever 412:13
564:14,15
White 436:3
widely 461:7
willing 445:17,18
555:7,7,8,10
wind 453:16,19
456:7 484:17,19
winds 457:5 479:17

482:16 485:5
566:8 640:11
Winthrop 365:6
wish 538:13 557:15
558:17 607:16
667:2 669:14,16
669:17
withdraw 531:14
witness 367:2
368:9 381:1 383:9
383:21 384:14,19
390:15 391:17,21
396:7,22 398:7
405:3 412:19
413:1 414:10
421:20 422:19
423:7 424:11
433:5,6 441:6
451:4,18 452:19
453:2,15 454:18
455:4,8 456:4
457:22 487:22
492:10 498:19
499:14 501:21
502:7 512:20
522:20 538:1
540:13 549:5,21
550:10 553:8,22
555:19 556:11
557:11,14,18
558:17 562:18
569:19,22 575:15
575:19 576:12
583:19 584:18
585:18 586:13,19
587:1,4,18 598:18
598:22 599:8
605:7,11,14 606:3
606:11 638:20
639:6,12,16,21
640:3 641:5 642:1
642:7,11,16 643:1
643:15,20 644:8
644:13 645:9
659:8,13,17,20
661:7,15 662:2,8
662:17,22 663:5,7

663:19,22 664:12
664:18 665:17
666:3,19 667:2,13
667:15,18 668:3,7
668:14 681:15,18
682:3,11 691:18
691:22 692:5,15
693:2,17,21
699:21 700:12,18
700:21
witnessed 682:14
witnesses 400:5
595:6
Wonderful 553:8
wonderfully 463:6
wondering 381:13
word 454:15 496:1
498:15,17,20
500:20 501:11
513:3 569:1
589:14 686:22
698:14
words 382:20 409:9
476:11 486:3
524:22 561:22
582:14
work 403:20 404:7
404:10 406:11
407:1 416:15,17
416:22 434:14,15
435:20 439:2,9
543:5,9 578:1
670:7 681:17
worked 435:21
436:1 437:15
522:10 558:6
618:7 622:13
686:6
working 429:10
618:10 636:1
686:5
works 388:22
390:18 410:5
562:8
worksheets 590:21
Worldwide 490:12
worth 502:6 565:12

565:17 578:19
579:18 694:21
704:3
wouldn't 373:17
399:3 408:2
424:12 495:4,22
552:22 553:10
557:6 580:20
654:3 666:14,16
687:18
wound 467:6
469:19 501:1
WPIX 479:2
480:19 576:6,10
write 507:7 638:2,3
651:17
writing 676:14,18
676:19
written 440:3
441:2 445:3
485:15 487:21
512:11 521:1
554:18
wrong 409:9
542:13 579:19
610:22 657:8
659:15
wrote 637:18
638:15
WTBS 378:6
W-G-H-T 654:18

___

X

X 660:12

___

Y

yardstick 388:15
yeah 470:12 473:14
476:5 496:3 497:3
503:14 519:1
613:5 617:22
621:9 622:8,12,14
630:16 631:9
632:15,22 633:1
633:22 634:19,21
634:21 642:11
643:15 649:10
656:4 662:7

377:4,17,21 378:7
395:22 397:4
400:13 448:18
449:10 686:13
691:19
7,500 526:21
7.5 483:22
7.9 485:7
70 465:1,3,4,4
466:1 498:2
499:15 531:1,4,4
531:5,15,17
563:12,12,16,20
564:21 565:11
566:10,13 584:1
70-station 466:1
71 531:4
720,000 474:7
73 371:16,19 389:6
389:12 595:8
602:14 603:14
75,000 388:1
765 687:7
78 385:14 389:8
427:14 600:10
602:16 604:17
605:2,20 609:20
610:9

8
8 379:7,7 395:15,19
398:21 420:6,7
478:17 516:20,21
8,000 473:20
8,173 394:13
8,635 687:7
8:00 659:15
8:15 659:16
80 389:15 391:8,11
391:18 393:16
583:4,5 584:1
610:9,12,18
612:14 613:11,14
613:15,19 615:20
615:20 640:12,12
659:10
80s 424:3

81 530:13 581:20
618:19 689:21
690:6
82 385:14 389:8,11
600:10 602:16
603:13 604:17
605:2,21 609:20
610:5,9
83 579:22 580:14
85,000 526:17
86 649:1

9
9th 534:14,16
9:00 364:16 704:8
704:13
9:03 368:2
90 429:12,20
568:11
900 571:12 572:14
578:8,17,17
579:21 580:21
900-plus 570:17
90024 365:21
95 492:13 641:6
643:3 644:16
648:1,2
95-percent 577:6
96 641:4,5,5 643:2
643:3 648:2,2
649:2 661:18
97 371:10,14 375:3
389:5 474:8 596:2
602:20 604:12
98.4 474:19
98.93 491:21
99 474:8 581:20
599:9
99-percent 598:11
99.69 491:22
99.7 474:19
99.72 491:21
99.8 678:9
99.80 492:1 566:4
99.9 385:21 601:3,9
998 702:3

C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Distribution of 2000-2003
                  Cable Royalty Funds

Before: LOC/CRB

Date: 06-04-13

Place: Washington, DC

was duly recorded and accurately transcribed under
my direction; further, that said transcript is a
true and accurate record of the proceedings.

Court Reporter