

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

COMMON CAUSE, et al., )  
)  
Plaintiffs, )  
vs. ) Civil Action No.  
) 1:16-CV-2016-WO-JEP  
ROBERT A. RUCHO, in his )  
official capacity as Chairman )  
of the North Carolina Senate )  
Redistricting Committee for the )  
2016 Extra Session and )  
Co-Chairman of the Joint Select )  
Committee on Congressional )  
Redistricting, et al., )  
)  
Defendants. )  
)  
LEAGUE OF WOMEN VOTERS OF NORTH )  
CAROLINA, et al., )  
)  
Plaintiffs, )  
vs. ) Civil Action No.  
) 1:16-CV-1164  
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Congressional Redistricting, )  
et al., )  
)  
Defendants. )  
)

DEPOSITION OF JAMES G. GIMPEL

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9:55 A.M.

THURSDAY, APRIL 27, 2017

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RALEIGH, NORTH CAROLINA

1 be one of them. And I teach -- I've taught  
2 courses in statistics in the past, not currently  
3 teaching it now, research design, a number of  
4 other courses. I've taught an immigration  
5 course in the past on immigration, immigration  
6 policy and law. Let's see. So political  
7 behavior, public opinion are, you know, sort of  
8 mainstream parts of my course load. So all of  
9 those.

10 Q. You mentioned GIS, including redistricting.

11 Have you taught courses on redistricting?

12 A. I've not taught a single course -- an entire  
13 semester on redistricting, but I'm going to  
14 offer one because this has gotten me into it now  
15 so -- and much more than I was involved before  
16 at the state level. So I'm definitely going to  
17 offer one because it seems like something  
18 students should learn about.

19 Q. So you're going to offer a course in  
20 redistricting based on the work you're doing in  
21 this case?

22 A. Well, on all that I've learned, yes, the issues  
23 that are very interesting.

24 Q. And what you've learned and the issues that are  
25 interesting in connection with this case?

1 A. Yes, with this case and the research I wound up  
2 doing.

3 Q. Have you published any academic articles on the  
4 topic of redistricting?

5 A. I've not touched specifically on redistricting,  
6 no.

7 Q. Have you generally addressed redistricting in  
8 your research?

9 A. I'm trying to -- only tangentially as it relates  
10 to elections. And so, you know, I can't think  
11 of a single chapter, you know, or focus, a  
12 section of something I've written that addresses  
13 solely the subject of redistricting, so I  
14 would -- the best answer is no. The best answer  
15 is, no, I've not touched specifically or focused  
16 directly on the subject up until now.

17 Q. And before you were retained as an expert in  
18 this case, have you written any academic  
19 articles on North Carolina politics?

20 A. No.

21 Q. Have you written any -- have you done any  
22 research on North Carolina politics prior to  
23 your engagement in this matter?

24 A. I'm trying to think back through. I have a lot  
25 on there, and it's been a long time. A lot on

1 social scientist. You know, I don't have my  
2 mind fully made up before considering the facts.  
3 That's not a very social scientific approach or  
4 expert approach.

5 So I suppose it's always possible, but  
6 I think what I mean is that there is some things  
7 that could help strengthen some of the  
8 viewpoints expressed in the document here that I  
9 didn't have the opportunity to develop or  
10 deploy, right, rather than, you know, lots of  
11 sort of undiscovered facts out there, right.

12 I'm thinking about things that I could  
13 draw on that could amplify or clarify, you know,  
14 augment the points that are in the report now.

15 Q. You provided a couple of examples of the kind of  
16 data that you might consider. Are there other  
17 examples of data that you might consider that  
18 you did not consider in preparing this report?

19 A. Well, I notice, for example, that, you know, the  
20 plaintiffs had very nice opportunity to study  
21 other states and, you know, the experience of  
22 other states. I think it would be quite  
23 interesting and important to, you know, look  
24 more carefully at the redistricting experiences  
25 and criteria that are in place and utilized by

1 states other than North Carolina. That could be  
2 instructive, possibly helpful to the Court in  
3 coming to a decision.

4 But, you know, I will confess to not  
5 having fully developed thoughts about what's  
6 there. It would just be a nice opportunity to  
7 try to augment and clarify a report. And, you  
8 know, as I said, I imagine just about any expert  
9 would say the same. If they have a chance to  
10 revise their work, they would like the chance to  
11 do that, try to improve it, make it better.

12 Q. If you could open your report to Page 1.

13 A. Okay.

14 Q. Under the heading Focus of Research and  
15 Overview, a few lines down you say that there is  
16 no perfect map that optimizes the value of all  
17 the measures now incorporated into the  
18 redistricting process, right?

19 A. Yes.

20 Q. Is it your belief that any of the plaintiffs'  
21 experts in this case are claiming to have  
22 created a perfect map?

23 A. My point here is only that there are value  
24 priorities that go into the mapmaking,  
25 map-drawing process, and the technical expertise

1 know what the existing boundaries are, so -- and  
2 it's a consideration that a lot of map drawers  
3 that I'm aware of, you know, start with rather  
4 than just wiping the slate clean, you know, as  
5 if we were founding a new government and  
6 legislature.

7 Q. On Page 2 of your report, you say that the 2016  
8 map could be argued to be an incumbency  
9 protection plan rather than a Republican plan,  
10 per se.

11 Is it your opinion that the 2016 map  
12 was an incumbency protection plan rather than a  
13 Republican plan, per se?

14 A. Well, I think that sometimes these things are  
15 closely related, a bit hard to sort out. I  
16 think that there is a partisan edge to this map.  
17 I think it serves the purpose of incumbency  
18 protection. Notice that there are Democratic  
19 incumbents in this map that are protected as  
20 well. I think that it is possible to have drawn  
21 a much more aggressive Republican map that could  
22 have threatened those Democratic incumbents.

23 So I don't think any, you know, expert  
24 on our side can sit here and credibly say that  
25 there's no partisanship in this map. I mean,

1 the people who are involved in drawing it, as I  
2 indicate on Page 2, have indicated that  
3 themselves, right, admitted in various forums  
4 that the map exhibits a partisan tilt. So far  
5 be it from the experts to come and so, you know,  
6 those people involved in drawing the map are  
7 somehow lying or diluted or something. I mean,  
8 you know, that would be crazy, right.

9 So I think that there is some partisan  
10 tilt, but I think it also protects incumbents,  
11 and it didn't have to protect those incumbents  
12 on the Democratic side, but it did and it does.

13 Q. You said that it's possible to have drawn a more  
14 aggressive Republican map. What facts or data  
15 did you consider to come to that conclusion?

16 A. Well, I can imagine going to -- back to the  
17 drawing board and sacrificing some of the  
18 criteria, you know, moving them down the list,  
19 you know, of all these various things we have to  
20 balance.

21 I could imagine, for example, ignoring  
22 the importance of keeping VTDs and -- this is  
23 voter tabulation districts -- and keeping  
24 counties intact. And if we didn't have those  
25 kinds of constraints, it would have been pretty

1 straightforward to draw a more aggressive map  
2 that would have jeopardized the incumbency of  
3 the sitting Democrats.

4 So -- so your answer is do I have data  
5 on that specifically. You know, did I go out  
6 and intentionally draw a more Republican map. I  
7 have not done that yet. So my answer is no.

8 I'm not sure if that's in the other expert  
9 reports.

10 Q. And you also say it's just as easy to show that  
11 maps with an equal or greater partisan bias  
12 could also have been drawn. That's the same  
13 point. You didn't actually draw those --

14 THE WITNESS: I actually have --

15 MR. FARR: Excuse me for a second. Not  
16 to be critical at all, please let him finish --

17 THE WITNESS: Oh, I beg your pardon.

18 MR. FARR: If you guys are having a  
19 conversation, it's really for the court  
20 reporter's benefit.

21 THE WITNESS: You're right. Okay.

22 Sorry.

23 BY MR. NELSON:

24 Q. When you say it's just as easy to show that maps  
25 with an equal or greater partisan bias could



1 I think I could probably quickly draw a very  
2 Republican map, probably more Republican than  
3 the one that they have done here.

4 Q. You think that you could but you haven't done  
5 that?

6 A. Haven't done that yet.

7 Q. And do you know if any of the other experts have  
8 done that?

9 A. I don't know.

10 Q. When you say you haven't done that yet, do you  
11 plan to do that?

12 A. That's something that I could do in the amount  
13 of time between now and trial.

14 Q. And if -- without sacrificing the criteria to  
15 hold counties or to minimize county or VTD  
16 splits, do you think that it would not be easy  
17 to draw a map that was equal or greater --

18 A. Much harder. I think it's much harder. It's  
19 maybe doable if, for example, we ignore the  
20 importance of compactness, right. There's a lot  
21 we can do. So if you leave out or you push  
22 compactness aside and you relax the county and  
23 VTD splits, then I think you can pretty artfully  
24 draw some very Republican-leaning maps more  
25 equal or greater.

1 Q. And did you review those?

2 A. I remember looking at them, and I think also  
3 Professor Chen highlights them in his report.

4 Q. But you didn't -- you didn't discuss those  
5 actual adopted criteria in your report?

6 A. I think that I address the various criteria that  
7 they include, but I did not sort of point  
8 specifically to the adopted criteria.

9 Q. When you say you address the criteria they used,  
10 is that because you think that your general  
11 discussion of criteria, that state legislators  
12 consider a line with the criteria that they use?

13 A. Yeah, largely, that same general line of  
14 reasoning about how these criteria come into  
15 conflict. You know, it's true, you know,  
16 specifically for the state or legislative  
17 criteria that were written down in the document  
18 you're referring to.

19 Q. And earlier you said that if you ignored the  
20 county -- the requirement to minimize county or  
21 VTD splits you thought it would be possible to  
22 draw maps that favor Republicans more.

23 Do you have any opinion on whether a  
24 more aggressive Republican map could be drawn  
25 given all of the criteria in the adopted

1 criteria?

2 A. I'm trying to think. I believe that if I was  
3 drawing a North Carolina map and I wanted to  
4 draw a very Republican map, trying to balance  
5 these various criteria, it would take some work.  
6 You know, it would take some work. And  
7 inevitably I would have to probably sacrifice  
8 some of those criteria to others.

9 But I'm confident that I can draw a  
10 pretty Republican map to equal or exceed what  
11 they've done. But once again, I would say that  
12 of those criteria that are listed there, right,  
13 you know, there are some that wind up looking  
14 better in any given try at a map than others,  
15 okay, and there are trade-offs among them,  
16 right.

17 So, you know, I've made a number of  
18 brief attempts to draw maps. I have some in the  
19 appendix, and, you know, I could see that my  
20 maps vary a lot, you know, in terms of  
21 preserving communities of interest.

22 So my best answer to your question is  
23 that it may be possible but not without  
24 sacrificing some of those criteria to others.

25 Q. When you say those criteria and you move your

1                   And there have been other wave  
2                   elections like that. 2006 was one. 2010 was  
3                   one.

4                   So, yeah, I mean, in politics you're  
5                   trying to make those calculations, right, you're  
6                   trying to make those calculations. And, you  
7                   know, people look at past results as a way of  
8                   predicting the future, but, you know, again,  
9                   it's not a hundred percent. We've never had  
10                  luck, you know, predicting a hundred percent  
11                  because new populations move in and, of course,  
12                  people do change their minds and there are big  
13                  turnout fluctuations from presidential years to  
14                  off years.

15                  So, yeah, that's the -- incumbency  
16                  protection in part means that, but it's -- you  
17                  know, it's always an imperfect thing, I guess is  
18                  the way I'd put it.

19 BY MR. NELSON:

20 Q.    In the 2016 plan, you said incumbency protection  
21                  was one of the priorities for that plan, right?

22 A.    Yeah. Uh-huh.

23 Q.    And you define at some point in your report a  
24                  competitive district as something between 47 and  
25                  53 percent?

1 A. Sure. Other people use different measures.  
2 Some people would go 45/55. I'm not going to  
3 make a fuss over the precise measure, but I was  
4 trying to pin it down, you know, so that  
5 competitiveness was meaningful.

6 You know, you can probably have a  
7 string of elections, you know, that -- for one  
8 55/45 and, you know, by narrowing the margin I  
9 made sure that I was really identifying truly  
10 competitive districts, you know, not ones where  
11 someone was steadily and predictably getting  
12 elected 55/45.

13 But, you know, it's something that's  
14 fungible. I wouldn't, you know, make a major  
15 case if someone wanted to define it in a  
16 different way, you know, if they wanted to  
17 extend it out to 55/45, which I think is  
18 commonly done. I believe the Jackman report  
19 mentions 55/45. I think also in what I skimmed  
20 of the Hood report there was 45/55 mentioned.

21 Q. And you've seen the results of the 2016  
22 congressional election in North Carolina, I take  
23 it.

24 A. I don't have -- those results aren't accessible  
25 off the top of my head, but, yeah, I remember

1 Q. And do you know how the drafters of the 2016 map  
2 went about protecting incumbents?

3 A. Well, I believe they did that by ensuring that  
4 those districts held by incumbents had, you  
5 know, pretty safe leaning, you know, reasonably  
6 safe partisan majorities. I mean, to the extent  
7 you can, right. You're trying to anticipate.  
8 You're trying to guess, right. You're trying to  
9 do the best you can, right, to, you know, use  
10 the existing data from past elections to predict  
11 what's going to happen in the future. And one  
12 way of doing that is saying, well, you know, we  
13 can try to make these districts, you know, more  
14 Democratic to ensure that these particular  
15 legislators are reelected.

16 Okay. Now, could we see a tide come  
17 along and sweep David Price out of office?  
18 Well, it happened before. It happened in 1994.  
19 He had a pretty safe district then. Okay. So,  
20 you know, this does happen, but, you know, if  
21 you're trying to protect David Price, you know,  
22 you can try to do that by, you know, ensuring  
23 that he has more Democratic registrants in his  
24 district.

25 Q. So it's your understanding that in the 2016 map,

1           Districts 1, 4 and 12 were augmented in a  
2           Democratic direction?

3           MR. FARR:  Objection to the form.

4           THE WITNESS:  Yeah.  I mean, I think  
5           there's some support for that, but I'd have to  
6           look at some figures, you know, to nail that  
7           down, but, yeah, that's my impression.

8           MR. NELSON:  I'm going -- I'm using a  
9           photocopy of a previously marked exhibit.  It's  
10          Exhibit 24 from the Hofeller --

11          MR. FARR:  Do you think we can also  
12          just mark it as a Gimpel exhibit to be  
13          consistent.

14                       (WHEREUPON, Plaintiffs' Gimpel  
15          Exhibit 2 was marked for identification.)

16          BY MR. NELSON:

17          Q.    Do you recognize -- I'm showing you a document  
18          that's been marked Gimpel Exhibit 2.  Do you  
19          recognize this document?

20          A.    I believe this is the first time I've seen this  
21          document.  I'm pretty sure it is.

22          Q.    If you'd turn to the second page, the bottom  
23          section is entitled Incumbency.  And do you see,  
24          the second sentence says:

25                       "...reasonable efforts shall be made

1 changed, so that's what I would say.

2 Q. Do you think that the maps that he generated  
3 would have been more reasonable if he had  
4 included more of the adopted criteria?

5 A. Yes, I think so. I think -- the whole idea  
6 behind a simulation is that for it to be  
7 persuasive or convincing, you have to make it as  
8 close to the real world process as possible.

9 It's a bit like the difference between what goes  
10 on in a lab, okay, and what goes on in the real  
11 world, okay.

12 In labs we can learn a lot by  
13 simplifying a process, and that often proves to  
14 be helpful, you know, for clarifying a  
15 relationship between two or three things that  
16 we're inquiring about, but, of course, the  
17 problem in the lab is one of external validity.  
18 A lot of times what goes on in a lab is not  
19 exactly like what goes on in the real world and  
20 in the real word process.

21 And I think that's the issue, you know,  
22 within the simulation exercise as well. Very  
23 helpful, very useful tool. It's really neat  
24 that they tried it, but there's always a problem  
25 in moving from a simulation to the real world.



1 And, you know, there are going to be some things  
2 that fall short, you know, in sort of capturing  
3 the real-world experience.

4 Q. Do you agree that the more the simulations  
5 reflect the criteria and values that were  
6 actually considered by the drafters of the map  
7 at issue the better?

8 A. I think so, yes. I think that would be more  
9 convincing.

10 Q. On Page 8 you talk about -- a bit about  
11 incumbency protection. You say that maps  
12 designed consistent with these choices are or  
13 should be considered reasonable maps.

14 A. You know, I would -- go ahead.

15 Q. Is it your opinion that a map or a simulation  
16 that include incumbency protection should be  
17 considered reasonable?

18 A. I don't see why not. And the reason for that is  
19 their widespread and long-standing acceptance  
20 and use and their presence, you know, even on  
21 the terrain of congressional districting today.

22 You know, if we were to look at a great  
23 many states across the country today, we would  
24 find a lot of states in which incumbency  
25 protection was part of the recipe, and so why

1 small black populations, but, you know, again,  
2 we're trying to ensure that this happens with  
3 great regularity, not sort of by accident and  
4 happenstance. So that's my understanding what  
5 the VRA requires is that this happen with, you  
6 know, a great deal of regularity, not just by  
7 accident of someone coming along.

8 BY MR. NELSON:

9 Q. If you could turn to Page 9, the second full  
10 paragraph.

11 Just going back to the Voting Rights  
12 Act briefly, were you instructed to evaluate  
13 whether Professor Chen or Professor Mattingly's  
14 simulations would satisfy Voting Rights Act  
15 requirements?

16 A. I wasn't instructed on that.

17 Q. And did you -- were you instructed to evaluate  
18 whether the 2016 map satisfied Voting Rights Act  
19 requirements?

20 A. No, I wasn't instructed on that.

21 Q. Did you conduct either of those analyses?

22 A. Well, I was interested, yes, in knowing whether  
23 the maps that were drawn, you know, would  
24 promote the election of African American  
25 officeholders, and so, you know, I was pretty

1 would withstand -- sorry, that would withstand  
2 the scrutiny of a Voting Rights Act challenge.

3 It doesn't take much imagination to  
4 figure that the legislature had that firmly in  
5 mind, okay. You'd had to have in addition to,  
6 you know, again, just having the precedent of  
7 the map that was in front of you that you were  
8 starting from.

9 So, you know, nothing about the Voting  
10 Rights Act as far as I know, you know, has been  
11 tossed out as dated or outmoded law. And so,  
12 you know, here you have a legislature confronted  
13 with that demand very fresh in mind from the  
14 recent litigation, okay, plus these additional  
15 criteria and demands. So there's a lot of  
16 things to weigh here.

17 Q. But you are just guessing that the legislature  
18 considered the VRA --

19 A. That's true. I'm imagining this would had to  
20 have been the case, right. Any rational

21 legislature would have expected a pretty swift  
22 and severe Voting Rights challenge, litigation  
23 coming down pretty hard on that point if they  
24 had just completely, you know, obliterated those  
25 districts.

1           how few major changes were made. You know, the  
2           12th District I think was the really big one.  
3           It seemed like, you know, again, there was that  
4           emphasis on ensuring that incumbents were  
5           protected. And, you know, certainly for a time,  
6           right -- again, we try to anticipate these  
7           things as best we can. Certainly for a time we  
8           did see the incumbents reelected pretty much at  
9           the rate the map drawers expected and hoped for.  
10          There was -- then came along 1994, you know,  
11          which kind of upset the applecart.

12        Q.    So this characterization is based on your  
13            observation of the partisan makeup of the  
14            General Assembly and what happened in some of  
15            the subsequent elections?

16        A.    Right. And, you know, it was 8 D-4 R and it  
17            remained so for a couple of elections. And then  
18            I don't mention it, but '94, you know, was, you  
19            know, kind of a stunner, but then, you know,  
20            things kind of reverted back to normal after  
21            that. David Price one, for example, again, won  
22            his seat back, so...

23        Q.    On Page 10, in the first full paragraph, you say  
24            for comparison purposes, throughout, you rely on  
25            averaging -- it looks like, I think, it's nine

1 elections from 2004 and 2010.

2 A. Right.

3 Q. Why did you choose those elections for your --

4 A. It's a good question. I could have used a lot  
5 of different elections, and in fact, I think I  
6 came across sort of midway through the work, you  
7 know, the -- the Hofeller formula, which was a  
8 particular set of elections that Mr. Hofeller --  
9 I've never met him -- a particular set of  
10 elections he used, maybe in retrospect probably  
11 should have used that.

12 I chose some mainly because I wanted to  
13 try to capture the real expression of  
14 partisanship in North Carolina. You know, so, I  
15 mean, I know you can't use party registration in  
16 a border or southern state. That's not a  
17 helpful thing to use because of the number of  
18 conservative Democrats who regularly vote  
19 Republican, so I knew that that was not a useful  
20 standard like it might be in a northern state.  
21 So I had to try to choose some elections that  
22 were competitive and captured people's true  
23 expression, their party preference.

24 So, you know, again, there are probably  
25 a couple that I could have tossed out, maybe a

1 couple I could have tossed in. I'm not sure how  
2 much of a difference it would have made.  
3 But the main focus, the main reason why  
4 I used the ones I did was because I thought they  
5 best captured the natural sort of basis of  
6 partisanship in North Carolina, of course, with  
7 lots of caveats, you know, the population's  
8 changing and not all the same people vote in one  
9 election to the next, but, I mean, everybody's  
10 got that problem when they design these  
11 measures.

12 MR. FARR: Excuse me. Dr. Gimpel, I  
13 want to ask you again, I know you're not doing  
14 this on purpose, but let Mr. Nelson finish his  
15 question before you start answering.

16 THE WITNESS: Okay.

17 BY MR. NELSON:

18 Q. Were there any elections that you considered  
19 including and decided not to include?

20 A. No. Anything really lopsided I tried to avoid,  
21 I will say that. Again, you know the, point is  
22 not to -- not to toss every election in there  
23 but to try to capture the --

24 MR. FARR: Can you give us five minutes  
25 when he's done.

1 MR. NELSON: We can go off the record  
2 for a minute.

3 (Brief Recess: 2:12 to 2:16 p.m.)

4 (WHEREUPON, Tom Farr left the  
5 deposition room and Phil Strach entered the  
6 deposition room.)

7 BY MR. NELSON:

8 Q. Before we broke, I believe you said that you  
9 didn't want to include any lopsided elections.

10 A. Yes. I'm a little concerned about including the  
11 elections where the margins are really lopsided  
12 because they may not really express the true  
13 partisan division of the electorate which seems  
14 to be in back of this, right. We're trying  
15 to -- we can't really rely on the registration  
16 figures because of all of the conservative  
17 Democrats who regularly vote Republican, so we  
18 need to find something that's, you know, more  
19 regular expression of partisanship.

20 So my effort was to try to include some  
21 elections that captured party preference without  
22 including, you know, really lopsided races that  
23 could reflect, for example, mismatched  
24 candidates or candidates that just perform  
25 unusually poorly on the campaign trail. My

1 goodness, election outcomes are the result of so  
2 many different things. And, you know, at least  
3 what you need to try to do is, you know, look at  
4 elections that are competitive, that seem  
5 reasonably well matched between the two major  
6 party candidates, I suppose, in trying to gauge  
7 the party preferences and leaning of the  
8 electorate. So, you know, my effort was to  
9 include the elections that did that.

10 And I have to say there are quite a few  
11 elections in North Carolina there are  
12 competitive, so there are lots of offices that I  
13 probably could have plugged in there that I  
14 didn't that would have fit the competitiveness  
15 criteria.

16 Q. Were there any specific elections that you  
17 excluded?

18 A. I kind of like the 2008 gubernatorial. I like  
19 the 2008 gubernatorial because I think it  
20 probably reflects what is true, that there is a  
21 slight Democratic edge in the underlying  
22 electorate, I think there probably is, and yet,  
23 you know, it's, again, a very closely contested  
24 election. So, you know, of the elections that I  
25 was scanning, when I started, you know, I kind



1 of honed in on that one as a pretty interesting  
2 election that I thought, you know, probably  
3 reflected, you know, the proximate division of  
4 North Carolina.

5 Q. Why do you think that there's probably a slight  
6 Democratic edge in North Carolina?

7 A. Well, I can't imagine that all of the Democratic  
8 registrants on the voter file are secretive  
9 Republicans, right. You know, some large share,  
10 you know, of the Democrats that are registered  
11 in North Carolina, as in other border and  
12 southern states, some substantial share of them,  
13 you know, are Republicans who maybe haven't  
14 decided to change their registration or maybe  
15 aren't even aware, right, that they can change  
16 their registration or feel the need to, right.  
17 After all, you're not prevented from voting  
18 necessarily if your party identification differs  
19 slightly from your registration. So I don't  
20 suppose there's really anything compelling or  
21 urging a lot of these conservative Democrats to  
22 change their registration.

23 So, you know, usually when I'm looking  
24 at the division -- party division for a northern  
25 state, if it's a party registration state, I can

1 and history of their very own, and so it's  
2 important to, you know, consider some statewide  
3 races in any kind of estimate like this, too,  
4 and so, you know, for that reason the governor's  
5 race seemed like a good pick.

6 But I do look at other ones as well,  
7 but I don't use the same list, and I don't use  
8 all of them. I think I briefly got a look at  
9 the Trende report and I think he uses all of  
10 them, you know, between -- in the inter-census  
11 period, you know, like from 2002 on up to 2010.

12 Q. Moving down to the bottom of Page 10, you  
13 discuss changes in the maps from 2002 to 2012.  
14 You say in 2012 the map maintained Districts 1  
15 and 12 as majority or near-majority black and  
16 District 4 changed so as to protect the  
17 Democratic incumbent even further there.

18 So your understanding in 2012, in the  
19 redistricting, more Democrats were moved into  
20 District 4 than had been there before?

21 A. That's my understanding, yes, that they shored  
22 up the District 4 seat as well.

23 Q. Sorry to interrupt.

24 A. That's okay.

25 Q. And in doing that, they increase the Republican

1 advantage in the other districts that they took  
2 those Democrats from?

3 A. Yes.

4 Q. And then in 2012, you say the ten remaining  
5 seats either leaned or were safely Republican,  
6 favoring incumbency protection but also in  
7 response to the challenge of producing  
8 competitive districts when a large share of  
9 African American voters are grouped together to  
10 promote descriptive representation.

11 So are you saying that the 10-3  
12 Republican advantage in the 2012 map was a  
13 result of two factors: incumbency protection and  
14 ensuring that there's large African American  
15 representation in districts?

16 A. I think that's a fair read. If you're trying to  
17 protect the black incumbents by ensuring that  
18 they have enough black voting age residents in  
19 those two districts, that will inevitably, I  
20 think, create some challenges in the remaining  
21 districts if you -- you know, I think in terms  
22 of trying to promote competitiveness.

23 So I mean, in other words -- it's,  
24 again, one of those ways in which this kind of  
25 conflict becomes manifest, right, this conflict

1 between competitive districts on the one hand  
2 and the need to create and protect the African  
3 American officeholders/incumbents in the other,  
4 you know, this tension is created.

5 And so my answer is, yes, that's --  
6 that's a fair read.

7 Q. Did you look at in coming to this conclusion how  
8 many incumbents were paired in the 2012 map?

9 A. No.

10 Q. And would you agree that pairing incumbents is  
11 inconsistent with prioritizing incumbency  
12 protection?

13 A. Right. I would agree that pairing incumbents  
14 should be sparing, right. You should be sparing  
15 in your tendency to pair incumbents.

16 You know, given the multiple things  
17 we're trying to balance here, I don't want to  
18 commit myself to saying that, oh, it should  
19 never ever be done, right, because some of these  
20 goals get sacrificed to others, but in general I  
21 would agree with you. You know, if incumbency  
22 protection is paramount, you know, you would try  
23 to avoid pairing incumbents against each other.

24 Q. If you look at the table, Figure 1 on Page 11 of  
25 your report, this is describing the

1 characteristics of the 2002 map using the 2010  
2 census data and then the election data from the  
3 nine elections you chose, right?

4 A. Okay. Okay.

5 Q. Is that right?

6 A. Yes.

7 Q. And so in 2002 there are two districts with  
8 between 40 and 50 percent Black VAP, right?

9 A. Yes.

10 Q. And so that would be consistent with what you're  
11 describing as the challenge of producing --  
12 withdraw that -- would be consistent with what  
13 you're describing as the desire to have at least  
14 two districts promote descriptive  
15 representation?

16 A. Yes. You know, the 42, does it get us there,  
17 42.9. Much of the time it probably will, you  
18 know. In the lowest turnout elections might be  
19 room to worry, but, yes, I would say that this  
20 is in the ballpark.

21 Q. And in Figure 1, if you look at the Republican  
22 vote share by district, it looks like Democrats  
23 would win 7 out of the 13 seats, right?

24 A. I guess that's true. There are a couple of  
25 these that hang in the balance, but, yes, that

1           seems right.

2           Q.     So this is a map that satisfies the requirement  
3                   that you described for descriptive  
4                   representation, and the vote share is 7-6  
5                   Democrat, right?

6                   MR. STRACH:  Objection.

7                   You can answer that.

8                   THE WITNESS:  Well, you know, bear in  
9                   mind that, you know, to keep things comparable,  
10                   I'm drawing on, you know, 2010 data here, okay,  
11                   from the 2010 census on these demographics, on  
12                   the race of these -- the racial composition of  
13                   these districts.

14                   So, you know, with that caveat in mind  
15                   and also the caveat that a couple of these cases  
16                   are very much hanging in the balance, like the  
17                   48.2, you know, the 46.9 is very close.  So part  
18                   of what you say is true.  I'm not quite sure I  
19                   go along with everything.

20           BY MR. NELSON:

21           Q.     Do you know what the actual results of the 2002  
22                   congressional elections were in North Carolina?

23           A.     I don't know off the top of my head.  That's one  
24                   of those tables that maybe I should have  
25                   memorized.

1 that's very familiar to you here and to the  
2 citizens here, and I think the maps are, you  
3 know, compared to a lot of other places, pretty  
4 well understood.

5 Q. Now, you say that your analysis here is based on  
6 facts plainly evident from ordinary inspection.

7 A. Yes. I guess what I'm saying by that is, you  
8 know, tabulations of this kind and, you know,  
9 looking at the maps, you know, I don't think  
10 that it's rocket science, you know, to study the  
11 effects of -- well, study or estimate, you know,  
12 the effects of redistricting plans and different  
13 maps. And lots of people are out there doing  
14 it. And I think that these maps have been  
15 pretty carefully studied and scrutinized both  
16 for purposes of litigation but also because it's  
17 an issue of great interest to North Carolinians.

18 Q. You mentioned earlier that the drafters of these  
19 maps, 2012 and 2016 maps, have made public  
20 statements about their intention to advantage  
21 Republicans.

22 Was that one of the facts that you  
23 considered in your analysis here?

24 A. Yeah. I mean, how do you deny that, right.  
25 It's clear that map drawers involved in the

1 process said that they considered partisanship.  
2 You know, some hours ago, you know, this came  
3 up. You know, I can't sit here and say, oh, you  
4 know, they were just joking.

5 Q. You say in the next paragraph, which is the  
6 summary of this section, that the 2016 map does  
7 the best job of balancing competing interests.

8 You're saying the best job as compared  
9 to the 2002, 2012 map?

10 A. I think it does a good job. You know, we  
11 minimize county splits, I guess, in this 2016  
12 map. You know, we -- so we're trying to keep  
13 communities of interest together. Just by  
14 inspection, you know, we don't have a distorted  
15 District 12 that snakes all the way up into  
16 Guilford county, so we've improved the  
17 compactness there. You know, we certainly don't  
18 have any problem with inequality that I could  
19 detect in terms of size.

20 So there are lots of desirable  
21 properties presented in this map. And, you  
22 know, I think particularly with respect to  
23 compactness, just by inspection, it's so much  
24 better than these distorted maps that we have in  
25 '12 and in '02, so...



1 Q. And were there any specific criteria that you  
2 used when drawing these maps?

3 A. Well, it's -- I was trying to, you know,  
4 minimize some of these things that you see in  
5 the table below. I mean, like, for example, I  
6 was trying to -- I was striving for compactness.  
7 You know, I obviously didn't want wildly unequal  
8 districts. That seems pretty much like a  
9 no-brainer.

10 County splits, I kind of let that go.  
11 As you can see in one of the maps, I wound up  
12 splitting an amazing number of counties, an  
13 intolerably high number.

14 And the whole seats/votes thing, which  
15 is my understanding of the efficiency gap -- I  
16 know it's different from Professor Jackman. I'm  
17 basing it, I guess, on an older notion of  
18 efficiency, just seats and votes difference. I  
19 obviously would have liked to have minimized  
20 that. So those were the things that I was  
21 mainly looking at.

22 Of course, I had my eye on the percent  
23 Republican in the table, right. So bear in mind  
24 that when you're working with these  
25 redistricting programs, right, you have a table

1                   But as I said, you don't necessarily  
2                   have to explicitly consider race data, okay, if  
3                   you know the state well, okay, and you have the  
4                   guidance of the previous maps which you know  
5                   have repeatedly elected black incumbents by  
6                   pretty safe margins.

7                   Q.    Just to be clear, any statement you make about  
8                   whether or not the General Assembly actually  
9                   considered race in drawing the 2016 map is  
10                  speculation because you haven't seen any  
11                  discussion of it?

12                 A.    Yes.

13                 Q.    And you say on 20 that -- on Page 20 at the top  
14                   that the General Assembly was required to modify  
15                   the 2012 map restricted to modest alterations  
16                   while still achieving an acceptable outcome.

17                                 What is the basis for saying they were  
18                   restricted -- that the General Assembly was  
19                   restricted to modest alterations in 2016?

20                 A.    I'm sorry, where are you at here?

21                 Q.    Top of Page 20. The second sentence we just  
22                   discussed.

23                 A.    Okay. Well, I think that that weight of the  
24                   various requirements and the weight of past  
25                   redistricting practice, you know, limited the

1 that, for example, I missed those citations of  
2 the things I had used and didn't know how to  
3 cite so I left them off.

4 And the other one was -- that he  
5 counseled me on was, you know, why did you not  
6 mention that -- you know, this other case. I  
7 had told him about it. I didn't make it plain.  
8 It's not on my c.v. There are lots of things  
9 that aren't on my c.v. The c.v. I consider kind  
10 of a job market document. There are many, many  
11 things I don't include on my c.v., things that  
12 I've written, things that I've done. And, you  
13 know, that case just isn't part of the package,  
14 but apparently it's something that should have  
15 been disclosed like up front, you know, in here,  
16 along with my compensation. So, you know,  
17 just --

18 Q. And so my question is -- you said you could go  
19 back and look for the reports you did in the  
20 other case.

21 A. Sure. I can go back and look for those. I can  
22 also contact the counsel to see if they can find  
23 them in their files somewhere.

24 Q. So in that case did you do any racially  
25 polarized voting analysis?

1 A. No, I did not.

2 Q. Have you ever done any racially polarized voting  
3 analysis in any capacity?

4 A. No. Only for instruction and teaching purposes,  
5 but not for court case or any published article.

6 Q. Okay. And when you did it for instruction and  
7 teaching purposes, what -- can you tell me about  
8 that racially polarized voting analysis that you  
9 did.

10 A. Well, the racially polarized voting analysis  
11 that has kind of gone out of fashion now, but,  
12 you know, there was -- there were efforts in the  
13 late '90s to use Gary King's ecological  
14 inference program to assess the extent of  
15 racially polarized voting using -- using voter  
16 precinct data or aggregate data in the absence  
17 of, you know, having detailed survey level data  
18 on people's race and political preferences,  
19 right. So the effort was in those days was to  
20 try to use precinct level data on both voting  
21 preference and racial composition in order to  
22 make approximate estimate, you know, of racially  
23 polarized voting.

24 I think the discussion, as I understand  
25 it, and trajectory of redistricting work has

1 problems of ecological inference and estimation,  
2 and my understanding is that it's really fallen  
3 out of favor. Are there still a few people  
4 around who do it, perhaps.

5 Q. So what's your understanding of the role that a  
6 racially polarized voting analysis plays in  
7 evaluating whether or not a redistricting plan  
8 complies with the Voting Rights Act?

9 A. Well, I gather that it's in the presence of  
10 racially polarized voting that you need to be  
11 especially careful to protect the interest of  
12 minorities, you know, blacks and Latinos, for  
13 instance, because they're not likely to ever  
14 elect a person of their own race or ethnic group  
15 as long as they are a small minority, okay.

16 And, of course, the percentage of this  
17 is open to question, but as long as they're a  
18 small minority and the white voters are voting  
19 the other way, right -- again, because of the  
20 polarization -- you know, you have to be in  
21 those circumstances especially careful to carve  
22 out a district, two districts that permit them a  
23 chance or an opportunity to put someone in  
24 office that they would most prefer. Not that  
25 they would third most prefer or third most

1           prefer.

2                               So that's my understanding. It's in  
3           circumstances of racial polarization that this  
4           is especially important. And I suppose that in  
5           the southern states and border states, given  
6           their history of racial polarization, this  
7           criteria and discussion has been of particular  
8           salience.

9           Q.    So in arriving at your conclusions that you  
10           discussed earlier about the need for compliance  
11           with the Voting Rights Act in North Carolina,  
12           did you have access to or review any racially  
13           polarized voting studies in North Carolina?

14          A.    No.

15          Q.    And are you aware of the broad outlines of the  
16           Voting Rights Act; that is, do you know what I  
17           mean when I say Section 2 of the Voting Rights  
18           Act?

19          A.    I've picked up some of the -- some of the  
20           legal -- the legal language along the way, but,  
21           no, off the top of my head, I can't recite to  
22           you what's in Section 2. It's not in my area of  
23           expertise to know all the law.

24          Q.    Are you familiar in broad general terms with  
25           Section 5 of the Voting Rights Act?

1 the previous maps that has, you know, various  
2 other characteristics according to criteria.

3 But, you know, for me to say that, you  
4 know, this is the one that North Carolinians  
5 should use, that's not really for me.

6 Q. Well, wouldn't you say that the legislature  
7 published and adopted criteria for the plan  
8 would be the ones that the legislature is saying  
9 that they would be following?

10 A. I accept that. Just bear in mind that some of  
11 these criteria themselves, you know, bump up  
12 against each other; you know, in other words,  
13 they're not all complimentary; they don't all  
14 point in the same direction.

15 I don't know exactly what other  
16 metaphor I can use to make that clear, okay, but  
17 these are competing, and so, you know, I think  
18 this is -- this is sensible, but any map that we  
19 produce, you know, is going to be stronger in  
20 some areas and weaker in others.

21 Q. When you say "this is sensible," you're  
22 referring to the criteria listed in Exhibit 2?

23 A. Sure. And I would imagine that these are  
24 criteria widely used and accepted in a lot of  
25 places. You know, I don't imagine that

1 we have District 1 all the way through  
2 District 13 for the congressional districts of  
3 North Carolina.

4 And my question for is -- and feel free  
5 to take as long as you want to look at the data  
6 using the 2016 election returns and applying  
7 either your definition of competitiveness as  
8 falling between 47 and 53 percent of the vote or  
9 what you say is a more broad or an alternative  
10 definition which is 45 and 55 percent.

11 Isn't it true that none of the 2016  
12 congressional elections in North Carolina were  
13 competitive?

14 A. Right, I think that that is true. You know, I  
15 look at the -- at the senate election, but, you  
16 know, we're not talking about the senate. So,  
17 yes, that's true.

18 Q. And then if we look on Page 14 of your report,  
19 the table there, if I'm -- okay, are you with me  
20 on Page 14?

21 A. Yes. I'm sorry. Yes.

22 Q. So the table labeled Table 3, 2016 District  
23 Characteristics, the column on the far right,  
24 percent Republican, am I right that that is the  
25 percentage based on the 2004 to 2010 election



1 nature of the districts, you know, created  
2 delays. I don't think that's speculation, you  
3 know. I think that this -- the litigation  
4 surrounding these districts probably threw a lot  
5 of uncertainty and concern, you know, even into  
6 a lot of the incumbents that are listed here, to  
7 say nothing, you know, of the challengers who  
8 were probably frightened off by having the  
9 matter so unsettled for so long.

10 Q. Have you -- in any of your academic work,  
11 whether these are articles that appear on your  
12 c.v. or articles that don't appear on your c.v.,  
13 does any of your work address the efficiency  
14 gap?

15 A. I have not addressed the efficiency gap and --  
16 so the answer is no.

17 Q. Okay. Can you define for me your understanding  
18 of the efficiency gap.

19 A. Yeah. I use an older formula. It seems like  
20 these criteria, you know, are shifting and  
21 evolving with the redistricting literature, so  
22 I'm concerned about the percentage of seats  
23 versus the percentage of the vote as an older  
24 measure of efficiency.

25 It's perhaps true that calling that the

1 efficiency gap in the narrow and technical sense  
2 of Stephanopoulos and McGhee could be considered  
3 incorrect. And so, you know, if I have a chance  
4 to revise my report, I might just call it  
5 measure of efficiency rather than the efficiency  
6 gap since they've appropriated that term, you  
7 know, for their own measure. Okay, you know, I  
8 concede that they can have the label the  
9 efficiency gap and I'll just label mine a  
10 measure of efficiency.

11 But mine is simply a measure of a  
12 difference between seats and votes, and the idea  
13 is to minimize that number. You don't want a  
14 large gap between the number of seats that are  
15 held and a percentage of votes that are cast.

16 So, for example, you know, by my  
17 calculation, right, if one party holds  
18 70 percent of the seats but cast only 55 percent  
19 of the votes, then, you know, what does that  
20 make the efficiency gap? 15. Okay, and that's  
21 the sense in which I measure it and use the term  
22 efficiency, again, from an old early literature  
23 on redistricting and redistricting measures.

24 I don't have any, you know, quarrel or  
25 complaint with the Jackman recalculation. You

1 know, I saw the work he did in the rebuttal  
2 report. Sure, by his measure that's what the  
3 efficiency gap looks like, the efficiency gap.  
4 I was concerned with just seats/votes in terms  
5 of efficiency.

6 (WHEREUPON, Plaintiffs' Gimpel  
7 Exhibit 6 was marked for identification.)

8 BY MS. EARLS:

9 Q. If you would take a look at what has been marked  
10 as Gimpel Exhibit 6, and can you identify what  
11 this is?

12 A. Yeah. I believe this was what I included on --  
13 in my documentation, description of the measures  
14 that I used, yes.

15 Q. And so this shows how you used the competitive  
16 2008 gubernatorial race as an underlying measure  
17 of North Carolina party preferences?

18 A. Yes.

19 Q. And it shows that you -- it shows your  
20 calculation for the efficiency gap as percentage  
21 popular vote for the plan as a whole using that  
22 election; is that right?

23 A. Yes. I think that the -- you know, the way I  
24 just described it it was seats minus vote, but,  
25 yeah, it's the difference.

1 much of a personal following the incumbent  
2 developed.

3 Q. So you concluded that the 2008 gubernatorial  
4 race was more indicative of the partisan  
5 performance of the 2016 elections than the  
6 actual 2016 elections in those districts?

7 A. You know, I think that it's a better baseline of  
8 North Carolina political preference than the  
9 house vote itself which, you know, depends on,  
10 you know, where the preference -- the partisan  
11 preference is distorted by lots of things that  
12 are not party related, like, you know,  
13 recognition of the person's name, how well you  
14 might like them, you know, your evaluation of  
15 their performance, how well you know them,  
16 right. Some of these people know an amazing  
17 number of their constituents.

18 So, yes, this was, you know, my effort  
19 to try to accommodate that, trying to come up  
20 with a real measure of party preference as  
21 opposed to one that was distorted by the various  
22 things that figure into house elections.

23 Q. And your chart on Page 14 where it shows an  
24 efficiency gap percentage of 7.6, that's a  
25 positive efficiency gap in favor of Republicans;

1 I usually understand that to mean the  
2 overall deviation of the districts, each  
3 district from an ideal district size, and so  
4 typically it's plus or minus 5 percent for any  
5 individual district -- well, for legislative  
6 districts are overall percentage deviation, but  
7 you've got .15 here. So I'm trying to  
8 understand is that an overall deviation of .15?

9 A. From equality, right. So .15, it means there's  
10 almost exact equality across these districts.

11 Q. So then let me ask you about -- generally about  
12 the efficiency gap, your understanding, however  
13 it's calculated.

14 Do you understand it to be a measure of  
15 the competitiveness of a district?

16 A. I think that the efficiency gap -- efficiency as  
17 was originally understood in past redistricting  
18 efforts went to the seats/votes relationship,  
19 seats/votes relationship, so how efficiently are  
20 votes translated into seats, and that's the  
21 sense in which it's widely understood.

22 Now I'm aware that the efficiency gap  
23 used in the Jackman work, which I don't really  
24 focus on in the report, and the efficiency gap  
25 as described in McGhee and Stephanopoulos's

1 work, that's a different calculation.  
2 Nevertheless, there's some relationship of their  
3 measure, you know, to the seats/votes measure.  
4 You know, there is, as there should be  
5 for any measure of efficiency, some  
6 correspondence or some relationship among these  
7 measures. And, of course, it's not going to be  
8 perfect correspondence. You know, they do pick  
9 up different things, but --

10 Q. And my question is whether the efficiency gap is  
11 a measure of the competitiveness of either a  
12 district or the districts overall in a  
13 redistricting plan.

14 A. It captures -- it -- there's some ambiguity with  
15 the efficiency gap as defined by McGhee and  
16 Stephanopoulos and used by Jackman vis-a-vis the  
17 question about competitiveness. You can get  
18 very low scores on that efficiency gap measure,  
19 you know, by having very competitive districts,  
20 okay, across a state. So that's definitely one  
21 way of minimizing the efficiency gap is by  
22 ensuring that few votes are wasted, in air  
23 quotes, by ensuring that the districts are  
24 competitive.

25 The ambiguity comes into play when you

1 Q. So if you could take a look at what's been  
2 marked as Gimpel Exhibit. 7 and do you  
3 recognize this document?

4 A. I've looked at this document, yes.

5 Q. And this is the rebuttal report that Dr. Jackman  
6 submitted in this case?

7 A. Yes.

8 Q. If you would look with me at the chart that's on  
9 Page 9.

10 A. Okay.

11 Q. And in your report in calculating the percentage  
12 Republican of the districts for your tables, you  
13 used an average of the 2004-2010 statewide races  
14 that we identified on Exhibit 5, right?

15 A. Yes.

16 Q. And if you had calculated the efficiency gap for  
17 the 2016 plan and the earlier plans using the  
18 2004 to 2010 data and calculating it the way  
19 Dr. Jackman does, do you have any reason to  
20 dispute that the efficiency gap calculations  
21 that he arrives at in this table are incorrect?

22 A. I don't.

23 Q. Okay. So whichever method of calculating the  
24 efficiency gap is used, why didn't you use a  
25 broader range or more elections to calculate the

1 requires a certain amount of thoughtfulness. It  
2 wasn't completely arbitrary.

3 You know, having said I was pressed for  
4 time, I don't think the decision was completely  
5 arbitrary, just grabbing one out of thin air,  
6 but I didn't want to use just the presidential  
7 vote. I think it probably would have been  
8 acceptable to use commissioner of labor. Maybe  
9 I need to use commissioner of labor, governor, a  
10 couple of other state offices. I could do that.

11 Q. It is true, is it not, that both the  
12 presidential race and the commissioner of labor  
13 race were much more -- well, they were closer,  
14 much closer than the governor race in that year?

15 A. Oh, yes. Yes, that's true.

16 Q. And isn't it also true that by using a race that  
17 has a wider margin in favor of Democrats, it  
18 results in a lower efficiency gap favoring  
19 Republicans in the 2016 map?

20 A. Marginally, I suppose. I don't know how big a  
21 difference it makes. You know, I don't think  
22 that my analysis, you know, rests wholly on the,  
23 you know, comparison of the efficiency gap  
24 measures. You know, again, I think that's  
25 important, but it's not the only thing. I can



1 redo the analysis with these other offices  
2 included and see what difference it makes.

3 Q. Well, if I told you that using the 2008  
4 presidential race, the 2016 plan would have had  
5 a pro Republican efficiency gap of 26.7 percent  
6 using the Jackman method, would that be  
7 surprising?

8 A. Well, I think -- and I see that, I see that here  
9 in the table. And, you know, I think that's  
10 interesting. I think, you know, there are some  
11 other problems with the efficiency gap that are  
12 identified in my report and the other reports,  
13 but I have no quarrel with what he's calculated  
14 here. It seems faithful to his formula and to  
15 the results.

16 Q. Okay. If you could turn to Page 6 of your  
17 report, and I'm looking at the next to the last  
18 sentence on that page where you say:

19 "Given that the politics of the  
20 inhabitants of this region...", and there  
21 you're talking about western North Carolina.

22 A. Yes.

23 Q. "...has developed hand in hand with  
24 their other cultural attributes, it is  
25 extremely difficult, if current party

1 lopsided. To create a competitive district  
2 there is, you know, I think going to be  
3 challenging, particularly, you know, with the  
4 current map.

5 You know, the map -- for instance, I  
6 think I actually had in mind the Figure 2 map,  
7 for instance, or even the Figure 3 map, you  
8 know, that has part of Buncombe county and  
9 Asheville taken out.

10 You know, it's pretty clear that when  
11 you include that county in that location, things  
12 even out a lot, but when you remove it, things  
13 tip more in the direction of Republicans.

14 Now, again, what can you do to make  
15 that more competitive? Well, you know, again,  
16 you can put Asheville back in there in the  
17 Buncombe county seat, that might do it.

18 Otherwise, as I said, you might have to draw a  
19 corridor that extends all the way through  
20 District 10 to really guarantee that a  
21 Democratic candidate has a regular chance of  
22 winning that.

23 Again, that's not to say that an  
24 enterprising Democrat of the talent and  
25 background of a Heath Shuler can't make a

1 competitive go of it. He obviously has and did.

2 Q. Let me ask you about just one brief thing on  
3 Page 2 of your report, and I'm looking here at  
4 the last sentence of the first paragraph, first  
5 full paragraph. And you say:

6 "...it is just as easy to show that  
7 maps with an equal or greater partisan  
8 bias could also have been drawn."

9 By greater partisan bias, do you mean  
10 it is possible to draw a map that would result  
11 in an 11-2 split Republican-Democrat in  
12 North Carolina?

13 A. I probably didn't have that exactly in mind.

14 What I meant was it may well be  
15 possible to have districts drawn, you know,  
16 where the Republican percentage of some of these  
17 indicator elections that we've been discussing  
18 which to use, you know, tilt even more  
19 Republican or at least, you know, stay where  
20 they are while others tilt more Republican.

21 So, yeah. So I mean in response to the  
22 previous questioner, I didn't do that, but I  
23 think it's a lot easier to do once a descriptive  
24 representation, you know, or whatever you want  
25 to call it, the VRA issue is accounted for. We

1 A. Yes. Cutting out, you know, a bunch of VTDs,  
2 going in and out, you know, a bunch of times of  
3 a county, you know, could tally them up pretty  
4 high. But, you know, it seems to me like that's  
5 quite a violation of the communities of interest  
6 criteria, not a reasonable map.

7 Q. And in the page right before that you talk about  
8 responsiveness, and you say responsiveness for  
9 efficiency.

10 In the political science literature,  
11 are those defined as the same thing?

12 A. Often discussed in close proximity to each  
13 other. The notion is efficiency is how well  
14 votes translate into seats, all right. So  
15 efficiency is the translation of votes into  
16 seats. That's sometimes discussed as  
17 responsiveness of the seats to the changing  
18 votes.

19 Q. So then is it fair to say responsiveness refers  
20 to how quickly a party gains or loses seats?

21 A. Changing, yes. Sorry.

22 Q. So it is a distinct concept from efficiency?

23 A. Yes but related.

24 Q. In general, if you were going to analyze  
25 trends -- I'm at Page 26 now.

1                   Just in general, if you were going to  
2 analyze trends in a state's partisan balance  
3 over time, would you prefer to use data on voter  
4 behavior or data on the partisan composition of  
5 the legislature?

6 A. I would prefer to go with the voter-level data  
7 rather than the composition of the legislature.

8                   There are political science papers that use  
9 both. I would look first, though, at some  
10 measure of voter-level data, some -- as we have  
11 discussed here, some collection of election  
12 results, for example, you know, certainly party  
13 registration is relevant, and the states, of  
14 course, that register by party, so that's  
15 helpful.

16 Q. And if you were trying to evaluate how control  
17 over the redistricting process affects the  
18 efficiency gap in a resulting redistricting  
19 plan, how would you conduct that analysis?

20 A. I'm sorry, it's getting late and I'm just a  
21 little slow right now.

22 Q. No worries.

23                   If you're trying to figure out or  
24 evaluate how control over the redistricting  
25 process, that is, which party controls the

1           redistricting process, affects the efficiency  
2           gaps exhibited by a redistricting plan, how  
3           would you conduct that analysis?

4           A.   Well, I'm thinking off the top of my head and  
5           trying to design this off the top, but I think I  
6           would, you know, look at -- presuming that we're  
7           talking about states where the districting  
8           process has been controlled by the legislature,  
9           you could look at party control of the  
10          legislature, possibly the percentage of seats on  
11          each side.

12                         And as your dependent variable, you  
13          know, you could look at some measure -- you  
14          know, one of the several measures of efficiency,  
15          you know, the one used by Stephanopoulos and  
16          McGhee or one of the older measures of the  
17          seats/votes relationship and, you know, examine  
18          the correspondence.

19                         And I need to think about, you know,  
20          rival explanations, of course, for the  
21          efficiency gap, you know, other than state  
22          legislative control. You know, there are going  
23          to be rival explanations that would need to be  
24          accounted for.

25                                 We know, I think we've known for a

1 while, that efficiency gaps, however measured,  
2 can result, you know, from a lot of different  
3 things, even in the absence of redistricting.  
4 You know, because we know, for example, that  
5 states like Delaware will exhibit an efficiency  
6 gap even though they only have one district, or  
7 Wyoming, you know, Alaska. So, I mean, I think  
8 we need to have some reasonable control  
9 variables in place, you know, to account for  
10 rival explanations.

11 Q. But as I understand what you just described,  
12 there would be some kind of regression analysis  
13 that you could do?

14 A. I think it's probably something I would like to  
15 see. I think that that would be an interesting  
16 paper to work on. You know, that's something  
17 that's in the works.

18 Q. And then you talk in your report about the  
19 importance of ground-truthing redistricting  
20 plans.

21 A. Yeah. That's an interesting concept. I don't  
22 expect very many people to understand what in  
23 the world I mean there, but I have done enough  
24 GIS analysis -- and it's something that's  
25 discussed in the geography literature and