

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA  
DURHAM DIVISION

Civil Action No. 1:13-CV-00949

DAVID HARRIS; CHRISTINE )  
BOWSER; and SAMUEL LOVE, )  
 )  
 ) O F  
 )  
 ) Plaintiffs; )

-v-

) STEPHEN ANSOLABEHERE, PH.D.  
 )  
PATRICK MCCRORY, in his capacity )  
as Governor of North Carolina; )  
NORTH CAROLINA STATE BOARD OF )  
ELECTIONS; and JOSHUA HOWARD, in )  
his capacity as Chairman of the )  
North Carolina State Board of )  
Elections, )  
 ) Defendants.)  
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APPEARANCES:

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Thomas A. Farr, Esquire, appearing.

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In Attendance: Dalton Oldham and Thomas Hofeller

At Raleigh, North Carolina.

Tuesday, May 6, 2014.

T A B L E O F C O N T E N T S

E X A M I N A T I O N

Witness	By Whom	Page No.
Stephen Ansolabehere	Mr. Farr	5

The following deposition of STEPHEN ANSOLABEHERE, PH.D., called as a witness by the Defendants, was taken before Glenda F. Hightower, Certified Verbatim Reporter and Notary Public, at the law offices of Ogletree, Deakins, Nash, Smoak and Stewart, 4208 Six Forks Road, Suite 1100, Raleigh, North Carolina on Tuesday, May 6, 2014 beginning at 12:25 p.m.

S T I P U L A T I O N S

Prior to the taking of the testimony, counsel for the respective parties stipulate and agree as follows:

1. That the deposition shall be taken and used as permitted by the applicable Federal Rules of Civil Procedure.
2. That any objections of any party hereto as to the notice of the taking of the deposition or as to time or place thereof, or as to the competency of the person before whom the same shall be taken, are deemed to have been met.
3. Objections to questions and motions to strike answers need not be made during the taking of this deposition, but may be made for the first time during the progress of the trial of this case, or at any pretrial hearing held before any judge of competent jurisdiction for the purpose of ruling thereon, or at any other hearing of said case at which said deposition might be used, except that an objection as to the form of a question must be made

at the time such question is asked, or objection is waived  
as to the form of the question.

4. That the witness reserves the right to read and  
sign the deposition prior to filing.

5. That the original transcript of this deposition  
shall be mailed Priority Mail Postage to the party taking  
the deposition for preservation and delivery to the Court.

1 Whereupon,

2 STEPHEN ANSOLABEHERE,

3 Having been first duly sworn, was examined and  
4 testified as follows:

5 Direct Examination by Mr. Farr:

6 Q. Henry Higgins, I presume?

7 A. (Laughs.)

8 Q. Could you please state your name for the  
9 record?

10 A. Stephen Daniel Ansolabehere.

11 Q. And during the course of this deposition,  
12 would you object if I called you Professor or  
13 Steve?

14 A. Not at all.

15 Q. Okay. Thanks a lot. Professor, I don't  
16 -- I've got a copy of your report which has  
17 been marked as Exhibit 9, and I apologize; but  
18 the copy that I have does not have a copy of  
19 your vitae attached to it.

20 A. Oh.

21 Q. So, I'm just going to ask you a few  
22 questions about your background.

23 A. Okay.

24 Q. So, could you tell me how -- when you  
25 received your education, and the type of

1 degrees you received and when you received your  
2 degrees?

3 A. In 1984, I received a Bachelor of Arts  
4 and a Bachelor of Science from the University  
5 of Minnesota. In 1989, I received by Ph.D. in  
6 Government from Harvard University.

7 Q. And is that --

8 A. Those are my degrees.

9 Q. Do you have a master's degree?

10 A. Well, I get a master's in passing in the  
11 Ph.D. program, so --

12 Q. Okay. So, let me --

13 A. -- as you qualify, you get a master's.

14 Q. Okay. Have you had your deposition  
15 taken before?

16 A. I have.

17 Q. Okay. Just a few ground rules,  
18 Professor: because of the court reporter,  
19 would you let me finish my question before you  
20 answer? A lot of times, people who are in this  
21 situation start having a conversation, and you  
22 know what I'm going to say, and I think I know  
23 what you're going to say; but to benefit the  
24 court reporter, try to let me finish my  
25 question. And I will try very hard not to

1 interrupt your answer. Is that okay?

2 A. I will try my best.

3 Q. Okay. I'm looking at your -- your first  
4 -- you've done two expert reports in this case,  
5 is that right?

6 A. Correct.

7 Q. Okay. I'm looking at the first one,  
8 which I think has been marked as Exhibit 9,  
9 which you have in front of you. I want to ask  
10 you about some of the experiences that you've  
11 listed in the first few pages of this exhibit.

12 So, could you tell me -- in the first  
13 paragraph, you say you directed the Caltech/MIT  
14 voting technology project from 2000 to 2004.  
15 Could you give me an explanation of what that  
16 was?

17 A. Following the 2000 election controversy,  
18 the President of Caltech and the President of  
19 MIT initiated a project to study voting  
20 technology to try to help find technical  
21 solutions to various problems that were  
22 discovered during the elections.

23 And I organized a team of engineers,  
24 computer scientists and social scientists to  
25 try to develop new voting technologies, new

1 registration procedures and so forth, and to  
2 help advise different organizations,  
3 governmental and non-governmental.

4 And as Director, I was responsible for  
5 raising the funds for that, organizing the  
6 activities, helping prepare reports and  
7 coordinating any kind of consulting with  
8 government.

9 Q. Okay. Was that your first job after you  
10 got your Ph.D.?

11 A. My first job after my Ph.D. was I taught  
12 at UCLA, and I was a Professor of Political  
13 Science. Then, they didn't have a statistics  
14 department; they had a social statistics  
15 program. So, that eventually became the  
16 statistics department.

17 And then I moved to MIT in 1995, and I  
18 taught at MIT. I was appointed in '94, but I  
19 moved there in '95. I taught at MIT until  
20 2007/2008, and then I moved to Harvard.

21 Q. Okay. What were your positions at MIT?

22 A. I was -- I started as an Assistant  
23 Professor and was immediately promoted to  
24 Tenured Associate Professor. I was then  
25 promoted to a full Professor, and then given an



1 endowed Chair. I served as the associate head  
2 of the department, largely in charge of  
3 personnel matters.

4 At MIT, I did various activities,  
5 including running a seminar for senior  
6 congressional staff on technology politics, and  
7 running the Caltech/MIT voting technology  
8 project and other programs and projects.

9 Q. Okay. Did you -- at UCLA or MIT, did  
10 you teach any classes?

11 A. Yes. I teach everything from Intro to  
12 American Government to Social Science  
13 Statistics to advanced graduate classes largely  
14 in elections and voting behavior; some in  
15 Congress and representation.

16 Q. And tell me what you mean by voting  
17 behavior.

18 A. Voting behavior covers a range of -- of  
19 research activities from public opinion  
20 research to study of elections and election  
21 outcomes, both in the U.S. and other countries,  
22 to various questions -- even engaged in things  
23 like election law, problems of representation,  
24 redistricting and so forth.

25 So, it really runs the gamut from the

1 very micro to the aggregate macro.

2 Q. Have you ever taught a class, or have  
3 you ever been engaged to predict election  
4 results?

5 A. I work for CBS News on election night.  
6 So, the job there is to actually call the  
7 elections on election night as we're getting  
8 real-time data. So, it's processing the  
9 election returns as they come in, trying to  
10 resolve discrepancies; trying to make a  
11 forecast so we're reasonably sure when an  
12 election is going one way or the other.

13 So, that's actually real-time forecasting;  
14 you know, what will happen when the election  
15 count is over and how sure are we that this is  
16 a finished, you know, election. Before that,  
17 though, we do a lot of forecasting for about a  
18 year and a half to try to get a sense of which  
19 elections are likely to come out which way and  
20 why. And that helps us manage election night  
21 and which races are we going to have to pay a  
22 lot of attention to and which ones should we  
23 not worry so much about.

24 Q. Okay. What sort of -- and how often  
25 have you done this for CBS News?

1 A. I started at CBS in 2006. Well, I  
2 started in 2005, but the 2006 election.

3 Q. And have you been employed by CBS since  
4 then?

5 A. Yeah.

6 Q. Okay. So, every general election since  
7 2006?

8 A. And primaries, yeah.

9 Q. And primaries, okay. What sort of data  
10 have you looked at for -- you said you do  
11 election day predictions and then forecasting  
12 before the election. What sort of data did you  
13 look at to forecast el- - or do you look at to  
14 forecast elections before election night?

15 A. Okay. We use surveys; surveys of  
16 different forms. Some are horse-race surveys,  
17 who is ahead in the race. Others are surveys  
18 having to do with, like, basic demographics or  
19 political orientations of the public: how many  
20 Democrats and Republicans are they, how they  
21 are trending; economic surveys.

22 Consumer confidence is a very good  
23 predictor of how the aggregate will come out at  
24 the end of the year. Then we also look at  
25 registration data at the precinct level and

1 past vote returns at the precinct level. And  
2 from that, we build a model to predict which  
3 precincts are likely to go toward which party  
4 given our model of how the electorate is  
5 trending that year.

6 Q. When you say you look at past vote  
7 returns at the precinct level, could you  
8 amplify on that a little bit? What do you mean  
9 by that?

10 A. So, we take precinct level election  
11 returns from prior elections. Like, for 2014,  
12 we'll look at the 2012 presidential, governor,  
13 senate elections and so forth in any state as  
14 reported by the secretary of state or whatever  
15 the election office is in that state. Usually  
16 it's the secretary of state, but some states  
17 have a board of elections like North Carolina.

18 And we'll take those data mapped into the  
19 precincts. Most of the states now work with  
20 the census voter tabulation district system, so  
21 that makes it easy to merge that into census  
22 data such as racial demographics, income  
23 statistics and so forth.

24 And then we'll use all that information  
25 merged in at the precinct level to do some

1 statistical modeling to form forecasts.

2 Q. Okay. And you've said that you use  
3 presidential, governor and senate to --

4 A. Yeah, we use a lot of elections:  
5 lieutenant governor, attorney general;  
6 secretary of state.

7 Q. So, are those elections typically  
8 statewide elections that you use?

9 A. Yeah. Our team -- I work with a team of  
10 -- of researchers that come from different  
11 domains. There's a Democratic consultant on  
12 the team, a Republican consultant on the team,  
13 another academic and then two in-house people.

14 And we have a discussion about each  
15 state, thinking about which -- given the  
16 context in which the election is happening,  
17 which election is likely to be a very good  
18 predictor of what will happen in this given  
19 context.

20 So, it depends on who the candidates are  
21 running; what the economic context is. If it's  
22 a bad economy, we might think about when was  
23 the last time that, say, a Republican president  
24 -- when a Republican was president and it was a  
25 bad economy, we'd go back and look at those and

1 how do the precincts shape up.

2 So, it's very context dependent in terms  
3 of which elections we will use as a -- kind of  
4 a bellwether election. We also take all those  
5 elections and average them so that we come up  
6 with, like, a party support score. So, the  
7 average of those will help us protect against  
8 there being an odd election that you can make a  
9 wrong inference based on.

10 Q. Okay. I guess my question was, are --  
11 are statewide elections more useful than, like,  
12 district elections in predicting election  
13 outcomes?

14 A. Well, a lot of what the CBS folks design  
15 -- because that's the national nightly news --  
16 are the national elections. So, they really  
17 care about the federal races. So, we -- and  
18 since most of those elections are really  
19 senate, some governor and then president,  
20 that's what we tend to use for those races.

21 For the U.S. House races, we don't --  
22 we'll do an ongoing tabulation and count --  
23 have a model that's using a lot of different  
24 elections to come up with a forecast. So, the  
25 average vote is used -- is what we'll use more

1 often in making our forecasts for the House  
2 districts.

3 Q. Do you use the statewide elections to  
4 evaluate the congressional elections?

5 A. Yeah.

6 Q. What sort of --

7 A. Well, there are some statewide elections  
8 we wouldn't use where it's just an  
9 idiosyncratic election. We would look at it  
10 and say, this is not correlated at all with the  
11 ten other elections that happened in this state.

12 Q. Unh-hunh (yes).

13 A. An example would be the Blackwell's -- the  
14 secretary of state election in Ohio was really  
15 uncorrelated with -- really had a low  
16 correlation with everything else. We didn't  
17 use that one.

18 Q. What do you mean by low correlation?

19 A. Well, in that case, it was about .6.  
20 These elections at the precinct level -- the  
21 precinct election returns tend to be very  
22 highly correlated with each other, .9, .8 or  
23 somewhere in there.

24 Q. Okay. So, I guess one question I have  
25 is if you have a statewide election where the

1 candidate wins by a very large margin, however  
2 you would define that, is that as useful as a  
3 statewide election where there's a closer  
4 margin of victory?

5 A. It depends on the state and what you're  
6 trying to do. I know that in -- it's called  
7 swing vote analysis or party bias analyses that  
8 all -- that researchers will tend to use a lot  
9 of different elections and try to predict out.  
10 But the ones that are closest to 50/50 in the  
11 outcome are the most useful for that kind of  
12 analysis.

13 So, which races you're using depends a  
14 little on what kind of analysis you're doing.  
15 For forecasting purposes, every state has its  
16 own average of -- like, Massachusetts is pretty  
17 Democratic; Wyoming and Utah are pretty  
18 Republican. We want to find which ones are  
19 going -- you know, which races are going to be  
20 close to the average vote.

21 For forecasting the key -- North Carolina  
22 is a pretty evenly divided state. So, the  
23 50/50 races are pretty good indicators, you  
24 might guess.

25 But for forecasting purposes, at the



1 precinct level, what we really care about, is  
2 getting a good prediction of the order of the  
3 precincts. And what we look for is, is there  
4 -- is there a precinct or a county that has an  
5 early return that's kind of a bellwether  
6 county, and it's going the wrong way or it's  
7 going towards one candidate or another.

8 Q. Unh-hunh (yes).

9 A. An example would be Ohio. This last  
10 election in 2012, we saw that Ohi- -- Hamilton  
11 County in Ohio which is in the Cincinnati area  
12 --

13 Q. I'm from Cincinnati.

14 A. Okay. It's a really closely divided  
15 county, but it tends to be -- it tips toward  
16 Republican.

17 Q. In the good, old days.

18 A. Yeah. So, if the Republicans aren't  
19 winning that county early in the night, it's --  
20 it's kind of bad news for Republicans as a  
21 predictor.

22 Q. Okay. I've got you.

23 A. So, what we're looking for is the rank  
24 ordering of the counties in the prediction, and  
25 if we see something early in the night that's

1 trending in the wrong direction for one of the  
2 parties, that helps us to make a judgement  
3 about how all the other -- all the other races  
4 are going to go -- all the other counties, all  
5 the other precincts are going to go.

6 And the reason is that because the  
7 precincts are so highly correlated, election  
8 returns from one -- elections are highly  
9 correlated as long as you don't have an  
10 idiosyncratic election in that mix.

11 Q. Unh-hunh (yes).

12 A. Then you -- you can sort of rank order  
13 things and see where -- where you are relative  
14 to expectations. And Hamilton would be an  
15 example of a county where we'd just say, "Oh,  
16 that's our 50/50 bellwether county. Let's  
17 watch that one tonight and see where it goes."

18 Q. Okay. Now, just -- has it been your  
19 experience that in states that are controlled  
20 by a particular party, that the legislative  
21 districts are often drawn to favor the party  
22 that drew the districts?

23 A. Yeah, that tends to be the case.

24 Q. Okay. And --

25 A. Not entirely, but tends to be.

1 Q. Okay. And does that raise any issues  
2 about using legislative races to predict either  
3 legis- -- state legislative or congressional  
4 races -- are there any issues that are raised  
5 by that in terms of trying to predict elections?

6 A. The usual problem with using legislative  
7 races to predict congressional races or a state  
8 legislative race to predict a congressional  
9 election is that you have different candidates  
10 running in different legislative races, and you  
11 have to somehow figure out how the candidate  
12 effect -- well, you might have an incumbent in  
13 one race -- so the other congressional district  
14 that has, say, three legislative districts in  
15 it, you might have a cong- -- an incumbent in  
16 one legislative district and he's doing better  
17 than the party average -- right?

18 Q. Unh-hunh (yes).

19 A. So, what we're doing for forecasting is  
20 thinking about how well a typical Democrat or  
21 Republican will do in this specific area. So,  
22 if we -- if we used the state legislative  
23 races, we'd have to think a little bit about  
24 what's the incumbency effect and how do we  
25 subtract that out or account for it.

1           So, using statewide offices tends to be a  
2   little bit easier because you've got the same  
3   two candidates everywhere. So, it makes it a  
4   little easier to do the forecasting.

5   Q.     And is it not true that the -- aren't  
6   there a lot of legislative or congressional  
7   races where the incumbent often runs unopposed?

8   A.     Yes. And some states like Florida don't  
9   report any election returns for unopposed or  
10   traditionally didn't. So, we don't even have,  
11   like, a total number of people who voted in  
12   that race.

13           So, for unopposed, that creates an issue.

14   Q.     That would not -- the sort of race like  
15   that would not be a good one to use to predict  
16   election results?

17   A.     Well, you just wouldn't use the year in  
18   which the data was an unopposed because there's  
19   no information. So, it's called missing data,  
20   and you would use other elections for that seat  
21   or elections in other offices in that year to  
22   construct an average.

23   Q.     Unh-hunh (yes).

24   A.     And that's one reason why you might  
25   construct an average party score because it

1 just omits those cases where you don't have an  
2 observation.

3 Q. How many -- what about the funding of  
4 respective candidates? Can that make a  
5 difference in terms of whether, you know, a  
6 very well-funded candidate defeats an  
7 under-funded candidate? Does that have any  
8 impact on the utility of that race for  
9 predicting election results?

10 A. It can. It's interesting that the  
11 academic literature on the effect of money on  
12 elections is -- is all over the place. We  
13 don't have a good sense of, like, what the  
14 effect of money is; and when you do a  
15 correlation between your vote and how much is  
16 spent, it turns out the correlation between how  
17 much is spent and your vote is negative if  
18 you're an incumbent.

19 That's an indication that vulnerable  
20 incumbents are the ones who have to spend the  
21 most amount of money. And that's been a very  
22 difficult -- very difficult to figure out how  
23 much money actually matters for the final  
24 outcome and what the net effect is.

25 So, the money -- money is a very

1 complicated thing, and we don't -- at CBS, we  
2 don't do anything to correct for that. In  
3 other academic work, I've researched that --  
4 that question; but, typically, in swing-vote  
5 analyses and so forth, people do not correct  
6 for money.

7 Q. Unh-hunh (yes). Have you ever done any  
8 research as to whether or not candidates who  
9 are substantially better funded than their  
10 opponent have any sort of edge in --

11 A. Yeah.

12 Q. -- a legislative or a congressional race?

13 A. Yeah.

14 Q. And what is your conclusion from that?

15 A. My conclusion is that it -- the -- that  
16 research has -- well, my colleague, Jim Synder,  
17 and I estimated that the elasticity; in other  
18 words, the percent changing your vote for a  
19 percent changing your money is about four or  
20 five percent.

21 So, if I have a hundred percent increase  
22 in how much money I spent; or if I spent a  
23 hundred percent more than the other guy, I get  
24 about a four percent advantage. But that's --  
25 that's a contested conclusion. Other academics

1 have written other things, so --.

2 Q. Other academics think it's a bigger  
3 advantage to have more money?

4 A. Some people think it's bigger. Some  
5 people think it's smaller. Some people think  
6 it only matters for challengers and not for  
7 incumbents. Some people think it matters only  
8 for incumbents and not for challengers. So,  
9 the literature is a mess.

10 Q. So, the effect of money on campaigns is  
11 contested?

12 A. Yes.

13 Q. Okay. Got you. All right. Looking --  
14 I think you've explained to me what you do as a  
15 consultant for CBS News. I now wanted to ask  
16 you about your role as consultant to the  
17 Brennan Center in the case of McConnell v. FEC.

18 A. Unh-hunh (yes).

19 Q. Could you tell me what the Brennan Center  
20 is?

21 A. The Brennan Center is a nonprofit  
22 organization in New York City. It has an  
23 affiliation with NYU. It was created, I think,  
24 in memory of Justice Brennan, and it works on  
25 voting rights issues -- a variety of them and

1 other issues as well.

2 Q. Okay. Is the Brennan Center involved in  
3 redistricting cases?

4 A. Probably. I -- I don't have any  
5 personal knowledge of it.

6 Q. Okay. And when you say you were a  
7 consultant in McConnell versus FEC, could you  
8 elaborate on that a little bit?

9 A. So, they approached me -- Brennan Center  
10 approached me about being the testifying expert  
11 in that case, and I passed because I was  
12 involved with other research, and I wanted to  
13 devote myself to that.

14 But they had asked me if I would consult  
15 with them, helping them think through things,  
16 show me data analyses; study, you know, kind of  
17 the merits of their own research that they were  
18 putting forth for the case.

19 Q. And could you describe the issues that  
20 were involved in that case?

21 A. The Brennan Center -- I think one of the  
22 things that was a main focus of their work was  
23 the Brennan Center prepared a series of reports  
24 on issue ads and what kind of words are used in  
25 issue ads, and how often -- how much money is



1 spent on those issue ads and so forth.

2 And most of my time I spent analyzing the  
3 data that they had collected, and I actually  
4 had them bring in an outside consultant, Anna  
5 Greenberg, to do an independent evaluation of  
6 that study where they just did a complete  
7 replication of the -- of the results.

8 So, we, like, really were getting into  
9 the nuts and bolts of how did they do their  
10 research and what are the problems with it and  
11 what are the strengths of it. Issue ads were  
12 -- I think they were the centerpiece for what  
13 the Brennan Center was focused on because that  
14 was the issue that they had sort of been  
15 pushing the most.

16 Q. Did that case McConnell v. FEC involve  
17 any matters related to redistricting?

18 A. No.

19 Q. Okay. All right. Then you say you  
20 testified before the Senate -- various Senate  
21 committees and a House committee, and the  
22 Congressional Black Caucus and you say on  
23 election administration in the United States.

24 Could you give me an idea of what that  
25 testimony has entailed before all those

1 committees?

2 A. Most of it involved testimonies related  
3 to the Caltech/MIT Voting Technology Project,  
4 what we knew about performance of voting  
5 machines and -- and we issued several reports;  
6 one important report called Voting, what is;  
7 what could be.

8 And various committees in Congress were  
9 very interested in that because they were  
10 considering legislation at the time. So, I and  
11 others in my team were pretty active responding  
12 to requests from Congress to hear what we had  
13 to say.

14 Later -- that -- a lot of that was in  
15 2001, 2002, 2003. Later in 2009, I testified  
16 on registration. Senator Schumer and Senator  
17 Bennett were having -- holding hearings on a  
18 potential voter registration bill that would  
19 have been some sort of comprehensive voter  
20 registration system for the United States.

21 I'd done a lot of survey work on who has  
22 trouble voting in the United States, and one of  
23 the things that popped out in that survey, just  
24 unbeknownst to me, was that the people who had  
25 the most problem voting -- when you get to the

1 point of requesting of a ballot -- say, an  
2 absentee ballot, or going to the polls or  
3 something like that or some problem with your  
4 registration -- were the U.S. Military  
5 personnel.

6 So, that's what I was testifying about.  
7 And that helped the Senators move forward to  
8 embrace the MOVE Act in 2009. So, that's where  
9 we ended up moving. And then --

10 Q. What was the MOVE Act?

11 A. I don't remember what the acronym stands  
12 for, but it was basically an act to improve the  
13 ability of overseas military personnel to cast  
14 ballots.

15 Q. Okay. That's a worthy project. Thank  
16 you.

17 A. You're welcome.

18 Q. Can you think of any other testimony  
19 before the committees that you mentioned here  
20 on -- in paragraph 2?

21 A. Those committees, no, but since I filed  
22 this report, I've been helping the Presidential  
23 Commission on Election Administration that just  
24 finished its work. It was headed by Bob Bower  
25 and Ben Ginsberg, and I testified for them on a

1 few things.

2 But, mainly, I was serving a purpose of  
3 trying to facilitate a lot of academic  
4 researchers to come together and help them  
5 answer specific research questions that that  
6 commission had. That's the most recent public  
7 testimony.

8 Q. And if this is going to take an hour, I  
9 don't want you to do it, but --

10 A. No.

11 Q. -- can you tell me what -- what the  
12 commission is looking at, what the issues that  
13 they are examining that you facilitated  
14 testimony on?

15 A. Okay. The commission was looking at what  
16 are the things that the United States,  
17 especially states and counties, can do without  
18 the passage of new legislation to improve the  
19 technical administration of elections in the  
20 United States.

21 And that included things like how do you  
22 reduce lines and so forth. So, one of things  
23 that I -- I built for them was a web page that  
24 just has different tools that county  
25 administrators can use to manage their lines.

1           You type in a few -- you type in some  
2 parameters, and then it tells you how many  
3 voting machines and how many voter registration  
4 places you should have in a given precinct  
5 given its turnout and so forth.

6       Q.     Well, explain to me how do you manage  
7 lines?

8       A.     So, it turns out it's an operations  
9 research problem. Like Disneyland has lines  
10 and how do they manage their lines. So, we --  
11 I worked with my colleague Steven Grades who  
12 I've known since the beginning of the Voting  
13 Technology Project, and he's an operations  
14 research person; and he developed a simple tool  
15 for -- for line management.

16           And it's basically an optimization  
17 problem, given the flow over the course of the  
18 day and the number of people who come to the  
19 polling place, and the backlog that happens  
20 from a bottleneck at any moment from the --  
21 from not having enough poll workers to check  
22 people in or not having enough machines to vote  
23 on. How many poll workers and machines should  
24 you have in order to minimize lines?

25           And it's a little complicated problem

1 because once a line starts, it creates  
2 feedback, and the line lengthens, so it will  
3 take some time to clear it out. So, we're  
4 developing some operations research tools to  
5 help people manage.

6 And the idea was, "Let's just put these  
7 tools out there for free so that anybody can  
8 look at them, criticize them, but also any  
9 county administrator can use 'em."

10 Most of the counties in the United States  
11 that administer elections are rural, poor,  
12 don't have resources; and that's a big part of  
13 the problem. So, they can't hire a consultant  
14 to come in and do this. This needs to be free  
15 for those people.

16 The other aspect of this is that Darren  
17 Shaw, who is my -- who is my colleague in  
18 Texas, and he -- he and I were helping to  
19 organize the research team for this commission,  
20 ran a survey of election administrators in the  
21 United States just to hear from them what they  
22 think is problem -- what the problems are, and  
23 what they think we can do better, and to get  
24 that information into the commission's hands.

25 Q. Okay. Does that cover your testimony --

1 A. Yeah, that's the --

2 Q. -- with the committees and working with  
3 the committees?

4 A. Yes.

5 Q. Okay. And then you say that you filed a  
6 brief with a couple of professors in the case  
7 of Northwest Austin Municipal Utility District  
8 v. Holder.

9 A. Yeah.

10 Q. Could you tell me about that?

11 A. That brief had to do with the question  
12 of racially polarized voting in the different  
13 states and questions of coverage under Section  
14 5, which was the issue at stake in that case.

15 Q. Okay. Did you testify in that case?

16 A. I did not. That brief was an Amicus  
17 brief for neither party. It was accepted by  
18 both parties.

19 Q. Okay. Then you were a consultant for  
20 the Rodriguez plaintiffs in Perez v. Perry?

21 A. Correct.

22 Q. Which is in the District Court in the  
23 Western District of Texas?

24 A. Correct.

25 Q. Could you tell what you did in that case?

1 A. I'm the expert witness in that case, and  
2 I've been --

3 Q. For which side?

4 A. For the Rodriguez plaintiffs; not the  
5 State of Texas, which would be Perry.

6 Q. Have you given any testimony in this case?

7 A. I have.

8 Q. Could you tell me what your tes- --  
9 again, I don't want to keep you here to examine  
10 you on your testimony in that case.

11 A. No, no.

12 Q. I just kind of want to know what you  
13 testified about.

14 A. That was in 20- -- that started in 2011,  
15 so it's becoming --

16 Q. What the subject of your testimony?

17 A. The subject was racially polarized voting  
18 in the State of Texas in specific congressional  
19 districts, the likely electoral performance of  
20 those districts, the demographic characteristics  
21 of those districts, the quality of the American  
22 Community Survey; questions about projections  
23 of citizen voting age population in states and  
24 localities.

25 Q. Okay.



1 A. There's details, but --

2 Q. That's good enough. Okay. And then the  
3 next case you have listed is the Department of  
4 Justice in State of Texas v. Holder?

5 A. Right.

6 Q. And that case is in the District Court of  
7 the District of Columbia?

8 A. There are two cases. I'm not sure which  
9 one you're referring to. There are two cases  
10 that --

11 Q. I'm just -- I want you to follow along  
12 in your expert report.

13 A. Okay. One is a Section 5 case in Texas  
14 on redistricting.

15 Q. Right. Is the Section 5 case in the  
16 District of Columbia court?

17 A. Yes, it is. There were two Section 5  
18 cases. One is -- right, so there's -- working  
19 on behalf of the Gonzales intervenors in the  
20 State of Texas versus the United States.

21 Q. Unh-hunh (yes).

22 A. That's the Section 5 redistricting case,  
23 and that concerned whether there had been  
24 retrogression or reduction in the number of  
25 black and hispanic districts in the State of

1 Texas.

2 And the kind of analyses done, again,  
3 were racially polarized voting analyses,  
4 demographic analyses and assessment of the  
5 likely performance of those districts.

6 Q. Yeah, I want to ask you a question about  
7 that. You say the reduction in the number of  
8 black and hispanic districts. What's -- in the  
9 context of that case, what was a black district?

10 A. There are several categories. One is  
11 whether it's a majority CVAP district; that is,  
12 whether the demographics of the district are  
13 such that a majority of the citizen voting age  
14 population, CVAP, was above 50 percent hispanic  
15 or 50 percent black.

16 Q. Unh-hunh (yes).

17 A. And then there are a set of districts  
18 that might be considered coalitional districts  
19 where it's black plus hispanic.

20 Q. Do the black and hispanics equal the  
21 amount that's over 50 percent of those  
22 districts?

23 A. Correct. But it's citizen voting age  
24 population. And then there is a further  
25 question -- it's an open question about whether

1 or not cross-over districts and districts where  
2 the black or hispanic preferred candidate can  
3 win but not with the vote -- but they're not a  
4 majority; and the whites are voting against  
5 them, but there are enough whites who cross  
6 over and vote with the minorities so it's an  
7 effective minority district.

8 And that's the -- that's actually a live  
9 -- a very live question in the courts right  
10 now, and it's a highly disputed question, I  
11 think.

12 Q. Is that a live question under Section 5?

13 A. It was a Section 5 question. Should the  
14 Department of Justice count that -- that  
15 district in making its retrogression analysis.

16 Q. Yeah.

17 A. And then under Section 2, it becomes a  
18 question as well, which what's the legal status  
19 of such a district if it exists. And then  
20 that's -- that's -- those are, I think, the  
21 central issues.

22 Q. Okay. And you have testified in that  
23 case?

24 A. Yes.

25 Q. Okay. And then you said there was

1 another Texas case that's pending actually in  
2 Texas?

3 A. Well, that case is coming back currently.  
4 I've not yet testified in that, and that is  
5 Perez v. Perry again, and that will be mid-July  
6 in the District Court, I think, in Corpus  
7 Christi.

8 Q. Have you made any reports in that case?

9 A. I just did the reports in that case.

10 Q. Well, just give me the --

11 A. The --

12 Q. -- highlights --

13 A. Yeah.

14 Q. -- of your report.

15 A. Yeah, the reports in that case were "See  
16 all my earlier reports" because it's all the  
17 same old issues. And then there were a few  
18 specific questions about Congressional District  
19 23 and Congressional District 25, and about the  
20 American Community Survey and the calculation  
21 of citizen voting age population.

22 Q. Okay. All right. And then I think the  
23 next one that's on your list is Guy v. Miller.

24 A. There's a second State of Texas v.  
25 Holder case.

1 Q. Okay.

2 A. That's the Texas voter I.D. case.

3 Q. Okay.

4 A. And that was a Section 5 case.

5 Q. What's the status of that case since

6 Section 5 has gone away? Do you know?

7 A. The Department of Justice is suing Texas  
8 under Section 2.

9 Q. Okay.

10 A. And I've been retained as their expert  
11 in that, but no reports have been filed.

12 Q. Okay. What about -- am I right that the  
13 next case is Guy v. Miller?

14 A. Unh-hunh (yes).

15 Q. What's that case all about?

16 A. That was redistricting in the State of  
17 Nevada. The State Legislature passed a plan,  
18 the governor didn't sign it. Nevada had  
19 received an additional congressional district,  
20 and they didn't have the process for creating  
21 it.

22 So, the judge in the state court created  
23 a panel to consider the voting rights  
24 questions, draw a new plan; and the different  
25 parties in the case had to weigh in on what

1 were the voting rights issues in the state and  
2 what the likely consequences of alternative  
3 plans that had been proposed.

4 Q. Are you a witness in that case?

5 A. I was a witness in that case.

6 Q. And for which side?

7 A. I'm trying to -- the Guy plaintiffs, yeah.

8 Q. What's that?

9 A. The Guy plaintiffs.

10 Q. Okay. Were the Guy plaintiffs minority  
11 plaintiffs or -- can you describe the  
12 demographic status or --

13 A. I think they were Democratic plaintiffs.

14 Q. Okay.

15 A. Democratic Party plaintiffs. It was a  
16 very confusing case because, like, there wasn't  
17 a plan and all sorts of maneuvers were going on  
18 that were -- one of the motions was that they  
19 just adopt a plan and ignore the veto of the  
20 governor, and was that constitutional in the  
21 state. Yeah, it was a very confusing case.

22 Q. In these other cases that we've  
23 mentioned, have you testified for other  
24 Democratic plaintiffs?

25 A. The plaintiffs in Perez v. Perry are

1 Democrats, I believe.

2 Q. In any of these cases that are on  
3 Exhibit 9, did you ever testify for Republican  
4 plaintiffs?

5 A. No. I've never been asked.

6 Q. Okay, Tom, don't feel so bad.

7 (Addressing Mr. Hofeller) Just kidding.

8 What about Florida Democratic Party in re  
9 Senate resolution of legislative appointment?  
10 Were you a witness in that case?

11 A. I filed a report. I did not testify.  
12 That is ongoing. The continuation of that is  
13 Romo v. Detzner. In re Senate joint resolution  
14 is a, kind of, preliminary process that was set  
15 up by the State of Florida in its new  
16 constitutional amendment that created a  
17 procedure for evaluating the state plans.

18 Q. Unh-hunh (yes).

19 A. So, they had -- the State Supreme Court,  
20 essentially, had a pre-clearance process where  
21 they did a preliminary evaluation of all plans  
22 to see whether a trial should be held, or  
23 whether the plans passed by the Florida State  
24 Legislature were acceptable as is.

25 And the Florida State House plan was

1 acceptable in their judgement, and the State  
2 Senate and congressional plans were deemed as  
3 not passing a prima facia review or facia  
4 review, and then it went on -- now, it's at  
5 trial; and that's waiting.

6 Q. Okay.

7 A. And that's Romo v. Detzner.

8 Q. Okay. So, that's kind of related to the  
9 other case?

10 A. Yeah.

11 Q. And are your clients in those cases  
12 Democratic clients?

13 A. It's my understanding that they're  
14 Democratic clients.

15 Q. Okay. And then the last case that you  
16 listed, League of United Latin American  
17 Citizens v. Edwards Aquifer Authority, --

18 A. Unh-hunh (yes).

19 Q. -- could you tell me about that case?

20 A. That's a one person one vote case. It's  
21 a water district that manages use of water in  
22 the area to protect endangered species, prevent  
23 pollution, prevent overuse of water; and I've  
24 been retained or hired by the City of San  
25 Antonio and the San Antonio water district.



1 Q. Okay. All right. Now, in this case,  
2 who has retained you?

3 A. I am retained by the -- the -- I was  
4 approached by the -- by John Devaney to see if  
5 I was interested in working on this case. So,  
6 I'm retained by the -- I'm sorry -- an early  
7 senior moment.

8 MR. SPEAS: Harris Plaintiffs.

9 A. Harris Plaintiffs. Sorry.

10 Q. (Mr. Farr) Okay. Are the Harris --  
11 there's two Harris Plaintiffs in the case now  
12 is my understanding. Is that your  
13 understanding?

14 A. I didn't know that.

15 Q. Oh, you didn't know how many there were?

16 A. I didn't know how many Harris Plaintiffs  
17 there were.

18 Q. Okay. All right. And have you ever  
19 talked to any of the Harris Plaintiffs?

20 A. I've not.

21 Q. Are they paying your fee, the Harris  
22 Plaintiffs?

23 A. That's my understanding, yes.

24 Q. Okay. Do you have a fee agreement with  
25 the Harris Plaintiffs?

1 A. I have a fee agreement through John  
2 Devaney at Perkins Coie.

3 Q. Have you submitted bills in this case?

4 A. I have.

5 Q. And who have you submitted the bills to?  
6 The Harris Plaintiffs or to John?

7 A. John Devaney in regard to the Harris --

8 Q. Have you received checks form --

9 A. I have.

10 Q. And are the checks signed by the Harris  
11 Plaintiffs or are they signed by someone else?

12 A. I've not looked at who the -- the checks  
13 come from -- directly from Perkins Coie, and I  
14 have not looked at the signatories.

15 Q. Have you worked with Perkins Coie in  
16 other cases?

17 A. Yes, I -- the Romo case in Florida is  
18 Perkins, and the -- and Perkins is involved in  
19 the Texas Section 2 and Section 5 redistricting  
20 cases. And Perkins was involved in the Guy v.  
21 Miller case.

22 They approached me in July of 2011 about  
23 working with them on the Texas redistricting  
24 case, and they liked my work, so they hired me  
25 again for other cases.

1 Q. Okay. All right. In paragraph three,  
2 you say you're an "author of numerous scholarly  
3 works on voting behavior and elections, the  
4 application of statistical methods in social  
5 sciences, legislative politics and  
6 representation and distributive politics."

7 Could you describe all those topics for  
8 me, please?

9 A. So, voting behavior and elections, I've  
10 worked pretty extensively on questions such as  
11 election forecasting, incumbency effects;  
12 campaign finance. I do a fair amount of work  
13 on voting behavior at the individual level;  
14 largely survey research in trying to understand  
15 what factors predict why people choose to vote  
16 for one candidate or another or one party or  
17 another, and also why people choose to vote or  
18 not vote but be registered to vote or not vote  
19 and what the implications of those are -- those  
20 factors are for understanding election outcomes  
21 in the United States.

22 Application of statistical methods in the  
23 social sciences, my research has -- one of the  
24 things I focus on is aggregational issues,  
25 like, how -- how do individual level data get

1 aggregated; some work on experimental methods.

2 That's older work. That's from the '90s.

3 Legislative politics and --

4 Q. Could you stop for a second?

5 A. Okay.

6 Q. I'm -- I know enough about this to be  
7 dangerous, but I don't know as much as you do.

8 A. Okay.

9 Q. When you say aggregation of --

10 A. So, if I have data that consists of a  
11 lot of individuals and I want to understand the  
12 relationship between two factors at the  
13 individual level, but I have data at an  
14 aggregate level, what assumptions do I need to  
15 make in order to infer from the aggregate level  
16 correlations between those two factors --  
17 something about individual level behavior.

18 Q. Can you give me an example?

19 A. The classic example is by someone named  
20 W.S. Robinson where they were looking at the  
21 correlation between literacy and income, and  
22 found a weak correlation. And then they --  
23 Robinson discovered that there was an omitted  
24 variable, which was foreign-born population.  
25 As soon as you control for foreign born, that

1 relationship changes.

2 Q. The connection between literacy and  
3 income --

4 A. Yes.

5 Q. -- was that when you take the foreigners  
6 out, is that right, or it the other --

7 A. Yes.

8 Q. -- way around?

9 A. That would be correct.

10 Q. Okay.

11 A. And this was an important finding in the  
12 1950s.

13 Q. All right. So, what about legislative  
14 politics and representation?

15 A. So, legislative politics and  
16 representation, I work on coalitional politics  
17 in Europe. How do governments get formed,  
18 coalition partners, how stable are they, what  
19 -- what are the politics behind the formation  
20 of coalitions.

21 In the United States, I work on  
22 representation, especially, roll-call voting  
23 behavior in Congress; and what explains why  
24 members of Congress and state legislatures vote  
25 certain ways on -- on legislation.

1 A very live question for political  
2 scientists is whether or not members of  
3 Congress are following what their districts  
4 want, what their parties want or what they  
5 personally would like to do or don't -- their  
6 own personal ideologies in those cases.

7 Q. Okay. And I think the final subject is  
8 distributive politics. What does that mean?

9 A. Distributive politics is how money is  
10 distributed in a federalized system such as the  
11 United States. So, the state government has a  
12 pool of money, and it gets distributed through  
13 the counties; which counties are winning or  
14 losing in the distribution of money or which --  
15 what are the factors that predict where the  
16 money is going in the political system.

17 Q. Okay. Now, Professor, I just wanted to  
18 clarify one thing. The cases that you've  
19 testified in -- actually testified in, has  
20 Perkins Coie been involved in all those cases?

21 A. No.

22 Q. Is there any one where they've not been  
23 involved where you've testified?

24 A. The Department of Justice, I -- they  
25 might have been involved in some other -- for

1 some other party, but I was working for the  
2 Department of Justice in the State of Texas v.  
3 Holder.

4 Q. Unh-hunh (yes).

5 A. And the Edwards Aquifer Authority is the  
6 San Antonio Water District, and I was retained  
7 by an attorney for the State of Texas named  
8 Renee Hicks.

9 Q. Okay. Now, have you any experience in  
10 drawing redistricting plans?

11 A. A little. I've -- there's casual  
12 experience teaching students how to draw plans,  
13 and in my course on elections, we use map  
14 making software such as Maptitude and other  
15 free ware.

16 And then in the context of some of these  
17 redistricting cases, people have asked me  
18 about, like, how a plan ought to be shifted.  
19 And so, I'll sort of mock out a plan; and if  
20 you drew the boundary here, what would it mean  
21 and so forth. That's just a query that's made  
22 of me.

23 I've never drawn an entire state  
24 districting plan for a state legislature.

25 Q. That was going to be my next question.

1 Have you been hired by a state legislature to  
2 draw any sort of redistricting plan?

3 A. No.

4 Q. Have you ever been hired by a political  
5 party to draw a proposed redistricting plan to  
6 be presented during the legislative process?

7 A. No.

8 Q. Have you been hired by anybody to draw a  
9 redistricting plan?

10 A. No, except in the context of some of  
11 these cases, I'm asked, "What if we drew the  
12 district that way?" And I will get on the  
13 software and look at the district. So, I'll do  
14 it in that context, but it's always in the  
15 context of a case rather than in the context of  
16 passage of a plan.

17 Q. So, you -- you would examine theories on  
18 redistricting software after the case had been  
19 filed? Is that a fair way to say it?

20 A. Yes, that's right.

21 Q. And you say -- what sort of software --  
22 redistricting software are you familiar with?

23 A. I am familiar with Maptitude. I'm  
24 familiar with a free -- an interesting free  
25 ware platform called Dave's Redistricting App



1 developed by someone named Dave Bradley.

2 Q. We all know that one.

3 A. Okay. I love that one. I actually had  
4 Dave come to Harvard to give a big presentation  
5 to the Institute for Quantitative Social  
6 Sciences. It was way interesting.

7 And then --

8 Q. He was quite popular in North Carolina  
9 around February of 2011. (Laughter)

10 A. And then the software developed by Mike  
11 Altman for the -- I forget what the name of it  
12 -- My District Building, I think is what it's  
13 called.

14 Q. Okay. Tell me all the times you've used  
15 Maptitude.

16 A. I've used Maptitude through -- we had a  
17 private license that I used Maptitude to just  
18 draw various districts. We did a redistricting  
19 exercise to draw districts for the entire State  
20 Legislature in Massachusetts.

21 Q. Unh-hunh (yes).

22 A. I trained to do Maptitude in the State  
23 Legislature in Massachusetts because they had  
24 stated -- sent out a request for proposals, and  
25 my colleague Jim Griner and I put in a proposal

1 to help them with the State Legislative  
2 districts, but they chose another group to do  
3 that.

4 I used Maptitude in looking at Florida  
5 districts in the Romo case, and then just  
6 casually for other, like, educational purposes,  
7 like, for teaching purposes in making maps.  
8 That's not redistricting.

9 Q. Have you had any training on Maptitude?

10 A. Yes, at Maptitude headquarters in  
11 Massachusetts which is the next town over from  
12 me.

13 Q. And how long was that training?

14 A. That was -- it was a -- it was a three  
15 or four-day training. I also have training in  
16 ArcGIS which is the platform on which Maptitude  
17 is built.

18 Q. Just for the court reporter, tell her  
19 what GIS stands for?

20 A. Geographic Information Systems.

21 Q. And what is that?

22 A. That is a -- a software architecture for  
23 drawing maps.

24 Q. Okay. When you drew the Massachusetts  
25 plan that you submitted for a proposal, who did

1 you submit the proposal to?

2 A. We didn't actually submit the plan for the  
3 proposal. We just were training on it and --  
4 and the proposal was for consulting services to  
5 the Massachusetts State Legislature, and it was  
6 directly to Representative Moran, M-o-r-a-n,  
7 and Representative -- I think it's Rosenfield  
8 or Rosen- --.

9 Q. Do you remember what --

10 A. Senator Rosenfield. They had a joint  
11 house/senate committee to draw districting.

12 Q. We had the same thing. What political  
13 party were those two gentlemen from?

14 A. They're both Democrats.

15 Q. Do you remember anything about the draft  
16 Massachusetts plan that you drew?

17 A. Well, I drew many draft -- I drew many  
18 different versions of it.

19 Q. Okay. Do you remember what criteria you  
20 used?

21 A. We were looking for various things, but  
22 one of the things -- one of the criteria we  
23 were using is could we make a map that was  
24 unbiased for the parties; can we make a fair  
25 map using standards of unbiasedness that

1 academics had developed -- statistical  
2 standards.

3 Q. Is that why you weren't hired? Sorry.  
4 I couldn't resist that.

5 A. Actually, I think that -- my own  
6 assessment of the Massachusetts plan, after the  
7 fact developed by somebody completely  
8 different, was that they actually drew a really  
9 fair map; and they got rid of an old partisan  
10 gerrymander that was discriminatory against the  
11 Republicans in the state.

12 Q. Okay.

13 A. They really made things a lot better.  
14 It was a good thing.

15 Q. What kind of screens did you look at --  
16 computer screens on Maptitude? What sort of  
17 information was on the screens?

18 A. We loaded a lot of demographic data, the  
19 census data, population count -- voting age  
20 population count by racial groups. We loaded  
21 in different voting data that we -- we  
22 provided. One of the projects I ran at Harvard  
23 is called the Harvard Election Data Archive.

24 Q. Unh-hunh (yes).

25 A. And the project there was to try to

1 collect as much precinct level election data as  
2 possible and merge it in with census data.  
3 This is one of the reasons I trained in ArcGIS,  
4 to really get how to do those merges and  
5 linkages.

6 So, beyond -- beyond drawing maps, it's  
7 very useful for trying to deal with these  
8 aggregation issues which are statistical  
9 problems. You know, precincts are different  
10 from census areas. So, how do you link these  
11 two levels of reporting of data.

12 So, that -- and a lot of the motivation  
13 for that development was just to -- we've got  
14 this new technology for putting information out  
15 there, and that would improve the study of  
16 elections generally in the United States so  
17 people could understand better the relationship  
18 between the sociological structure of the  
19 United States and the electoral structure of  
20 the United States.

21 Q. Okay. With Maptitude could you pull up  
22 on the screen the tabulation districts?

23 A. Yeah.

24 Q. Okay. Could the person manipulating the  
25 computer decide the type of information that he

1 wanted to look at in relationship to vote  
2 tabulation districts?

3 A. Yes.

4 Q. Okay. So, was it possible, for example,  
5 to pull up the vote tabulation districts and  
6 only look at election results?

7 A. Yes, you can select what is pulled in the  
8 -- there are different -- different versions of  
9 Maptitude; and depending on which version is  
10 used, different options and functionality are  
11 available.

12 For example, one version of Maptitude  
13 that they allowed us access to was the previous  
14 version which allowed you to randomly simulate  
15 districts, which I thought was kind of cool.  
16 But apparently nobody wanted to buy it, so they  
17 didn't distribute it in the new version of  
18 Maptitude.

19 But there are different versions of  
20 Maptitude that do different things. It depends  
21 a little bit on the version, but, yeah, you can  
22 -- and we -- you could also pull in your own  
23 data into Maptitude so you can bring your own;  
24 not just what they provide. You can bring your  
25 own data and upload it which is what we were

1 doing in the Massachusetts project.

2 Q. But would you agree that with the  
3 Maptitude, you can pull up information on a VTD  
4 level based upon election results?

5 A. Yes.

6 Q. And you can limit it to election  
7 results, can you not?

8 A. Yes.

9 Q. And you can limit it to a particular  
10 election result, can you not?

11 A. Yes.

12 Q. Okay. All right. Now, I want to move  
13 to paragraph four. And what did you do to get  
14 ready for this deposition today, Professor?

15 A. I read through all my reports, and  
16 yesterday I met with Eddie Speas, and we  
17 discussed my report.

18 Q. Okay. I'm not going to ask you anything  
19 about that.

20 A. Okay.

21 Q. Now, you say here that you have been  
22 asked to assess whether race is a predominant  
23 factor in the configuration of Congressional  
24 District 1 and 12.

25 A. Unh-hunh (yes).

1 Q. Okay. What do you mean by "a  
2 predominant factor"?

3 A. Is it a factor that strongly predicts a  
4 configuration of the district in a statistical  
5 sense. I'm looking at effects rather than, you  
6 know, what individuals were doing when they  
7 drew the maps. So, I'm taking a look at which  
8 demographic categories were put into which  
9 groups, or which partisan categories were put  
10 into which groups of districts -- groups of  
11 VTDs that comprise districts.

12 And there might be multiple factors in  
13 constructing a district, and the question was  
14 how important? Is it the most important  
15 predictor? Is it an important predictor of  
16 race.

17 Q. Okay. Where did you get the term "a  
18 predominant factor"? Who gave you that term?

19 A. I -- that was one of the questions that  
20 was put to me, was is -- is it a predominant  
21 factor in the configuration of these districts.

22 Q. So, could there be more than one  
23 predominant factor under your analysis?

24 A. It's possible. It's possible there are,  
25 say, two equally important factors. Those



1 would be two predominant factors, and  
2 everything else is less important. It's  
3 possible if there's one fact that strongly  
4 predicts --

5 Q. All right. And in your report -- I'm  
6 sure we'll get a chance to go over this, but is  
7 it your conclusion that race was a predominant  
8 factor amongst other potential factors or was  
9 it the predominant factor?

10 A. It -- it -- my conclusion is the  
11 predominant factor in the analysis of -- in  
12 comparing party versus race. When I looked  
13 within party groups, I see a very strong racial  
14 difference, but when I looked with racial  
15 groups, I only see a small party difference.  
16 And that's what I mean by holding race and  
17 party constants.

18 The idea is to try to -- try to predict  
19 which of these is a stronger factor. It need  
20 not have come out that way, but --

21 Q. So, you were comparing race against  
22 party. And does that mean --

23 A. Right.

24 Q. -- how people are registered to vote?

25 A. In this case, I was looking at how

1 people are registered to vote, and that's  
2 because North Carolina is a state in which  
3 party and race are on the voter files. So,  
4 it's uniquely good data. It avoids the  
5 aggregation issues that we discussed earlier  
6 because it's individual level data.

7 If I didn't have that individual level  
8 data on how individuals are registered as -- of  
9 a certain racial group and of a certain party  
10 group, I would have to make an imputation based  
11 on aggregate level correlations. So, this is  
12 from a statistical perspective superior to the  
13 aggregate analysis one might do.

14 Others have done aggregate analyses in  
15 other contexts and --

16 Q. Okay. And I've read your report. So,  
17 you were looking at registration stats; not VTD?

18 A. Yes.

19 Q. Is that pretty much the heart of your  
20 report?

21 A. Yes.

22 Q. Okay. Did you ever look at actual  
23 election results by VTD?

24 A. Well, the actual election results do not  
25 have race. I don't know how the race of a

1 given voter -- nor do I know how all black  
2 voters voted. I'd have to make an imputation  
3 or prediction based on some aggregate level  
4 correlation.

5 Q. So, if you looked at election results by  
6 VTD, you're saying that from that data, you  
7 couldn't determine the race of the voters?

8 A. Correct, with certainty. We do have to  
9 make additional assumptions. So, without  
10 having to make those assumptions, you can state  
11 with the registered voters, there are this many  
12 black Democrats or this many black Republicans,  
13 and this many black undeclared and so forth.

14 Q. Okay. Now, did you -- tell me what --  
15 if you can remember, to the best of your  
16 ability, what -- what did you review in  
17 preparing this report?

18 A. I reviewed the reports that are available  
19 on the North Carolina Redistricting web page.

20 Q. What reports? There's a lot of reports.

21 A. Yeah, yeah. The reports -- there's a  
22 page for the Rucho-Lewis 3 map, and there are  
23 reports on demographics of the diff- -- VTDs in  
24 the different districts. So, I downloaded and  
25 reviewed all of those spreadsheets and reports

1 that were there.

2 And I think that there were some -- I'm  
3 trying to remember if I reviewed -- I think I  
4 downloaded another report from the website on  
5 just the redistricting process.

6 Q. Okay. Is it fair to say the only  
7 redistricting plan you looked at was the  
8 Rucho-Lewis 3 Congressional plan?

9 A. Yes. I didn't look at any of the prior  
10 plans from throughout the process, and I also  
11 looked at the existing -- the plan that applied  
12 to the prior decades' districts.

13 Q. Okay. That was a bad question I asked  
14 you, and I'm sorry. I know you got a stats  
15 report from the prior plan.

16 A. Okay.

17 Q. That's not what I'm really asking you.  
18 Did you -- you did a VTD analysis of the  
19 Rucho-Lewis 3 Congressional plan, right?

20 A. Correct.

21 Q. And did you do a VTD analysis of the  
22 prior 2001 Congressional plan?

23 A. Yes.

24 Q. Okay. And for the analysis for both of  
25 those plans, you looked at registration

1 statistics for the VTDs?

2 A. Correct. And we also looked at census  
3 demographic statistics.

4 Q. Okay. But, again, you didn't look at  
5 the election results for those VTDs?

6 A. I don't remember doing an election --

7 Q. Okay. Did you review any Supreme Court  
8 decisions in preparing this report?

9 A. Not this one specifically. I had a few  
10 cases going on at the same time, and so --

11 Q. I understand.

12 A. -- there were Supreme Court cases in  
13 those others.

14 Q. Right. Are you familiar with a couple  
15 of Supreme Court decisions, which I have  
16 mispronounced for years almost as badly as I've  
17 mispronounced your name; but which I've now  
18 been corrected to refer to as Cromartie -- the  
19 U.S. Supreme Court decisions in Cromartie, have  
20 you ever looked at those cases?

21 A. I've read those cases in other contexts,  
22 yes.

23 Q. Okay. Did you refer to those cases in  
24 preparing this report?

25 A. No, I did not.

1 Q. Do you recall anything about those cases?

2 A. Not off -- not offhand, except that Dr.  
3 Hofeller has noted that in Cromartie, the Court  
4 said -- states reservations about using  
5 registration as an indicator.

6 Q. Okay.

7 A. The question is an indicator of what, and  
8 I think that's probably a question that will be  
9 discussed in trial.

10 Q. Okay. Do you recall anything else about  
11 those cases?

12 A. Not -- not too many in particular, but  
13 --.

14 Q. Okay. Did you read any Supreme Court  
15 cases about what is meant by the term  
16 predominant factor in preparing this report?

17 A. Not in preparing this report, but I've  
18 read the term many times.

19 Q. Okay. Did you look at any of the --  
20 you're aware of the fact that there was a state  
21 court redistricting case?

22 A. Yes.

23 Q. Okay. And Mr. Speas represented a group  
24 of the Plaintiffs in that case. Are you aware  
25 of that?

## **EXHIBIT S – Part 2**

Complete Deposition of Dr. Stephen  
Ansolabehere

1 A. I didn't know that.

2 Q. I think he would stipulate to that. Do  
3 you know that there was another group of  
4 Plaintiffs where the lead Plaintiff was the  
5 North Carolina NAACP?

6 A. I don't know specifics on the case, no.

7 Q. Okay. Did you look at any of the  
8 testimony from that case?

9 A. No.

10 Q. Let me get a little more specific. Did  
11 you look at any of the trial testimony from  
12 that case?

13 A. No.

14 Q. Did you look at any of the deposition  
15 testimony from that case?

16 A. Did I look at any deposition testimony?  
17 I don't recall.

18 Q. Okay. Do you know an expert witness and  
19 professor named Ted Arrington?

20 A. I know the name, but I've never met him.

21 Q. Okay. And do you know whether he gave a  
22 deposition in the Dixon case or not?

23 A. I don't know for sure.

24 Q. Okay. Do you know an expert witness  
25 named David Peterson?



1 A. I know the name because people have  
2 mentioned him -- Mr. Speas has mentioned him in  
3 relationship to this case, and I've seen his  
4 name from prior cases in North Carolina.

5 Q. Did you read any of the testimony that  
6 he gave in the Dixon case?

7 A. No.

8 Q. All right. Did you read any of the  
9 testimony that was given by the legislative  
10 leaders in the Dixon case?

11 A. No.

12 Q. Did you read any of the affidavit  
13 testimony or deposition testimony given by any  
14 of the legislative staff in the Dixon case?

15 A. No.

16 Q. Did you read the opinion -- there's been  
17 an opinion by a three-judge state court in that  
18 case. Have you read that opinion?

19 A. I believe I did read that.

20 Q. Okay.

21 A. This is one of these points where I  
22 think, did I read that? I taught four courses  
23 this semester, so I'm little --

24 Q. That's all right. I forget who I had  
25 lunch with last week, so you just do the best

1 you can.

2 Do you recall anything about that opinion?

3 A. Not in particular.

4 Q. Do you recall any findings or rulings by  
5 the court in that case about whether race was  
6 the predominant motive in the construction of  
7 the 2011 Twelfth Congressional District?

8 A. I think I was told by -- no, I don't  
9 remember reading it. I think I was told in a  
10 conversation by my friend Nate Pursely who is  
11 an election lawyer about that case, but I don't  
12 remember reading it.

13 Q. Did you know that was a decision by a  
14 three-judge trial court?

15 A. I didn't know the composition of the  
16 court.

17 Q. Unh-hunh (yes). Did you know that they  
18 made findings of fact after there was a trial  
19 in the case?

20 A. After -- as part of the decision?

21 Q. Unh-hunh (yes).

22 A. Just from what was mentioned to me, yeah.

23 Q. Okay. But you don't recall reviewing  
24 that?

25 A. I don't recall reviewing it.

1 Q. Okay. Did you look at -- you're aware,  
2 I'm sure, Professor, that there's been a long  
3 history of litigation associated with the First  
4 and the Twelfth Congressional Districts in  
5 North Carolina?

6 A. I'm aware of that.

7 Q. As a Professor of Government, you're, I'm  
8 sure, aware of that?

9 A. Yes.

10 Q. Have you studied any -- for purposes of  
11 this case, have you studied any of the prior  
12 versions of the First or the Twelfth  
13 Congressional Districts?

14 A. Not -- not before the 2001 and 2011  
15 districts. I am familiar with cases such as  
16 Shaw v. Reno and Thornburg versus Gingles.

17 Q. I understand.

18 A. Yeah, they are very important cases.

19 Q. But for purposes of this case, did you  
20 go back and look at any of the prior versions  
21 of the First or the Twelfth District starting  
22 in 1991 up to 2001?

23 A. You know, I might have re-read Shaw v.  
24 Reno. I was teaching a course on election law  
25 this semester, and we taught Shaw v. Reno and

1 Thornburg versus Gingles in the context of  
2 that. So, I've -- I've read them, but it was  
3 not expressly for this purpose.

4 Q. Okay. Did you go back -- did you do a  
5 VTD analysis on any of the prior plans?

6 A. No.

7 Q. Okay. I should have asked that earlier.  
8 I'm sorry.

9 A. Okay.

10 Q. All right. Now, I want to go to page 4  
11 of your report, and I want to get you to --  
12 first of all, I think I want to talk with you  
13 about compactness since that's the first thing  
14 in your report.

15 A. Unh-hunh (yes).

16 Q. How do you define compactness?

17 A. Compactness is a description of how  
18 spread out a district is relative to an ideal  
19 district. And an ideal district is defined in  
20 different ways, depending on geography, but the  
21 most -- the way it's often defined is take the  
22 most compact shape, which is a circle; and  
23 consider the area or perimeter of this district  
24 relative to area or perimeter of the most  
25 compact shape. That would be one way to think

1 about it.

2 The Reock score is take the area of the  
3 -- the smallest circle in which the district is  
4 inscribed and put the district in, and measure  
5 the area of the district itself and the area of  
6 that smallest circle. So, that's one specific  
7 definition of a measure of the compactness.

8 Q. Was that -- so, did you just describe one  
9 definition of compactness or two?

10 A. One definition and one definition of a  
11 measure.

12 Q. Okay.

13 A. I didn't know what you -- if you wanted  
14 the concept or the measure.

15 Q. The Reock test is based upon the concept  
16 you described?

17 A. Yes.

18 Q. Okay. Got that. Is there any sort of  
19 legal definition for compactness that's been  
20 adopted by a court?

21 A. The courts -- my understanding -- I'm  
22 not a lawyer. My understanding of what the  
23 courts have used was a bit of we know it when  
24 we see it as a standard, and there's not a --  
25 there's not a specific bright-line threshold

1 like, you know, maybe with majority/minority  
2 districting, 50 percent is the number. I just  
3 know specific bright-line for compactness.

4 Q. Okay. So, if I say to you there's no  
5 judicially manageable standard for determining  
6 when a district is legally compact, would you  
7 agree with that?

8 A. That's a legal opinion.

9 Q. Okay.

10 A. I don't know if -- I don't know if the  
11 standards that have evolved in existing cases  
12 are -- I mean, it's up to the judges to decide  
13 if it's manageable.

14 Q. Well, you've read the cases -- you're  
15 read a lot of cases that --

16 A. Yeah. I mean, I think -- my reading of  
17 Shaw, it was my understanding that they had a  
18 sense that, you know, when it's -- you know,  
19 that they would develop it or come up with it.

20 For me, compactness is not so much -- and  
21 other geographic features of districts are not  
22 so much a kind of bright-line test of this is  
23 acceptable or this is not acceptable. It's  
24 more of a red flag, and just says, okay,  
25 something is going on here. This district is

1 really narrow, or this district swings around  
2 back on top of itself.

3 And the compactness score gives you a  
4 quantitative measure of how much this district  
5 does it compared to other districts in, say, a  
6 state or in the whole nation; how much it did  
7 it compared to previous versions of the  
8 district. It's just more of a red flag; and,  
9 you know, we need to look now more closely at  
10 this.

11 Q. Okay. And, again, I'll -- I'll get off  
12 of this after I ask this question. Are you  
13 aware of any legal standards that can define  
14 when a district is legally compact versus not  
15 legally compact?

16 A. Not that I know of beyond the most  
17 subjective assessment.

18 Q. Okay.

19 MR. FARR: Does anyone want to take  
20 a break? Let's take a short break.

21 (SHORT BREAK 1:40 - 1:50 P. M.)

22 Q. (Mr. Farr) Professor, I'm going to ask  
23 you some questions about your compactness  
24 conclusions and -- and -- and so, you might  
25 want to get your finger on page 4 and wherever

1 Table 1 is.

2 A. (Peruses document.) Okay.

3 Q. On page 4, you say that the Rucho-Lewis  
4 reduced substantially the compactness of  
5 Congressional Districts 1 and 12.

6 What I wanted to know is what -- how do  
7 you define -- or what do you mean by "reduced  
8 substantially"?

9 A. So, there's a -- a numerical reduction  
10 in the Reock measure and the area to perimeter  
11 measure. The area to perimeter measure is you  
12 calculate the area of the -- of the district  
13 and then calculate the perimeter of the total  
14 miles around.

15 And then take the ratio of those two.  
16 They're different scores. They measure  
17 slightly different aspects of compactness of  
18 the districts.

19 And what I mean is that there was a  
20 substantial, noticeable, meaningful reduction  
21 in compactness according to either one of those  
22 measures.

23 Q. Okay. So, I -- I want to try to put  
24 that in context. I'm looking at your Table 1.

25 A. Unh-hunh (yes).



1 Q. And you stated that the Reock score  
2 under the 2001 plan for District 1 was .390?

3 A. Correct.

4 Q. And the Reock score under the 2011 plan  
5 was .294?

6 A. Correct.

7 Q. So, if you subtract that, what's the  
8 difference?

9 A. Point one, roughly. I mean, there's --  
10 .096.

11 Q. It would be -- right, 096. And that's,  
12 like -- what -- so, what would be an  
13 insubstantial difference?

14 A. So, one way to think about Reock is it's  
15 a ratio -- the ratio of -- if you had a  
16 perfectly compacted district, and it was a  
17 circle, it would be one.

18 Q. Unh-hunh (yes).

19 A. And so, if you had a square -- because  
20 you can't fit circles all over the State, but  
21 you might be able to fit squares -- it would be  
22 about .65, roughly.

23 Q. Unh-hunh (yes).

24 A. And so, that might be a good starting  
25 point to take. It's like, okay, that's, like

1 -- as compacted of districts as we see are  
2 typically around .65 around maps in the United  
3 States.

4 So, if you take .65 as the base line,  
5 just sort of hypothetically, how much -- what  
6 percentage reduction is that? That's a pretty  
7 substantial reduction.

8 It's about a 12 percent reduction from  
9 that right at .096 over .65 -- somewhere around  
10 12 percent.

11 Q. Okay. What -- like, it is was a -- if  
12 it was a .01 reduction, would that be  
13 substantial?

14 A. Point 01?

15 Q. Unh-hunh (yes), .01.

16 A. I -- I don't -- I don't think so. But  
17 it depends on what the base line is. As you  
18 get down to the --

19 Q. What do you mean by base line?

20 A. What the -- when you get very -- when  
21 you -- when you get down to highly non-compact  
22 districts, beca- -- well, I should say the  
23 limit.

24 As you -- as you get down to -- a  
25 district that is a -- got a Reock score of .02,

1 a reduction to .01 would be a fif- -- 50  
2 percent reduction in the compactness.

3 If you think about geometrically what must  
4 happen to that district to go from .02, which  
5 is already, like, extremely non-compact, to  
6 .01, it's got to get stretched out a whole lot  
7 more and bent around and contorted.

8 So, it depends a little bit on -- on the  
9 ex- -- extreme values. At the extreme values,  
10 it becomes harder and harder to -- now, the re-  
11 -- the reductions -- percentage reductions are  
12 -- are, kind of, more substantial.

13 Q. Like, what if you had a district that  
14 had a .32 Reock score, and the new district was  
15 .29. That would give you a difference of .03.

16 Would that be substantial?

17 A. Probably not.

18 Q. Okay. And then have you referred to any  
19 scholarly literature on -- on compactness? Or  
20 articles?

21 A. Not in this report, I didn't refer to  
22 any of it. But there is scholarly literature  
23 on it.

24 Q. Have you ever re- -- referred to scholarly  
25 literature on compactness in your studies?

1 A. Yes.

2 Q. Do you remember any of the literature  
3 that you referred to?

4 A. I really like Micah Altman's Ph.D.  
5 dissertation and the articles that came out of  
6 that.

7 Q. Are you familiar with an article by Niemi  
8 and Plides?

9 A. Niemi and Plides, I've -- Reock's  
10 original article is a -- that -- that original  
11 article is one of the standard articles on how  
12 do you do compactness, and how he derived that  
13 specific measure.

14 Gudgeon and Taylor's book on political  
15 geography -- there's a big literature -- I've  
16 read a lot of -- is there something in  
17 particular you're thinking of?

18 Q. No, I'm just trying to see which ones  
19 you rely upon.

20 A. Oh, okay.

21 Q. And so, is Niemi and Plides -- is that  
22 -- how would you rate that? Is that  
23 authoritative on compactness or --?

24 A. It's -- it's quite good. I -- you know,  
25 Reock's article is taken as one of the

1 authoritative pieces on compactness.

2 Q. Whose article?

3 A. Reock, the person who generated this  
4 report, yeah.

5 Q. Okay. Okay. And -- but Niemi and  
6 Plides, how would you rate that?

7 A. I think it's a good, you know, further  
8 application and -- and examination of the  
9 concept and its application in this domain.

10 Q. Okay. Did you know Dr. Hofeller, who's  
11 our expert, was one of the authors of that  
12 report?

13 A. I did know that.

14 Q. Okay. Okay. Now, your second  
15 compactness test, which is ratio, area to  
16 perimeter of district?

17 A. Unh-hunh (yes).

18 Q. Is that a -- a test that's referred to  
19 in the literature? Or is that -- is that  
20 something that you've come up with?

21 A. This is actually standard. It's in the  
22 literature. Maptitude produces it as part of  
23 its other -- other -- ArcGIS produces this.

24 Q. Okay. Does it have a name?

25 A. I'm not sure. I've -- I've seen it in

1 different reports and different studies with  
2 different names. So, I don't know if there's a  
3 standard name that's commonly used. And also  
4 different literatures -- and so, we're dealing  
5 literature on geography, literature on  
6 political science.

7 And they use different names for the  
8 different scores.

9 Q. Okay. And so, turning -- looking at the  
10 Table 2, based upon your calculations --

11 A. Table -- Table 2?

12 Q. Excuse me, Table 1, my apologies. Is it  
13 correct that the Rucho-Lewis 3 First District  
14 has a more compact Reock score than the Twelfth  
15 District under the 2001 Congressional Plan?

16 A. The Rucho-Lewis -- which one? The --  
17 Rucho-Lewis --?

18 Q. Rucho-Lewis 1 has a -- has a -- has a  
19 more compact Reock score than the Twelfth  
20 District under the 2001 plan?

21 A. Correct.

22 Q. And the Rucho-Lewis District 1 has a more  
23 compact score than District 13 under the 2001  
24 plan?

25 A. Correct.

1 Q. And -- and that's also true for  
2 Rucho-Lewis District 3 as compared to the 2001  
3 Twelfth and Thirteenth Districts under your --

4 A. So --

5 Q. -- ratio of area to perimeter of district  
6 test, right?

7 A. Oh, so, are we looking at ratio/perimeter  
8 or Reock?

9 Q. Yes.

10 A. And it's 3 versus --?

11 Q. I'm comparing -- I'm comparing  
12 Congressional District 1 under Rucho-Lewis --

13 A. Unh-hunh (yes).

14 Q. -- under the ratio of area to perimeter.  
15 I'm comparing it first to District 12. And  
16 would you -- District 12 under the 2001 plan.  
17 Would you agree that the -- the 2011 version of  
18 the First District is -- is more compact under  
19 the ratio of area to perimeter test as compared  
20 to the 2001 version of District 12?

21 A. Correct.

22 Q. And it's also more compact than the  
23 District 13 under the 2001 Congressional Plan?

24 A. Correct.

25 Q. Okay. Do -- do you know -- now on Table

1 1 -- we've talked about the fact that the First  
2 District under the 2001 plan has got this Reock  
3 score .390 versus .294 under the Rucho-Lewis 3  
4 plan.

5 Do you -- can you explain why that  
6 difference arose?

7 A. The -- the district boundaries were  
8 shifted; and shifted in such a way that the --  
9 I think what happened -- if I'm recalling the  
10 maps specifically, I think what happened is the  
11 district extended westward.

12 Q. Unh-hunh (yes).

13 A. I -- I think that extension creates some  
14 of the -- but I'd have to go back and look at  
15 the exact map and overlay it with the circle to  
16 see exactly where the inscribed circle is  
17 pushed out.

18 Q. Okay. Are you aware of the fact that  
19 the First District under the 2001 plan under  
20 the 2010 census was underpopulated by 97,000  
21 people?

22 A. That's correct.

23 Q. Okay. Could that explain why the  
24 boundaries needed to change?

25 A. Yes, the boundaries would have to change.



1 to capture another 97,000 people.

2 Q. Okay. Have you prepared a map showing  
3 how they could have changed the boundaries for  
4 the First District and achieved a Reock score  
5 that was closer to the 2001 First District?

6 A. No, I have not.

7 Q. Have you prepared a map to show how the  
8 First District -- the 2011 First District would  
9 have been drawn to achieve a more compact Reock  
10 score while also achieving the political goals  
11 of the General Assembly when they enacted the  
12 2011 Congressional Plan?

13 A. No, I have not.

14 Q. Okay. And let's go to District 12 for a  
15 second. So, I -- I can see that the 2001 plan  
16 has a Reock score that is higher on the  
17 compactness scale than the 2011 version.

18 Do you know why that happened?

19 A. Do you mean District 12?

20 Q. Yes, sir. Do you --

21 A. Do you mean lower on --

22 Q. Yes, sir, I meant lower.

23 A. Okay.

24 Q. The -- the new district is lower on the  
25 Reock score. Do you know why that happened?

1 A. It looks like the district extended -- if  
2 I recall the boundaries specifically, I think  
3 the district extend--- extended northward  
4 somewhat.

5 So, it's elong- -- elongating --

6 Q. Right.

7 A. -- further, so it's losing its -- it's  
8 losing its area --

9 Q. Unh-hunh (yes).

10 A. -- as it stretches north. So, it's  
11 losing its area. That's my recollection of the  
12 geometry of the district.

13 Q. Exactly right. So, the longer the  
14 district is, the lower the Reock score is going  
15 to be?

16 A. Unh-hunh (yes).

17 Q. Is that -- you need to say yes or no.

18 A. Yes, that's right.

19 Q. Okay. Did you look at any of the  
20 legislative testimony or evidence presented at  
21 trial regarding why District 12 was elongated?

22 A. No, I did not.

23 Q. Okay. Have you prepared any maps  
24 showing how the legislature could accomplish  
25 its political goals for District 12 and the

1 2011 Congressional Plan by drawing a different  
2 version of District 12 with a more -- with a  
3 higher Reock score?

4 A. No, I have not.

5 Q. Okay. And, you know, the answers you  
6 just gave about the Reock score as far as, you  
7 know, under the area to perimeter test, have  
8 you prepared any maps showing how the 2011  
9 First District could have scored better under  
10 the area to perimeter test while also achieving  
11 the political goals of the General Assembly?

12 A. No, I have not.

13 Q. And have you drawn any maps showing how  
14 District 12 could have been drawn in 2011 with  
15 a -- a better score under the area to perimeter  
16 test while also achieving the legitimate  
17 political goals of the General Assembly?

18 A. No, I have not.

19 Q. Okay. Thanks. I'm going to skip your  
20 testimony about the split counties, since that  
21 -- I think that speaks for itself.

22 So, I just want to ask you a few more  
23 questions about compactness, I guess. When you  
24 say Congressional District 12 is highly  
25 non-compact, what does that mean?

1 A. I'm sorry, what -- which paragraph are  
2 we on?

3 Q. I'm sorry, yes, sir, I'm on paragraph 15.

4 A. (Reads paragraph 15) Which line -- so,  
5 "CD 12 is highly non-compact"?

6 Q. It says -- yes, I just want to know what  
7 you meant by that.

8 A. That -- that is based on my judgement  
9 having looked at a lot of maps and looked at  
10 various compactness scores across maps.

11 And also, there is a rule of thumb with  
12 Reock scores that's emerged that Reock below .2  
13 is viewed -- viewed as, sort of, having, kind  
14 of, a fairly low compactness.

15 Q. And a- -- and above .2 is not -- is not  
16 viewed as having low compactness?

17 A. Yes, not -- people don't, like, "Oh,  
18 that's a really low -- that -- what's going on  
19 there?" They don't think above .2 is -- that's  
20 just a rule of thumb.

21 Q. Okay.

22 A. There's no -- as far as I know, there's  
23 no statistical property associated with Reock  
24 scores, yet, though, I think, some geographers  
25 are trying to work on that issue using

1 simulations.

2 Q. Unh-hunh (yes).

3 A. Because you don't know what the sam- --  
4 what the sample of possible districts would be.  
5 And I know that John Rhoden and Joey Chan at  
6 Stanford and Michigan have been working on a  
7 simulation based method of trying to understand  
8 compactness, but --.

9 Q. Okay. All right. Have you -- in your  
10 studies and your work you've done, have you  
11 seen any districts that have got lower, or  
12 comparable Reock scores as the 2011 version of  
13 the North Carolina Twelfth Congressional  
14 District?

15 A. I -- CD 5 in Florida had -- is about the  
16 same.

17 Q. Is that a majority black district that's  
18 --

19 A. That's one of the disputed questions,  
20 whether it is majority black.

21 Q. What's -- do you know what the racial  
22 composition is of that district?

23 A. It is not majority -- well, the prior --  
24 the -- the version -- I think it was called --  
25 numbered CD 3 was not majority black.

1 And they altered the district to make it  
2 majority black VAP, but it's not majority black  
3 citizen VAP.

4 Q. Okay. Good -- well, that's -- that's  
5 okay. Was that the district adopted by the  
6 State of Florida for -- for Section 2 reasons  
7 or Voting Rights Act reasons? Do you know?

8 A. That was -- I don't know what their  
9 motivation was. It was adopted under this new  
10 constitutional provision where they'd have to  
11 get pre-clearance from the State Supreme Court  
12 and so forth.

13 So, I -- that -- my --.

14 Q. Okay. You just don't know what their  
15 motivation was?

16 A. To get it past the various screens that  
17 they would have to pass at the state level and  
18 possibly the federal level.

19 Q. Okay. All right. Okay, but it -- it's  
20 a --

21 A. It's not a Section 5 covered county. It  
22 doesn't -- I don't -- yeah, I don't think it  
23 intersected with any of the Section 5 covered  
24 districts -- counties in the state.

25 So, it was not a Section 5 question. It

1 was a -- it might have been a Section 2  
2 question.

3 Q. Okay.

4 A. But then there's a Section 2 question,  
5 which is whether or not -- if the district is  
6 not majority black VAP, you have to create a  
7 majority black VAP.

8 So, that's, I think, what the -- part of  
9 the question is that they're grappling with  
10 right now in the courts.

11 Q. Okay.

12 A. And the Florida Constitution has explicit  
13 compactness criteria that they're trying to  
14 figure out what the standard is, so --.

15 Q. Do you know the -- do you know anything  
16 about the history of that district in Florida?

17 A. A little bit of it.

18 Q. Has it -- has it -- has it, kind of, had  
19 the same configuration for more than one cycle?

20 A. It's -- it -- it moved. I'm trying to  
21 remember where it moved, what -- what --  
22 exactly what decade it moved in.

23 Q. And are you a witness in that case?

24 A. I am.

25 Q. Are you familiar with the parties in that

1 case?

2 A. A bit.

3 Q. Is the NAACP a party in that case?

4 A. They are. There's a set of Plaintiffs  
5 called the Coalition Plaintiffs. And I think  
6 the NAACP is part of the Coalition Plaintiffs.

7 Q. Do you know who their counsel are in  
8 that case?

9 A. I don't remember the names. I think  
10 they've been mentioned to me on the phone, but  
11 I don't --.

12 Q. Does the Southern Coalition for Social  
13 Justice ring a bell?

14 A. I've heard the name. I don't know if  
15 they're involved in that.

16 Q. Okay. Are those Plaintiffs defending that  
17 district?

18 A. I am not sure. I'm just -- deal with my  
19 counsel and the questions that they raise with  
20 me. I'm not --.

21 Q. Okay. You can't answer if you don't  
22 know.

23 A. Yes.

24 Q. Okay. Now, let's turn to the racial  
25 compositions of districts, which starts on page



1 8, paragraph 18. Okay.

2 When you say there were no majority black  
3 districts under the 2001-2011 Map, you're  
4 referring to what I call the 2001 Congressional  
5 plan? Is that the same thing?

6 A. I believe that is.

7 Q. Okay. And what did you mean by no  
8 majority black districts?

9 A. No majority black VAP districts. That  
10 is, none of the districts had -- were districts  
11 in which a majority of the voting age  
12 population were black, according to census.

13 Q. Okay. But then you also say that the  
14 First District was majority black as to  
15 registered voters?

16 A. Correct.

17 Q. Okay. And did you look to see if the --  
18 if either the First or the Twelfth District  
19 were majority non-hispanic white districts?

20 A. Majority non-hispanic white districts?  
21 I'm trying to remember if I did a -- I don't  
22 remember looking at the -- but -- whether  
23 either of them was a coalitional district.

24 Q. Okay. If they were -- if the -- if the  
25 -- under the 2010 census, if the First -- if

1 the 2001 First and Twelfth Congressional  
2 Districts were non-majority or non-hispanic  
3 white minority districts --

4 A. Unh-hunh (yes).

5 Q. -- would that then potentially make them  
6 into a coalition district similar to what you  
7 talked about in Texas?

8 A. Potentially. There'd have to be a  
9 separate analysis of the voting behavior of the  
10 hispanics and the blacks in the area; whether  
11 they vote together in the general elections  
12 with sufficient cohesion, and the whites in  
13 those areas vote together with sufficient  
14 cohesion in opposition; and whether or not the  
15 voting is -- behavior is sufficient that they  
16 can elect their -- their candidates.

17 Q. Okay. Now, you then say there's two  
18 majority black congressional districts in the  
19 Rucho-Lewis 3 Congressional Map in paragraph 19.

20 A. Unh-hunh (yes).

21 Q. All right. And let's look at your table  
22 2. Now, I want to -- when you say majority  
23 black congressional districts, you're just  
24 using that to describe the percentage of the  
25 total black voting age population in the

1 district?

2 A. Correct.

3 Q. Okay. All right. Turning to your  
4 section about race is a factor in the  
5 composition of the districts, one of the tests  
6 you -- you performed is -- is based upon what  
7 you described as the envelope of the district?

8 A. Envelope of counties, yes.

9 Q. Okay. The envelope of the counties that  
10 have a part of the district in -- in them?

11 A. Correct.

12 Q. Okay. Where did you get that concept?

13 A. That concept I've encountered from map  
14 drawing in other contexts. The idea is -- and  
15 -- and also through a traditional districting  
16 principle of trying to respect county  
17 boundaries.

18 So, if you imagine there being a set of  
19 counties where there is a set of people with  
20 particular characteristics, and you think that  
21 that district ought to go in that county, then  
22 the only question is, "Okay, how exactly  
23 configured is the district within that envelope  
24 defined by the county?"

25 So, if I'm not going to cross additional

1 county boundaries and so forth -- so the basic  
2 principle of respect for county boundaries,  
3 which is a fairly common redistricting  
4 principle that goes back to the beginning of  
5 districting in the United States, is one, sort  
6 of, starting concept.

7 And one way of approaching a map is to  
8 take all the counties and start to draw maps  
9 with counties. This county plus this county  
10 plus this county; keeping them -- them whole to  
11 the extent possible, and then starting to split  
12 them if you're overpopulated or grabbing parts  
13 of counties if they're underpopulated.

14 So, it's just a -- a -- an approach to  
15 districting that's following a traditional  
16 Democratic -- a districting principle.

17 Q. But you've never actually drawn a  
18 Congressional plan for a state government or a  
19 party that submitted it to the legislature?

20 A. No.

21 Q. Okay. And this -- this envelope theory  
22 that you are using, has it been recognized by  
23 any courts in a case similar to this one?

24 A. Well, certainly, in respect for county  
25 boundaries is -- is something that courts do

1 look at in thinking about districting;  
2 certainly, your Florida example, it's a state  
3 court but not federal court in that case.

4 Q. Right. I got that, but what -- what --

5 A. Keeping counties whole, and then  
6 imagining where the districts are situated  
7 within that. As soon as you think about  
8 keeping counties whole, then you're talking  
9 about the counties themselves being the  
10 envelope and restrict- -- and restricting the  
11 districting within that.

12 So, it is a principle that comes out of a  
13 lineage. In terms of the specific approach to  
14 how you define the sub-population that you'd  
15 study in terms of assessing a particular  
16 district, there are some analyses that look at  
17 specific subsets of states where the counties  
18 in that subset of states -- or -- or some parts  
19 of the states are what are -- are used, such as  
20 -- all of the -- you know, Harris County is --  
21 is used, and then how are the districts  
22 configured within that, or the area -- the  
23 metropolitan area and how the districts are  
24 configured within that.

25 In terms of assessing the likelihood that

1 a black voter ends up in a district, or a  
2 Democratic voter ends up in a district, or a  
3 Republican voter ends up in a district, and  
4 looking at the envelope as the baseline, I have  
5 not encountered that particular analysis.

6 Q. Okay. That was my question.

7 A. Okay. I didn't know which part of it  
8 you meant, like --

9 Q. No, that was good.

10 A. -- state as the envelope or the --

11 Q. You're just -- you answered -- you  
12 answered the question I wanted to ask.

13 So, using the envelope to predict or  
14 assess the number of Republicans or blacks that  
15 end up in or out of a district is not something  
16 you encountered before this case?

17 A. Not -- yeah, not explicitly that, yeah.

18 Q. That's not something that a court has  
19 recognized as a way to assess the evidence in a  
20 racial gerrymandering case?

21 A. Not that I know of.

22 Q. All right. Now, do you have a opinion  
23 on actual voting behavior by blacks in North  
24 Carolina versus whites in North Carolina?

25 A. I have written on that question in a

1 pair of articles in the Harvard Law Review.

2 Q. Oh, good.

3 A. It's not specifically North Carolina, but  
4 it is -- it's a -- every state in the United  
5 States. And there's an assessment of voting  
6 patterns at a statewide level.

7 It doesn't break it out into specific  
8 sub-regions within the states, and sometimes  
9 there are variations of it in sub-regions.

10 Q. Okay.

11 A. But the articles -- if you look at my CV  
12 -- if you -- if you don't have a copy of my  
13 CV, please email me, and I will send it through  
14 --

15 Q. I'll ask Mr. Speas to send it to me.  
16 That would be fine.

17 A. But the articles are Voting Rights in  
18 the Eye of the Beholder -- is that right -- no,  
19 no, I have three articles in the Review. So,  
20 there's one that's an analysis of the 2008  
21 election, and another is an analysis of 2012.  
22 So, the 2012 analysis was in 2013.

23 So, if you get on the Harvard Law Review  
24 website, you'll -- and I think it's April, 2013  
25 -- you'll -- or May issue, it'll be an article

1 by me, me, Nate Pursely and Charles Stewart.

2 And then the other article is from 2010.

3 And I think it's the April issue.

4 Q. Okay. Well, here's what I was going to  
5 ask you. There's been some other expert --  
6 there was some expert testimony in the -- in  
7 the Dixon case that as much as 95 percent or  
8 higher of -- of black voters who vote tend to  
9 vote for the Democratic candidate?

10 Is -- would you agree with that or  
11 disagree with that?

12 A. I -- I'd have to go back and look at the  
13 numbers, but that could be.

14 Q. Did you study that in -- in terms of  
15 whether that was true or not in North Carolina  
16 when you prepared your report?

17 A. Not in terms of preparing this report.  
18 I didn't do a racial polarization or cohesion  
19 analysis for this report.

20 Q. Well, I -- I wasn't -- I'm not sure --  
21 okay. You didn't do a racial polarization  
22 analysis. I was asking more of a political  
23 question.

24 Regardless of the race of the candidate,  
25 there has been testimony that blacks, whether



1 they're Democrats, unaffiliated or Republicans,  
2 are likely to vote for the Democratic candidate.

3 And the percentage is in excess of 90  
4 percent. Have you ever evaluated or studied  
5 that?

6 A. I have evaluated and studied it in an  
7 academic context. I haven't done it in the  
8 context of this case. So, I haven't focused on  
9 it for that.

10 And the estimates that we derived are in  
11 those articles for North Carolina.

12 Q. Okay.

13 A. For the elections we looked at, and they  
14 were explicitly about the Obama elections.

15 Q. Right. Did you -- did you ever -- do  
16 you have an opinion on whether there is a  
17 strong correlation between race and the -- in  
18 fact, the race of black people and how many  
19 black people vote for Democratic candidates in  
20 North Carolina?

21 A. My expectation -- and you know, based  
22 loosely on my memory of that article and on  
23 North Carolina voting statistics from CBS,  
24 which I've gotten North Carolina as a race to  
25 call, is that it's fairly high.

1 I wouldn't be surprised if it was  
2 somewhere 90 percent plus. That tends to be  
3 the average nationwide for blacks.

4 They tend to vote for Democratic  
5 presidential and statewide candidates at very  
6 high rates.

7 Q. And that would include registered black  
8 Democrats, registered black unaffiliated and  
9 registered black Republicans, would it not?

10 A. I don't know about the sub-groups of  
11 registration.

12 Q. Okay.

13 A. We usually just look at blacks as a  
14 category and the correlation of black VAP.

15 Q. Okay. And white voters are -- are much  
16 more split in their political affiliations when  
17 they vote as compared to black voters, is that  
18 correct?

19 A. That tends to be the case, though,  
20 there's -- are you referring to North Carolina?

21 Q. Yes.

22 A. Yeah, my recollection is they tend to be  
23 more split.

24 Q. Okay. Are -- and that would in- -- and  
25 that would include white Democrats are more

1 likely to vote for a Republican candidate than  
2 a black Democrat? Would you agree with that?

3 A. That, I don't know offhand. So, you're  
4 -- you're -- my guess is that would be likely  
5 the case. But it's -- like, I haven't focused  
6 on that analysis.

7 Q. You haven't worked with that?

8 A. Right. The ideal data to look at for  
9 that would be to take, maybe, the National Exit  
10 Poll for North Carolina, because they have a  
11 pretty good sample of people as they're leaving  
12 the exit polls.

13 Q. Okay. And would you agree the  
14 unaffiliated white voters are far more likely  
15 to vote for Republican candidates than  
16 unaffiliated black voters in North Carolina?

17 A. That would be my -- my guess. But it's  
18 not -- I don't -- I didn't study that  
19 explicitly. I don't have any estimates offhand  
20 to draw on.

21 Q. Okay. So, given that testimony, I want  
22 you to explain to me your last sentence in  
23 paragraph 20, where you say "If the lines were  
24 drawn without regard to race, one would expect  
25 that the white and black registered voters

1 would have approximately the same likelihood of  
2 inclusion in a given Congressional District."

3 A. Unh-hunh (yes).

4 Q. And explain that to me. I don't  
5 understand that at all.

6 A. Oh, so, if you -- if you -- as a -- as an  
7 expectation, if you drew the lines without  
8 regard to race -- just arbitrarily, perhaps --  
9 so, if you were doing this exercise that my  
10 colleagues John Rhoden and Joey do, where they  
11 randomly construct a district in some part of  
12 the State, what would be the resulting  
13 correlation between the probability that a  
14 white ends up in a district and the probability  
15 a white -- a black ends up in a district, you  
16 know, it would probably be uncorrelated.

17 That's what the expectation is.

18 Q. Okay. What if the -- what if the  
19 individuals drawing the district were trying to  
20 draw District 12 as an extremely strong  
21 Democratic district, and the adjoining  
22 districts as strong Republican districts, would  
23 you still say that one would expect that white  
24 and black voters should be included in District  
25 12 at the same percentages?

1 A. So, if you gave me that as the  
2 conjecture, then I would have to, sort of,  
3 somehow condition on party. Let's say, given  
4 the party, what's the probability.

5 So, it's, like, a second analysis is  
6 introduced into the report.

7 Q. So, you --

8 A. And that -- if it's race versus party --

9 Q. Unh-hunh (yes).

10 A. -- or if party is somehow a factor, then  
11 you need to do an additional analysis. That's  
12 why I did the additional analysis.

13 But if it was just a question of race or  
14 not race, without any -- without anything else  
15 under consideration, then that's what that  
16 sentence refers to.

17 Q. All right. But does party necessarily  
18 indicate the percentage of white Democrats who  
19 vote for a Republican candidate?

20 A. My experience looking at exit polls and  
21 working for CBS is that white democrats tend to  
22 vote about 80 percent with their party; maybe a  
23 little higher -- 85 percent.

24 Q. In what states?

25 A. It's a general pattern around the United

1 States.

2 Q. Have you studied that for North Carolina?

3 A. Not explicitly. But when -- I'm trying  
4 to remember what -- I -- I had the North  
5 Carolina -- I had the North Carolina Senate  
6 race the last time around.

7 I'm trying to remember what the numbers  
8 were. They gave us a briefing book. I don't  
9 remember what the exact numbers, but you know,  
10 the white Democrats will vote overwhelmingly  
11 Democratic.

12 Q. But they're -- they're voting at a  
13 percentage that's lower than what the -- the  
14 black Democrats are voting for the Democratic  
15 candidate?

16 A. Correct. And white Republicans vote for  
17 Republicans at a lower rate than black  
18 Democrats vote for Democrats.

19 So, in terms of the swapping, it's -- my  
20 -- my guess, based on this, is white  
21 Republicans look like the opposite of white  
22 Democrats in terms of their percentage, voting  
23 for their -- for their party's preferred  
24 candidates.

25 Q. And are un- -- unaffiliated white voters

1 likely to vote for a Republican candidate at a  
2 higher rate than registered black Democrats?

3 A. Yeah, that -- that'd be my estimate, yeah.  
4 Unaffiliated generally tend to split their  
5 votes pretty evenly, so that -- that would be  
6 -- that would necessarily follow.

7 Q. Right. Well, what about un- -- would  
8 unaffiliated white voters tend to vote for  
9 Republicans at a higher rate than unaffiliated  
10 black voters?

11 A. I don't know that one offhand, so --.

12 Q. You haven't looked at that?

13 A. I don't remember looking at that one in  
14 particular, but --.

15 Q. And you've not looked at that for North  
16 Carolina?

17 A. Right. That's a -- that particular  
18 group is sufficiently small. It usually  
19 doesn't show up in the exit polls.

20 Q. Do you know what the percentage of  
21 unaffiliated voters is in North Carolina?

22 A. I don't remember offhand.

23 Q. Do you know what percentage of registered  
24 black voters are registered as Democrats?

25 A. I recall it was very high, like, 85

1 percent of so. I don't remember the exact  
2 number, but I remember it being very high.

3 Q. In North Carolina?

4 A. In North Carolina.

5 Q. Do you recall what -- what percentage  
6 black voters make up of registered Democrats in  
7 North Carolina?

8 A. So, what percentage of all Democrats are  
9 black voters? I don't remember that number  
10 offhand.

11 Q. Okay. Let me ask you, so, if -- if the  
12 -- if the lines of the district were drawn to  
13 try to increase Democratic performance in one  
14 -- in District 12 --

15 A. Unh-hunh (yes).

16 Q. -- and increase Republican performance in  
17 the adjoining districts, would you expect that  
18 the percentage of whites and blacks moved in  
19 and out of the Twelfth District would be the  
20 same?

21 Or would -- would the percentage of  
22 blacks moved in be higher?

23 A. It depends on what the adjoining  
24 populations are and what the populations in the  
25 district are. Because if you remove



1 population, you could affect it as well as  
2 adding to it, so --

3 Q. Well, let's --

4 A. -- it just depends on what the  
5 population is.

6 Q. Let's talk about North Carolina, okay,  
7 and District 12.

8 A. Right.

9 Q. You've got three major population centers  
10 for District 12, right?

11 A. Unh-hunh (yes).

12 Q. And then you've got this connecting area?

13 A. Correct.

14 Q. Okay. The -- the -- the -- in  
15 Mecklenburg County and Guilford County and  
16 Forsyth County, is it fair to say that a high  
17 percentage of the registered Democrats in those  
18 counties are African-American?

19 A. That's -- that's fair to say. I don't  
20 know what percentage it is, but it's -- I  
21 remember it being high.

22 Q. Okay. And if you were going to increase  
23 the Democratic performance of that district in  
24 those counties, would it be likely that you  
25 would be adding African-American voters to

1 those districts if you were going to increase  
2 the percen- -- or the performance of the  
3 Democratic candidate in those districts?

4 A. Well, that would be one strategy. You  
5 could add white Democrats, and it would  
6 increase it, because white Democrats are voting  
7 for Democrats at higher than 50 percent. You  
8 could --.

9 Q. Yes, but they vote -- they vote for --  
10 the white Democrats and -- and the unaffiliated  
11 whites for the Democratic candidate at a lower  
12 percentage than the black Democrats?

13 A. That would be conjectured and then --  
14 you know, my guess -- I don't know -- I don't  
15 know if it's -- how much lower it is.

16 And if you're -- if you're taking, say,  
17 white Republicans out of the district and  
18 putting white Democrats in, that's a net swing,  
19 say, of -- from 20 percent Democratic to 80  
20 percent Democratic of those voters.

21 That's a pretty big net swing if you take  
22 a white Republican out and put a white Democrat  
23 in. I guess, the marginal improvement would be  
24 another -- under this hypothetical, another 15  
25 points if you put a black Democrat in.

1 Q. Okay. What is the -- do you know what  
2 the Supreme Court of The United States says  
3 about whether election results or registration  
4 statistics are a better predictor of actual  
5 voting conduct?

6 A. My recollection from -- this is what come  
7 up in Cromartie --

8 Q. Unh-hunh (yes).

9 A. -- is that they said that election in  
10 Briar's opinion -- is that right -- was a --  
11 I'm trying to remember. I'm not sure I've got  
12 the right opinion in mind, but that election  
13 results are better predictors or preferred  
14 predictors.

15 My experience analyzing data is that the  
16 two are highly correlated.

17 Q. So, you disagree with the United States  
18 Supreme Court?

19 MR. SPEAS: Objection to form.

20 A. I'm not disagreeing with them. I'm not  
21 disagreeing with them. I'm just saying that  
22 the two are highly correlated. So, it could be  
23 that -- my practical experience predicting  
24 elections is that registration statistics are  
25 very useful in predicting elections.

1 Party -- party registration is a very good  
2 predictor of party vote.

3 Q. (Mr. Farr) But your experience in doing  
4 that has been in working for CBS?

5 A. And -- and also doing academic research.

6 Q. Okay. But you didn't -- you've never  
7 been asked to -- to draw a redistricting map  
8 for a jurisdiction, so that the party that  
9 hired you would end up with a more favorable  
10 redistricting plan than the one that was in  
11 place in the previous decade?

12 A. No.

13 Q. Okay. If the -- if the -- the drawers  
14 of the -- of the First District or the Twelfth  
15 District were focused on election results and  
16 trying to draw a stronger Twelfth District,  
17 with your knowledge of where the Twelfth  
18 District is located, in your opinion, would  
19 that result in the Twelfth District having a  
20 higher black percentage in the 2011 than what  
21 it had under the 2001 plan?

22 A. It -- it might; it might not. It  
23 depends on how much population needed to be  
24 shifted. My recollection of the statistics was  
25 that District 12 was overpopulated by 2400

1 people.

2 So, to make that a legal map, if you  
3 started with that district as your first  
4 district to draw, to make that legal -- if you  
5 were doing the least thing possible, you'd  
6 remove 2400 people.

7 And that would have been the extent of  
8 the change. So, they -- just conceptually,  
9 just looking at the map, from what -- based on  
10 what I -- I know, that's one thing I -- you  
11 know, that could have been done.

12 However, the map drawer shifted in -- I  
13 don't remember the exact numbers, but it was  
14 somewhere around 75,000 people -- shifted out  
15 another big chunk of people -- 70 -- 77,000.  
16 So, there -- there were a lot of population  
17 shifts that happened between the two.

18 If you started with, kind of, the  
19 minimalist approach of just make this an equal  
20 population district, and they could zero it out  
21 to comply with Baker v. Kerr or with some later  
22 cases, like, stop there, or at least that would  
23 be my experience.

24 Q. Okay. Is the -- in your opinion, is the  
25 2011 Twelfth District a stronger performing

1 Democratic district than the 2001 version?

2 A. I think under either map, the Democrat is  
3 almost surely going to win those districts.

4 Q. Is it -- which one is he going to win by  
5 a higher percentage?

6 A. My guess is there's a small -- there  
7 would be a percentage gain. In terms of data  
8 analysis at CBS, when we forecast the House,  
9 we're not going to worry about either one of  
10 those districts.

11 Those are safe, safe Democratic districts.

12 Q. Right. But -- but -- but is the -- is  
13 the 2011 version of the Twelfth likely to get a  
14 higher Democratic vote total for President and  
15 Congress and other Democratic races than its  
16 2001 district?

17 A. It -- it's likely.

18 Q. Okay. What about the surrounding  
19 districts? Have you studied those to see if  
20 those districts are better performing districts  
21 for Republicans as a result of the way the --  
22 the Twelfth District was constructed?

23 A. I have not studied the party performance  
24 of those districts.

25 Q. Have you studied the party performance of

1 any of the other districts in the 2001  
2 Congressional Plan other than the First and the  
3 Twelfth?

4 A. Just the First and the Twelfth. I mean,  
5 I have -- I have to start studying them for CBS  
6 now. So -- summer is upon me, and the election  
7 is coming, so --.

8 Q. Turn to paragraph 38 of your report.  
9 And you say that "The VTDs moved into  
10 Congressional District 12 are 44.0 percent  
11 black registration." I'm going to start over  
12 again with 38.

13 I'll just read the whole paragraph.

14 A. Okay.

15 Q. "The VTDs kept in Congressional District  
16 12 (the Core) --" and that raises an issue to  
17 me, because I -- I want you to define to me  
18 that that means, the Core.

19 "The VTDs kept in Congressional District  
20 12 are 54.0 percent black registration and 31.9  
21 percent white registration. The VTDs moved out  
22 of Congressional District 12 are 23.2 percent  
23 black registration and 66.0 percent white  
24 registration.

25 "The VTDs moved into Congressional

1 District 12 are 44.0 percent black registration  
2 and 37.1 white registration." Okay. Are you  
3 with me?

4 A. Unh-hunh (yes).

5 Q. Then you say -- what -- what conclusion  
6 do you reach from that? Is that -- what is  
7 that -- what's the significance of that?

8 A. So, the net effect is moving VTDS --  
9 keeping a district -- keeping -- the part of  
10 the district that was kept in the district  
11 without being moved in or out, that -- that --  
12 that's the Core -- is 54 percent black  
13 registration.

14 So, it's majority black registration.  
15 That's the part that was left.

16 Q. Unh-hunh (yes).

17 A. And then the net change was to move out  
18 VTDS that were 64 percent white registration  
19 and 23 percent black registration total; and  
20 then to move in VTDS that are 44 percent black  
21 registration and 37 percent white registration.

22 So, the net swing is to move -- you're  
23 moving out VTDS that are disproportionately  
24 white; you're moving in VTDS that are somewhat  
25 more black.



1           So, the net swing in black registration is  
2   23.2 versus 44.0.

3   Q.     Okay. And I -- and I don't know if  
4   you've got this in the back or not. But do --  
5   do you actually have totals of population that  
6   was moved out and in in one of your tables?

7           Or did you just do percentages?

8   A.     That's a good question whether I put the  
9   -- I did calculate that at one point. And I  
10   was trying to keep the -- I think (peruses  
11   document). I mean, I don't -- I don't see  
12   population.

13   Q.     Okay. Do -- do you know where the --  
14   the -- the moved VTDs are located in the  
15   district, the ones who were moved out and moved  
16   in?

17           Did you make a study of that?

18   A.     I studied it in the map. So, I -- I  
19   looked at the boundaries of the map to see  
20   which areas were being moved, which -- whether  
21   there were any county splits that were  
22   introduced, whether there were municipal splits  
23   and things like that.

24   Q.     Okay. And you're familiar with District  
25   12. And you've got these urban centers in

1 Mecklenburg and Guilford County, and then  
2 you've got the corridors that connect them?

3 A. Right.

4 Q. Do you consider the part of the corridor  
5 that was re- -- retained a part of the core of  
6 the district? Is that how you defined Core?

7 A. Core is the part that's left in, kept in.

8 Q. Okay.

9 A. That's literally what the Core is.

10 Q. Okay.

11 A. It's not a -- it's not a, kind of,  
12 judgmental term.

13 Q. Okay. Now, looking at paragraph 38,  
14 "The VTDs that moved out were 23 percent black  
15 registration and 64 percent white registration.

16 "The ones that were moved in were 44  
17 percent black registration and 37.1 white  
18 registration." Did you do any political  
19 analysis of the election results in the VTDs  
20 that were moved out versus the ones that were  
21 moved in?

22 A. No, I didn't, just -- I -- I studied the  
23 registration. I think I looked at the -- we  
24 had -- the report I had had election results,  
25 but I didn't -- of the VTDs, but I didn't know,

1 like, which voters vote for -- I just knew vote  
2 share for, say, Obama.

3 But I didn't know if it was the black  
4 vote, the -- you know, what percentage of that  
5 was the blacks voting which way, or the  
6 Democrats.

7 So, I stuck with the individual level  
8 analysis to avoid, kind of, the inferential  
9 problem of predicting, you know, what  
10 percentage of the vote for those was coming  
11 from blacks and whites.

12 Q. Okay. So -- well, do you -- well, do  
13 you have an opinion on -- if we just looked at  
14 the VTDs that were moved out of Congressional  
15 District 12 versus the ones that were moved in,  
16 would you -- would you have an opinion on  
17 whether the ones that mo- -- were moved out had  
18 a higher percentage of vote for McCain than the  
19 districts that were moved in to District 12?

20 A. No, not -- not offhand, no.

21 Q. You didn't look at that?

22 A. I think I did look at it, but it's not  
23 in the reports.

24 Q. Okay.

25 A. It's not something I would -- I would

1 testify on.

2 Q. Well, looking at the -- at the  
3 registration figures where the -- the districts  
4 moved out were 23.2 percent black and 64.0  
5 percent white, and then you compare that to the  
6 44 percent black that were moved in and -- with  
7 37.1 percent white, based upon your knowledge  
8 of voting patterns by blacks versus whites,  
9 wouldn't it be reasonable to assume that McCain  
10 performed better in the districts that were  
11 moved out than he did in the ones that were  
12 moved in?

13 A. That would be my prediction.

14 Q. Okay. And wouldn't it be reasonable to  
15 assume that other Republican candidates  
16 performed better in the districts that were  
17 moved out than the ones that were moved in?

18 A. That would be my prediction, too.

19 Q. Okay. And that same answer would apply  
20 if we looked at this from a voting age  
21 population perspective?

22 A. Yes. It gets a little complicated,  
23 because one of the other groups is not  
24 mentioned in here. Hispanics, we don't know  
25 what the registration rate of those is and so

1     forth, but --.

2     Q.     Okay.

3     A.     And again, you have to make some  
4     projections. And there are some classic  
5     problems with making projections where in some  
6     counties the whites who are closest to the  
7     blacks are the -- you know, voting --  
8     residentially are the ones who are voting the  
9     most strongly opposite to the blacks.

10           But then the whites that are farther away  
11     are not. That's a classic article from Jerry  
12     Wright in the 1970s. So, it depends on -- I  
13     guess it depends on which whites.

14     Q.     Okay. Oh, I'll add something I forgot  
15     to ask you. Do you know what is meant by point  
16     contiguity?

17     A.     Yes.

18     Q.     What does that mean?

19     A.     So, if you have a -- if you have a VTD  
20     here and a VTD here, and they just touch at one  
21     point, you've got point contiguity.

22     Q.     Okay. Do you know what's meant by the  
23     term -- it's been called various things down  
24     here, but one of the terms it's been called is  
25     double point contiguity.

1 Have you ever heard of that before?

2 A. I haven't heard of double point  
3 contiguity.

4 Q. Okay. Or criss-cross contiguity? Have  
5 you ever heard of that?

6 A. I -- I've heard of criss-cross  
7 contiguity, but -- like, I don't --

8 Q. What -- what is that?

9 A. -- fully -- I don't fully understand that.

10 Q. What's criss-cross contiguity as far as  
11 you know?

12 A. So, I've -- the one reference I saw that  
13 comes to mind was where you've got two -- two  
14 -- two -- let me get an example.

15 So -- so, the point would be just like  
16 any -- any -- any corner touching at least two  
17 VTDs. The criss-cross would be a -- my  
18 understanding, it was a form of point  
19 contiguity.

20 But it's, like -- it has to do with the  
21 -- the shape of the boundary that's connecting.

22 Q. If a -- if a jurisdiction used point  
23 contiguity, could that affect the compactness  
24 scores on a Reock test?

25 A. It depends -- depends on the shape. So,

1 if the district actually bent around -- back  
2 around itself --

3 Q. Unh-hunh (yes).

4 A. -- then the inscribed circle -- the  
5 inscribed circle wouldn't capture the bending  
6 back. So, that wouldn't necessarily affect it.

7 The area to perimeter ratio would reflect  
8 that.

9 Q. Okay.

10 A. That's one -- one of the examples of why  
11 you'd want to look at both as, kind of,  
12 indicators of what's going on with the district  
13 shapes.

14 Q. Okay. But it's pos- -- is it possible  
15 that the use of point contiguity could have an  
16 impact on a Reock test?

17 A. It's possible if I took a district here,  
18 and I stuck another district on top with just a  
19 point connecting them, then by virtue of  
20 elongating the district and reducing the total  
21 area covered, that -- that would be an example  
22 where it could, but --.

23 Q. Okay. All right. I've skipped a  
24 paragraph I want to ask you about, paragraph  
25 29. This -- this -- we're talking about the

1 same question I just asked you about  
2 Congressional 12.

3 I want to ask you about Congressional  
4 District 1. You can see in your -- in  
5 paragraph 29 you say that "The VTDS moved out  
6 of Congressional District 1 are 27.4 percent  
7 black registration and 66.7 percent white  
8 registration." Do you see that?

9 A. Correct.

10 Q. "The VTDS moved into Congressional  
11 District 1 are 48.1 percent black registration  
12 and 37.7 percent white registration"?

13 A. Correct.

14 Q. Okay. Would it be fair to assume that  
15 the VTDS moved out of Congressional District 1  
16 when the 2011 version was created performed  
17 better for McCain than the VTDS that were moved  
18 into the district?

19 A. That -- that would be my guess just  
20 blindly on the basis of these statistics and  
21 the correlation between race and -- and party.

22 But again, it depends on which whites, so  
23 --.

24 Q. Okay. Would -- would -- would it be  
25 fair to assume that other Republican candidates



1 performed better in the VTDs that were moved  
2 out of Congressional District 1 as compared to  
3 the VTDs that were moved into Congressional  
4 District 1?

5 A. That -- again, that would be my  
6 prediction. But again, it depends on which  
7 whites and hispanics and other -- others.

8 Q. Okay. Would you be able to determine  
9 that by looking at election results?

10 A. Election results, registration -- those  
11 are the data that would be helpful.

12 Q. But you agree election results would be  
13 helpful?

14 A. Yes.

15 MR. FARR: Can I take a short break?

16 (SHORT BREAK 2:50 - 2:59 P. M.)

17 Q. (Mr. Farr) Okay. Professor, I wanted  
18 to ask you about your second report. And --

19 A. Before I move on to my second report,  
20 can I make one change in my --

21 Q. Sure, you're always able to do that.

22 A. So, Dr. Hofeller pointed out something to  
23 correct -- there is an error I made in  
24 tabulation on paragraph 18. It should be 19  
25 counties; not 18.

1 And it should be "splits nine of the ten  
2 counties." I just miscounted. I was counting  
3 by hand from the Excel spreadsheet. And I just  
4 --.

5 Q. We'll give you that one.

6 A. Okay.

7 Q. No problem.

8 A. Time for new reading glasses, I guess.

9 Q. I just want to ask you -- I hope I can  
10 get -- I'm not going to go all through your  
11 second report. It's -- it speaks for itself.

12 But I -- you made some effort in this --  
13 in the second report to try to --

14 MR. SPEAS: This is Exhibit 10?

15 MR. FARR: I'm sorry, yes, Eddie,  
16 thank you, Exhibit 10.

17 Q. (Mr. Farr) Did -- you made an effort to  
18 try to predict election results in your -- in  
19 Exhibit 10, is that right?

20 A. Well, there's a correlation between the  
21 election data, the voting -- at the voting  
22 tabulation district and the registration data.

23 Q. Explain that to me.

24 A. It's not an attempt to actually predict  
25 the election results. The question is whether

1 or not registration and -- and voting are  
2 highly related to each other; and therefore,  
3 whether registration is a good indicator of  
4 likely performance of the -- of the district,  
5 or whether or not -- you know, if you analyzed  
6 registration, you'd get essentially the same  
7 conclusions or close to the same conclusions as  
8 analyzing elections.

9 Q. Did that assessment that you did include  
10 an assessment of accounting for unaffiliated  
11 voters?

12 A. Unaffiliated voters are included in that  
13 measure of registration.

14 Q. Okay. Again, how did you predict how the  
15 unaffiliated voters were going to vote?

16 A. It's not a prediction about how the  
17 unaffiliated voters are going to vote. It's  
18 just a correlation between the percent vote --  
19 of the two-party vote and the correlation and  
20 -- and the percent of the registration that's  
21 Democrat or Republican or unaffiliated.

22 So, the higher the Democratic percent,  
23 the -- in registration, the higher the  
24 Democratic percent in vote. And that degree of  
25 correlation is quite high -- around .8 or

1 higher was my recollection of the numbers.

2 Q. Could you point that part of your report  
3 out to me? Because this -- this is something  
4 that I really didn't understand, which is why  
5 I'm asking you questions about it.

6 A. Okay.

7 Q. Where is this in your report?

8 A. Table -- page 5.

9 Q. Okay.

10 A. Paragraph 16, 17, 19.

11 Q. Okay. So, I'm looking at 17. And you  
12 said --

13 A. I --

14 Q. I'm sorry?

15 A. Sorry, go ahead.

16 Q. Anything else?

17 A. No, no.

18 Q. I didn't mean to interrupt you. It's --  
19 so, and you said Table 5?

20 A. I didn't say a table, but yeah, I think  
21 that's the right one -- Table 2? No, Table 1.

22 Q. Okay. So, you -- you correlated  
23 Democratic registration -- black Democratic  
24 registration and VAP against the Obama vote?  
25 Is that what you did?

1 A. Right. When I said .8, I was  
2 remembering the black and white registration;  
3 not the -- so, I correlated black registration  
4 versus the Obama vote and white registration  
5 other than party registration.

6 So, I just forgot which number I was  
7 looking at.

8 Q. Okay. And then did you do the same  
9 thing for black VAP and white VAP in the Obama  
10 vote?

11 A. Yes.

12 Q. Okay. Did you look at any other races  
13 besides the Obama race?

14 A. In this -- in this report, I only looked  
15 at the Obama 2008 vote.

16 Q. Okay. Is there a correlation between  
17 black registration and voting for Democratic  
18 candidates, do you think?

19 A. Yes.

20 Q. Do you think it would be in the same  
21 range as -- as the Obama correlation?

22 A. Yes.

23 Q. And what about -- is there a correlation  
24 between black VAP and votes for other Democrats?

25 A. Yes, my guess is it's quite high.

1 Q. And would it be in the same -- close to  
2 the same number as -- as for the Obama  
3 correlation?

4 A. Correct.

5 Q. Okay. So, your -- your study shows that  
6 when you take all three of those things into  
7 consideration, that blacks are very likely to  
8 vote for the Democratic candidate?

9 A. Correct, and -- and particularly for  
10 Obama. I was looking at the Obama '08 vote.

11 Q. Right. And that includes registered black  
12 Democrats and unaffiliated blacks, right?

13 A. Correct.

14 Q. And with the VAP would also include some  
15 degree -- to some degree, Republican blacks?

16 A. Correct.

17 Q. Okay. And then I wanted to ask you,  
18 have you -- I know you've looked at Dr.  
19 Hofeller's report?

20 A. Yes.

21 Q. Is there anything that he added  
22 incorrectly or any data that -- that he didn't  
23 quote accurately? I'm not asking you to agree  
24 with his conclusions, but did you find any  
25 errors? Mathematical errors or things he

1 reported that were not correct?

2 A. I found no mathematical errors or in- --  
3 incorrect reports.

4 Q. Okay. Let me look real quickly here.

5 MR. FARR: I think I'm done. Thank  
6 you, sir.

7 A. Thank you.

8 MR. SPEAS: Can we have just a  
9 minute?

10 MR. FARR: Sure.

11 (SHORT BREAK 2:50 - 3:01 P. M.)

12 MR. SPEAS: We have no questions.

13 (WITNESS EXCUSED.)

14 (FURTHER DEPONENT SAITH NOT AT 3:01 P. M.)