

1 \*\*\*\*\*

2 Rough Draft Only

3 DAY 6 OF TRIAL

4 \*\*\*\*\*

5 THE JUDGE:

6 Does counsel need to be heard before we  
7 put Dr. Barber back on the stand?

8 PLAINTIFF COUNSEL:

9 Your Honor, understanding at the end of  
10 Friday that Your Honor was going to consider  
11 the relevance objection to Dr. Barber's  
12 testimony.

13 THE CLERK:

14 Come to podium or speak up.

15 PLAINTIFF COUNSEL:

16 Your Honor, we understood that Your  
17 Honor would be ruling on our relevance  
18 objection to Dr. Barber's simulations report.

19 THE JUDGE:

20 I'm prepared to do that. The testimony  
21 as thus far and as indicated in Dr. Barber's  
22 report, which the Court reviewed again over  
23 the weekend is of marginal relevance;

24           however, the predominance question is a  
25           defense, and the Defendants are entitled to

2

1           put on a defense, and the court will weigh  
2           that evidence and make a determination at the  
3           close of the evidence. You may certainly  
4           object to individual questions that you  
5           believe go beyond either to scope of his  
6           expertise or the scope of his report, but  
7           otherwise, your general relevance objection  
8           that would go as Court kind of understanding  
9           it, to exclusion of Dr. Barber is overruled.  
10          Put Dr. Barber back on the stand, please.

11          DEFENSE COUNSEL:

12                Your Honor, thank the Court for allowing  
13                me for questioning from the table. Had some  
14                issues over the weekend, and this is most  
15                helpful to me. Thanks again.

16          THE JUDGE:

17                Yes, you may stay seated in your  
18                examination of Dr. Barber.

19                Dr. Barber you're still under oath from  
20                Friday. Mr. Farr, you may carry on.

21          DEFENSE COUNSEL:

22 Thank you, Your Honor.

23 EXAMINATION BY DEFENSE COUNSEL:

24 Q. Dr. Barber, do you have your two reports  
25 up there with you in a notebook?

3

1 A. Yes, I do.

2 Q. What I'm asking you questions, you're  
3 free to use the notebook, and also will be calling  
4 up sections of your report on the screen in front  
5 of you. So you can use either one of those  
6 things.

7 A. Okay.

8 Q. So where we stopped on Friday was you  
9 talked about how you done 100,000 simulations for  
10 the Senate and the house, and I wanted to ask you,  
11 what was your main take away from doing those  
12 simulations?

13 PLAINTIFF COUNSEL:

14 Your Honor, I just want to put the  
15 relevance objection on the record, I don't  
16 intend to continue objecting throughout the  
17 testimony.

18 THE JUDGE:

19 Your relevance objection is deemed

20 continuing. You may continue.

21 EXAMINATION BY DEFENSE COUNSEL:

22 Q. The main takeaway or --

23 A. The main takeaway or the main conclusion

24 I take away from simulations is that when we run

25 the algorithm using the criteria outlined in the

4

1 joint rule that the simulations produce a set of

2 maps that look very different from the

3 illustrative map, notably on the number of

4 majority black districts that are created.

5 Q. Can we turn to Secretary of State

6 Exhibit 1, page 15. And on that page, there's a

7 figure 1, could you explain to the Court the

8 significance of figure 1?

9 A. Certainly. This figure shows the

10 distribution of majority BVAP Senate districts

11 that are created in the hundred thousand

12 simulations. Those gray bars represent the number

13 of districts created and the frequency with which

14 that occurs. On the right side of the figure, we

15 see the number of majority BVAP districts in both

16 the enacted map and the illustrative map.

17 Q. Do you know how many districts there are

18 in the Louisiana Senate?

19 A. 39.

20 Q. What is the ever over all black voting  
21 age population for Louisiana under the 20 census?

22 A. It's approximately 31 percent.

23 Q. Based upon the state's black voting age  
24 population, how many majority black districts  
25 would be exactly proportional?

5

1 A. It would be approximately 12.

2 Q. How would you calculate that?

3 A. By simply multiplying 31 percent times  
4 39.

5 Q. How many majority black Senate districts  
6 did the 100,000 race neutral simulations draw on  
7 average?

8 A. On average, between 3 and 4.

9 Q. How many majority black Senate districts  
10 are in 2022 enacted plan?

11 A. There are 11.

12 Q. How many majority black districts are in  
13 Mr. Cooper's illustrative Senate plan?

14 A. There are 14.

15 Q. How did the number of majority black

16 senate districts in the enacted plan and Mr.

17 Cooper's plan compare to proportionality?

18 A. The enacted plan is one fewer than  
19 proportionality. The illustrative map is two  
20 greater than proportionality.

21 Q. On Exhibit Secretary of State 1 page 17,  
22 could have turn to table 2 and explain to the  
23 Court the significance of this table?

24 A. So this table is also showing the  
25 results of the simulations but rather than showing

6

1 the number of majority BVAP districts that are  
2 generated it breaks down the districts down by the  
3 percent BVAP in the districts and so you can see  
4 down the roads, rows those different categories or  
5 brackets for the various BVAP percentages. The  
6 table shows the outcome for the simulations in  
7 that second column, and then the distribution of  
8 districts for the 2011 map, the enacted map and  
9 the illustrative map.

10 Q. Is there anything that you find  
11 particularly significant about this analysis?

12 A. I think the most significant thing that  
13 we see in this table is in the row labeled 50 to

14 52.99 percent. So this row is showing the number  
15 and frequency of districts that fall in that  
16 narrow band just above 50 percent. And when we  
17 look across the row, with e can see that on  
18 average or typically the simulations generated  
19 about 1 of those districts. The 2011 map  
20 contained one such district, the enacted map also  
21 contained or contains one such district, and the  
22 illustrative the map on the other hand, contains 1  
23 nine districts that fall within that narrow range.

24 Q. In your opinion, would we see that  
25 pattern, if adherence to nonracial criteria had

7

1 been the primary criteria used to Dr. Mr. Cooper's  
2 maps?

3 PLAINTIFF COUNSEL: Objection, this is asking  
4 for Mr. Cooper's intent. The effect of the  
5 question was, what was Mr. Cooper ignoring  
6 tray additional create to get to this number.

7 THE JUDGE: Mr. Far, you want to respond.

8 DEFENSE COUNSEL: There was nothing in that  
9 question about Mr. Cooper's interpret. It  
10 was based upon Dr. Barber's forensic  
11 examination of the map and his analysis of

12 whether or not you'd have nine carefully  
13 drawn majority black districts between 50 and  
14 53 percent if Mr. Cooper had prioritized  
15 practice additional redistricting principles.

16 THE JUDGE: I think the objection is the  
17 reference to what Mr. Cooper's intent is.  
18 I'll sustain the objection. Rephrase your  
19 question.

20 EXAMINATION BY DEFENSE COUNSEL:

21 Q. Automatic sorry, Your Honor, did you say  
22 I could repeat the question?

23 THE JUDGE: You can rephrase your question.

24 EXAMINATION BY DEFENSE COUNSEL:

25 Q. Dr. Barber, in your opinion, would we

8

1 see the pattern you have explained in Mr. Cooper's  
2 illustrative maps if he had prioritized  
3 traditional redistricting principles?

4 PLAINTIFF COUNSEL: Your Honor T same  
5 objection. If he had prioritized.

6 THE JUDGE: Sustained.

7 PLAINTIFF COUNSEL: Mr. Cooper.

8 DEFENSE COUNSEL: Let me rephrase, Your  
9 Honor.



10 THE JUDGE: Rephrase.

11 EXAMINATION BY DEFENSE COUNSEL:

12 Q. Dr. Coop or, would you see the pattern  
13 in Mr. Cooper's maps if any maps or any other map  
14 drawer had maximized or prioritized traditional  
15 redistricting principles?

16 PLAINTIFF COUNSEL: Objection.

17 THE JUDGE: Sustained.

18 DEFENSE COUNSEL: I'm sorry, what did you say  
19 Your Honor.

20 THE JUDGE: Sustained. There's not a pattern  
21 in Mr. Cooper's maps. There's a pattern that  
22 he shows on his whatever this is, table 2,  
23 but where's the pattern in Mr. Cooper's --  
24 you're calling for this witness to give  
25 testimony about Mr. Cooper's intentions.

9

1 DEFENSE COUNSEL: Your Honor, we gratefully  
2 accept your ruling, but I respectfully  
3 disagree that we're asking about Mr. Cooper's  
4 intent. We're asking whether or not any map  
5 drawer who prioritized adherens to  
6 traditional redistricting principles  
7 principals would end up with nine districts

8 in the State of Louisiana that had a Blake  
9 voting age population between 50 and  
10 52.99 percent.

11 THE JUDGE: Any map drawer.

12 DEFENSE COUNSEL: Mr. Cooper's intent, but we  
13 accept.

14 THE JUDGE: Any map drawer or any computer.  
15 There is a difference map drawer and a  
16 computer.

17 DEFENSE COUNSEL: Okay. I'll try again.

18 THE JUDGE: Well, you can try.

19 DEFENSE COUNSEL: Your Honor, I'll just on  
20 the question. I'll move on.

21 THE JUDGE: All right.

22 DEFENSE COUNSEL: Thank you very much.

23 EXAMINATION BY DEFENSE COUNSEL:

24 Q. All right. Dr. Barber, could you pull  
25 up page 17 of Exhibit of Secretary of State

10

1 Exhibit 1.

2 A. Yes, I'm there.

3 Q. Could you tell the Court the  
4 significance of that table?

5 A. So this figure shows the same

6 distribution of majority BVAP districts that are  
7 produced by the 100 simulations in the house.  
8 Those gray bars again show the number of majority  
9 black districts and the frequency with which they  
10 occur. And then again the dashed lines show the  
11 number of majority BVAP districts in the enacted  
12 map as well as the illustrative map.

13 Q. How many house districts are there in  
14 Louisiana?

15 A. 105.

16 Q. How many majority black house districts  
17 would be exactly proportional?

18 A. Would be about 33.

19 Q. How did you calculate that?

20 A. By taking 31 percent times the number of  
21 districts.

22 Q. How many majority black house districts  
23 did the 100,000 race neutral simulations draw on  
24 average?

25 A. On average, between 13 and 14.

11

1 Q. How many majority black house districts  
2 are in the 2022 enacted plan?

3 A. There are 29.

4 Q. How about Mr. Cooper's illustrative  
5 house plan?

6 A. There are 35.

7 Q. How do those two plans compare to the  
8 proportion number of house districts?

9 A. The enacted map is approximately four  
10 below. And the illustrative map is approximately  
11 two above.

12 Q. Okay. Can we now turn to table 9,  
13 Secretary of State 1 page 58. Are you there?

14 A. Yes, I am.

15 Q. Could you tell the Court what that table  
16 represents?

17 A. So this table shows that same  
18 information that we were looking at in the Senate,  
19 rather than the number of majority BVAP districts  
20 we're looking at the distribution according to  
21 particular percentages. Again we have those  
22 different ranges to split on the rows and the  
23 typical outcome in the simulations, the 2011 plan  
24 the enacting and the illustrative map.

25 Q. Could you again go into a little more

1 detail about the range of black voting ankle

2 population in Mr. Cooper's illustrative map?

3 A. So again I think the most important row  
4 there is the one displaying the 50 to 53 percent  
5 range, where we see that the simulations, the 2011  
6 map, the enacted map all produce relatively few  
7 districts in that range. And we see a very  
8 different distribution when we look at the  
9 illustrative map.

10 Q. With minute my August of parish and  
11 municipal boundaries reduce this pattern?

12 A. No.

13 Q. Stepping back Dr. Coop, the results of  
14 these subcontract simulations and form your  
15 conclusions about the illustrative map?

16 A. So looking at the distribution here, we  
17 can see that something very different in the  
18 illustrative map compared to either the enacted  
19 map, the 2011 plan or the simulations, and so what  
20 we can infer from that is some other criteria were  
21 used in producing the illustrative map that  
22 generated a very different distribution compared  
23 to these other maps we've been discussing.

24 Q. Okay. Now let's turn to the concept of  
25 the core retention. What is core retention?

1           A.   Core retention is a term that's used to  
2   describe the degree to which voters are retained.  
3   Held in the same district from the previous plan  
4   into whatever new plan is drawn going forward  
5   whether that's a result of the decennial  
6   redistricting or some other reason why districts  
7   are redrawn.

8           Q.   Could a lay person calculate core  
9   retention?

10          A.   No.

11          Q.   What expertise and skills are need to  
12   analyze core retention?

13          A.   Well, first you have to understand the  
14   concept and how to measure it. And beyond that,  
15   then you have to be able to acquire the data at  
16   your merging data sets together that link the old  
17   map and the new map, you have to then connect  
18   those to population data from the census. And  
19   then be able to appropriately aggregate all of  
20   that data together.

21          Q.   How did you calculate core retention in  
22   this case?

23          A.   So I calculate core retention as the  
24   proportion of voters who are held in the same

25 district from the previous map to the new map,

14

1 district by district.

2 Q. Did Mr. Cooper do a core retention  
3 analysis for his illustrative maps?

4 A. He has a reference to core retention,  
5 but it's in reference to the degree to which the  
6 illustrative map retains the enacted map, the 2022  
7 map. I calculate core retention to the degree to  
8 which the enacted map and the illustrative map  
9 retain the 2011 map, which I think is the more apt  
10 comparison since that's the district that is the  
11 voters are coming from in the previous decade. So  
12 we want to know whether the enacted map is the one  
13 that goes forward or the illustrative map is  
14 implemented. We would want to know the degree to  
15 which the voters from the previous decade is  
16 retained into the districts that are going to be  
17 used going forward.

18 Q. Okay. And could core retention be an  
19 explanation for why Mr. Cooper's illustrative maps  
20 contain more majority black voting age population  
21 districts than the simulations Orion maps?

22 PLAINTIFF COUNSEL: Objection, it's asking

23 for Mr. Cooper's intent again.

24 DEFENSE COUNSEL: Your Honor on that.

25 THE JUDGE: Yes, you may.

15

1 DEFENSE COUNSEL: I should have said this  
2 earlier, Your Honor, but I want to make the  
3 point that Plaintiffs in this case filed a  
4 day Bert motion on Dr. Johnson's testifying  
5 about the subjective intent of Mr. Cooper.  
6 They didn't file a day Bert motion on Dr.  
7 Barber. I would suggest to you Your Honor  
8 the reason why they didn't do that is we  
9 cited to a brief in our findings of fact,  
10 which document 177 page 34 note 5, that was  
11 filed by Ms. Thomas' organization, the  
12 Harvard election law clinic with unit supreme  
13 Court in the South Carolina case. I went  
14 quote it, but we cite it to. There's a  
15 lengthy in this case, about why simulations  
16 are relevant evidence of the intent of the  
17 map drawer in a racially case where there's a  
18 claim of injury. They were aware of this  
19 brief at the time that the day Bert motion  
20 was filed. Afterwards, Your Honor, there was



21 a stipulation entered in this case, and I'll  
22 try to quote it the best I can. I think it's  
23 document 182. The stipulation says that the  
24 expert reports of all the experts would come  
25 into evidence without any objection as to the

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1 authenticity or the admissibility if the  
2 expert appeared to testify. That stipulation  
3 did not say if the expert appears to testify  
4 and he's qualified as an expert. It did not  
5 say that the report comes into evidence  
6 subject to subsequent motions to strike  
7 testimony in the report. It says the report  
8 is in evidence. So the Plaintiffs have in  
9 our view waived any right to object to this  
10 testimony by Dr. Barber. In any case again  
11 this is not a testimony about Mr. Cooper's  
12 subjective intent. He's never mentioned Mr.  
13 Cooper. He's never -- unlike.

14 THE JUDGE: Your question mentions Mr.  
15 Cooper.

16 DEFENSE COUNSEL: What's that.

17 THE JUDGE: Your question mentions Mr.  
18 Cooper. And so you're one step removed

19 perhaps from calling for intent. Your  
20 question doesn't call for intent, but your  
21 question calls for what is the conclusion  
22 that you draw about Mr. Cooper's maps.

23 DEFENSE COUNSEL: Your Honor.

24 THE JUDGE: That question.

25 DEFENSE COUNSEL: I'm going have to read the

17

1 report or the brief that was submitted by.

2 THE JUDGE: You don't need to do that.

3 DEFENSE COUNSEL: Well, I need to make a  
4 record, Your Honor. It's important for you  
5 to understand this. If I may have your  
6 permission, because it explains better --  
7 they've explained better than I have been  
8 able to do why this is relevant testimony.

9 THE JUDGE: It's in the record. There is a  
10 record. I'm overruling the objection. Ask  
11 your question again.

12 EXAMINATION BY DEFENSE COUNSEL:

13 Q. All right Dr. Barber, did you compare  
14 the core retention figures for Mr. Cooper's map  
15 and for the enacted plan?

16 A. Yes.

17 Q. Which one of those plans performed  
18 better?

19 A. The enacted map.

20 Q. Can you turn to page 1 of secretary  
21 exhibit -- excuse me, page 26 of secretary Exhibit  
22 1, table 5. Can you tell the Court what that  
23 table is please?

24 A. This table shows the results of the core  
25 retention analysis. You can see the rows show the

18

1 various ranges of core retention, the enacted map  
2 and the number of districts that fall in those  
3 ranges for the Senate and the illustrative maps,  
4 the number of districts that fall within those  
5 ranges, and then at the bottom the average core  
6 retention in each of the maps.

7 Q. Let's turn to Secretary of State Exhibit  
8 1, page 65, table 12. Can you tell the Court what  
9 that table is?

10 A. This table shows the same analysis for  
11 the house. So we have again core retention and  
12 the various ranges for the enacted map and the  
13 illustrative house map. At the bottom we have the  
14 average core retention in each of those maps.

15 Q. What were the average for enacted map  
16 and Mr. Cooper's?

17 A. Retained about 83 percent of people in  
18 the compared to the 2011 map. And the  
19 illustrative map retained approximately  
20 72 percent.

21 Q. In your opinion, as a political  
22 scientist, is core retention a valid redistricting  
23 criteria for the state to consider?

24 A. It is. There's been a variety of  
25 academic research on the concept. Voters tend to

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1 prefer or to the end to do better with stability.  
2 They tend to know their representatives better.  
3 They tend to be more likely to participate in the  
4 political process when there's less variation and  
5 change things related to voting, including whether  
6 they moved in and out of districts, that sort of  
7 thing.

8 Q. Let's turn back to your report. Did you  
9 perform any analysis of subsections or region of  
10 the state?

11 A. Yes.

12 Q. What do you mean by regional analysis

13 and why is that significant?

14       A. So we're looking at rather than the  
15 results of a statewide analysis, we're looking at  
16 particular portions of the state. That's  
17 important because the voters in the state aren't  
18 evenly distributed across the state. So in this  
19 case where we're talking about drawing majority  
20 black districts, there are only certain parts of  
21 the state where that's even possible. There are  
22 other places where despite having substantial  
23 number of black resident, it's just simply not  
24 possible to draw majority black districts. The  
25 regional analysis, I look at places in which it

20

1 actually occurs, that majority black districts are  
2 drawn.

3       Q. Could you now please turn to page 23 of  
4 secretary Exhibit 1. There's a map on that page  
5 title parish map and black voting age population.  
6 Could you tell the Court what this map represents?

7       A. Sure. This map is parish map of the  
8 state. The parishes are colored by their BVAP  
9 percentages. And so you can see on the right, the  
10 key there shows that the colors that are more

11 yellow beige and then into red and dark red are  
12 the areas or the parishes in the state where  
13 there's higher BVAP percentages.

14 Q. Does the pattern of residential pattern  
15 of afternoon can Americans in Louisiana have any  
16 implications as far as drawing districts?

17 A. Absolutely. As I said, because in some  
18 of these places while you might have say  
19 20 percent of the population that are of black  
20 voting age population, it's just not possible to  
21 draw any majority black districts in those areas.  
22 So if you're going to create a map that has  
23 proportionality or even exceeds proportionality  
24 statewide, given the areas where you can't draw  
25 majority black districts, you have to overdraw or

21

1 overrepresent the BVAP population in the remaining  
2 parts of the state where it is possible.

3 Q. Could a lay person perform a regional  
4 analysis similar to what you've done in your  
5 report?

6 A. No.

7 Q. What type of expertise or software is  
8 required to perform the regional analysis that

9 you've performed in this report?

10 A. So familiarity with geographic  
11 information systems, ability to work with shape  
12 files, merging data into those shape files, and  
13 analysis that would come from that. Those would  
14 all be things that would require a great deal of  
15 expertise.

16 Q. Let's pull up table 3 on Secretary of  
17 State Exhibit 1, page 19. Can you tell the Court  
18 what this table represents?

19 A. So this table shows regions in the state  
20 where there are majority BVAP districts.

21 Q. This is for the Senate plan, correct?

22 A. Yes. This is in the Senate. The  
23 regions that are highlighted in yellow are the  
24 regions where the illustrative map contains an  
25 additional majority BVAP district compared to the

22

1 enacted map.

2 Q. How did you identify the regions that  
3 you used in this table?

4 A. So the regions are the parishes in which  
5 we see majority BVAP districts. In addition,  
6 there are various regional definitions that have

7 been used by the Plaintiff's experts, so my intent  
8 was to find the greater of greatest commonalities  
9 across the regions, in addition to the majority  
10 BVAP.

11 Q. To the regions you identified were in  
12 part based upon testimony by Plaintiff's experts  
13 on their opinions on regions?

14 A. That's correct.

15 Q. All right. To help the Court understand  
16 table 3, we don't need to go through the whole  
17 table. Could you please explain the first row  
18 that deals -- it says Caddo, does that mean Caddo  
19 Bossier?

20 A. Correct. So that would be the regions  
21 in the northwest of the state in and around  
22 Shreveport area.

23 Q. So just walk across that row and tell  
24 the Court, so the Court will understand the other  
25 regional evidence, how the top row works?

23

1 A. So in that region, we see that the  
2 enacted map contains one majority BVAP district.  
3 The next column shows the proportion of the  
4 simulations that produce the same number of



5 majority BVAP districts as the enacted map. So we  
6 can see that when we set the simulations, and then  
7 look at the results afterwards, it's quite common  
8 for the simulations to produce an outcome similar  
9 to the enacted map in this region. About  
10 88 percent of the time. In the next column, we  
11 see the illustrative map contains two majority  
12 BVAP districts in that region. And then the final  
13 column shows the outcome never occurred in the  
14 simulations.

15 Q. Now let's turn to page 34 officious  
16 Exhibit 1. There's a table 6 Senate district core  
17 retention in Shreveport regions. Could you tell  
18 the Court what this table shows?

19 A. So this table goes into more detail in  
20 that particular region. We see that there are  
21 three districts contained in the region. The  
22 table shows the district numbers, the BVAP in each  
23 of those districts and the core retention scores  
24 for each of those districts. The top half of the  
25 table shows this information for the enacted map,

24

1 and the bottom half of the table shows this  
2 information for the illustrative map. And again,

3 the rows highlighted in yellow indicate districts  
4 that are majority BVAP.

5 Q. What is the collective black voting age  
6 population in these two parishes?

7 A. So in this region, the BVAP is  
8 approximately 39 percent.

9 Q. What share of the districts in the  
10 enacted map is majority black voting age  
11 population in this region?

12 A. In the enacted map, one of the three  
13 districts in this region are majority black.

14 Q. And that's what percent?

15 A. About 33 percent.

16 Q. What about Mr. Cooper's illustrative  
17 maps, what share of the districts in this region  
18 are majority black voting age population?

19 A. Approximately 2 of the three -- I'm  
20 sorry, two of the three districts are majority  
21 BVAP approximately 67 percent.

22 Q. Okay. Is the illustrative map in this  
23 region extra proportional?

24 A. It goes beyond proportionality by a  
25 little more than 20 percentage points.

1 Q. Does the enacted map reach  
2 proportionality?

3 A. It's under proportionality about six  
4 percentage points.

5 Q. Is it possible to achieve exact  
6 proportionality in this region?

7 A. It's not possible to get exactly there  
8 simply because we're only dealing with three  
9 districts. So you really only have options of  
10 units of, you know, units of three effectively.

11 Q. Okay. Can we turn to Secretary of State  
12 Exhibit 1 page 28, figure 7. That's titled  
13 Shreveport region Cooper illustrative Senate  
14 district boundaries. Do you see that?

15 A. Yes.

16 Q. Could you tell the Court what this  
17 figure shows?

18 A. So this figure shows a map of the three  
19 districts in the illustrative map in this  
20 particular region. So we the two districts that  
21 are majority, majority BVAP, highlighted in  
22 yellow, and the third district in gray. The red  
23 dotted lines show the parish boundaries.

24 Q. Does this orientation of -- does the  
25 orientation of Mr. Cooper's 38 suggest it adheres

1 to race neutral redistricting criteria?

2 A. It does not. The district spans both  
3 counties, it spans the two largest cities in the  
4 area, it has an unusual shape. Kind of has a C  
5 shape. And so in that way, it's not adhering to  
6 any of the criteria in particular.

7 Q. Let's turn to figure 8. On Secretary of  
8 State Exhibit 1 on page 39. Can you tell the  
9 Court what this figure shows?

10 A. This figure shows it's schooled on  
11 district Zoomed in district 38, illustrative  
12 district 38. It colors the precincts by their  
13 BVAP percentages, and so the darker more purple  
14 colors are precincts with higher BVAP. The  
15 lighter more yellow colors are precincts with  
16 lower BVAP. The numbers of the precinct labels,  
17 the district itself is out lined with the dark  
18 gray, the dark gray line.

19 Q. Is there anything significant in your  
20 opinion about the shape of Mr. Cooper's Senate  
21 district 38?

22 A. Yes. In having that, as I mentioned,  
23 that C shape of the district, you can see that the

24 district avoids grouping of precincts in the  
25 center there near where the figure says SD36. And

27

1 those precincts have very few black residents and  
2 are heavily white. So you can see the district  
3 very carefully walks around that group of  
4 precincts.

5 Q. What does this suggest to you?

6 A. It suggests to me that the district's  
7 shape is because it has that C shape, it's missing  
8 those precincts in the middle that are majority  
9 white, and that to me suggests that that shape is  
10 kind of carefully winding around those majority  
11 white precincts in the center there.

12 Q. Do you do similar analysis for other  
13 regions in the state where Mr. Cooper created  
14 additional majority black Senate districts?

15 A. Yes.

16 Q. Did you come to similar conclusions in  
17 regards --

18 PLAINTIFF COUNSEL: I'm going to object, Your  
19 Honor. That question calls for Mr. Cooper's  
20 objective intent and how he drew this  
21 district. The answer included testimony

22 about this objective intent. I did not get  
23 an objection on the record in time for that  
24 answer, but I'm going to object to further  
25 questions that ask for that same kind of

28

1 testimony.

2 DEFENSE COUNSEL: May I be heard, Your Honor?

3 THE JUDGE: The objection is overruled.

4 DEFENSE COUNSEL: Thank you, Your Honor.

5 EXAMINATION BY DEFENSE COUNSEL:

6 Q. Did you do similar analysis for the  
7 other regions in the state where Mr. Cooper  
8 created additional majority black Senate  
9 districts?

10 A. Yes.

11 Q. Did you come to similar conclusions?

12 A. Yes.

13 Q. We won't have to go through those other  
14 regions, because that testimony, Dr. Barber.

15 Thank you. Let's move to the house. Can you turn  
16 to Secretary of State 1, page 59. Can you tell  
17 the Court this table is marked Louisiana and  
18 number of majority black Senate -- majority black  
19 voting age house districts table 10. Could you

20 explain that table to the Court, please?

21 A. So this is the same table we were  
22 looking at but for the house instead of the  
23 Senate. So here we have regions of the state in  
24 which there are majority BVAP districts. The rows  
25 highlighted in yellow illustrate the regions where

29

1 the illustrative map contains additional majority  
2 BVAP districts when compared to the enacted map.

3 Q. Was there anything particularly  
4 significant in your view about the range of black  
5 voting age population?

6 A. So again, as we saw on the previous  
7 table, the number of majority BVAP districts in  
8 the enacted map, as then we can compare that to  
9 the proportion of time the simulations generate  
10 the same number of majority BVAP districts  
11 compared to the enacted map. And then in the last  
12 column, the proportion of times that the  
13 simulations generate the same number of majority  
14 BVAP districts as in the illustrative map.

15 Q. Let's look at one of these regions with  
16 more specificity. Can we pull up table 16 on  
17 Secretary of State Exhibit 1 page 95.

18 A. I'm there.

19 Q. Is that in front of you?

20 A. Yes, it is.

21 Q. Okay. Could you explain that table to  
22 the Court, please?

23 A. So this table focuses in on the regions  
24 in and around Baton Rouge. And again, it shows  
25 the particular districts in that region. The BVAP

30

1 in each of those districts on the retention scores  
2 for each of those districts, again the top half is  
3 for the enacted map. The bottom half is for the  
4 illustrative map. And the rows highlighted in  
5 yellow are again those districted where that  
6 contain majority BVAP population.

7 Q. And is this the table explain how many  
8 house districts are in this region?

9 A. It does, yes. There are eleven.

10 Q. What's the racial composition of these  
11 two parishes?

12 A. Collectively, it's approximately  
13 44 percent.

14 Q. How many of the districts in this area  
15 are majority black voting age population in the



16 enacted plan?

17 A. Six of the eleven, or about 54 and a  
18 half percent.

19 Q. So the enacted house plan already  
20 exceeds proportionality in this region?

21 A. Yes, it does.

22 Q. All right. How many districts in this  
23 region are majority black in Mr. Cooper's  
24 illustrative map?

25 A. Eight of the 11 are, or about

31

1 73 percent.

2 Q. Does this percent exceed proportionality  
3 for Mr. Cooper's plan?

4 A. Yes, it does.

5 Q. Let's now look at figure 37, Secretary  
6 of State Exhibit 1 page 99. Can you tell us what  
7 this figure represents?

8 A. This figure is showing the orientation  
9 of these districts in this region for the  
10 illustrative map. And again the districts that  
11 are contained majority papulation are highlighted  
12 in yellow.

13 Q. What do you find noteworthy about these

14 districts?

15 A. I think the most noteworthy is you can  
16 see some of the districts contain some unusual  
17 shapes, particularly direct 70, I think district  
18 71 are two that I highlighted in my report.

19 Q. Let's look at figure 38 on page 100.  
20 Can you explain what this represents to the Court?

21 A. So this figure looks specifically at  
22 illustrative district 68 and 70. And again, as in  
23 the example we looked at earlier in the Senate, it  
24 shows the precincts contained in each of those  
25 districts colored by the black voting age

32

1 population in each precinct. The boundary of the  
2 precincts are shown using the dark gray lines.

3 Q. What's significant about these  
4 districts?

5 A. I think what we see is district 70 has  
6 this unusual U shape that's kind of horseshoe  
7 shaped, in which it kind of winds around the  
8 bottom of house district 68, which house district  
9 68 is majority BVAP district, and house district  
10 70 is not.

11 Q. Why was -- in looking at the map, was

12 there anything that you can deduce from the  
13 demographics of the precincts based upon the U  
14 shape?

15 A. Well, one thing that occurs in having  
16 that shape is that HD70 kind of goes very -- it  
17 kind of digs south to avoid that precinct at the  
18 bottom that's majority BVAP. And then comes back  
19 around on the other side and scoops up some  
20 precincts that are heavily white. And in order  
21 to -- for district 68 to remain majority BVAP, it  
22 needs those very heavy BVAP precincts at the  
23 bottom of the map there.

24 Q. This is suggesting to -- does this  
25 suggest anything to you in particular?

33

1 PLAINTIFF COUNSEL: Objection to the extent  
2 it calls for Mr. Cooper's.

3 THE JUDGE: It's just a question too far. I  
4 mean, I'm following you. It's a question too  
5 far. Sustained.

6 DEFENSE COUNSEL: Your Honor, could you hear  
7 the answer before you sustain the objection.

8 THE JUDGE: Yes, give me a response.

9 DEFENSE COUNSEL: He's just going to say that

10 the districts don't comply with traditional  
11 redistricting.

12 THE JUDGE: That's what he's going to say.

13 You know what he's going to say.

14 DEFENSE COUNSEL: Yes.

15 THE JUDGE: I'm going to let him answer the  
16 question.

17 THE WITNESS: The shape of the HD70 is not --  
18 doesn't comport with other traditional  
19 redistricting principles.

20 EXAMINATION BY DEFENSE COUNSEL:

21 Q. Did you do similar analysis for other  
22 house regions in the state where Mr. Cooper  
23 created additional majority black house districts?

24 A. I did, yes.

25 Q. Now I'm going to turn to your rebuttal

34

1 report. Could you call up and turn to Secretary  
2 of State Exhibit 4. This is the rebuttal report  
3 you prepared for this case?

4 A. Yes, it is.

5 Q. Why did you prepare this?

6 A. I prepared this in response to a report  
7 filed by Dr. McCartin.

8 Q. Who's Dr. McCartin?

9 A. Yes.

10 Q. That's M-C-C-A-R-T-I-N, for the court  
11 reporter?

12 A. That's correct.

13 Q. Who's Dr. McCartin?

14 A. He's one of the co-authors of the  
15 algorithm that I used in this case in addition to  
16 other professors, Dr. Emy and others who wrote the  
17 algorithm.

18 Q. Did Dr. McCartin offer any objections to  
19 your original report?

20 A. Yes, he did.

21 Q. What were they?

22 A. He offered a number of critiques,  
23 particularly to the way in which the simulations  
24 were structured, the particular parameter values  
25 that were chosen, the number of simulations that

35

1 were conducted, the particular way in which the  
2 state I partitioned the state in order to conduct  
3 the simulations, and I believe that the end there  
4 some of the what are called convergence  
5 diagnostics.

6 Q. What are convergence diagnostics?

7 A. More or less they are statistics that  
8 you would look at to be assured that the algorithm  
9 ran correctly, that it kind of ran to completion  
10 appropriately, that sort of thing.

11 Q. How did you respond to Dr. McCartin's  
12 criticisms?

13 A. So I incorporated each of those  
14 criticisms and conducted a second set of  
15 simulations and then compared the results of that  
16 second set of simulations to the initial set that  
17 I had run in my original report.

18 Q. What if any changes resulted from the  
19 conclusions you reached in your original  
20 simulations?

21 A. The second set of simulations doesn't  
22 change my opinions in any meaningful way.

23 Q. Let's walk through a few specifics in  
24 your rebuttal report. Secretary of State Exhibit  
25 4, section 3 on page 8, can we turn to that. At

36

1 the top of the page, you state something to the  
2 effect that Dr. McCartin did not run any  
3 simulations. Why is that significant?

4           A. I think that's significant because he  
5     certainly could have. And is certainly capable of  
6     that. And in doing so, he certainly could have  
7     provided a set of simulations using the criteria  
8     out lined by the state and shown that when  
9     introducing these criteria in the way he felt was  
10    most appropriate, that of the simulations, closely  
11    resemble the illustrative map.

12          Q. Let's clarify that a little bit. What  
13    information did he need to do to run simulations  
14    to test your report?

15          A. So we provided with my report data back  
16    up code, that sort of information to replicate the  
17    original set of simulations.

18          Q. The fact that he did not do any  
19    simulations, does that suggest anything to you?

20          A. So as I was saying, he certainly could  
21    have done that. And produced a new set of  
22    simulations that he felt were better or more  
23    appropriately reflected the countries criteria of  
24    the statement had those simulations reflected the  
25    illustrative map, that I think would have been

1    very strong suggestive evidence, and we don't see

2 that here.

3 Q. How long would it have taken  
4 Dr. McCartin to run simulations to test your  
5 conclusions?

6 A. Given the information that we provided.

7 PLAINTIFF COUNSEL: Objection. This is  
8 beyond the scope of the report. There's  
9 nothing in the report about what Dr. McCartin  
10 could have done beyond what's in this  
11 paragraph. There's nothing about how long it  
12 would take, there's nothing about what it  
13 would have shown.

14 DEFENSE COUNSEL: Your Honor, this is  
15 interesting. I'm not allowed to ask him  
16 questions about things that are in the report  
17 that they admitted into evidence and thereby  
18 waived any objections. And now I'm not  
19 allowed to ask him questions to clarify his  
20 testimony that's in the report.

21 THE JUDGE: Overruled.

22 EXAMINATION BY DEFENSE COUNSEL:

23 Q. How long would it have taken  
24 Dr. McCartin to run simulations to test the  
25 criticisms that he made of your report?



1           A.    In my estimate, it would not have taken  
2 particularly long, given the information that we  
3 provided and his expertise in this area. The  
4 better part of perhaps a day's work.

5           Q.    Let's turn to page 6 of Secretary of  
6 State -- let's turn to page 6 of Secretary of  
7 State Exhibit 4, section 3.1 titled partitioning  
8 the state. Could you explain that section?

9           A.    Yes. This section is addressing a  
10 criticism offered by Dr. McCartin regarding the  
11 way in which I close to partition the state prior  
12 to running the simulations. In a state like  
13 Louisiana, where you have a large number of  
14 districts and even a larger number of precincts  
15 that are being grouped together to compose those  
16 districts, it's not uncommon to first divide the  
17 state into a number of sub regions, and conduct  
18 the simulations within those regions, and then  
19 stitch them back together into a statewide  
20 analysis. This has been done in the number of  
21 cases in Louisiana is similar to those. So.

22          Q.    Could I ask you a question. How many  
23 other examples can you recall of people who --  
24 expert, simulation experts who have done

25 simulations by dividing a state into regions?

39

1           A.    So I know that this has been done in a  
2    case in Pennsylvania in which the expert divided  
3    the state into various regions.  It's been done in  
4    other published work including in some of  
5    Dr. McCartin's own published work.  It's a widely  
6    used and commonly used and widely accepted  
7    practice.

8           Q.    So despite the fact that it's a commonly  
9    accepted practice, what was your response to the  
10   criticism from Dr. McCartin?

11          A.    So my response was to take into account  
12   his criticism and alter the way in which the state  
13   was divided prior to running simulations.  In the  
14   first set of simulations, the state is partitioned  
15   according to parish boundaries.  And the second  
16   set of simulations, the state has partitioned  
17   according to the boundaries of the illustrative  
18   map and the impact that that has is that it in  
19   some ways makes it more likely for the simulations  
20   to produce something that resembles the  
21   illustrative map.  And so it in some ways, you can  
22   say almost like a leg up to the simulations in

23 producing something that resembles the  
24 illustrative map.

25 Q. Could I stop you there and make sure the

40

1 Court understand it. We're talking about the  
2 house map?

3 A. That's correct. The first set of  
4 simulations, I partitioned the state into she  
5 regions in the house. I do not partition the  
6 state in the Senate. In the second set of  
7 simulations, I partitioned both the Senate and the  
8 house according to groupings of the illustrative  
9 districts.

10 Q. Explain why your regions and your second  
11 set of simulations were based upon Mr. Cooper's  
12 illustrative districts?

13 A. So one of the criticisms was that in  
14 partitioning the state by parish boundaries, it  
15 would make it difficult or perhaps impossible to  
16 recreate, to perfect rep will aequat, for the  
17 simulations to perfectly replicate say the enacted  
18 map, given the way in which the enacted map  
19 crosses certain parish boundaries. Given that you  
20 could think of this the hard case against the

21 simulations would be do they resemble the  
22 illustrative map. So to give the best scenario or  
23 the best case scenario toward allowing the  
24 simulations to produce something resembling the  
25 illustrative map, I partitioned the state

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1 according to boundaries of the illustrative map.

2 Q. And in doing that, did it make any  
3 difference in your results?

4 A. The results were not substantively  
5 different after making that adjustment.

6 Q. Let's turn to Secretary of State 4 page  
7 8, there's a section titled 3.2 core retention.  
8 Could you explain that section to the Court?

9 A. So this section addresses the critique  
10 of the way in which the core retention constraint  
11 is implemented in the simulations. And in the  
12 second set of simulations, I implement a much  
13 stronger core retention constraint. So the  
14 algorithm is instructed to give much greater  
15 weight or priority to this criteria of core  
16 retention.

17 Q. Where did you get that criteria for core  
18 retention?

19           A.    So the country criteria, the particular,  
20   is implemented in this set of simulations is drawn  
21   from instructions or recommendations contained  
22   within the algorithm itself, from Dr. McCartin and  
23   his co authors.

24           Q.    How would you respond in a criticism  
25   that you should have run simulations using a low

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1   range for core retention versus a high range for  
2   core retention?

3           A.    So my response would be that that's  
4   exactly what we have here, the first set of  
5   simulations have a very low range of core  
6   retention or no core retention constraint. The  
7   second set of simulations have a very high core  
8   retention constraint. And so we can see the  
9   outcome of bearing the strength of that constraint  
10   in comparing the two. The two set to one another.

11          Q.    All right. So let's turn to Secretary  
12   of State Exhibit 4, page 9, Section 3.3 titled  
13   number of unique maps. Could you please explain  
14   that section to the Court?

15          A.    Sure. One of the additional critiques  
16   was that the simulations had not perhaps generated

17 a sufficient number of maps or unique maps to  
18 represent the possible -- to be a representative  
19 sample of maps and so in addressing that critique,  
20 increased the number of maps that were drawn by 5  
21 times from 100,000 to 500,000 maps.

22 Q. In your opinion, was Dr. McCartin  
23 criticism that you had not constructed a  
24 sufficient number of simulations in your first  
25 set. Was that a valid criticism in your view?

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1 A. No, I don't think so. 100,000 maps is  
2 substantial. It exceeds the number of maps in  
3 many other redistricting cases in which this  
4 algorithm has been used. And perhaps -- or in  
5 those cases, you've seen 10,000, 5,000 maps being  
6 used. And so I don't think it was necessarily a  
7 valid criticism to begin with. But nevertheless,  
8 just to be sure, I increased the number of maps  
9 drawn by five times.

10 Q. Am I understanding you correctly, you  
11 did 500,000 Senate maps and 500,000 house maps?

12 A. That's correct.

13 Q. In doing that, did it make any  
14 difference in your conclusions?

15           A.   Again, the substantive conclusions  
16    didn't change dramatically, or didn't change at  
17    all really.

18           Q.   So, Dr. Barber, just to be clear, did  
19    you implement these changes one at a time or all  
20    at once?

21           A.   Collectively. So I took all of these  
22    critiques together and implemented them in a  
23    second set of simulations that addressed all of  
24    them simultaneously.

25           Q.   Now let's turn to Secretary of State

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1   Exhibit 4 page 11. There's a section titled  
2   conversion diagnostics. Could you explain that  
3   section to the Court?

4           A.   Sure. One of the criticisms offered was  
5    that I failed to check or provide diagnostic  
6    convergence diagnostics regarding the first set of  
7    simulations. And to address that, I include those  
8    again a second time in addition to other measures  
9    that were recommended again none of the -- those  
10   results indicated there were problems with the  
11   simulations.

12           Q.   Just to be clear could you explain to

13 the Court the type of problems that converge and  
14 statistics might reveal?

15 A. Probably they would indicate that the  
16 model or the algorithm hadn't run appropriately or  
17 it hadn't correctly -- the term we would use is  
18 converged. That simply means that the algorithm  
19 basically did what we want it to do. It ran  
20 appropriately and collected a representative  
21 sample of maps.

22 Q. Again, what did the converge statistics  
23 show for your second set of simulations?

24 A. They indicated that the model had run  
25 appropriately.

45

1 Q. Now, the criticism Dr. McCartin made  
2 about converge and statewide order particulars on  
3 your first set of simulations, do you think that  
4 was a fair criticism?

5 A. No. Those diagnostics were include with  
6 the materials we provided. Dr. McCartin saw those  
7 and made reference to them. He indicated  
8 additional convergence diagnostics that he thought  
9 would be appropriate. Those are include in the  
10 second set of simulations.



11 Q. Okay. Let's now move on to page 12 of  
12 so the Exhibit 4, section 4. Titled regional  
13 analysis. And on that page, Dr. Barber, there's a  
14 color-coded maps. Could you explain to the Court  
15 what's reflected by that color-coded map of  
16 Louisiana?

17 A. So this map indicates the way in which  
18 the simulations are partitioned for the Senate.  
19 So I partitioned the state into four regions. You  
20 can see those regions are groupings of  
21 illustrative Senate districts.

22 Q. Just to be clear, how did you identify  
23 the regions that you used?

24 A. So as I said, there are groupings of  
25 illustrative Senate districts that they're

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1 geographically connected to one another.

2 Q. Let's turn to page 14 of Secretary of  
3 State Exhibit 4. There's a chart at the bottom of  
4 the page titled minority majority black voting age  
5 population districts in simulation Senate region  
6 1. Could you explain to the Court what that chart  
7 reflects?

8 A. So this chart is showing the results of

9 the second set of simulations for the Senate  
10 region 1, if you look back at the map, the area in  
11 and around New Orleans. And the results here show  
12 the proportion of simulations that generate a  
13 particular number of majority BVAP districts on  
14 the far left we can see that in that set of  
15 simulations, 100 percent of the maps generate at  
16 least one majority BVAP district. We can see then  
17 on the next bar that approximately 70 percent of  
18 the simulations generate at least two majority  
19 BVAP districts. Then finally we can see that in  
20 that set of simulations, approximately ten percent  
21 of the simulations generate three majority BVAP  
22 districts on the far right of the figure, we see  
23 where the illustrative map is at 6.

24 Q. How many simulations map generated six  
25 majority black districts in region 1?

47

1 A. There were none.

2 Q. What conclusions did you reach from this  
3 analysis?

4 A. The conclusions that I reach is that  
5 even after we respecify the -- if I the  
6 simulations to incorporate all of these changes

7 and we rerun the algorithm, the set of simulations  
8 nevertheless produce largely the same results that  
9 they failed to produce the number of majority BVAP  
10 districts as in the illustrative map.

11 Q. I apologize, Your Honor, I may have  
12 asked this, but just to be clear: Did you do  
13 similar analysis for Senate regions 2, 3 and 4, on  
14 pages 15 through 18 of Secretary of State Exhibit  
15 4?

16 A. Yes, I did.

17 Q. All right. Now let's turn to Secretary  
18 of State Exhibit 4 page 19 secretary labeled 4.2  
19 house. Could you tell the Court what is reflected  
20 by the color-coded map Louisiana that appears on  
21 page 19?

22 A. So this is showing the choice of regions  
23 for the simulations in the house. So again, you  
24 can see these are groupings of illustrative house  
25 districts. There are seven in the -- you can see

48

1 that are color-coded on the map there.

2 Q. Okay. Again, how did you identify these  
3 house regions?

4 A. So as I said, they're groupings of

5 illustrative house districts that are  
6 geographically close or connected to one another.

7 Q. Like the Senate chart we looked at, did  
8 you do a similar chart for all the house regions  
9 to compare the number of majority black simulated  
10 districts to the number found in enacted and  
11 illustrative plan?

12 A. Yes.

13 Q. What did you find?

14 A. So again, the results are similar to the  
15 results of the Senate for the second set of  
16 simulations. And for the results of the first set  
17 of simulations, the illustrative maps stands as an  
18 outlier, significant outlier, when compared to the  
19 results of the simulations with regards to the  
20 number of majority BVAP districts that are  
21 generated.

22 Q. Did you reach any conclusions from that?

23 A. The conclusions are that again even  
24 after respecifying the algorithm, taking into  
25 account all of these changes that we just -- we

1 simply don't see a similar number of majority BVAP  
2 districts in the simulations when compared to the

3 illustrative map.

4 Q. Let's turn now to Secretary of State  
5 Exhibit 4 page 9, figure 1. On that page, there's  
6 two charts there. Mr. Barber, one says number of  
7 majority black VAP Senate districts, 500,000 maps.  
8 The other chart says number of majority black VAP  
9 500 thousands house districts. Could you explain  
10 to the Court what's reflected by these two  
11 figures?

12 A. So these two figures take all of those  
13 regional simulations and piece them back together  
14 to look at this at a statewide level. Similar to  
15 the figures we looked at, at the very beginning of  
16 my testimony. Again we're seeing the distribution  
17 of majority BVAP districts produced by the  
18 simulations in the Senate on the left and the  
19 house on the right, again, in comparison to the  
20 dashed lines in each figure, which show the  
21 enacted map and the illustrative map.

22 Q. All right. So let's start with the  
23 house. What was the average number of majority  
24 black house -- Senate -- I'm going to go with the  
25 Senate first, because it's on the left. What was

1 the average number of majority black Senate  
2 districts generated by your second set of  
3 simulations?

4 A. In the Senate, the average was a little  
5 more than five.

6 Q. How many again majority black house  
7 districts are in the enacted plan?

8 A. In the enacted plan, in the Senate,  
9 there are 11.

10 Q. How about in Mr. Cooper's illustrative  
11 plan?

12 A. 14.

13 Q. Let's move slightly to the right, which  
14 is your chart for the second set of house  
15 simulations. What's the average number of  
16 majority black house districts created by your  
17 second set of simulations?

18 A. So in the second set of simulations in  
19 the house, the average number produced by the  
20 simulations is between 17 and 18.

21 Q. And how many majority black house  
22 districts are in the enacted 2022 house plan?

23 A. 29.

24 Q. How many majority black districts are in  
25 Mr. Cooper's illustrative house plan?

1           A.    35.

2           Q.    Can you conclude, Dr. Barber, by briefly  
3   summarizing what you relied upon to form your  
4   opinions in this case?

5           A.    So in kind of holistically, we have at  
6   this point a first set of simulations, a second  
7   set of simulations that are specified very  
8   differently than the first set of simulations.  
9   Nevertheless both of them produce come to a  
10   similar conclusion, which is that we just don't  
11   see something resembling the illustrative map,  
12   given the criteria that are outlined in the joint  
13   rule combine and the simulations from that. More  
14   over, when we look at the particular distribution  
15   of the districts, just whether they're majority or  
16   not, we see something very different as well. And  
17   then finally just a visual inspection of the  
18   district boundaries. We see in some cases some  
19   unusual shaped districts and odd appendages and  
20   things like that, that are not well explained by  
21   the traditional redistricting criteria.

22          Q.    All right.

23          DEFENSE COUNSEL:

24 Your Honor, subject to redirect, no  
25 further questions, but I also want to make a

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1 proffer of proof at the time the Court tells  
2 me it's proper for me to do that.

3 THE JUDGE:

4 Permitted. All right. Cross.

5 EXAMINATION BY PLAINTIFF COUNSEL:

6 Q. Good morning, Dr. Barber.

7 A. Good morning.

8 THE JUDGE:

9 Make an appearance, we have a new court  
10 reporter.

11 PLAINTIFF COUNSEL:

12 Stewart Naifeh from legal defense fund  
13 for the Plaintiffs.

14 EXAMINATION BY PLAINTIFF COUNSEL:

15 Q. So, Dr. Barber, you testified in a case  
16 in the Northern District of Florida called  
17 Jacobson versus Lee; is that correct?

18 A. Yes, I did.

19 Q. Did you recall what weight Chief Judge  
20 Walker afforded your opinions?

21 A. I do not recall.



22 Q. Stephen, can we pull up Jacobson versus  
23 Lee, and turn to page 18 of this PDF. For the  
24 record, this is 411 F sub third at 1239 is the  
25 citation for the case. And pen cite for this page

53

1 is 1274.

2 Dr. Barber, do you read -- can you see the  
3 highlighted text there?

4 A. Yes.

5 Q. Can you read that?

6 A. "This Court further finds Dr. Barber's  
7 testimony emphatically not credible and his  
8 opinions offered in this case to be unreliable."

9 Q. Does that refresh your recollection of  
10 that weight Chief Judge Walker afforded your  
11 opinions?

12 A. Yes.

13 Q. Okay. Did you also testify in a  
14 Northern district of Florida case called Jones  
15 versus Desantis?

16 A. Yes.

17 Q. And do you recall if Judge Hainkel  
18 accredited your testimony in this case?

19 A. I do not recall.

20 Q. Stephen, can we pull up Jones V  
21 Desantis. I see it's on the screen. Turn to page  
22 37 of this PDF. This is 462 F, the third, 1196.  
23 The pen cite is page 1246 of the reporter.  
24 Do you see the highlighted text there?  
25 A. Yes.

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1 Q. Can you read that text?  
2 A. "The state says the focus groups and  
3 pooling show that payment of LFOs, including by  
4 those unable to pay, was critical to passage of  
5 the amendment. They even presented expert  
6 testimony to support the assertion. I do not  
7 credit testimony."  
8 Q. The expert testimony there, that was  
9 your testimony that the Court is referring?  
10 A. I believe so.  
11 Q. Okay. Does that refresh your  
12 recollection about the weight that Judge Hainkel  
13 gave your testimony?  
14 A. Yes.  
15 Q. All right. And, Dr. Barber, you have  
16 never drawn districting plans outside of  
17 litigation, correct?

18 A. That's correct.

19 Q. And you don't have experience drawing  
20 districting plans without the use of simulations,  
21 correct?

22 A. I'm not sure what you mean.

23 Q. So you haven't used Maptitude to  
24 assemble census blocks and precincts by hand into  
25 districts?

55

1 A. I have not used Maptitude to create a  
2 districting plan.

3 Q. Okay. And have you used any other  
4 software other than simulation software to create  
5 districting plan?

6 A. I have used the program called Dave's  
7 redistricting. I'm familiar with that  
8 redistricting program.

9 Q. You have used that software to create an  
10 entire redistricting plans?

11 A. I use it in my course work. I teach  
12 students about redistricting in my legislative  
13 politics class. And I have an assignment that  
14 asks them to create redistricting plans using  
15 criteria. So I've used it in the academic and

16 pathological setting.

17 Q. Dr. Barber, a few general questions  
18 about simulations analysis. When you perform a  
19 simulation analysis, you use a computer to create  
20 a large number of maps, correct?

21 A. Yes.

22 Q. And you impose a set of constraints on  
23 how the computer uses those maps?

24 A. Yes.

25 Q. Okay. And those constraints are

56

1 intended to approximate various redistricting  
2 principles that a human map drawer might consider,  
3 correct?

4 A. They are intended to approximate the  
5 criteria that whichever jurisdiction you're  
6 working with, they have out lined as the criteria  
7 that should guide redistricting.

8 Q. And they could also include criteria  
9 that a map drawer considered whether or not  
10 whether some injury discovery have out lined those  
11 criteria, correct?

12 A. I'm sorry, I'm not sure I understand.

13 Q. So a human map drawer might consider

14 criteria that are not those out lined by a  
15 jurisdiction, correct?

16 A. Yes, that's correct.

17 Q. And those could also be programmed into  
18 a simulation?

19 A. Yes, they could.

20 Q. Okay. To do that, you have to reduce  
21 the redistricting considerations as a human map  
22 drawer might apply them to a formula that could be  
23 captured in computer code, correct?

24 A. I'm sorry, I'm not sure I understand.

25 Q. In order to implement redistricting

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1 criteria, whether specified by a jurisdiction or  
2 use bid a human map drawer, you need to convert  
3 those into something a computer could actually  
4 calculate, correct?

5 A. Yes, that's correct.

6 Q. Okay. One use of simulations is to  
7 isolate the effect of a particular redistricting  
8 consideration on a configuration of districts in a  
9 particular map you're interested in analyzing?

10 A. That's one of many uses.

11 Q. Okay. To do that, you produce simulated

12 maps that do not include the redistricting  
13 consideration whose impact you're trying to study;  
14 is that right?

15 A. I'm sorry, can you --

16 Q. So in order to isolate the effect of  
17 redistricting consideration, you exclude that  
18 consideration from the simulation; is that  
19 correct?

20 A. That would be one approach, that's part  
21 of the process. So I wouldn't say that that's the  
22 only -- like, that's the final thing, but this  
23 is -- like, that's one step in the process.

24 Q. Is that what you did in this case?

25 A. It's -- I think it's a description of

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1 part of what I did. I wouldn't say it's  
2 everything.

3 Q. And then once you produce that set of  
4 simulations that exclude that criteria, you  
5 compare them to the map you're studying?

6 A. Yes, that's correct.

7 Q. Okay. And for this simulations to be  
8 useful in testing the impact of the excluded  
9 consideration on the map you're studying, a

10 simulation has to include all the other  
11 redistricting criteria that went into the map  
12 you're studying, correct?

13 A. I don't think that that is the case. I  
14 don't think that anyone could do that. I think  
15 that's an impossible task.

16 Q. So you're saying it's impossible to I  
17 conclude all the criteria that the map drawer who  
18 drew the map you're studying used?

19 A. I'm sorry, to include all of the  
20 criteria?

21 Q. Yes.

22 A. You can do -- you can obviously do your  
23 best at trying to do as much as possible, but I  
24 think that we could sit here and articulate and  
25 possibly a number of criteria. That's not

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1 something that could be done.

2 Q. Turning to the simulations you created  
3 in this case. The excluding redistricting in your  
4 consideration was race, correct?

5 A. Race is not included in the simulations.

6 Q. Right. And that's because you want to  
7 assess the impact on race on the illustrative maps

8 created by Mr. Cooper?

9 A. That's correct.

10 Q. Okay. You specifically want to study  
11 the number of majority black districts in Mr.  
12 Cooper's illustrative plans as compared to the  
13 simulations, correct?

14 A. That's one of the comparisons, among  
15 others.

16 Q. Your opinion in this case is that the  
17 simulations you ran show that racial  
18 considerations did have an effect on Mr. Cooper's  
19 maps, correct?

20 A. Yes. That's correct.

21 Q. And Mr. Cooper has candidly acknowledged  
22 he considered race in his map drawing process,  
23 correct?

24 A. Yes, I believe he has.

25 Q. He also has acknowledged that

60

1 consideration of race was factor in his conclusion  
2 that he could create additional majority black  
3 districts over what are in the enacted plan,  
4 correct?

5 A. Yes, I believe he has said that.



6 Q. Okay. One of the constraints that you  
7 included in your simulations that is the  
8 district's must have equal populations, correct?

9 A. They have to fall within a range of  
10 population. So roughly equal within, I think, the  
11 state set a five percent boundary or threshold.

12 Q. Okay. That's plus or minus five percent  
13 over the target district population?

14 A. Yes. That's correct.

15 Q. Okay. That's a hard constraint,  
16 correct?

17 A. Yes.

18 Q. A hard constraint is a constraint that  
19 the simulation will not produce any map that  
20 violates a hard constraint; is that right?

21 A. That's one way of putting it, yes.

22 Q. Okay. When you instruct the simulation  
23 to create districts of equal population, you're  
24 measuring that using total population, correct?

25 A. That's correct.

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1 Q. It's not calculated using voting age  
2 population, correct?

3 A. That's correct.

4 Q. And you also considered contiguity,  
5 correct?

6 A. Yes.

7 Q. Is that also a hard constraint, right?

8 A. Yes, that's correct.

9 Q. Okay. You considered parish splits?

10 A. Yes.

11 Q. And municipal splits?

12 A. Yes.

13 Q. And core preservation?

14 A. Yes.

15 Q. And geographic or mathematical  
16 compactness?

17 A. Correct.

18 Q. Those are all soft constraints; is that  
19 right?

20 A. That's correct.

21 Q. A soft constraint means that the  
22 simulation will prefer maps that perform better on  
23 those constraints, but it won't require any  
24 particular threshold; is that right?

25 A. Yes.

1 Q. Okay. And it's possible using the Redus

2 software that you used here to assign a weight to  
3 each of the soft constraints, correct?

4 A. Yes.

5 Q. Okay. So you can give more weight to  
6 some constraints and less weight to others?

7 A. Yes.

8 Q. Okay. And you used the default  
9 weighting of those -- all of those constraints  
10 provided by the Redus software, correct?

11 A. No, I don't believe that's correct.

12 Q. Okay. In your opinion, none of the  
13 constraints you considered predominated in the  
14 maps produced by the simulations, correct?

15 A. That's correct.

16 Q. Okay. You did no simulations that  
17 removed any of those other constraints to study  
18 what impact they are having on the simulations?

19 A. I'm sorry, I don't --

20 Q. You didn't run a simulation that  
21 excluded for example, compactness as a criteria?

22 A. No. That was not the purpose of my  
23 inquiry.

24 Q. So you don't have any simulations that  
25 would tell you how much impact the compactness

1 constraint was having on for example, the  
2 distribution of majority black districts?

3 A. No. That was not my intent.

4 Q. Okay. Your simulations did not include  
5 protecting communities of interest as a  
6 constraint, correct?

7 A. So I think we talked about how in order  
8 to know what communities of interest would be  
9 included, you would have to first articulate what  
10 communities of interest you would want to be  
11 protected to begin with.

12 Q. So you excluded them because you were  
13 not aware of any -- of what communities of  
14 interest should be considered; is that right?

15 A. I think we, in my deposition, talked  
16 about how insofar as communities of interest are  
17 co term news with municipalities or with parishes,  
18 that the simulations would take into account those  
19 communities of interest.

20 Q. Okay. But you didn't include  
21 communities of interest separate from preserving  
22 from parish and municipal boundaries?

23 A. I did not include an additional set of  
24 communities of interest, because I couldn't

25 identify a list of community of interest either in

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1 the joint rule or in Mr. Cooper's report that  
2 would have guided that decision.

3 Q. Okay. Mr. Cooper did seek to protect  
4 communities of interest in his maps?

5 A. I think he says that he tries to do  
6 that. I don't know that he further articulates  
7 particular communities of interest that he uses to  
8 guide the particular districts that he's drawing.

9 Q. So you don't know if Mr. Cooper had a  
10 definition of the communities of interest he was  
11 considering?

12 A. I'm not aware of a particular list of  
13 communities of interest that he provides.

14 Q. Okay. Are you aware of any other  
15 experts in that that's that offered communities of  
16 interest in different parts of Louisiana?

17 A. I am aware of experts who have offered  
18 opinions about I would say larger communities of  
19 interest that are kind of regional, you might say.  
20 But those would be, you know, much larger than a  
21 particular district that we're talking about. So  
22 those would fall under what I was describing

23 earlier in terms of parishes and preservation of  
24 parishes.

25 Q. And you didn't consider those larger

65

1 regions?

2 A. Insofar as the districts are assembled  
3 by parishes, and the parishes make up those  
4 regions, and then the particular in the second set  
5 of simulations, the grouping of the states  
6 according to the illustrative district would in  
7 some way address that as well.

8 Q. But you didn't include as a separate  
9 constraint in your simulations the regional  
10 communities of interest that you're describing?

11 A. Those larger regions are not included as  
12 their own independent parameter in the algorithm.

13 Q. You're not aware of expert testimony  
14 concerning more local communities of interest in  
15 this case?

16 A. I'm not.

17 Q. Your simulations also did not include  
18 avoiding incumbent appearances, correct?

19 A. That was not included in the  
20 simulations. It wasn't something that I saw in

21 the joint rule as a factor to be considered.

22 Beyond the preservation of existing district

23 boundaries, which again would also serve to

24 preserve incumbents within their districts.

25 Q. So reserving existing district

66

1 boundaries, could preserve incumbents in their

2 districts if the incumbent was included in the

3 part of the district that was preserved, correct?

4 A. Yes, that's correct.

5 Q. But not in the incumbent was in a part

6 of the district that was not preserved, correct?

7 A. That's correct.

8 Q. You're aware that Mr. Cooper did seek to

9 avoid inherent encumbrances in his maps?

10 A. I'm aware he sought to do that in the

11 drawing of his map. I don't think that it is

12 suggestive of why the simulations deviate from or

13 looked different from the outcome of his M. I

14 don't see that connection.

15 Q. You don't see that connection, because

16 you didn't study it?

17 A. No, because I don't think it's

18 substantively contributes to the explanation.

19 Q. Okay. And you didn't include a  
20 principle or a constraint concerning the number of  
21 parishes spanned by a district?

22 A. The districts have to contain equal  
23 population. So it's not as though districts can  
24 run across a lot of parishes. I guess I'm not  
25 exactly sure what you mean by that constraint.

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1 It's unclear to me how that.

2 Q. So it's true that in your regional  
3 analysis, in some instances, you describe the  
4 number of parishes spanned by a district and how  
5 that differs from the enacted plan to Mr. Cooper's  
6 plan, correct?

7 A. The number of parishes that are -- that  
8 a district crosses?

9 Q. Yes.

10 A. Yes.

11 Q. You didn't include that as a separate  
12 constraint from just keeping parishes whole,  
13 correct?

14 A. Well, in keeping parishes whole, that's  
15 going to have the markets that's going to have the  
16 effect of reducing the number of parishes the



17 districts span. Because if a district is trying  
18 to keep a parish -- or if the algorithm is trying  
19 to keep parishes whole, then it's going to, by  
20 definition, minimize the number of districts  
21 present in a parish.

22 Q. But you didn't report any numbers in  
23 your report anywhere about average number of  
24 parishes spanned by a district?

25 A. I report just the parish splits, the

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1 number of times a parish is split.

2 Q. Okay. I'd like to discuss your regional  
3 analysis a little bit. For the record, Dr.  
4 Barber, you reviewed Mr. Cooper's report in this  
5 case from June 2023, correct?

6 A. Yes.

7 Q. And did you review some of the exhibits  
8 to Mr. Cooper's report?

9 A. There are a lot of them. I did review  
10 many of them.

11 Q. Okay. You reviewed the exhibits  
12 containing compactness scores?

13 A. Yes.

14 Q. You reviewed the exhibits concerning

15 parish splits?

16 A. Yes.

17 Q. You would agree that on average Mr.

18 Cooper's plan splits fewer parishes over all than  
19 the enacted plan?

20 A. I don't recall the particular numbers  
21 off the top of my head. I believe that it is  
22 fewer. I couldn't articulate to you the exact  
23 number.

24 Q. Okay. Mr. Cooper's plans ever overall  
25 are more compact than the own plan?

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1 A. Again, off the top of my head, don't  
2 have those numbers. I don't have reason to doubt  
3 your representation, but I couldn't tell you off  
4 the top of my head.

5 Q. Okay. Mr. Far earlier asked you about  
6 proportional misty some of the tables you include  
7 in your report, reporting on proportional number  
8 of districts, correct?

9 A. Yes, that's correct.

10 Q. You calculated proportionality based  
11 upon voting age population, correct?

12 A. Yes, that's correct.

13 Q. Your report doesn't anywhere report on  
14 proportionality based on total population?

15 A. No. I used the voting age population.

16 Q. So in your regional analysis, you  
17 analyze the illustrative map on the one hand to  
18 the 2011 map or the 2022 enacted map on the other,  
19 correct?

20 A. Yes.

21 Q. All right. And you're not making a  
22 comparison to the samples produced by your  
23 simulations, correct?

24 A. So there are tables where we, just in  
25 the questions that Mr. Farr asked me, talked about

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1 particular regions and the number of majority BVAP  
2 districts produced by the simulations in those  
3 regions. So I don't want to say that the  
4 simulations never touch on a discussion of  
5 reachings.

6 Q. Okay. But with respect to the specific  
7 redistricting principles and whether or not the  
8 illustrative plan complies with or doesn't comply  
9 with them, that's focused on the comparison to the  
10 enacted plan or to the 2011 plan?

11 A. The core retention scores in those  
12 sections are a comparison to the 2011 plan.  
13 They're not a comparison to the simulations.

14 Q. Okay. You find generally that the new  
15 majority black districts have lower core retention  
16 scores than the districts they replace, correct?

17 A. Yes. That's correct.

18 Q. You discuss other metrics with respect  
19 to specific districts, as well, correct?

20 A. Yes.

21 Q. Okay. I'd like to turn to your  
22 discussion of the new majority black district in  
23 the Caddo Bossier region. That's at Secretary of  
24 State Exhibit 1 at page 33. You discuss here that  
25 compactness scores of SD38 in Mr. Cooper's

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1 illustrative plan as compared to the 2022 enacted  
2 plan, correct?

3 A. Yes that's correct.

4 Q. All right. You don't include the  
5 compactness scores of neighboring SD39, which is  
6 also majority black?

7 A. SD39, I do not report the compactness  
8 scores for SD39 in this case. I was focused on

9 the new illustrative districts. I believe SD39 is  
10 majority black in both of the maps.

11 Q. Okay. You don't discuss parish splits  
12 in your discussion of the Caddo Bossier region in  
13 the Senate map, correct?

14 A. I would have to go back through to be  
15 absolutely sure. But I take your representation  
16 as being accurate.

17 Q. Okay. Let's move to the Jefferson and  
18 St. Charles Parish area. That's in SOS Exhibit 1  
19 at page 41. Let's back up a little bit so just so  
20 we can see, 40 and 41.

21 In this region, you don't report any  
22 compactness scores, correct?

23 A. That's correct.

24 Q. And instead, you're comparing the  
25 enacted and illustrative plans on parish splits?

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1 A. I believe the section has a discussion  
2 of how the districts and the enacted plan and the  
3 illustrative plan treat the parishes in this area.

4 Q. Okay. And you agree that the new  
5 majority black district 19 spans only two parishes  
6 in Mr. Cooper's illustrative map, correct?

7 A. Yes, that's correct.

8 Q. Those are St. Charles and Jefferson?

9 A. Correct.

10 Q. In the enacted plan, it spans four  
11 district -- four parishes?

12 A. Correct.

13 Q. I just want to get something on the  
14 record here for the benefit of the Court and the  
15 report. And that is, I think in this last  
16 paragraph on page 41 we discussed at your  
17 deposition where it says SD9, it should say SD19?

18 A. That's correct. It should say SD19.

19 Q. Okay. So the four parishes that SD19  
20 spans in the enacted plan are St. Charles,  
21 Lafourche, St. John the Baptist, and Jefferson?

22 A. Yes.

23 Q. You say here that keeping entire  
24 parishes whole within districts is a traditional  
25 redistricting criteria, correct?

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1 A. Correct.

2 Q. You say that in the enacted plan St.  
3 Charles parish is kept whole, correct?

4 A. Yes.

5 Q. And the illustrative plan, it's split?

6 A. Yes.

7 Q. And St. John the baptist parish is made  
8 whole in the illustrative plan, correct?

9 A. Correct.

10 Q. And it's split in the enacted plan,  
11 correct?

12 A. Correct.

13 Q. Okay. But you don't mention that it's  
14 made whole in your report anywhere, correct?

15 A. I don't think it's mentioned here.

16 Q. Okay. Is it mentioned anywhere in your  
17 report that St. John the baptist parish is made  
18 whole in the illustrative plan?

19 A. I don't know that I specifically  
20 highlight that particular parish. It would  
21 obviously be included in the maps that cover the  
22 whole plan and the plan wide statistics and that  
23 sort of thing.

24 Q. But that's something you considered when  
25 highlighting the ways in which Mr. Cooper's plan

1 does or does not comport with traditional

2 redistricting principles?

3           A.    I think in this section, I was focused  
4    particularly on these two parishes. So that's why  
5    the focus is on those two parishes.

6           Q.    Okay. You also explained that  
7    neighboring District 8 spans more parishes than  
8    the illustrative plan than the enacted plan,  
9    correct?

10          A.    Correct.

11          Q.    And that's four instead of two, so sort  
12   of the reverse of what we see with district 19?

13          A.    Correct.

14          Q.    Okay. And that's because you considered  
15   a number of parishes span by a district to be a  
16   traditional redistricting principles or keeping  
17   that number low?

18          A.    I'm sorry, can you say that again?

19          Q.    So you're talking about the number of  
20   parishes spanned by a district. And that's  
21   because that is a consideration that you consider  
22   important in assessing adherens to traditional  
23   redistricting principles?

24          A.    I think I was referring to that in  
25   combination with the splitting of the particular



1     parishes.

2           Q.    Okay.  Let's move to the Baton Rouge  
3     region and the new Senate district 17 in the  
4     illustrative plan.  That's on Secretary of State  
5     Exhibit 1 at page 48.  Let's go back pains to see  
6     where we are.  So this is Baton Rouge.  So you  
7     mention here, and this is on page 48, that the new  
8     district 17 you say it connects parts of east  
9     Baton Rouge to Pointe Coupee, Iberville and west  
10    Baton Rouge, correct?

11          A.    Correct.

12          Q.    And that's four parishes, right?

13          A.    Yes.

14          Q.    So illustrative district 17 spans four  
15    parishes?

16          A.    I believe so.  I'm not certain if I'm  
17    reporting on the entirety of the district here.  I  
18    can't recall off the top of my head what the  
19    particular district's orientation is.

20          Q.    I think it's page 54, where you have  
21    your map.  Can you turn to that?  Can you see this  
22    map?

23          A.    Yes.

24          Q.    You see SD17, illustrative SD17 on this  
25    map?

1 A. Yes, I do.

2 Q. Does it look like it spans four  
3 parishes?

4 A. Yes, it does.

5 Q. Okay. Let's go back to page 48. So  
6 illustrative -- so enacted district 17, Senate  
7 district 17 spans ten parishes; is that right?

8 A. Again, I don't know off the top of my  
9 head. I don't have reason to doubt your  
10 representation.

11 Q. But you didn't mention the number of  
12 parishes spanned by enacted district 17?

13 A. I think I discuss more the general shape  
14 or the kind of area that the district is spanning,  
15 but I don't think I call out the particular  
16 parishes, included in the district.

17 Q. So when a district in Mr. Cooper's map  
18 spans more parishes than the enacted map, that was  
19 worth calling out in the New Orleans area and  
20 district 19, but it's not when it's the enacted  
21 plan that spans more parishes, you don't describe  
22 that; is that right?

23 A. No. I think that in this case, we're --

24 it's -- the comparison is very different. We're  
25 in a different region. I think I made reference

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1 to the fact that district -- the enacted district  
2 17 is a more rural district, which by definition  
3 would mean it's taking in fewer per square mile.  
4 So it's going to span a larger area.

5 Q. Okay.

6 A. The narrative here is not intended to be  
7 an encyclopedic listing of every parish. There's  
8 plenty of evidence in the record which districts  
9 take in which parishes and that sort of thing.

10 Q. But in this section of your report,  
11 you're evaluating whether Mr. Cooper's plan does  
12 or does not comply, in your view, with traditional  
13 redistricting principles?

14 A. That's correct.

15 Q. You look at those where -- never mind.  
16 Strike that.

17 And then on page 49, you state here that the  
18 illustrative plan adds an additional split to east  
19 Baton Rouge parish, correct, 6 instead of 5, I  
20 believe?

21 A. I believe that I note that it extends

22 into East Baton Rouge Parish, yes.

23 Q. Well, so this illustrative Senate  
24 district or Senate district 17 extends into east  
25 Baton Rouge and both plans -- in both plans; isn't

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1 that true?

2 A. I believe so, yes.

3 Q. Okay. And you don't -- here you don't  
4 note that illustrative district 17 makes west  
5 Baton Rouge parish whole, correct?

6 A. This particular paragraph does not make  
7 reference to that.

8 Q. Do you make reference to that anywhere  
9 in your report?

10 A. Well, I think the maps we just looked at  
11 make that clear.

12 Q. But that's not a consideration when  
13 you're here describing how Mr. Cooper's plan  
14 departs from traditional redistricting principles,  
15 you didn't think it was important that west Baton  
16 Rouge parish was made whole in his plan?

17 A. Again, I'm not trying to provide an  
18 encyclopedic explanation for every district and  
19 every particular boundary choice.

20 Q. You also don't make any mention of any  
21 compactness scores in the East Baton Rouge area,  
22 correct?

23 A. Not in this particular section, no.

24 Q. Okay. Let's move to the house plan.

25 And let's start with the Lake Charles area.

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1 That's Secretary of State Exhibit 1 of page 90 to  
2 91. Let's start with 91. So in this Lake Charles  
3 area, Mr. Cooper splits Calcasieu into five house  
4 districts, correct?

5 A. Yes.

6 Q. Those are 33, 34, 35, 36 and 38; is that  
7 right?

8 A. Yes.

9 Q. Okay. In the enacted plan splits  
10 Calcasieu into seven districts, correct?

11 A. Yes.

12 Q. Okay. And four out of seven of those  
13 districts span multiple parishes, correct?

14 A. I believe so, yes.

15 Q. Okay. And Mr. Cooper puts all five  
16 districts wholly within Calcasieu parish, correct?

17 A. He does, yes.

18 Q. And other than your map, you don't  
19 mention that anywhere in your report?

20 A. I mean, it's here on the map. You can  
21 see it.

22 Q. But you don't cite that as one of the  
23 traditional redistricting principles you  
24 considered when you considered whether Mr. Cooper  
25 complied with traditional redistricting

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1 principles?

2 A. I did not discuss the particular choice  
3 in the county as a whole. That was not the  
4 intention of this section of the report.

5 Q. Okay. I think if we go back to page 88,  
6 maybe one more. So this is your description -- I  
7 think we can go back actually one more page, of  
8 the Lake Charles region and what we've been  
9 discussing the districts in that region. Here you  
10 talk about compactness scores again, correct?

11 A. Yes.

12 Q. All right. Here you're talking about  
13 the compactness scores for districts 34 and 36?

14 A. Yes.

15 Q. All right. 34 is a majority black

16 district in the enacted plan, correct?

17 A. Yes, that's correct.

18 Q. And when we were discussing the Senate  
19 map and the Caddo Bossier region, you said you  
20 didn't look at compactness scores for the  
21 districts that were already majority black in the  
22 enacted plan, correct?

23 A. I believe so, yes.

24 Q. And here you do?

25 A. I believe that is the case, yes.

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1 Q. And you don't mention the compactness  
2 score for HD38, which is the new majority black  
3 district?

4 A. In this particular region, I think the  
5 numbering can be a little confusing, because it  
6 might be difficult to identify which is in fact  
7 the new district.

8 Q. But you don't explain that anywhere in  
9 this section?

10 A. Well, I note the numbering of the  
11 districts in the map.

12 Q. Yes. You don't explain that it's  
13 confusing or suggests that you think HD34 is

14 really a new district anywhere in this section?

15 A. It's -- I'm sorry, I don't know that I  
16 followed the question you're asking.

17 Q. Strike that. Let's go back to Secretary  
18 of State Exhibit 1 of page 70 to 71. This is  
19 discussing the Shreveport region and the house  
20 map, correct?

21 A. Yes.

22 Q. All right. And in the enacted plan, the  
23 city of Shreveport is split among four districts;  
24 is that right?

25 A. I believe that is the case.

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1 Q. The illustrative map, the city of  
2 Shreveport the split among four districts; is that  
3 correct?

4 A. I think so. I would need to again look  
5 to be completely certain.

6 Q. Okay. In the illustrative plan, you say  
7 that city of Shreveport is divided more equally  
8 among the four districts that it's split among?

9 A. Yes.

10 Q. Okay. You say that this more equal  
11 split in Shreveport violates the traditional



12 redistricting principles of avoiding municipal  
13 splits?

14 A. I'm referring the way in which the city  
15 is divided can sometimes help us understand what  
16 was going on, what was the objective of the map  
17 maker, yes.

18 Q. Let's turn to secretary of state 1 at  
19 page 78. This is about the Natchitoches area; is  
20 that right?

21 A. Yes.

22 Q. In the Natchitoches area, the 2011 plan  
23 included the majority black district, correct?

24 A. Yes. In the --

25 Q. In the 2011 plan, so the plan was being

83

1 replaced?

2 A. In the house.

3 Q. In the house?

4 A. That's correct.

5 Q. That was house district 23?

6 A. Yes.

7 Q. The illustrative plan also includes  
8 house district 23 as a majority black district in  
9 the Natchitoches area, correct?

10 A. Yes.

11 Q. And the enacted plan relocates house  
12 district 23 to the New Orleans area, correct?

13 A. Numerically, that's where the number  
14 ended up. I don't know that beyond the number  
15 it's effectively you could say the district was  
16 dissolved and absorbed into the remaining kind of  
17 shifted south ward. The number itself is not, I  
18 don't think, especially, informative in some ways,  
19 somewhat arbitrary.

20 Q. Okay. And in the enacted plan, unlike  
21 the 2011 plan and the illustrative plan, there is  
22 no majority black district in the Natchitoches  
23 area, correct?

24 A. That's correct.

25 Q. When you describe that the district

84

1 prior HD23, was dissolved, that was because of  
2 population loss in the northern part of the state?

3 A. Yes.

4 Q. You say it's significant I think you  
5 used word noteworthy that incumbent in HD23 was no  
6 longer eligible to run because of term limits?

7 A. Yes, I believe so.

8 Q. Okay. The illustrative map similar to  
9 enacted plan moving to HD23, the illustrative map  
10 moved HD5 to the New Orleans area, correct?

11 A. Again, the number moves down there.  
12 It's not as simple as saying like it just  
13 transports the district. It's completely  
14 different population. I would say it again  
15 dissolves district 5 and generally shifts the  
16 districts in a Southeastern direction.

17 Q. Okay. HD5 was a majority white district  
18 in the 2011 plan, correct?

19 A. Yes.

20 Q. Okay. It remains a majority white  
21 district in the enacted plan?

22 A. I believe so, yes.

23 Q. You identify it here as one of the  
24 districts that's kind of moved into the area where  
25 the HD23 formerly existed?

85

1 A. Yes.

2 Q. Okay. And the incumbent in HD5 was also  
3 term limited, correct?

4 A. I believe that is the case.

5 Q. Okay. You don't mention that anywhere

6 in your report?

7 A. No.

8 Q. Wasn't noteworthy that the incumbent in  
9 HD5 was term limited?

10 A. It didn't make it into my report.

11 Q. Okay. Can we turn to Secretary of State  
12 Exhibit 1 page 94. This is discussing the Baton  
13 Rouge region and the house plan; is that right?

14 A. Yes.

15 Q. Okay.

16 DEFENSE COUNSEL: Your Honor, not to  
17 interrupt counsel, but Mr. Bash has been  
18 going for two hours. Do you think we could  
19 take a 15 minute break. He's testified  
20 longer than any other witness.

21 THE JUDGE: How much time you got.

22 PLAINTIFF COUNSEL: Five minutes.

23 THE JUDGE: Let's finish up.

24 EXAMINATION BY PLAINTIFF COUNSEL:

25 Q. So looking at the Baton Rouge region in

86

1 the house plan, you describe here that to shapes  
2 of some of these districts, correct?

3 A. Yes.

4 Q. But you don't include any numeric  
5 compactness scores; is that right?

6 A. Those again, there's plenty of places  
7 where those are reported. I don't think that it's  
8 necessarily the case that we needed to repeat  
9 that.

10 Q. Okay. In your report here at the second  
11 paragraph, on page 94, can you read that first  
12 sentence?

13 A. First the map packs white voters in HD70  
14 giving a white voting age population of  
15 69 percent; however, to accomplish this --

16 Q. I didn't need the second sentence.

17 A. Oh.

18 Q. Sorry.

19 DEFENSE COUNSEL:

20 Your Honor, can he complete his answer?

21 THE JUDGE:

22 The rule of completeness, I mean, it's  
23 in the record. You can certainly read the  
24 second sentence if you'd like to.

25 PLAINTIFF COUNSEL:

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1 I certainly have no objection to reading

2 the second sentence. I have no questions  
3 about it.

4 THE JUDGE:

5 If you want to read the second sentence,  
6 go ahead.

7 THE WITNESS:

8 However, to accomplish this, the Cooper  
9 illustrative HD70 takes on a U shape to avoid  
10 a concentration of heavily black precincts to  
11 have a substantially higher black population.

12 EXAMINATION BY PLAINTIFF COUNSEL:

13 Q. All right. So focusing on that first  
14 sentence, is avoiding packing voters based on race  
15 a traditional redistricting principle?

16 A. That is a lengthy conversation that you  
17 could ask five people and get six different  
18 answers.

19 Q. Okay. None of your other regional  
20 discussions do you discuss the packing of white  
21 voters, correct?

22 A. I think I discuss the particular racial  
23 composition of the districts. I don't use perhaps  
24 the word "pack."

25 Q. Okay.

1           A.    But I think there are many places in  
2    which I refer to the racial composition of the  
3    districts as being noteworthy.

4           Q.    You don't discuss anywhere whether the  
5    illustrative map unpacks any districts based on  
6    race as compared to the enacted plan?

7           A.    Well, I think I discuss how the  
8    illustrative map very carefully creates districts  
9    that are about 50 to 53 percent, which I think is  
10   kind of exactly what you're asking about.

11          Q.    Okay.

12          PLAINTIFF COUNSEL:

13                No further questions.

14          DEFENSE COUNSEL:

15                I have a couple. We can take a break if  
16   you want.

17          THE JUDGE:

18                Go ahead. I'll ask for redirect.

19          EXAMINATION BY DEFENSE COUNSEL:

20          Q.    Dr. Barber, the counsel talked to you  
21   about two cases in which you were discredited.  
22   Did either of those cases involve testimony on  
23   simulated maps?

24          A.    No, they did not.

25 Q. He didn't cite any cases where you were

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1 discredited where you were giving testimony about  
2 on simulations maps, correct?

3 A. That's correct.

4 DEFENSE COUNSEL:

5 I didn't write down the caption of the  
6 first case, was it Walker, Counsel?

7 PLAINTIFF COUNSEL:

8 That case was Jacobson v Lee.

9 DEFENSE COUNSEL:

10 What was it?

11 THE JUDGE:

12 Jacobson v Lee.

13 DEFENSE COUNSEL:

14 I'm sorry, Your Honor. Appreciate it.

15 EXAMINATION BY DEFENSE COUNSEL:

16 Q. So the Jacobson case, he talked about  
17 the district Court Judge discredited you. Do you  
18 know the case history of that case, Dr. Barber?

19 A. Yes.

20 Q. Do you know what happened to that case?

21 A. It went to the 11th circuit and was  
22 overturned.



23 Q. Okay.

24 DEFENSE COUNSEL:

25 Your Honor, that's all I have, except

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1 for my proffer of proof.

2 THE JUDGE:

3 We'll take a 15-minute recess.

4 (RECESS 11:00-11:15 A.M.)

5 THE JUDGE:

6 We're going to have a little change of  
7 order this morning necessitated by two  
8 things:

9 We're having some IT problems. It  
10 doesn't involve the auditory equipment or the  
11 audio equipment, but it involves the  
12 communication among chambers. We got some  
13 problems. So IT is going to come up.

14 Also, I need to make a change of  
15 personnel. I have, to be quite frank, the  
16 court reporter's sick. So we're going to  
17 bring in a new court reporter at 1 o'clock.  
18 So in that regard, put your proffer on, and  
19 then we'll see --

20 DEFENSE COUNSEL:

21 Do it now, Your Honor?

22 THE JUDGE:

23 That's what I'm saying, put your proffer  
24 on, and then we'll be in recess until 1 p.m.  
25 There is obviously permitted cross on the

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1 proffer. Mr. Thomas is going to get  
2 Mr. Chaffee now. Wait just a second until  
3 he's in position, and then you can do your  
4 proffer.

5 DEFENSE COUNSEL:

6 Thank you very much, Your Honor.

7 THE JUDGE:

8 Well, the Court doesn't need to be on  
9 the bench for this. The Court will be back  
10 at 1 p.m., but the proffer will be on the  
11 record. Any questions about the process?  
12 Okay.

13 THE CLERK:

14 All rise.

15 DEFENSE COUNSEL:

16 Proof of truth of Dr. Barber's  
17 testimony.

18 Q. Dr. Barber, you testified about your

19 understanding of the term "predominate" as a  
20 political scientist. Do you remember that?

21 A. Yes, I do.

22 Q. Do you have an opinion whether race was  
23 the predominant factor for Mr. Cooper's  
24 illustrative plans and the majority black  
25 districts that are included in those plans?

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1 A. Yes.

2 PLAINTIFF COUNSEL:

3 Objection.

4 EXAMINATION BY DEFENSE COUNSEL:

5 Q. Can you tell us what that is?

6 PLAINTIFF COUNSEL:

7 The objection is that it calls for legal  
8 conclusion. It's the same record I had made  
9 on the record earlier. I just want to  
10 preserve it for the proffer.

11 A. Say the question again.

12 Q. I'm asking you to testify as your  
13 understanding of a political scientist and not to  
14 make any legal conclusions.

15 My question is: Do you have an opinion on  
16 whether race was predominant factor in the

17 construction of Mr. Cooper's illustrative maps, in  
18 particular majority black districts?

19 A. Yes. I think it's clear from looking at  
20 the simulations and the results of both sets of  
21 simulations, that race was the predominant factor  
22 in the drawing of the illustrative map, in  
23 particular the boundaries of those additional  
24 majority BVAP districts. I don't think that  
25 there's really any possible way that those

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1 districts could arise using the other nonracial  
2 redistricting criteria. The simulations that  
3 incorporate those criteria produced maps are so  
4 far distant and different from the illustrative  
5 map that it is simply statistical impossibility  
6 that those criteria could give rise to the  
7 illustrative map without race being the  
8 predominant factor.

9 DEFENSE COUNSEL:

10 No further questions. Thank you, Dr.  
11 Barber.

12 PLAINTIFF COUNSEL:

13 Just want to renote the objection for  
14 the record. Objection that the question

15 about predominance calls for legal  
16 conclusion. Also have an objection that the  
17 answer went well beyond the scope of the  
18 report.

19 DEFENSE COUNSEL:

20 Thank you, Dr. Barber.

21 THE CLERK:

22 We're in recess until 1 o'clock.

23 (RECESS 11:00-1:00 P.M.)

24 THE JUDGE:

25 Call your next witness and if counsel

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1 please make appearances, we do have a new  
2 court reporter.

3 DEFENSE COUNSEL:

4 John Walsh. The defense will call  
5 Sherri Hadskey.

6 (WITNESS SWORN).

7 THE CLERK:

8 Please state your name and spell it.

9 THE WITNESS: Sherri Whartton Hadskey

10 S-H-E-R-R-I, W-H-A-R-T-O-N, H-A-D-S-K-E-Y.

11 THE JUDGE: Go ahead, Mr. Walsh.

12 EXAMINATION BY DEFENSE COUNSEL:

13 Q. Good afternoon, Mrs. Hadskey. Where are  
14 you currently employed?

15 A. For the Louisiana Secretary of State.

16 Q. And in what position do you held with  
17 Secretary of State's office?

18 A. I'm the Commissioner of Elections.

19 Q. How long have you held this position?

20 A. I was appointed in 2017.

21 Q. And would you mind walking through the  
22 Court through your history working with the  
23 Secretary of State's office in the various  
24 positions you held?

25 A. Sure. I started in 1986, and I was an

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1 elections program specialist, and I moved to the  
2 elections operations director. Then from the  
3 director, I moved into the commissioner of  
4 elections position.

5 Q. In the position of commissioner of  
6 elections, what are your duties and  
7 responsibilities?

8 A. As commissioner of elections, I oversee  
9 the elections process, the dredge of machines, the  
10 storage of the machines, the qualifying of

11 candidates, the process of building the ballots  
12 and programming the ballots, the election night  
13 tabulation and results and the audit process, just  
14 oversight of elections.

15 Q. Commissioner Hadskey, are you registered  
16 to vote?

17 A. I am.

18 Q. And when did you register?

19 A. In 1983.

20 Q. When you registered to vote, what were  
21 the mechanics of registration at that time?

22 PLAINTIFF COUNSEL:

23 Objection, Your Honor; relevance.

24 THE JUDGE:

25 What is the relevance, Mr. Walsh?

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1 DEFENSE COUNSEL:

2 Your Honor, I'm just trying to lay the  
3 foundation talk about voting in Louisiana and  
4 where voting has come since 1983 quite  
5 frankly.

6 PLAINTIFF COUNSEL:

7 Excuse me Your Honor, my name is Amanda  
8 Giglio, G-I-G-L-I-O, for the Plaintiffs, My

9           apologies.

10          THE JUDGE:

11               Overruled. I'll allow it.

12          A.   At that time, I had to go into the  
13 registrar of voters office and fill out an  
14 application in person.

15          Q.   Is that still how you register to vote  
16 today?

17          A.   It's one way, but that's not the only  
18 way.

19          Q.   What other ways can you register to vote  
20 in Louisiana today?

21          A.   Currently in Louisiana, of course you  
22 can register online. You can go to OMV or DMV and  
23 register. We have many private elections around  
24 the state. We do school elections. We bring  
25 registration cards to seniors to introduce them to

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1   the elections process. It's an instructional  
2 mechanism. Social service offices have voter  
3 registration available. Of course, online, you  
4 can register online. And yes, there's many ways,  
5 various ways.

6          Q.   You mentioned two acronyms, I just want



7 to be clear for the record, you said OMV?

8 A. Office of Motor Vehicles and Department  
9 of Motor Vehicles.

10 Q. That was DMV?

11 A. Yes.

12 Q. Do you have to be a certain age to  
13 register to vote in Louisiana?

14 A. Yes, you do.

15 Q. What age is statewide order?

16 A. 16.

17 Q. What age can you start voting?

18 A. 18.

19 Q. So you're saying you can preregister at  
20 16?

21 A. That's correct.

22 Q. And then let's just say if your birthday  
23 is July 1st, there's an election on July 1st,  
24 you've preregistered, can you vote that day?

25 A. Yes. The day you turn 18, you're

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1 eligible to vote.

2 Q. If you preregister?

3 A. If you preregister.

4 Q. Whose role is it in Louisiana -- strike

5 that. Whose primarily responsible for voter  
6 registration in Louisiana?

7 A. That's the registrar of voters.

8 Q. Does the Secretary of State do anything  
9 to support the registrar of voters?

10 A. The Secretary of State's office  
11 currently has a system, the errand system,  
12 elections registration, information network. And  
13 it houses the informations that input by the  
14 registrar of voters. It's ministerial in aspect  
15 of the voter registration process.

16 Q. Are there any reasons for which a voters  
17 registration could be canceled in Louisiana?

18 A. There's a few reasons that it could be  
19 canceled.

20 Q. What are those?

21 A. Of course if you pass away, if you die,  
22 then your voter registration is canceled. If you  
23 are inactive and you miss two federal elections,  
24 your name is published in the newspaper, and the  
25 attempt to reach you is there, but you are

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1 canceled after missing the two federal, and you're  
2 inactive. If you move out of state, you can

3 contact the State of Louisiana and notify them  
4 that you are no longer wishing to be registered in  
5 our state, that you've moved, and you're in  
6 another state. And then if you're convicted of an  
7 elections crime, they can cancel your  
8 registration.

9 Q. Is an elections crime the only crime for  
10 which you can have your registration canceled?

11 A. To my knowledge, yes.

12 Q. If a voter is convicted of a felony that  
13 is not an elections crime, what happens to their  
14 registration?

15 A. They're suspended.

16 Q. Is there a mechanism for the suspension  
17 to be lifted?

18 A. Yes. By law, there's a mechanism after  
19 five years of being incarcerated to reregistering,  
20 have your registration off the suspended list and  
21 on to the active list.

22 Q. Let's switch gears. Do you remember the  
23 first time you voted?

24 A. Yes.

25 Q. When was that?

1 A. In 1983.

2 Q. How did you vote in 1983; what was the  
3 process?

4 A. I went to the precinct and voted at the  
5 precincts.

6 Q. At that time in 1983, was that the only  
7 way to vote in Louisiana?

8 A. To my knowledge.

9 Q. And since you cashed your first vote in  
10 Louisiana, in 1983, have the ways or -- expand the  
11 ways you can cast the vote?

12 A. Yes.

13 Q. Tell the Court the ways you can cast the  
14 vote?

15 PLAINTIFF COUNSEL:

16 Your Honor, I'm really struggling to see  
17 the relevance of this testimony to issues  
18 related to redistricting.

19 DEFENSE COUNSEL:

20 Your Honor, we had testimony earlier  
21 this week that talked about the difficulties  
22 that they had in voting. I think this is  
23 important for the Court to know the way we  
24 have expanded greatly voting in Louisiana  
25 over the years.

1 THE JUDGE:

2 The historical perspective is part of  
3 the Senate factors in totality of  
4 circumstances, so I'm going to allow the  
5 question. Overruled.

6 EXAMINATION BY DEFENSE COUNSEL:

7 Q. Can you explain to the Court the ways we  
8 now have to vote in Louisiana today?

9 A. Sure. In Louisiana, currently, of  
10 course, you can apply for an absentee by mail  
11 ballot. If you meet the application requirements,  
12 you can receive a mail ballot. You also have  
13 nursing home voting, where the nursing home can  
14 enroll in a program, and they're allowed to vote  
15 at the nursing homes. We also have early voting  
16 in person. And you can go for -- there's no  
17 excuse necessary, and it's seven days, Saturday to  
18 Saturday. Sunday is not a voting day in person  
19 early voting. And then military and overseas,  
20 they have the right to request an e-mail ballot.  
21 If you are wanting to vote by fax, you can vote by  
22 fax. There's a fax process. If you're  
23 hospitalized, the registrar of voters works with

24 the hospital facilities to allow you to vote and  
25 then also if you are incarcerated but you're not

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1 convicted of a felony, you can also request a  
2 ballot, and the registrar works with the  
3 facilities, the correctional facilities for that  
4 process.

5 Q. Do we have any programs that senior  
6 citizens can participate in?

7 A. If you're over 65, you can enroll in the  
8 mail ballot absentee by mail ballot program.  
9 You're automatically mailed a ballot to your house  
10 for every election. You don't have to vote that  
11 ballot. You could go in person, but you're  
12 automatically enrolled in that program to receive  
13 a ballot. If you're disabled, you can also  
14 receive a ballot in the disability program.

15 Q. Let me ask a little bit more about early  
16 voting in person. And you mentioned that early  
17 voting runs from Saturday to Saturday. Is that  
18 the same for federal elections?

19 A. No. For federal election, it's Tuesday  
20 to Tuesday; however in Louisiana, the law changed  
21 not long ago for press determine elections, it's

22 ten days of early voting.

23 Q. Prior to election day, where can a  
24 citizen find their ballot?

25 A. Currently, in the state, if you're

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1 looking for a sample ballot, you can go to the go  
2 vote app., and look at your sample ballot.  
3 There's a voter portal that has the sample ballots  
4 available. And then in the precincts or during  
5 early voting, there are sample ballots required by  
6 law to be available to all voters.

7 Q. You mentioned the go vote app. Whose  
8 app is that?

9 A. It's the Secretary of State's app. It's  
10 a free app. You download it, and you can review  
11 everything. You can review your pooling location.  
12 You can look at your sample ballot, your party,  
13 all of your information, your registrar of voters  
14 addresses, things like that.

15 Q. Commissioner, let me ask you another  
16 question around polling locations. You previously  
17 said you worked in elections operations earlier in  
18 your career; is that correct?

19 A. That's correct.

20 Q. Who's responsible for selecting pooling  
21 locations in Louisiana?

22 A. Pooling locations are selected by the  
23 parish governing authority. Each parish governing  
24 authority selects the pooling location, and then  
25 they have to make sure that it meets the

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1 disability requirements. Once it's selected, they  
2 are required to send an ordinance or a resolution  
3 to the Secretary of State's office. And when  
4 that's received, it's entered into the errand  
5 system. And it populates the go vote app, and it  
6 also populates the voter cards that are sent to  
7 the voters saying that their polling location  
8 has changed.

9 Q. Commissioner, voting machines in  
10 Louisiana, do we have new ones, do we have old  
11 ones, what's the status of?

12 A. Election day voting machines currently  
13 are legacy machines. They were purchased in 1991.  
14 They are old. We are in the process of trying to  
15 obtain new machines.

16 Q. Are these machines web based?

17 A. No.



18 Q. So there's no internet capabilities with  
19 these machines?

20 A. No.

21 Q. Once a voter casts their vote, is there  
22 a way to change that vote with these machines?

23 A. No.

24 Q. In your experience as commissioner, have  
25 you ever seen a vote be changed with these

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1 machines?

2 A. No, I have not.

3 Q. You mentioned that they're old machines?

4 A. Yes.

5 Q. Do you ever have problems with them?

6 A. Yes, we do.

7 Q. Tell me what kind of problems do we  
8 have?

9 A. On election day, we have problems with  
10 the mechanics of the machines. We have certified  
11 technicians that have procedures to repair any  
12 voting machine that has a problem, any voter that  
13 is in a voting machine that has a problem, exits  
14 that machine and is put on to another machine  
15 until the technician can repair that machine.

16 Q. Has it ever prevented an election from  
17 occurring any problems with these machines, have  
18 elections been held up because of them?

19 A. No.

20 DEFENSE COUNSEL:

21 Can I have one moment, Your Honor?

22 THE JUDGE:

23 Yes.

24 DEFENSE COUNSEL:

25 Commissioner Hadskey, that's all the

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1 questions I have for you.

2 THE JUDGE:

3 Counsel, I'm going to give you fair  
4 notice. You're probably going to object that  
5 it's outside the scope of cross. I want to  
6 know what the timeline is. If you don't want  
7 to ask it, I'll ask it.

8 DEFENSE COUNSEL:

9 That's fine, Judge.

10 PLAINTIFF COUNSEL:

11 Excuse me, Your Honor, we would maintain  
12 that Ms. Hadskey doesn't have the sufficient  
13 personal knowledge to testify as to the

14 timing of redistricting. I can explain if  
15 Your Honor would like.

16 At her deposition Mrs. Hadskey indicated  
17 she had to speak with her administrative  
18 managers and what she supervisors of business  
19 and services division, to specifically the  
20 timing relating to redistricting matters.  
21 She has no personal knowledge of that, and  
22 any testimony she gives will be hearsay.

23 THE JUDGE:

24 Mrs. Hadskey, are you able to give this  
25 Court firsthand knowledge about the deadlines

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1 and dates or things -- for things like  
2 publishing the ballots, the last possible,  
3 day you can publish a ballot; can you give  
4 firsthand knowledge on that?

5 THE WITNESS:

6 My business and service division does  
7 develop the timeline with that. I have  
8 checked with them. I know what their  
9 thoughts are, but I don't do it myself, but  
10 I'm happy to provide whatever the Court needs  
11 to my knowledge.

12 PLAINTIFF COUNSEL:

13 I would also offer Your Honor if I may,  
14 that Mrs. Hadskey herself has never worked in  
15 the business and services business division.  
16 She worked in elections operations which  
17 deals with ballot building.

18 THE JUDGE:

19 Y'all don't really know want to know  
20 what the timeline is? Why wouldn't y'all  
21 want to know?

22 PLAINTIFF COUNSEL:

23 We would maintain that Mrs. Hadskey  
24 can't tell us. She's not the proper witness  
25 to tell us that information.

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1 THE JUDGE:

2 Can you tell us the timeline.

3 THE WITNESS: I can tell you what's in the.

4 Ballot box, the dates that are in the  
5 ballot box.

6 THE JUDGE:

7 What is that?

8 THE WITNESS:

9 The ballot box is what business and

10 service puts together. It has every date in  
11 there for the upcoming elections.

12 THE JUDGE:

13 Give me an example.

14 THE WITNESS:

15 For an example, upcoming is the  
16 presidential preference primary, what are the  
17 qualifying dates. what the last date to call  
18 a special, when is early voting, that type of  
19 thing.

20 THE JUDGE:

21 You don't want to know those dates?

22 PLAINTIFF COUNSEL:

23 Your Honor, we would be -- if  
24 Mrs. Hadskey could to testify to that in her  
25 personal knowledge, that is perfectly

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1 sufficient for Plaintiffs. We would maintain  
2 that if Defendants seek to lodge any prcella  
3 objections. It's their responsibility to  
4 proffer evidence on those objections, and  
5 they haven't done that with Ms. Hadskey.

6 THE JUDGE:

7 Oh, so you think they're not laying a

8 foundation for a subsequent precella?

9 PLAINTIFF COUNSEL:

10 That's precisely our position, yes.

11 THE JUDGE:

12 Does anybody care they might need to  
13 know so that I can do what the Court of  
14 appeal has told me to do in the Robinson case  
15 and what the U.S. Supreme Court said to do in  
16 the Milligan case.

17 PLAINTIFF COUNSEL:

18 Your Honor, we would maintain that the  
19 secretary's office has already made  
20 representations to the fifth circuit --

21 THE JUDGE:

22 In the congressional case.

23 PLAINTIFF COUNSEL:

24 Yes, Your Honor.

25 THE JUDGE:

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1 Is this timeline the same as the  
2 congressional case? I hate to sound  
3 ignorant, but is it?

4 PLAINTIFF COUNSEL:

5 We don't know. Mrs. Hadskey hasn't put

6 on any affirmative testimony on that issue.

7 THE JUDGE:

8 Well, do your cross-examination, I'll

9 think about it. But go ahead.

10 EXAMINATION BY PLAINTIFF COUNSEL:

11 Q. Good afternoon, Mrs. Hadskey.

12 A. Hello.

13 Q. My name is Amanda Gilio. I'm here

14 representing the Plaintiffs. I just -- you

15 started working in the Secretary of State's office

16 in 1986, correct?

17 A. That's correct.

18 Q. That was -- it was called a different

19 thing at that time, though, it was the department

20 of elections; isn't that right?

21 A. Department of elections and

22 registration, yes, under Jerry Faller.

23 Q. And the department of elections was

24 responsible for machines and tabulation; is that

25 right?

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1 A. They were responsible for the voting

2 machines, and tabulation back then was lever

3 machines, so there was no transmission, there was

4 no audits, it was done on the parish level more so  
5 than the state.

6 Q. When the department of elections and the  
7 Secretary of State, they merged; isn't that right?

8 A. That's correct.

9 Q. When they merged, you started working as  
10 an elections director over balloting?

11 A. The balloting department is now the  
12 business and service division. The machine  
13 programming department was operations.

14 Q. And you worked in operations, correct?

15 A. And I worked in operations, that's  
16 correct.

17 Q. In around 2008, you became the director  
18 of operations?

19 A. That's correct.

20 Q. While you were the director of  
21 operations, you didn't have anything at all to do  
22 with redistricting, right?

23 A. No. Well, take that back. Whenever you  
24 redistrict, and you change districts in the state,  
25 it changes the data basis for the programming

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1 portion of it, the ballot building portion. So



2 simply data entry to change that is what was done  
3 in operations.

4 Q. Understood. So now is the commissioner  
5 of elections, you supervise operations?

6 A. I do.

7 Q. You service the business and services  
8 division?

9 A. I do.

10 Q. The business and services business is  
11 what handled things like redistricting?

12 A. That's correct.

13 Q. But you never worked in the business and  
14 services group yourself?

15 A. No.

16 Q. And in preparing, do you recall giving a  
17 deposition in this case?

18 A. I do.

19 Q. And you served as the 30(b)(6) witness  
20 for the Secretary of State's office; isn't that  
21 right?

22 A. I don't know what 30(b)(6) means, I'm  
23 sorry.

24 Q. , that's fine so. When you salt for  
25 your deposition, you were representing both

1 yourself and the office of the Secretary of State;  
2 isn't that right?

3 A. Yes.

4 Q. And to prepare for your deposition, you  
5 spoke to administrative managers in the businesses  
6 and services group, correct?

7 A. I did.

8 Q. Without talking to them, you wouldn't  
9 know the timeframes involved in administering an  
10 election, correct?

11 A. That is correct.

12 Q. One of those tasks involved in  
13 redistricting is updating voter districts isn't  
14 that right?

15 A. Updating voter districts on a  
16 legislative level. On a local level, it's done by  
17 the locals.

18 Q. Understood. And at your deposition, you  
19 said that you had no way to estimate how much work  
20 your office would need to do to reconcile new maps  
21 with work you did on old instance that right?

22 A. Right, not without asking the business  
23 and service director.

24 Q. And someone in business and services is

25 also responsible for up loading the new maps into

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1 errand; isn't that right?

2 A. Yes, they are.

3 Q. That's a system you mentioned earlier?

4 A. Correct.

5 Q. The secretary uses? And you don't have  
6 any direct knowledge of what that process is isn't  
7 that right?

8 A. I've never done it myself.

9 Q. And another step involved in  
10 redistricting is to provide voters notice of their  
11 district change, correct?

12 A. Correct.

13 Q. And that's communicated by voter cards?

14 A. That's correct.

15 Q. Your office prepares voter cards by up  
16 loading in errand to state prints?

17 A. That's right.

18 Q. USPS delivers those voter cards to the  
19 voters?

20 A. That's correct.

21 Q. But you don't know how long it takes  
22 between inputting changes into errand and getting

23 voter cards right?

24 A. That's correct. The only information  
25 that I have about that is when a registrar has

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1 problems with USPS and a delay, they notify us,  
2 because we have a regional USPS director that we  
3 have to turn problems in to where people are  
4 receiving cards late or not receiving ballots,  
5 things like that. That's my limited knowledge of  
6 that.

7 Q. Understood Commissioner Hadskey you  
8 haven't worked in the operations group six years?

9 A. It's been a while.

10 Q. Because you've been the commissioner?

11 A. That's correct.

12 Q. It's been a while since you've had your  
13 hands in the weeds of ballot building?

14 A. Correct. Although.

15 Q. Sorry. Go ahead.

16 A. I'm very sorry. Although, we were so  
17 hope full to get new equipment and that means new  
18 programming, so my knowledge would not be as vast.  
19 But because we still have the legacy equipment, I  
20 do have certain knowledge of the way that it's

21 programmed. They've advanced somewhat on the  
22 import system. So I wouldn't have as much, but I  
23 do have somewhat of knowledge of it, because it's  
24 so old.

25 Q. Right. And because it's so old, you

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1 spoke to the groups that are currently in your  
2 operations or the administrative managers that are  
3 currently in your operations do you to prepare for  
4 your deposition; assistant?

5 A. I did.

6 Q. To make sure the process they use now  
7 are the same or that you understood the  
8 differences between the processes now and the  
9 processes that were in play when you were actually  
10 working in operations; isn't that right?

11 A. Correct.

12 Q. So Mrs. Hadskey, I'd just like to take a  
13 minute to discuss a couple of the steps that the  
14 secretary has indicated that they used to  
15 implement redistricting?

16 A. Okay.

17 Q. Now, my understanding is that the first  
18 step is proof reading the map; isn't that right?

19 A. That's correct.

20 Q. And that involves lining out the  
21 precincts to confirm that the right voters are in  
22 the right areas; is that right?

23 A. To my knowledge, that is correct. And  
24 it's a three step process. It's not just proofing  
25 by one individual or two individuals. They take

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1 it and proof it according to my elects business  
2 and service director. They proof it, and then  
3 they have a different set of ice, proof it again  
4 and a different set of eyes proof it again,  
5 because the concern is wanting to be absolutely  
6 certain that everything is accurate.

7 Q. Sure. You don't want to give a voter  
8 incorrect information?

9 A. That's correct.

10 Q. But sitting here today, you don't know  
11 how long it would take to proof read new maps for  
12 the state house and the state Senate given that a  
13 proof reading process has already been done with  
14 the past maps; isn't that right?

15 A. What I do know is from my questions, is  
16 that the more districts that are changed, the

17 longer it takes. So in other words, if you only  
18 changed three districts or four districts, the  
19 time would not be as long as if you changed 64  
20 districts.

21 Q. Well, let me ask you a couple of  
22 questions about that then. You mentioned that  
23 it's an issue of a number of districts changed.

24 A. To my knowledge.

25 Q. Okay. But the number of districts --

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1 but the proof reading process occurs voter by  
2 voter isn't that right?

3 A. The proof reading process for  
4 legislative, yes, voter by voter. The parish  
5 level races, it's also done voter by voter, but  
6 it's a combination of the local registrar of  
7 voters and then also our department will assist  
8 them when they can.

9 Q. And so in this instance, given that  
10 we're dealing with the state house and the state  
11 Senate maps, that would be a potentially voter by  
12 voter question; isn't that right?

13 A. Yes, parish by parish, and then voter by  
14 voter, except when you move an entire parish into

15 a new district and the lines are drawn and it is  
16 the entire parish, no matter what, then it's  
17 proofed not only to make sure the voters are in  
18 the right districts, because redistricting in  
19 other areas, you want to make sure everything is  
20 correct. And also, I think you may know, or maybe  
21 you don't know, recently, part of Vermillion  
22 parish became part of Iberia Parish, so making  
23 sure when things like that don't happen, making  
24 sure it's accurate.

25 Q. Are you aware whether the legislative

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1 proofing process for the state house and state  
2 Senate is similar the same to the legislative  
3 proofing process for the congressional maps, both  
4 deal with legislative issues?

5 A. Yes. To my knowledge it is.

6 Q. So the proof reading process is the same  
7 for both the state and the congressional maps?

8 A. It should be.

9 Q. And commissioner Hadskey, are you aware  
10 that the Secretary of State is being sued in a  
11 separate litigation dealing with the congressional  
12 map?



13 A. Yes, am I.

14 Q. Are you aware that the legislature could  
15 potentially cast new maps governing Louisiana's  
16 congressional districts no later than  
17 January 30th, 2024 as a result of that litigation?

18 A. Yes.

19 Q. Are you aware that your counsel in that  
20 litigation represented that in the event that the  
21 Louisiana legislature does not pass a map that is  
22 compliant with the voters rights act by then, that  
23 the secretary would ideally have a map in place  
24 and know what map is going to be used in 2024 by  
25 late May?

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1 A. Yes.

2 Q. You just said the proof reading process  
3 for that map and this map would be the same,  
4 correct?

5 A. Yes, it should be.

6 Q. Just to be clear, certain things also in  
7 this -- in the congressional litigation, every  
8 voter could be impacted by the scope of the change  
9 to the map isn't that right?

10 A. Yes.

11 Q. And in this litigation, that's not the  
12 case; isn't that right?

13 A. I haven't been in here, but I believe  
14 the discussion has been not a statewide, but only  
15 certain districts. And if that's the case, then  
16 it wouldn't be all voters in the state.

17 Q. Exactly. So the proof reading process  
18 wouldn't necessarily have to include all voters in  
19 dealing with the new maps in this case?

20 A. That would be correct. I'd also like to  
21 talk to.

22 Q. I'd also like to you a little bit about  
23 special elections.

24 A. Okay.

25 Q. So special elections generally involve

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1 the same basic procedural deadlines as any  
2 election in Louisiana right?

3 A. Yes.

4 Q. Generally?

5 A. Generally.

6 Q. So if they have a qualifying deadline?

7 A. Yes.

8 Q. And then a primary?

9 A. Yes.

10 Q. And then a general?

11 A. Depending on if three candidates  
12 qualify, you have a general two candidates  
13 qualify, you don't have a general.

14 Q. Got it. That's very helpful. Special  
15 elections are called by the governor; isn't that  
16 right special elections can be called by the  
17 legislature. And the governor?

18 A. The speaker of the house, yes.

19 Q. Got it.

20 A. And the governor assigns it. But they  
21 call about the dates and require that. I'm not a  
22 lawyer. So forgive me if I miss something on that  
23 process.

24 Q. Well, forgive me if I miss something on  
25 that process. So the Secretary of State doesn't

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1 set the timing for special elections; isn't that  
2 right?

3 A. No, they do not.

4 Q. The legislature, this is my  
5 understanding and I'd like for you to see if  
6 that's right. The legislature sets the qualifying

7 deadline for a special election right?

8 A. That is correct.

9 Q. And then the date for the primary  
10 election is set relative to the qualifying  
11 deadline right?

12 A. That is correct.

13 Q. The date for a general election if one  
14 is required is set based on the primary date, the  
15 date of the primary election?

16 A. Correct.

17 Q. And your office sometimes tries to make  
18 recommendations to the legislature about what the  
19 qualifying date for these elections should be;  
20 isn't that right?

21 A. Based on trying to save the state money,  
22 if there's an election coming up, and there's a  
23 general date that could be used for both, then  
24 trying to call a primary where the general would  
25 fall into place, so you're saving the state

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1 instead of having two separate elections and then  
2 another election.

3 Q. Sure. So in the event that a special  
4 election is necessary, it makes sense to schedule

5     them as the same time as exists elections on the  
6     calendar?

7             A.    If you can.

8             Q.    So you can save money?

9             A.    Correct.

10            Q.    Because the same administrative needs  
11     are required as are needs for any election?

12            A.    Correct. But the legislature, they may  
13     have their own reasons for looking for the dates,  
14     such as wanting to have a seat filled so that that  
15     district is represented, which doesn't fall into  
16     our other dates. So the cost of it may not be the  
17     number one priority.

18            Q.    Sure.

19            A.    It just depends on what they're looking  
20     for.

21            Q.    Got it.

22            A.    In other words, there's been times that  
23     I was told I know you set these dates, but these  
24     are the dates we're using.

25            Q.    Sure.

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1            A.    It's not up to me to question their  
2     reason for the dates.

3 Q. Yes, ma'am you guys make it work, right?

4 A. That's correct.

5 Q. In the amount of staff that you need to  
6 administer elections depends on a lot of things,  
7 right, like the number of candidates?

8 A. Not as much as the number of candidates.  
9 The number of races, how big the parish is, if  
10 it's a partial parish OR a full parish. If it's a  
11 statewide, et cetera. But the procedures to set  
12 up an election and to all the preliminary work and  
13 the testing, and et cetera is no different. We  
14 have to make sure that every single motion is  
15 completed to ensure the security and the accuracy  
16 of the election. In other words, we can't skip  
17 something, you know, to try and save time.  
18 There's no way. We would want it to be accurate.

19 Q. Got it. But there are some  
20 administrative things that might make the process  
21 for building a ballot say a little bit easier;  
22 isn't that right. If the election is uncontested,  
23 for example?

24 A. If the election is uncontested, then  
25 there's not a general election, if it was only two

1 candidates. You wouldn't have that.

2 Q. Commissioner had, in recent years,  
3 Louisiana has had at least four elections every  
4 year isn't that right?

5 A. Yes.

6 Q. So in 2019, there were six elections  
7 isn't that right?

8 A. Correct.

9 Q. In 2020, there were four elections.

10 A. Yes. The max I ever remember conducting  
11 in a single year was 12, 12 elections in a single  
12 year. It just depends on -- and several of those  
13 elections dates have been done away with. We used  
14 to have a proper election date in July. It was  
15 legally mandatory in in July. They've done away  
16 with that one.

17 Q. Understood. In the 2023 cycle, there  
18 were six elections, isn't that right, this year?

19 A. Six dates original? Well, not  
20 scheduled. We had an exact tie, I believe it was,  
21 that caused a January election, similar to what's  
22 going on right now. We have two exact ties from  
23 this past general. So now we have a December  
24 election. In those two parishes. The law  
25 requires that if an exact tie occurs you have to

1 conduct another election. So it might not have  
2 been a scheduled. It was the repercussions of  
3 having the fact tie.

4 Q. So ultimately there's seven elections  
5 this year; isn't that right?

6 A. Yes.

7 Q. And those elections include special  
8 elections?

9 A. Yes.

10 Q. And let me show you what's been  
11 preadmitted as Plaintiff's Exhibit 169. That's  
12 the 2023 election calendar.

13 A. Okay.

14 Q. So in 2023, if you look at the second  
15 column under February 18, you can see that there  
16 is an election for state house district; isn't  
17 that right?

18 A. That is correct.

19 Q. That's the 93rd district?

20 A. That is.

21 Q. And if you look at those dates for that  
22 election, you can see that the qualifying dates  
23 were January 11th, 2023, to January 13th 2023;



24 isn't that right?

25 A. That's correct.

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1 Q. The primary date for that election is  
2 right at the top, isn't that right, the  
3 February 18th date?

4 A. That is correct.

5 Q. If you look to the column directly to  
6 the right of Plaintiff's Exhibit 169, you'll see  
7 that there is a special general election for  
8 Orleans state representative, and then house  
9 district 93. So the general election occurred  
10 about a month later; isn't that right?

11 A. The general election that was one of the  
12 circumstances where -- what I was talking about  
13 earlier, the primary came so that the general  
14 would fall on an already scheduled municipal  
15 primary date.

16 Q. Makes sense. You also -- we can take  
17 this exhibit down. Things. In 2022, there was  
18 another special election for state Senate  
19 district; isn't that right?

20 A. In 2022, in January, I believe.

21 Q. I think it was later in the year. So it

22 was for district 5. Do you recall that?

23 A. No, but if you show it to e many, it  
24 will jar my memory.

25 Q. Sure. I don't have that calendar right

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1 here for you, but I can tell you that it was after  
2 senator Peterson resigned from office in April of  
3 2022. Does that ring any bells?

4 A. It does.

5 Q. And senator cortices set a special  
6 election for that or set the deadlines for that  
7 special election isn't that right?

8 A. Yes.

9 Q. And that special election took place on  
10 the same dates as the federal elections that took  
11 place in 2022; isn't that right?

12 A. Yes.

13 Q. And commissioner Hadskey, get that right  
14 at some point?

15 A. That's okay.

16 Q. You could not think at your deposition,  
17 you couldn't think of any reason why a special  
18 state election couldn't happen at the same time as  
19 a federal e extremity; is that right?

20           A.   That's correct. My only concerns I  
21 mentioned it before, is with the legacy machines,  
22 the real estate on the ballot. So in June, we  
23 have the deadline to call a prop. And in July, we  
24 have the legislature providing us with  
25 constitutional amendments. The most I've ever

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1 seen, I think, was about 17. So with the  
2 presidential taking up two columns and it keeps  
3 growing every year, and our state is one of the  
4 only states that requires the elects token to be  
5 listed on the ballot, which takes up a lot of  
6 room. And then you fall in the with the local  
7 races, and then you fall in with the props and the  
8 C As. So my concern would be, I can't buy any  
9 more of these machines to have more machines to  
10 run the ballot over to. So that would be my  
11 concern. That would be one of my biggest  
12 concerns.

13           Q.   Understood but if the circumstances  
14 called for it, if it would say, save  
15 administrative time, save administrative money,  
16 you could try to make it work?

17           A.   We would try. If it ever flowed, I

18 would throw the problem back to somebody else  
19 legislatively or legally to say, I can't --  
20 there's not enough buttons on here. The other  
21 concern is, we have a Senate race where 22 people  
22 qualified. The more candidates that qualify, and  
23 the more that everybody put on there, unlike most  
24 of the rest of the nation where they have page  
25 ballots where you can keep paging over to go to

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1 the next ones, so yes, it would end up being  
2 somebody's legal problem that -- I mean, because  
3 the bottom line is, I can only do what I can do on  
4 that machines. There's only so many buttons.

5 Q. Understood Commissioner Hadskey, this  
6 goes without saying, I think, but given your  
7 testimony today, but you would seek to fill full  
8 your responsibility to ensure that all elections  
9 run on schedule, that's required; isn't that  
10 right?

11 A. Absolutely.

12 Q. And that includes special elections that  
13 are called?

14 A. Yes, it does, absolutely.

15 Q. And other entities have imposed

16 requirements on elections before, right, outside  
17 of the secretary's office?

18 A. Meaning the legislature.

19 Q. The legislature?

20 A. Yes.

21 Q. And Courts?

22 A. Yes.

23 Q. And the governor?

24 A. Yes.

25 Q. And you've complied with all of those

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1 requirements; isn't that right?

2 A. We have.

3 Q. Related to election administrative?

4 A. Related to elections administration.

5 However, it is my job as commissioner to bring up

6 to the Courts or to the legislature or to the

7 secretary himself when something is not being met

8 because of a requirement that has been put on us,

9 and I make sure that that is documented and noted.

10 So if by chance somebody files something after the

11 election date, based on that, then there's

12 evidence of what occurred.

13 Q. Sure.

14           A.   And that happens with emergency  
15 elections also, when you have emergencies that  
16 fall into place and some deadline is having to be  
17 overlooked, it's none in case somebody were to  
18 file some contest suit or say there was a problem  
19 with it.

20           Q.   Understood.  Be even if under those  
21 circumstances, you would make every effort to  
22 comply with what was required?

23           A.   I will always what's required with me.

24           PLAINTIFF COUNSEL:

25                   Let me confer with my counsel briefly,

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1           Your Honor.

2                   No further questions, Your Honor, I  
3 tender the witness.

4           THE JUDGE:

5                   Redistrict.

6           DEFENSE COUNSEL:

7                   No, Your Honor.

8           THE JUDGE:

9                   Next witness.

10          DEFENSE COUNSEL:

11                   This is Patrick Lewis for the

12 legislative Defendants, and we call Dr. Alan  
13 Murray.

14 (WITNESS SWORN).

15 THE CLERK:

16 Would you please state your name and  
17 spell it.

18 THE WITNESS: Alan Murray,  
19 A-L-A-N-M-U-R-R-A-Y.

20 DEFENSE COUNSEL:

21 Your Honor, may I approach the witness  
22 to provide him with a binder containing his  
23 reports and report exhibits.

24 THE JUDGE:

25 You may.

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1 EXAMINATION BY DEFENSE COUNSEL:

2 Q. Good afternoon, Dr. Murray. I'd like to  
3 turn now to Exhibit LDTX42, which is in the  
4 binder, I just handed you. Do you recognize this  
5 document, Dr. Murray?

6 A. Yes, I do.

7 Q. Okay. Is this your report?

8 A. Yes, it is.

9 Q. Okay. I'd like the turn -- to turn to

10 the appendix beginning on page 35, which I believe  
11 is your CV. It's up on the screen. Do you  
12 recognize this, Dr. Murray reference yes, I do.

13 Q. Is this your current CV?

14 A. Yes, it is.

15 Q. Can you explain to the Court your  
16 educational background?

17 A. I have bachelor's in mathematics, a  
18 master's in probability and statistics, and a  
19 Ph.D. in geography all California, santa Barbara.

20 Q. What are your areas of focus in your  
21 studies.

22 A. Spacial analysis, spacial analytics and  
23 GIS.

24 Q. Okay. What is the study of spacial  
25 analytics?

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1 A. Basically, the evaluation of  
2 distributions, spacial distributions of  
3 population, race, service, potential, things along  
4 those lines.

5 Q. Okay. And GIS, what is that study?

6 A. GIS is acronym for geographic  
7 information systems. They are database management



8 systems to work primarily with spacial  
9 information, specializing in data collection, data  
10 management, manipulation, analysis, and mapping.

11 THE CLERK: What I'm sorry.

12 THE WITNESS: Mapping.

13 EXAMINATION BY DEFENSE COUNSEL:

14 Q. What kind of problems or projects have  
15 you studies using spacial analytics?

16 A. A whole host of things, but early on, a  
17 lot of work in the area of school districting,  
18 work looking at transportation, access and  
19 accessibility, transportation service areas,  
20 emergency service, service areas, forest  
21 management areas, planning units, and things along  
22 those lines.

23 Q. Is the study of districting part of your  
24 work in spacial analytics?

25 A. Absolutely.

135

1 Q. Okay. And is statistics part of your  
2 academic work?

3 A. Yes, it is.

4 Q. Can you explain to the Court what kind  
5 of statistics you study as part of your academic

6 work?

7 A. My area is primarily in the associated  
8 with spacial statistic, geo-statistics, having to  
9 do with looking at spacial ought item correlation,  
10 clustering and things like that.

11 Q. On these doings including spacial  
12 analytics, GIS statistics, do you teach courses on  
13 these topics?

14 A. Yes, I did.

15 Q. Do you teach them at the graduate level?

16 A. I teach them at undergraduate and  
17 graduate levels, yes.

18 Q. Dr. Murray, do you publish peer reviewed  
19 academic literature on these topics?

20 A. Yes, I do.

21 Q. Approximately how many publications and  
22 peer reviewed publications do you have?

23 A. Over 305.

24 Q. Okay. And do you know approximately how  
25 many times your work has been cited?

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1 A. I think near 19,000 to date.

2 Q. All right. Where are you currently  
3 employed?

4           A.   I'm currently employed at the university  
5   of California Santa Barbara in the department of  
6   geography.

7           Q.   Your title there?

8           A.   I'm a professor of geography. I'm also  
9   an affiliate in the group center for demography as  
10  well as the associate director for the center of  
11  spacial studies and data science,.

12          Q.   Okay. I guess this goes without saying,  
13  do you have tenure at UCSB?

14          A.   Yes, I do.

15          Q.   Can you explain what the broom center  
16  for demography is?

17          A.   The broom center for demography at USCB  
18  is basically like a population center. So it's  
19  affiliate faculty across campus including people  
20  in economics, people in socially, people in  
21  geography. And outside in other disciplines of it  
22  due do work and research associated with  
23  population issues.

24          Q.   Okay. Spacial analytics department you  
25  mentioned, what's that?

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1           A.   The center for spacial studies, and data

2 science is a center, it's focused on basically GIS  
3 and GI science application and issues. And it's  
4 sort of second generation from the national center  
5 for geographic information and analysis that was a  
6 center funded at USCB by the national science  
7 foundation in the early 1990s.

8 Q. Does USCB have a prominent program in  
9 GIS?

10 A. Yes, it does. It's recognized as one of  
11 the top GIS, GIS science programs in the world.

12 Q. Do you use GIS software in your  
13 professional work?

14 A. Yes, I do.

15 Q. What is that software called?

16 A. I predominantly use arch GIS.

17 Q. Is Maptitude, are you familiar with  
18 Maptitude for redistricting?

19 A. Yes, I am.

20 Q. What is that?

21 A. It's also a geographic information  
22 system that suggests it is tailored to help  
23 address political redistricting problems and  
24 issues.

25 Q. Okay. And I believe you may have

1 mentioned this already, but just for the clarity  
2 of the record, does your professional work involve  
3 the studying of demographics by race?

4 A. Yes, it does.

5 Q. Okay. Have you served as an expert in  
6 redistricting litigation in the past?

7 A. Yes, I have.

8 Q. And that was the Robinson case before  
9 this Court; is that right?

10 A. Yes, it was.

11 Q. Okay. Who retained you to serve as an  
12 expert in this case?

13 A. The leaders of the Louisiana  
14 legislature.

15 Q. You provided one report in this case; is  
16 that right?

17 A. Yes, I did.

18 Q. Okay.

19 DEFENSE COUNSEL: Your Honor, we move for the  
20 admission of Dr. Murray as an expert in the  
21 fields of geography, demographic analysis,  
22 spacial analytics, as it relates to race, and  
23 statistic.

24 PLAINTIFF COUNSEL: No objection Your Honor.

25 THE JUDGE: Admitted in the fields as

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1 tendered.

2 DEFENSE COUNSEL: At this time, we would also  
3 pursuant the party's stipulation, we would  
4 move the admission of LDTX42, which is  
5 Dr. Murray's report, and LDTX43 through 50,  
6 inclusive, which comprised the exhibits to  
7 the expert report.

8 PLAINTIFF COUNSEL: No objection.

9 THE JUDGE: Admitted.

10 A. So that means I'm done?

11 THE JUDGE: Don't we wish.

12 EXAMINATION BY DEFENSE COUNSEL:

13 Q. Let's return to your report, Dr. Murray,  
14 and specifically I'd like to turn to page 2.

15 A. Okay.

16 Q. And I believe in the -- I'd like for you  
17 to just summarize for the Court what you were  
18 asked to do in this case?

19 A. In terms of this analysis, I was asked  
20 to evaluate the illustrative districts generated  
21 by Mr. Cooper, along with the enrolled 2022 and  
22 Senate and house districts.

23 Q. Were there specific aspects of those  
24 plans that you looked at in your analysis in this  
25 case?

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1 A. I was focused on looking at various  
2 sorts of things, looking at the data, veracity,  
3 and then the I suppose completeness of the  
4 analysis and correctness of the analysis, and to  
5 that end, I undertook data management manipulation  
6 sorts of tasks, I evaluated compactness. I looked  
7 at core, I look at aspects of spacial correlation,  
8 and finally looked specifically at communities of  
9 interest.

10 Q. Okay. And what sources did you analyze  
11 in formulating the opinions in your report?

12 A. I looked at the illustrative districts  
13 provided by Mr. Cooper. I also looked at the  
14 enrolled Senate and house districts provided by  
15 the legislature, as well as associated census  
16 block data, and then from the census to block  
17 boundaries. As well as I guess I should add the  
18 census block groups.

19 Q. Did you also look at any socioeconomic  
20 data?

21           A.    Yes.  That provided in the blocks as  
22   well as in the block groups, associated with ACS  
23   data, yes.

24           Q.    Okay.  So I think my first question is:  
25   Did you evaluate, did you review, I should say,

141

1   the counts of split parishes and split voter  
2   tabulation districts in the districts created in  
3   Mr. Cooper's illustrative plans?

4           A.    Yes, I do.

5           Q.    Did you review the account counts of  
6   split parishes in the DDTs in  enrolled plans?

7           A.    Yes, I did.

8           Q.    Just to make sure we have a clean  
9   record, when we're referring illustrative plans,  
10  we're referring the ones in 2023; is that right?

11          A.    That's correct.

12          Q.    For the enrolled plans, those were in  
13  2022?

14          A.    2022, yes.

15          Q.    Okay.  And is that analysis recorded in  
16  your expert report in this case?

17          A.    Yes, it is.

18          Q.    So I'd like to focus today on your



19 analysis of the number of divided voter tabulation  
20 district boundaries. So if we could start in the  
21 Senate, I believe that's on paragraph 17 between  
22 pages 11 and 12. Let me know when you get there.

23 A. Okay.

24 Q. Can you tell the Court how many voter  
25 tabulation district splits that you found in the

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1 enrolled 2022 Senate plan?

2 A. Splits for the voting districts in the  
3 enrolled plan were six. And 18 illustrative  
4 house.

5 Q. Did you mean illustrative Senate, I'm  
6 sorry?

7 A. Excuse me, Senate. There's a typo.  
8 You're correct.

9 Q. So just to make sure, it's six in the  
10 enrolled and 18 in the illustrative; is that  
11 correct?

12 A. That's correct.

13 Q. Okay. If we could then move to the  
14 house, I believe that's paragraph 23, appearing at  
15 the bottom of 15 and top of 16. And Dr. Murray,  
16 can you tell us how many voter tabulation district

17 splits you found in the enrolled 2022 house plan?

18 A. Sorry, I'm just trying to refresh my  
19 memory. ZERO for the house and eight for the  
20 illustrative house, I believe, unless, yes.

21 Q. No VDT splits in the enrolled plan?

22 A. That's correct.

23 Q. There were eight, I believe you said in  
24 the illustrative 2022 house plan?

25 A. That's correct.

143

1 Q. Okay. I'd like to turn to compactness.  
2 Dr. Murray, did you review the compactness of the  
3 district's created in Mr. Cooper's illustrative  
4 plan?

5 A. Yes, I did. He reported three different  
6 measures of compactness, Reock, Polsby Popper, and  
7 he said in the report compact hole, but he didn't  
8 report any empirical measures for those.

9 Q. Okay. Did you also review the  
10 compactness of the districts in the enrolled  
11 plans?

12 A. Yes, I did.

13 Q. Okay. So can you explain the Polsby  
14 Popper compactness metric?

15           A.    So I provided all three measures in my  
16   report on page 2; although, it was stipulated in  
17   the deposition that the Polsby Popper is missing  
18   the two Exponent on the perimeter. In the  
19   denominator perimeter -- which one did you want me  
20   to explain.

21           Q.    Just a brief overview of Polsby Popper?

22           A.    Polsby Popper is looking at the  
23   perimeter of a circle of the area of the district,  
24   divided by -- well, the perimeter -- well, the  
25   circumference of the circle of the same area, size

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1   as the district squared over the perimeter squared  
2   of the district being evaluated.

3           Q.    When was that technique developed?

4           A.    The technique is attributed to Polsby  
5   Popper in 1991, but in fact it's a measure that  
6   has existed since the 1800s at least.

7           Q.    Okay. How about the Reock metric, what  
8   does that measure?

9           A.    The Reock is the area squared or area  
10   over the smallest enclosing circle of that area.  
11   So it's a measure that ranges between 0 and 1.

12          Q.    Okay. And when was Reock developed?

13           A.   It's attributed to Reock in 1961, but it  
14   too was discussed as a metric for looking at shape  
15   or compactness in the 1800s as well.

16           Q.   Okay. Are there any differences between  
17   Polsby Popper and Reock in terms of how they -- in  
18   terms of what they're measuring and practice?

19           A.   Yes. As I described, one focuses on  
20   area relating the area to the area of the smallest  
21   enclosing circle. And the other Polsby Popper,  
22   looks at the perimeter of a circle over the  
23   perimeter of the actual area.

24           Q.   Are there particular shapes that might  
25   perform poorly on one measure and per for well on

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1   other?

2           A.   Positive.

3                   Both are attempts to characterize a  
4                   shape or a district as a single number.

5                   In fact, they're two dimensional objects

6           Q.   Condition vex mall, what is that  
7   measuring?

8           A.   Convex haul looks at the area over  
9   the -- the area of the convex hole of the area and  
10   the convex hole is a particular kind of shape that

11 has a proper convexity, so as defined to be the  
12 smallest polygon, essentially, that encloses --  
13 completely encloses the district. Again what you  
14 have as a measure between 0 and 1, because the  
15 area enumerators always going to be the same size  
16 or smaller than the convex of that whole area did  
17 you can compute the measure of compactness that  
18 you report itself.

19 A. Yes, I did.

20 Q. Okay. So I'd like to now turn to figure  
21 7 on page 9 of your report. Does this figure  
22 report your computations of the different  
23 compactness measures in the illustrative and  
24 enrolled 2023 -- illustrative and enrolled Senate  
25 plan?

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1 A. Yes, they do. Yes, it does.

2 Q. Okay. And what is your -- using these  
3 three measures, what is your ever all conclusion  
4 over all conclusion about the compactness of the  
5 districts in the enacted Senate plan?

6 A. So they each have a value. Reock is  
7 .35. Polsby Popper is .18. And the convex hole  
8 is .66. And across all districts these measures

9 convexity -- or compactness measures are a little  
10 bit higher than what they are for the majority  
11 black districts in the plan.

12 Q. Okay. And then for the illustrative  
13 plan, what are the numbers that you calculate for  
14 that?

15 A. The numbers are in a relative sense,  
16 pretty similar to those observed in the Senate  
17 plan for each particular metric, and there's the  
18 same relationship that among the 14 majority black  
19 districts, that the associated compactness  
20 measures are lower than they are across the whole  
21 region.

22 Q. And if you were comparing, we'll just  
23 focus on all districts in the plan, but if you  
24 were comparing the compactness of the illustrative  
25 plan versus the compactness of the plan, what

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1 conclusions can you draw?

2 A. That the illustrative plan has slightly  
3 higher compactness to the hundreds decimal place.

4 Q. Is that have substantive significance to  
5 you as a social scientist?

6 A. It's different, the measure is

7 different. I'm not sure within the context of the  
8 measures that there's a lot of meaning that can be  
9 put into the hundreds place difference, but  
10 there's a little bit.

11 Q. Okay. And I'd like to now turn to  
12 figure 9, page 11 of your report. And this is up  
13 on the screen. Dr. Murray, can there be -- we  
14 talked earlier about some differences between  
15 Polsby Popper and Reock. Do the measures always  
16 correspond for districts?

17 A. No, they don't. So the same or  
18 different metrics may give a different evaluation  
19 of different district in a comparative sense. So  
20 what you see in this figure is a plot for each  
21 district, its measure by Reock against the measure  
22 by Polsby Popper, and if the measures agreed, what  
23 you'd see is a straight line of agreement or some  
24 other trend.

25 Q. So just to orient us to this figure, can

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1 you just describe what's on the X axis and Y?

2 A. The X is PP, Polsby Popper. Then on the  
3 Y axis is Reock. What you see is if you picked  
4 any particular point, so I'll look at this one

5 that has a value of .2. For Polsby Popper, it's  
6 .2. If we look at Reock, it's a little bit more  
7 than .4. With the 1 in the middle. This is done  
8 for each of the 39 districts.

9 Q. Okay. So each dot on here refers to a  
10 specific district?

11 A. Yes.

12 Q. And then it's plotted based on its Reock  
13 and Polsby Popper; is that right?

14 A. Yes, it is.

15 Q. Did you calculate a correlation between  
16 a district's Reock and Polsby Popper score?

17 A. Yes, I did. That's reported somewhere.  
18 In 15, I guess.

19 Q. You're referring --

20 A. In this particular case.

21 Q. You're referring to paragraph 15; is  
22 that right?

23 A. That's right.

24 Q. What is that correlation?

25 A. That correlation is 0.6449.

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1 Q. Okay. What does that number tell us  
2 about the linear relationship of those two



3 measures of compactness?

4 A. Well, it says that there's some  
5 correlation here, but you have to be careful in  
6 terms of it in terms of linear implication, a more  
7 standardized way to look at it, strictly from a  
8 linear perspective would be in a regression  
9 framework, which would effectively be this  
10 official squared.

11 Q. So if you squared that number, what  
12 would that tell you?

13 A. Roughly 0.37. What that would say from  
14 a linear perspective is that the relationship  
15 between the two variables are explained, are  
16 37 percent of the variability with respect to  
17 linear is explained by these two variables, which  
18 means in terms of linear relationship, what's not  
19 explained is 60.3 percent.

20 Q. Okay. So is that why the dots are  
21 scattered widely on this chart?

22 A. That is exactly why, yes.

23 Q. Okay. Now, did you use another measure  
24 of compactness to evaluate the districts beyond  
25 the three that you reported than Mr. Obligation

1 Mr. Cooper?

2 A. Yes, I did. I moved moi.

3 Q. Why did you select the my?

4 A. The moment of inertia, more becoming  
5 more widely used now, though it has existed for  
6 many years.

7 Q. When was the moi developed?

8 A. The my, if you go back into the  
9 literature, it's something like 1963, Weaver and  
10 he is, they talk about it, although they do refer  
11 to a linear -- Leonard oiler developing it in the  
12 1700s.

13 Q. This is not exactly brand new to the  
14 field?

15 A. No.

16 Q. Okay. Just very briefly, how does the  
17 moment of inertia differ from, say, Polsby Popper?

18 A. So the moment of inertia, one of the  
19 reasons why I included it, is that it's a measure  
20 that looks at the whole area and if I took a given  
21 district, I would be looking at all the locate  
22 locations, infinite number of low cakes within  
23 that district and looking at some sort of spacial  
24 variability with respect to a central location.  
25 So in terms of the measure itself, it does take a

1 given central location, often the centroid. Then  
2 it looks at this squared distance from that  
3 location to every point, infinite number of points  
4 within the district. It takes this measure, this  
5 so called moment of inertia, and it put it in a  
6 measure. The measure is basically the moment of  
7 inertia for circle of the same size, divided by  
8 the moment of inertia for the actual district. So  
9 it's a comparison sort of the most compact shape  
10 believed to be a circle, and then comparing the  
11 behavior that district with respect to that. So  
12 it's a measure that also varies between 0 and 1.

13 Q. Okay. Is the moment of inertia method  
14 peer reviewed?

15 A. Yes, it is. So like in geography,  
16 that's one of the reasons that I used it, it  
17 appeared in the 70s, as noted in my report. It  
18 probably should qualify that the literature that I  
19 noted note in the report is really the geographic  
20 literature, as opposed to what I just mentioned  
21 previously, there's obviously other literature  
22 that this comes from. Two of the things involved  
23 actually are prominent GIS faculty member that was

24 at USCB, Michael good child was involved in both  
25 of the references that I mention dollars, talking

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1 mostly about the integration of this measure  
2 within the GIS -- within a GIS context.

3 Q. I see. And is the moment of inertia  
4 commonly used in your field?

5 A. Yes, it is.

6 Q. How would you qualify that it's commonly  
7 used?

8 A. The -- if you look at it in terms of  
9 reference to the term, in that academic literature  
10 and Google Scholar suggests something like 19,000  
11 references to that as a term. If you looked in a  
12 number of the publication, there's hundreds of  
13 citations for example, to the root child or other  
14 work that I mentioned so far.

15 Q. Dr. Murray, did you calculate  
16 compactness using the moment of inertia approach?

17 A. Yes, I did.

18 Q. Okay. So if we could turn now to figure  
19 10 on page 11 of your report. Does this figure on  
20 the screen here, Dr. Murray, does this tell us  
21 your calculations at the moment of inertia for the

22 Senate?

23 A. Yes, it does.

24 Q. Okay. Over all, what do these -- can  
25 you explain what the moment of inertia is, what

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1 this value is?

2 A. So, yes. As I said before T value of  
3 this particular measure, like the Reock, like  
4 Polsby Popper ranges between 0 and 1. What you  
5 see here for the enrolled Senate district is that  
6 it's .59, which suggests towards 1, but not 1.  
7 And then further, providing this table as the  
8 minimum and the maximum value, and that's compared  
9 to the 11 majority black districts. What we see  
10 is along the lines that the previous summary  
11 measures have shown, that the measure of  
12 compactness decreases.

13 Q. Overall, just looking at all districts  
14 in the illustrative Senate and all districts in  
15 the 2022 Senate, I mean, what do these values tell  
16 you?

17 A. So that tells me that in terms of  
18 comparison to the illustrative plan, that the  
19 compactness increases overall. And in particular,

20 when we look at the black majority black  
21 districts, that in the illustrative case, it's  
22 increasing, that they're more compact.

23 Q. We can take that down. Like with the  
24 Senate, did you also -- sorry. Ahead here. I'd  
25 like to flip over to the house. We've been

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1 talking about the Senate. And if we could then  
2 turn to page 13 and figure 15. And what is this  
3 table showing, figure showing us?

4 A. So this shows the compactness measures  
5 for the Reock Polsby Popper and compact sole for  
6 the house, senate house districts and the  
7 illustrative house districts.

8 Q. Just comparing the especially acted and  
9 house plan, along, can you draw any conclusions?

10 A. Very similar in terms of the compactness  
11 for every measure pretty much.

12 Q. Okay. And like with the Senate, did you  
13 look at the correlation between Reock and the  
14 Polsby Popper and the house?

15 A. Yes, I did.

16 Q. Okay. You report the results of that  
17 analysis in your report?

18 A. Yes, I do.

19 Q. Okay. And I believe that's on paragraph

20 21 on page 14. Do you report the correlation

21 between the Reock and Polsby Popper in the

22 illustrative house?

23 A. Yes, I do.

24 Q. What is that?

25 A. It's 07.5847.

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1 Q. That number is less than it is in the

2 Senate; is that right?

3 A. That's correct.

4 Q. What does that mean practically?

5 A. That there's some degree of positive

6 correlation here. And then if we looked at this

7 from a linear perspective, that we would square

8 that term and see that it's less than .36, I

9 guess, in terms of the explanatory, linear

10 relationship.

11 Q. Okay. Did you also use moment of

12 inertia to calculate compactness in the enroll

13 versus else house plans?

14 A. Yes, I did.

15 Q. I'd like to turn to figure 18 on page

16 15. Dr. Murray, does this figure report the rules  
17 of your moment of inertia compactness analysis in  
18 the house?

19 A. Yes, it does.

20 Q. Okay. Can you just briefly summarize  
21 for the Court the compactness numbers and the --  
22 just the compactness common numbers for the two?

23 A. Comparing the enacted house and  
24 illustrative house, they're almost exactly the  
25 same, in terms of this measure of compactness.

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1 Q. Okay. So I'd like to now move on. You  
2 also performed an analysis of the percentage black  
3 voting age population in the black majority  
4 districts in Mr. Cooper's plan; is that right?

5 A. Yes, that's true.

6 Q. And in particular, did you look at an  
7 analysis Mr. Cooper provided in his report that  
8 compared the percentage BVAP black majority  
9 districts to the percentage white VA P in white  
10 majority districts?

11 A. Yes.

12 Q. So what I'd like to do now is, I'd like  
13 to do a side by side or top or bottom or whichever



14 we did here, comparing figure 11 on page 12 of  
15 your report, tell LDTX42, and side by side with  
16 figure 16 on page 35 of Mr. Cooper's report which  
17 is marked PL20. Dr. Murray, you'll probably have  
18 to use your screen for this one.

19 A. Got it.

20 Q. Just to orient, I'll just represent that  
21 the top figure comes from Dr. Murray's report, and  
22 the bottom figure comes from Mr. Cooper's. So  
23 Dr. Murray, is figure 11 the result of your  
24 response to Mr. Cooper's figure 16?

25 A. Yes, it is.

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1 Q. Okay. Can you explain what analysis you  
2 performed in figure 11 of your report?

3 A. So in figure 11, this was based upon his  
4 original figure 16. And looking at what was being  
5 reported and based upon this, what you see in the  
6 table, is my interpretation of what that should  
7 look like. So in particular, looking at the black  
8 voting age population in the majority districts,  
9 what you see is 58.98 percent in the Senate,  
10 enacted plan. That's based upon looking at the  
11 total population BVAP over the total BVAP in those

12 majority districts.

13 Q. Okay. So when we look at the change in  
14 the majority BVAP in the Senate, you go from the  
15 enacted to the illustrative, how does that number  
16 change?

17 A. So in the illustrative Senate, it's a  
18 similar thing. The total BVAP in those majority  
19 districts divided by the total BVAP in those  
20 majority districts.

21 Q. Okay. So how does that percentage  
22 change from the enacted to the illustrative  
23 Senate?

24 A. I'm sorry. So in the illustrative plan,  
25 what you see in percentage terms is that there's

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1 larger population across those majority black  
2 districts. So as a result, that percentage of the  
3 BVAP in those districts is less. So it decreases.

4 Q. Okay.

5 A. From the enacted to the illustrative.

6 Q. Okay. So when we look and we see -- we  
7 look over at the next column is 2020NH white VA P  
8 majority districts. What is that column  
9 reporting?

10 A. Sorry, can you say again.

11 Q. Sure. So for the second column, it says  
12 white majority VAP districts, what's that looking  
13 at?

14 A. So in those districts, it's looking at  
15 the white VAP, across the white VAP majority  
16 districts. It's looking at the percentage of the  
17 total population in those districts.

18 Q. Okay. So between the enacted and the  
19 illustrative, how does that value change?

20 A. So in the enacted it's 68.74 percent.  
21 And then in the illustrative, this increases to  
22 70.15 percent.

23 Q. Okay. And then on that right hand  
24 column with the word difference, what do you  
25 understand -- I understand you're working off Mr.

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1 Cooper's, but that difference number, what do you  
2 understand that to be?

3 A. So I understand this to be the  
4 difference between 578.98 percent minus  
5 68.74 percent. That gives you a minus  
6 9.76 percent.

7 Q. Okay. The same calculation for the

8 illustrative?

9 A. Yes.

10 (INTERRUPTION).

11 Q. Can you explain the difference between  
12 your numbers and his?

13 A. I believe I can. From my understanding  
14 of his rebuttal is that for the Senate, it's that  
15 BVAP total in those districts divided by BVAP  
16 across the whole state so not just the population  
17 in those majority districts.

18 Q. Just to make sure I understand. So in  
19 your figure 11, you're taking the percentage, the  
20 average percentage BVAP in the black majority  
21 districts; is that right?

22 A. That's right.

23 Q. So Mr. Cooper is taking the percentage  
24 BVAP and majority districts, compared with the  
25 state as a whole; is that right?

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1 A. That's right.

2 Q. Okay. Is that the same analysis  
3 undertaken with the white majority districts?

4 A. That's.

5 Q. Is it problematic to compare or to draw

6 the comparison against statewide numbers instead  
7 of district numbers?

8 A. I believe that it is, yes.

9 Q. Why is that?

10 A. I'm not sure that it makes sense,  
11 because in the discussion both in the tables and  
12 the discussion in the report, it was trying to  
13 characterize that percentage of the BVAP or the  
14 white VAP in those districts and have a compared.  
15 So by dividing it by the state totals, renders it  
16 in a way an incomparable kind of comparison in my  
17 opinion.

18 Q. Is the idea that if you're looking at  
19 characteristics am I hearing you right that you  
20 should be looking at the districts and not pulling  
21 in numbers outside of the districts?

22 A. That's correct.

23 Q. Okay. Then if we see under your  
24 analysis, rather than the difference number,  
25 getting closer to 0 as you move from the enacted

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1 to the illustrative Senate, as it does in Mr.  
2 Cooper's analysis, in your analysis, the  
3 difference gets larger; is that right?

4 A. That's right.

5 Q. Okay. And what is your interpretation  
6 of the difference number under your figure 11?

7 A. So in my figure 11, what you see is that  
8 BVAP in those black majority districts goes down a  
9 smaller percentage to 53 percent, and then as a  
10 result of that, you see a greater percentage of  
11 nonhispanic white BVAP in the other directions,  
12 that's why it goes up to 70 percent. So  
13 intuitively, this makes sense and allows for  
14 comparison. What happens is exactly what you  
15 would expect.

16 Q. So is this figure showing us how the  
17 changes between the enacted and illustrative are  
18 sorting the population by race?

19 A. It appears to, yes.

20 Q. How does it appear to do so?

21 A. In that by creating more majority black  
22 districts, you have -- you're isolating more of  
23 the BVAP in the state and then similarly, in the  
24 white nonhispanic white BVAP, districts, you're  
25 obviously creating a greater concentration of that

1 white VA P majority.

2 Q. Okay. Did you perform a similar  
3 analysis, Dr. Murray, of the house?

4 A. Yes, I did.

5 Q. Okay. I'd like you to turn quickly to  
6 we'll do one more side by side comparison figure  
7 19 on page 16 of your report, LDTX42, junction  
8 task posed with figure 27, appearing on page 48 on  
9 PL20, which is Mr. Cooper's. Can you briefly  
10 summarize for the Court Dr. Murray, your analysis  
11 in figure 19?

12 A. Similar to what I just talked about for  
13 the Senate, what we see is 63 percent of BVAP in  
14 the black majority districts. And then for the  
15 white voting age population districts, we see both  
16 white VA P, BVAP at 69.3 percent, for the enacted  
17 house plan. This goes down to 57.24 percent in  
18 the illustrative house for the BVAP for the black  
19 majority districts and then 70.25 in the  
20 nonhispanic white VA P majority districts.

21 Q. So as you move from the enacted to the  
22 illustrative, is the difference between those  
23 percentages in the black majority districts tanned  
24 white majority districts grown?

25 A. It goes down.

1 Q. But it's getting farther from 0?

2 A. That's right.

3 Q. They're getting more different?

4 A. Exactly.

5 Q. Okay. Again, that's a different  
6 direction than Mr. Cooper's calculation of the  
7 difference using his Methodology in his figure 27,  
8 right?

9 A. Yes, that's right.

10 Q. Are your conclusions with regard to the  
11 house similar as they are with respect to the  
12 Senate?

13 A. Yes, they are.

14 Q. Okay. I'd like to now move on to you  
15 performed an analysis on, I believe you performed  
16 an analysis comparing the BVAP of the enrolled and  
17 the illustrative districts that border the  
18 location of Mr. Cooper's new illustrative majority  
19 black districts; is that right?

20 A. That's right.

21 Q. Okay. Why did you perform that  
22 analysis?

23 A. To look at the impacts of the creation  
24 of this new black majority district on the local,



25 on the surrounding districts.

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1 Q. Okay. And so I think we can go pretty  
2 quickly through this, but I'd like to pull up  
3 figures 12 to 14 from pages 12 to 13 of your  
4 report. So can you orient the Court to the  
5 figures, maybe with figure 12 at the bottom of  
6 page 12?

7 A. Yes. This looks like else Senate  
8 district 17. And those neighboring districts and  
9 the neighbors districts, and then looking at  
10 what's happening to the BVAP percent in the  
11 illustrative compared to the enrolled. What you  
12 see is that in terms of the changing neighboring  
13 districts to 17, you have 15, 2 and 14. And then  
14 in the enrolled, it was respectively 73.9 percent  
15 BVAP, 57.7 percent, and then 58 percent. And then  
16 when we look at the illustrative plan, 15, 2 and  
17 14, again respectively, it goes down pretty much,  
18 but does stay the same for 14, but for 15 and 2,  
19 it goes down to 54.4 percent, and 51.73 percent.

20 Q. And then I believe figure 13 covers the  
21 Senate. Do you see a similar pattern in figure  
22 13?

23 A. Yes.

24 Q. Okay. And then if we look at figure 14,  
25 which covers illustrative Senate district 38, do

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1 you see the same pattern?

2 A. Same pattern, yes.

3 Q. Okay. I notice you only have one  
4 district listed for 38. Is there a reason why?

5 A. I think that's the only neighboring  
6 district that changed. I'm not sure if it's the  
7 only neighboring district, but it's the only one  
8 that changed.

9 Q. That's one of the Shreveport districts  
10 right?

11 A. I believe so.

12 Q. Okay. You performed the same  
13 analysis -- oh, sorry. What did the  
14 differences -- what is this difference between the  
15 enacted and illustrative BVAPs of these  
16 neighboring districts tell us?

17 A. In my opinion, it suggests that to  
18 create these new majority black districts, that  
19 BVAP from neighboring districts needed to be  
20 allocated or borrowed, if you will, in order to

21 create the black majority district.

22 Q. Okay. And Dr. Murray, do you perform  
23 this same analysis for the new illustrative house  
24 districts?

25 A. Yes.

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1 Q. Okay. And do you report that analysis  
2 in figures 20 to 25 of your report, beginning at  
3 the bottom of page 16?

4 A. Apparently, I do, yes.

5 Q. All right. And so Dr. Murray, the E6  
6 figures perform a similar calculation for each of  
7 the six new illustrative house districts in Mr.  
8 Cooper's plan; is that right?

9 A. That's correct.

10 Q. Okay. So I'd like to just use one as an  
11 example. Let's go with maybe figure 24 for  
12 illustrative house district 65.

13 A. Okay.

14 Q. And so what is this particular figure  
15 showing us?

16 A. Well, one it's showing an error.  
17 Because I don't know about 69 and 77,000 percent.  
18 So there's clearly a typo here. 69.77 percent.

19 But have to verify that. But what we see is a  
20 similar sort of relationship in the neighboring  
21 districts that have changed have consistently a  
22 higher enrolled house percentage BVAP. Than when  
23 you compare them to the illustrative house case.

24 Q. Okay. And I'd like to look at maybe one  
25 more of these. If we could look at figure 25,

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1 which is for illustrative house district 68. And  
2 what do you see -- what does this figure tell us  
3 Dr. Murray?

4 A. A similar. So the districts that  
5 neighbor district 68 are (296)162-0167, 63, and  
6 then you see this relationship of a decrease in  
7 the BVAP in this associated districts in order to  
8 create the new black majority district 68.

9 Q. Okay. And taking a look at these new  
10 illustrative districts as a whole, do you see --  
11 does a pattern emerge for you from this analysis?

12 A. In terms of creating this new black  
13 majority district required a sort of borrowing  
14 from neighboring districts in order to achieve the  
15 majority district status, yes.

16 Q. Okay. So, Dr. Murray, did you also look

17 at core retention?

18 A. Yes, I did.

19 Q. What is core retention to you?

20 A. Core retention is the idea of how much  
21 did a new districting plan maintain sort of the  
22 original representation or boundaries from the  
23 original. So in this particular case, I compared  
24 the 2022 enrolled to the 2011 enrolled districts.  
25 And then looked at, for example, what that

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1 percentage was being maintained in the same or  
2 equivalent district.

3 Q. Okay.

4 A. I did this through an analytical  
5 approach that's described in the report.

6 Q. Okay. So I'd like to put up now figures  
7 26 and 27 appearing on page 18 of your report,  
8 LDTX122. Dr. Murray, do these two figures report  
9 your core refinings, the results of your core  
10 retention analysis in this case?

11 A. Yes, they do.

12 Q. So if we could start with figure 26,  
13 what do you conclude?

14 A. So what ICON conclude is that looking at

15 the 2022 enrolled Senate plan, that it maintains  
16 as a strict percentage, looking at the district  
17 boundaries and how much they agree, 83.3 percent  
18 retention from the 2011 Senate districts.

19 Q. How does that compare to the  
20 illustrative Senate?

21 A. It's considerably higher when you look  
22 at the 67.17 percent of the illustrative Senate.

23 Q. Okay. And so moving to the house, what  
24 do you conclude about core retention in the house  
25 in the 2022 enrolled plan?

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1 A. Similar to what we saw for the Senate.  
2 In this case, the enrolled, or enrolled house  
3 plan maintains or retains 75.43 percent from the  
4 2011 house districts, differing from the  
5 illustrative house districts having 63.06 percent  
6 retention.

7 Q. Okay. Generally, what do you find about  
8 the degree to which the illustrative plans in this  
9 case are retains in the cores of prior districts?

10 A. That the enrolled plans retain more from  
11 the 2011 districts than the illustrative.

12 Q. Okay. Finally, Dr. Murray, I believe

13 you described a community of interest analysis  
14 that you undertook in this case; is that right?

15 A. Yes, I did.

16 Q. Okay. I'd like to now turn to that. So  
17 I believe you begin your discussion of this  
18 analysis on paragraph 27, page 18; is that right?

19 A. Yes.

20 Q. Okay. And can you tell the Court what  
21 you studied in this analysis?

22 A. So the intent here was to try and get at  
23 whether the degree to which communities of  
24 interest were being preserved in the Cooper  
25 report. It was something that was discussed. I

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1 think there was a mention of municipalities in  
2 Cooper, as potentially communities of interest.  
3 That certainly is a well accepted -- it may be one  
4 type. But it's certainly not more of a  
5 neighborhood oriented definition of a community of  
6 interest. So the interpret was to -- intent was  
7 to look at whether or not communities of interest  
8 at a more local level were being retained or split  
9 in any way. So in particular, in my analysis, I  
10 looked at block groups as one form of a potential

11 neighborhood, and whether block groups that form  
12 either a neighborhood in and of themselves or a  
13 collection of localized block groups, that is a  
14 block group and its neighbors, that any of those  
15 that may form a cluster of similar socioeconomic  
16 characteristics were being split in the  
17 illustrative district plans.

18 Q. Just to make sure we have a clean  
19 record, can you explain the difference between a  
20 block and a block group?

21 A. So a block group, the definition is  
22 given in the report, but a block group is a larger  
23 geographic area that consists of many block groups  
24 within it.

25 Q. Block groups or blocks?

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1 A. Blocks, excuse me. Block group consists  
2 of many blocks within it, yes.

3 Q. I see. Okay. What made you select  
4 block groups for your study here?

5 A. One geography that potentially reflects  
6 characteristics of a neighborhood. So that --  
7 some people have in sociology and other areas,  
8 certainly in the criminal control injure area,



9     relied upon tracks, but I believe that they're too  
10    broad to represent some of the localized  
11    characteristics. So I felt that block groups were  
12    reasonable proxy for neighborhoods or communities  
13    of interest to reveal value within the study.

14       Q.    Okay. So how did you go about carrying  
15    out this analysis?

16       A.    So the analysis relied upon block group  
17    data, as it says, obtained from the ACS census.  
18    And in doing this, one of the characteristics I  
19    looked at was the difference in percent white  
20    voting age population minus the percent of black  
21    BVAP, black voting age population, in addition to  
22    characteristic of income as well as education  
23    attainment.

24       Q.    Where did you get the data on income and  
25    education?

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1       A.    This is from the ACS census information.

2       Q.    Okay. So I'd like to now look at figure  
3    28 on page 19 of your report. I know it comes  
4    with some accompanying texts on the page, but can  
5    you explain to us kind of what --

6       A.    So method one of the techniques is

7 method of spacial auto correlation, which looks at  
8 the block groups and associated block attributes  
9 of interest, BVAP minus V BVAP percent. I looked  
10 at this attribute and basically the measure of  
11 spacial correlation, was looking for clusters,  
12 local clusters, defined at the block group level,  
13 and the degree to which a demonstration block  
14 group is similar or different to it's neighboring  
15 units. So this overall value, the particular  
16 measure I used in this case was local my ran task.  
17 So what you see on the top of this figure is this  
18 measure of ran tie, which this particular measure  
19 is for the whole region, and a value of 0-point --  
20 in this measure, ranges between minus 1. In this  
21 case, this is suggestive of a high degree and  
22 significant degree of positive auto spacial  
23 correlation. Through this, what we would expect  
24 there are many pockets of high BVAP block groups  
25 surrounded by other high BVAP block groups, and as

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1 well as high W VA P block groups by percentage  
2 closer to 1 surrounded by high W VA P block  
3 groups. One way to look at this, so the Global  
4 measure of spacial auto correlation just gives you

5 one number. It just says we think there is  
6 clustering in the region, doesn't say where this  
7 is. Breaking this down, the reason I used the  
8 local Miranda approach, this does tell us  
9 spacially which block groups is this occurring and  
10 to what degree is it significant. What you see  
11 here is a plot of this attribute value, the  
12 percent W VAP minus percent BVAP, that's YI, so  
13 looking at this axis, it's a standardized value.  
14 It's plotted against the neighbor values of this  
15 particular measure. So that's why you get this  
16 scatter plot. That's why you see on the Y axis  
17 that mathematical mess if you will, is actually  
18 the average of the neighbors in terms of this  
19 particular measure. So what you have is a block  
20 group measure, plotted against the neighbor  
21 values. And then you get this so called my Rand  
22 scatter plot. And the significance of this plot  
23 is that if you look at the dotted lines, it breaks  
24 these plotted points into quadrants. So the top  
25 most quadrantes considered a high value surrounded

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1 by a high value. The other one of interest here  
2 is the lower left quadrant, which suggests low

3 values of this particular attribute surrounded by  
4 low values.

5 Q. Okay. And so just to be very clear, so  
6 each blue dot is a block group; is that right?

7 A. That's correct.

8 Q. So if I'm -- if my block group is in the  
9 top right hand corner of this figure, what's that  
10 telling me about that block group's racial -- or  
11 what's that telling us?

12 A. That's telling us that it has a i close  
13 to one percent, the highest most upper right part  
14 would tell you that it's basically a W VAP percent  
15 of one, which means 100 percent white population  
16 surrounded by block groups that are also basically  
17 100 percent white population. Then in contrast,  
18 the lower left, is telling us basically  
19 100 percent black BVAP surrounded by areas that  
20 are basically 100 percent BVAP.

21 Q. Okay. So --

22 A. But in terms of the measure, just to  
23 clarify, it comes up as a negative value, because  
24 it's W VA P percent minus BVAP percent. So it's a  
25 number, the value of WI ranges from minus 1 to 1.

1 Q. All right. So do you plot the results  
2 of this analysis on a map of the state?

3 A. Yes, I do.

4 Q. Okay. So if we could turn to figure 29  
5 on page 20. Can you explain briefly what this  
6 figure showing us?

7 A. So basically this takes the block groups  
8 that were shown in the scatter plot, identifies  
9 the ones that were found to be significant, and  
10 then it plots them in terms of their quadrant  
11 locations, so the ones that were in that upper  
12 right, high surrounded by high are shown in red.  
13 The lower left quadrant were the high BVAP  
14 surrounded by high BVAP are shown in blue.  
15 They're just characterized as a low value surround  
16 bid low, because it's plotting W VAP percent minus  
17 BVAP percent. So the ones of particular interest  
18 in terms of clustering of like values are blue and  
19 the black here. High surrounded by high. Low  
20 surrounded by low.

21 Q. I see. Just to make sure we get one  
22 concept out, you reported a bunch of these as  
23 being not significant. What does that mean?

24 A. Statistically significant. It's a  
25 measure, but it's also a statistical measure. One

1 can do a test for the significance level.

2 Q. I see. Okay. So if the red census  
3 blocks are high white population surrounded by  
4 high white population; is that right?

5 A. That's correct.

6 Q. The dark blue, is that high black  
7 population surrounded by high black population?

8 A. Yes, correct.

9 Q. Got it. Okay. How does this -- well,  
10 does this figure allow the -- allow you to draw  
11 any conclusions about the racial distribution  
12 across the State of Louisiana?

13 A. I believe it does.

14 Q. Okay. What conclusion is that?

15 A. Is that there's considerable segregation  
16 or difference in the spacial distribution of the  
17 black population and white population in the  
18 state.

19 Q. Okay.

20 A. Wherein in the rural areas, it's more  
21 heavily a white population, and in the  
22 concentration of the black population is more in  
23 the urban areas, which are admittedly a little

24 difficult to see in this figure.

25 Q. All right. How does this analysis

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1 inform your work in looking at communities of  
2 interest?

3 A. Because it suggests that there is  
4 spacial clustering. So to that end, the idea  
5 would be whether some of these spacial clusters  
6 are being split by the associated illustrative  
7 boundaries.

8 Q. Okay. If we look at paragraph 28 on  
9 page 20 of your report, how then did you go about  
10 conducting this analysis then in the Senate?

11 A. So I looked at all the block groups in  
12 the state, 4,291 of them as a potential community  
13 of interest. And looked to see whether any of  
14 them were being split by the associated  
15 illustrative boundaries. So in this particular  
16 case, for the Senate districts, illustrative  
17 Senate districts, I found 375 blocks that were  
18 being split by the district boundaries.

19 Q. Did you examine any of those 375?

20 A. I did examine a couple or more than a  
21 handful of 27 total.

22 Q. Okay. Why only 27?

23 A. Because limited time to do this.

24 Q. Okay. What is the significance of  
25 finding a potential neighborhood split in your

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1 analysis?

2 A. So depending upon the characteristic of  
3 block, if it was being split, and that block was  
4 homogeneous in some way and it was relatively  
5 homogeneous to its neighboring area, then that  
6 would suggest that this community of interest oar  
7 a neighborhood was being split by the block  
8 boundaries.

9 Q. Okay. So if --

10 A. Split by the district boundaries, excuse  
11 me.

12 Q. District boundaries, all right. If we  
13 could turn to figure 30 on page 21. Is this your  
14 list of 27 examples?

15 A. Yes, it is.

16 Q. Okay. Can you very briefly just walk us  
17 through what is being shown in this?

18 A. So the table indicates the individual  
19 block that was identified as being split, that



20 subsequently triggered a further evaluation of the  
21 local area. It gives a name of the area  
22 approximately, and then it indicates which else  
23 districts created the split, and then it gives a  
24 characterization of median income, total  
25 population, and then educational attainment. And

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1 then the last two control sums are associated with  
2 this measure of being used in the evaluation, this  
3 W VAP percent minus BVAP percent. So that value  
4 ranges between minus 1 and 1. And then it gives  
5 the local my Rand assessment of it, indicating  
6 what kind of relationship, like is it a high  
7 surround bid high, or low surround bid allow and  
8 level after significance in parenthesis.

9 Q. Before I move on, Dr. Murray, I notice  
10 some significant variability in income and  
11 educational attainment across the block groups  
12 that you report here; is that right?

13 A. That's true, yes.

14 Q. Okay. And is that surprising to you  
15 that there would be significant variability  
16 between parts, for example, the income and  
17 educational attainment in different parts of New

18 Orleans?

19 A. Not at all. There's a lot of spacial  
20 variability across the state.

21 Q. So I just want to very, very briefly go  
22 through first of all, do you provide an analysis  
23 of each one of the 27 potential splits in Exhibit  
24 C to your report?

25 A. Yes, I do.

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1 Q. Okay. That's LDTX47; is that right?

2 A. Yes.

3 Q. If we stay in your report, those are the  
4 ones I want to go through, well the first one. Go  
5 to page 25 and put up figures 33A and 33B. I'd  
6 like for you to orient the Court to this figure.  
7 We should probably start with the one on the top,  
8 which is 33A. Can you --

9 A. Highlighted here in the yellow would be  
10 the blocks that were identified in this case  
11 there's multiple blocks that were identified as  
12 being split. So it identifies which of those  
13 blocks was triggering further analysis, based upon  
14 a splitting by direction boundaries. It provides  
15 some orientation of where that is.

16 Q. Okay. Where specifically are we looking  
17 at here?

18 A. It's an area referred to as musicians  
19 valley, I believe.

20 Q. Is that in New Orleans?

21 A. Yes.

22 Q. We're looking at the Senate; is that  
23 right?

24 A. Yes.

25 Q. All right. So I'd like now to turn to

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1 the lower figure 33B. Maybe we can Zoom in on  
2 that so it's easier to see. There we go. All  
3 right. So can you orient the Court to what --  
4 some shading here.

5 A. Yes.

6 Q. Can you explain what's going on here?

7 A. The shading levels are indicated in this  
8 legend. What it shows is the W VAP percent minus  
9 BVAP percent. So the lighter colored would be the  
10 negative, more negative values or higher BVAP  
11 percent. So that's what you'd see in the lightest  
12 colors, closer towards the hundred percent BVAP in  
13 those particular blocks. So what's being shown

14 here are the blocks.

15 Q. Okay. So again those little yellow  
16 libraries, those are the census block groups; is  
17 that right?

18 A. Though those are the census block groups  
19 that are split, yes.

20 Q. So what does your analysis in this  
21 figure show you about this particular split?

22 A. So about this particular split, we see a  
23 lot of homogeneity in each of those individual  
24 blocks that are identified as being split, but  
25 also that they are part of a bigger localized area

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1 that's very homogeneous in terms of its racial  
2 composition but also other characteristics like  
3 income and education attainment.

4 Q. What does the district boundary do to  
5 this area?

6 A. So the district boundary carves it up.

7 Q. Okay. Does preserving those groups as a  
8 potential community of interest, is this line  
9 consistent with such an objective?

10 A. It does not seem consistent with  
11 preserving a community of interest in this

12 particular case, no.

13 Q. Okay. Let's just do one more in the  
14 Senate. I'd like to go into that exhibit C. So  
15 if we could go into LDTX47 at pages 26 and 27.  
16 Exhibit C14. This appears -- is this Warner park  
17 in Shreveport?

18 A. I believe it is, yes.

19 Q. Okay. And then again if you can  
20 starting with the box on the left, Exhibit C14A,  
21 can you explain what this is?

22 A. So again, the highlighted in yellow  
23 represent block groups that have been split by  
24 district boundaries, and so there's a number of  
25 them in this area.

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1 Q. Okay. And then if we go to C14B. This  
2 is again that chart you have with some color  
3 shading. Can you explain your?

4 A. Yes.

5 Q. Your analysis of this?

6 A. So again shown here are the blocks, and  
7 in particular, the racial percentage, the lighter  
8 color indicates higher percentage black voting age  
9 population. And there's in general this whole

10 area, it's very homogeneous with respect to racial  
11 composition, and a lot of similarity in terms of  
12 median income and education Callais containment.

13 Q. How does the district boundary interact  
14 with this potential community of interest?

15 A. And it looks like in this case that the  
16 district boundary does not preserve this as a  
17 community of interest, potential community of  
18 interest. It carves it up.

19 Q. Okay. Is there a racial effect to  
20 dividing this area?

21 A. I mean, it appears to be in that if one  
22 looks at the districts, that these are apparently  
23 trying to help achieve majority black districts,  
24 so getting that percentage of BVAP where it needs  
25 to be where it needs to be a majority district.

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1 Q. If we go -- I think you've already  
2 mentioned this, but do you show similar figures  
3 for each of the 27 potential splits that you  
4 identify?

5 A. Yes, I do.

6 Q. Okay. You say beyond the 27, that the  
7 other roughly 350 potential splits that you

8 identify total are not relevant?

9 A. Not at all. I only had time to examine  
10 the ones that I reported here.

11 Q. Okay. So I'd like to turn now to  
12 your -- to wrap this up. If we could turn to your  
13 analysis of the house, which I believe is page 26,  
14 paragraph 29. And the -- well, okay. What can  
15 you tell us about your analysis in the house?

16 A. So similar sort of analysis was  
17 undertaken, looking at illustrative house  
18 districts, looking at the 4,291 block groups in  
19 the state, and in terms of block groups splits or  
20 potential neighborhood communities of interest  
21 splits, 565 were identified.

22 Q. And how many of the 565 did you  
23 evaluate?

24 A. I looked at 29.

25 Q. Okay. And why only 29?

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1 A. Time limits.

2 Q. Okay. Are all 29 examples reproduced in  
3 Exhibit D to your report, which is LDTX48?

4 A. Yes.

5 Q. Now I'd like to turn on to the figure,

6 figure 34, if we could look at that. Is this  
7 figure reporting statistics for all 29?

8 A. Yes, it is.

9 Q. Look at these, you have a lot of them  
10 listed in Shreveport. How many potential  
11 neighborhood splits do you report here for  
12 Shreveport?

13 A. Eleven.

14 Q. Of those, how many involve illustrative  
15 house district 1?

16 A. Looks like seven, maybe eight -- b  
17 seven.

18 Q. Seven, all right. I'd like to just go  
19 through, I think in the interest of time, let's  
20 just go through one. So if we could look at page  
21 29. Okay. This has figures 36A and 36B. And is  
22 this in the Shreveport area?

23 A. Yes. Allendale lake side area.

24 Q. Okay. What do you see in your figure  
25 36B, what does it show in this?

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1 A. So again, it's identifying these block  
2 groups that are split by district boundary. When  
3 we look in particular at 36B, what we see is this



4 racial composition that's mostly or very high in  
5 BVAP percentage for all of these blocks, and that  
6 they're split going through what appears to be a  
7 community of interest that's very homogeneous in a  
8 number of ways.

9 Q. Is there a racial effect in the  
10 composition of these districts by dividing this  
11 area of high BVAP?

12 PLAINTIFF COUNSEL:

13 Objection to the extent this calls for  
14 testimony, seeks to find Mr. Cooper's intent.

15 THE JUDGE:

16 Respond?

17 DEFENSE COUNSEL:

18 Yes, Your Honor. I specifically asked  
19 for the effect of the line on a particular.  
20 I did not ask the witness to opine as to --

21 THE CLERK:

22 State your name.

23 PLAINTIFF COUNSEL:

24 Josephine Vahn, V-A-H-N. If I can  
25 respond.

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1 THE JUDGE:

2           You can go.

3           PLAINTIFF COUNSEL:

4           Mr. Lewis did ask this question  
5           similarly a few moments ago. Dr. Murray did  
6           provide Mr. Cooper's intent.

7           THE JUDGE:

8           Overrule the objection.

9           A. It appears to be done in order to  
10          achieve a black majority status for the associated  
11          district or districts.

12          EXAMINATION BY DEFENSE COUNSEL:

13          Q. And in Exhibit D to your report,  
14          Dr. Murray, do you show similar figures for each  
15          of the 29 splits you identify?

16          A. Yes, I do.

17          Q. Okay. So finally, I know you looked at  
18          29, does that mean that the other roughly 535  
19          potential splits are not relevant?

20          A. No. I only had time to look at a finite  
21          number.

22          Q. So taking a step back from this,  
23          Dr. Murray, what do the volume of these potential  
24          neighborhoods splits tell us about whether Mr.  
25          Cooper's district kept together communities

1 comprised of areas with similar socioeconomic  
2 status?

3 A. Doesn't appear to be that it was done  
4 with respect to localized communities of interest  
5 in this case.

6 Q. Okay. And in the roughly 60 potential  
7 neighbor splits that you examined, I only went  
8 through a few, but in those roughly 60, did you  
9 consistently observe any particular attribute  
10 around the lines and analysis?

11 A. Yes.

12 Q. What was that attribute?

13 A. Race.

14 Q. Okay. And so is it fair to say of those  
15 06 splits those were all of communities that were  
16 homogeneous both with respect to race and the  
17 socioeconomic attributes that you examined?

18 A. Yes.

19 Q. And yet they were all being divided; is  
20 that right?

21 A. That's right.

22 Q. I believe you mentioned this, but what  
23 attribute did you consistently observe in the 60  
24 potential neighborhood splits?

25 A. Race.

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1 Q. Can you elaborate on that?

2 A. That in many of the instances that it  
3 appears that the boundaries were seeking to  
4 achieve some particular racial representation or  
5 inclusion.

6 Q. Okay. Was there any other apparent  
7 explanation for the boundaries that you were able  
8 to observe?

9 A. Not that I could observe.

10 Q. Okay.

11 DEFENSE COUNSEL:

12 I have no further questions.

13 THE JUDGE:

14 Let's take a break.

15 DEFENSE COUNSEL:

16 This witness does have a 5 p.m. flight.

17 I know that the Court is -- I know we've had  
18 a number of -- this witness also is a -- I  
19 don't know how long cross-examination is.

20 PLAINTIFF COUNSEL:

21 I can respond Your Honor.

22 DEFENSE COUNSEL:

23 Please.

24 PLAINTIFF COUNSEL:

25 I don't think it's realistic that the

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1 witness is going to make a 5 p.m. flight if

2 it's 10 after 3, and I haven't gone back.

3 DEFENSE COUNSEL:

4 Sounds like we're going to be taking a

5 break.

6 THE JUDGE:

7 Taking a 15-minute break.

8 (RECESS 3:09-3:25 P.M.)

9 PLAINTIFF COUNSEL:

10 I'm Josephine Vahn, I'm a lawyer on

11 behalf for the Plaintiffs in this case. May

12 I proceed with my examination?

13 THE JUDGE:

14 Yes.

15 EXAMINATION BY PLAINTIFF COUNSEL:

16 Q. Dr. Murray, good afternoon.

17 A. Hello.

18 Q. I'm going to ask you a couple of

19 questions. Dr. Murray, have you been retained by

20 Defendants as an expert witness in this case?

21 A. Yes.

22 Q. Has the Court ever disregarded your  
23 testimony as it applies to the determination of  
24 compactness?

25 A. No.

191

1 Q. Dr. Murray, were you retained as an  
2 expert witness in the Robinson V Ardoin case?

3 A. Yes.

4 Q. Stephen, if you could pull up and turn  
5 to I think it's PDF page 41.

6 Dr. Murray, if you could start reading at the  
7 last sentence of the full paragraph beginning with  
8 accordingly the Court. The last sentence, read  
9 that, please.

10 A. "Accordingly, the Court disregards his  
11 testimony as it applies to the determination of  
12 compactness."

13 Q. And this is describing your expert  
14 testimony in the Robinson case, correct?

15 A. Yes.

16 Q. So has a Court ever disregard your  
17 testimony as it applies to the determination of  
18 compactness?

19 A. Well, I guess, yes. It wasn't based  
20 upon the same analysis, but yes, I guess so.

21 Q. So your answer so the record is clear,  
22 is a Court has disregarded your testimony as it  
23 applies to compactness?

24 A. Yes. This Judge did.

25 Q. And you submitted an expert report dated

192

1 July 28th, 2023, in this case, correct?

2 A. What was the date again.

3 Q. July actual 2023?

4 A. Yes.

5 Q. And that's what's been previously marked  
6 and admitted as LX42, correct?

7 A. Yes.

8 Q. You have a copy of that in front of you,  
9 correct?

10 A. Yes.

11 Q. Do you see on page 2 of your report the  
12 section titled spacial analysis undertaken?

13 A. Yes.

14 Q. Just so the record is clear, has spacial  
15 analysis -- strike that.

16 Just so the record is clear, spacial analysis

17 has never been accepted by a Court and number a  
18 political redistricting case, correct?

19 A. Spacial analysis? I find that untrue.  
20 Looking at a map is spacial analysis. What's  
21 spacial analysis are you referring to;  
22 compactness?

23 Q. Dr. Murray, did you give testimony in  
24 the Robinson case as part of your expert  
25 designation?

193

1 A. Yes.

2 Q. Stephen, can we have the Robinson  
3 opinion back up.

4 And Dr. Murray, I'd like to direct your  
5 attention, there's going back to page 41, I think  
6 it is, of the PDF. Directing your attention to  
7 the highlighted paragraphs, starting with the  
8 sentence that's highlighted in fact, Dr. Murray --  
9 sorry. Strike that. Hang on one second. Sorry.

10 Beginning with lastly Dr. Murray testified.  
11 Can you read that into the record lastly  
12 Dr. Murray?

13 A. "Dr. Murray testified that he is not  
14 aware of any Court considering the type of spacial



15 analysis that he performed in the context of the  
16 section 2 case."

17 Q. So are you aware of any Court that has  
18 accepted spacial analysis?

19 A. Spacial analysis is a broad term that  
20 applies to thousands of different methods. The  
21 method applied in that case was spacial auto  
22 correlation, not spacial analysis. Spacial  
23 analysis is anything and everything.

24 Q. Dr. Murray my question is: Do you know  
25 any Court that has accepted spacial analysis in

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1 consideration of an opinion in a section 2 case of  
2 the type that you employed in this case?

3 A. In which case?

4 Q. The current case, Dr. Murray?

5 A. The current case.

6 Q. That you're testifying right now?

7 A. Spacial analysis is compactness  
8 measures, it's any mapping. Of course the Court  
9 has accepted and used these.

10 Q. Dr. Murray, are you aware of any Court  
11 that has accepted the type that you employed  
12 moment of inertias you used in this case, in any

13 other redistricting case?

14 A. Moment of inertia was not applied in  
15 Robinson. I don't know how you're making the  
16 connection.

17 Q. I apologize for confusing you. In this  
18 current case, the Naime versus Ardoin case, on the  
19 sixth day of trial, are you aware of any Court  
20 that has applied the spacial analysis you  
21 undertook and employed in this case in a political  
22 redistricting case?

23 A. Which one? I already said I applied  
24 many different methods.

25 Q. The moment of inertia test.

195

1 A. The moment of inertia, am I aware of it  
2 being used in any particular case to date?

3 Q. In political redistricting case?

4 A. I know that others testified about using  
5 it, so I guess that's a yes.

6 Q. But you're unaware of any Court that's  
7 accepted it, correct?

8 A. I guess. I'm not aware, no.

9 Q. Moving back to your report on page 2, it  
10 says that you were retained to evaluate -- and I'm

11 now quoting from your report, aspects of the  
12 Cooper report that summarizes the derived  
13 illustrative districts as well as the enrolled  
14 2022 districts, end quote.

15 Did I read that correctly?

16 A. That's what I wrote yes.

17 Q. Did you not perform any RPV analysis in  
18 this case, correct?

19 A. Any what.

20 Q. RPV analysis?

21 A. No.

22 Q. I'd like to talk a little bit about some  
23 of the qualification you list in your CV. Your CV  
24 is attached to your expert report at LX42,  
25 correct?

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1 A. Yes.

2 Q. CV attached to your report is the most  
3 current and accurate representation of your  
4 academic work and your expert work, correct?

5 A. Correct.

6 Q. You have not published any academic  
7 articles on election law, correct?

8 A. No.

9 Q. You have not published any academic  
10 articles on electoral redistricting, correct?

11 A. Correct.

12 Q. You have not written or published any  
13 academic articles on the history of race in  
14 southern American states, correct?

15 A. Correct.

16 Q. Or politics in southern states; is that  
17 correct?

18 A. Correct.

19 Q. You have not written or published  
20 anything about section 2 of the voting rights act  
21 in an academic publication, correct?

22 A. Correct.

23 Q. You have also not published any papers  
24 on racially polarized voting, correct?

25 A. Correct.

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1 Q. You've never drawn a political or  
2 electoral redistricting plans for electoral  
3 districts, correct?

4 A. Correct.

5 Q. Has any court ever found that you have  
6 no background or experience in redistricting?

7           A.    I don't know. I only served as an  
8   expert witness in one case. I guess you're going  
9   to show me something.

10          Q.    Stephen if you can pull up the Robinson  
11   opinion 41.

12          If you can begin with, "Dr. Murray has no  
13   background," read that into the record?

14          A.    "Dr. Murray has no background or  
15   experience in redistricting. He did not review  
16   any of the Plaintiff's illustrative plans, and  
17   most notably he testified that he has no basis to  
18   disagree with any of the opinions offered by  
19   Plaintiffs, plaintiff's experts in this case."

20          Q.    So, Dr. Murray, just to confirm Court  
21   has found you have no background or experience in  
22   redistricting, correct?

23          A.    Correct.

24          Q.    Dr. Murray, you didn't do your  
25   neighborhood split analysis for the enacted plan,

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1   correct?

2          A.    No, I did not.

3          Q.    You don't how the enacted and  
4   illustrative differ with respect to neighborhood

5 splits as you've defined them, correct?

6 A. Correct.

7 Q. I'd like move on to discussing your  
8 analysis related to this case. You applied four  
9 spacial analysis tests for compactness in this  
10 case, correct?

11 A. Correct.

12 Q. They were Reock, Polsby Popper, area  
13 pooling location, and moment of inertia or MI  
14 test; do I have that right?

15 A. Correct.

16 Q. Are you aware of any Court that has  
17 accepted the moment of inertia measure of  
18 compactness in a case involving section 2 of the  
19 voting rights act?

20 A. No.

21 Q. Are you aware of any strike that. So  
22 Dr. Murray, the moment of inertia test has been  
23 around since just after Reock based on your  
24 testimony on direct. But it's never been air  
25 condition accepted by a Court, correct?

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1 A. Did you say -- could you repeat the  
2 question?

3 Q. Yes. So you just testified that you're  
4 not aware of any Court that has accepted the  
5 moment of inertia as a measure of compactness,  
6 correct?

7 A. Correct.

8 Q. So even though the moment of inertia as  
9 a measure of compactness has been around since  
10 just after Reock, it's never been accepted by a  
11 Court, correct?

12 A. But that's not true. It's been around  
13 since potentially the 1700s, so.

14 Q. Fair enough. I'll rephrase my question.  
15 You testified earlier that the -- that Reock --  
16 I'm sorry. You testified earlier that Polsby  
17 Popper was a technique first developed in the  
18 1800s, and credited to Reock in 1961, correct?

19 A. I believe that's correct.

20 Q. And you then testified that moment of  
21 inertia is becoming more widely used but has been  
22 around Weaver and behest, in 1963 correct?

23 A. Correct.

24 Q. So moment of inertia has been around  
25 since just after Reock, or credited just after

1 Reock, but it's never been accepted by a Court; is  
2 that correct?

3 A. Well, Weaver and Hess was 1963. Oh, I  
4 see what you mean. I guess. I'm not sure.

5 Q. I'd like to spend some time discussing  
6 your expert report from July 2023. In your  
7 report, you say that, I'm going to quote, measures  
8 of compactness are rather simple proxy for the  
9 shape of a political district. You go on to say a  
10 little bit later, there is weak agreement between  
11 the often used Reock and Polsby Popper metrics, do  
12 I have that correct?

13 A. Correct.

14 Q. Reock and Polsby Popper --

15 THE CLERK:

16 Can you slow down a little bit.

17 PLAINTIFF COUNSEL:

18 Sorry. So eager to get through this.

19 EXAMINATION BY PLAINTIFF COUNSEL:

20 Q. Reock and Polsby Popper are two ways to  
21 test area -- to test compactness of an area,  
22 right?

23 A. Yes.

24 Q. There's no one standard test to assess  
25 the compactness of an area, correct?



1 A. Correct.

2 Q. The Court has heard testimony that Reock  
3 and Polsby Popper are two most commonly referenced  
4 scores by experts and state legislatures. Would  
5 you agree with me with that statement?

6 A. I would not disagree.

7 Q. In your report, you state that, quote,  
8 the utility of spacial auto correlation is that it  
9 enables detection of areas that are similar in  
10 terms of one or more characteristics, such as  
11 race, socioeconomic characteristics, educational  
12 statement, et set A. do I have that correct?

13 A. Educational attainment, yes, et cetera.

14 Q. Things. Looking at pages 4 to 9 of your  
15 report, am I correct that your significant  
16 findings Numbers 1 through 12 all relate to Mr.  
17 Cooper's use of the incorrect boundaries for the  
18 enacted house and Senate plans?

19 A. 1 through which one?

20 Q. 12.

21 A. I would say that's probably correct.

22 Q. Are you aware that Mr. Cooper filed a  
23 corrective report in which he analyzed the correct

24 enacted house and Senate plans?

25 A. Yes, I am.

202

1 Q. Did you review that report?

2 A. Yes, I did.

3 Q. You provided no reporting offered no  
4 opinions concerning Mr. Cooper's corrected report,  
5 correct?

6 A. Correct.

7 Q. I'd like to turn now to discussing some  
8 Louisiana legislature requirements. Are you aware  
9 that Louisiana strike that. Are you aware that  
10 the Louisiana legislature periodically issues new  
11 boundary files from voter tabulation districts?

12 A. Now I am.

13 Q. Are you aware that those are different  
14 than the VDT boundaries issued by the census?

15 A. If what you're saying is true, I guess  
16 now I am.

17 Q. Do you use the use updated VDT boundary  
18 in your analysis of VDT splits, correct?

19 A. Correct.

20 Q. And Mr. Cooper reported splits based on  
21 census VDT boundaries, correct?

22 A. I'm not sure about that.

23 Q. Direct your attention to figure 7 and  
24 figure 15 of your report and if you could get  
25 those on the screen. Figure 7 is on page 9. And

203

1 figure 15 is on page 13. Dr. Murray, these  
2 figures concern Mr. Cooper's compactness scores  
3 for respectively the Senate and house plans,  
4 correct?

5 A. Correct.

6 Q. You analyze these figures in your 13th  
7 and 20th significant point of your report; is that  
8 a correct statement?

9 A. Correct.

10 Q. And in your report, you criticize Mr.  
11 Cooper's report and state that there were quote  
12 observed errors, end quote, that were quote,  
13 somewhat significant as the Cooper report attempts  
14 to make a detention of the differences at the  
15 hundreds level comparing in role versus  
16 illustrative districts. Is that a correct  
17 restatement of your work?

18 A. Yes.

19 Q. Is it your opinion that differences in

20 Reock and Polsby Popper scores at the hundredth  
21 level are not significant?

22 A. I would say that's true.

23 Q. I next want to walk through your  
24 significant findings 14 and 15 with respect to the  
25 Senate, and the second part of finding 20 and 21.

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1 Here you state that Reock and Polsby Popper  
2 measures of compactness don't necessarily agree,  
3 correct?

4 A. Correct.

5 Q. By that you mean that some districts may  
6 be more compact under one measure and less compact  
7 under another, correct?

8 A. Correct.

9 Q. You would agree that Reock and Polsby  
10 Popper measure different things, correct?

11 A. The way they measure compactness is  
12 different, yes.

13 Q. Because one is based on area, and one is  
14 based on perimeter, right?

15 A. Correct.

16 Q. For that reason, you would agree it  
17 would be useful to look at both of them, correct?

18 A. Sure.

19 Q. Earlier in agreement with Mr. Trende  
20 Reock and Polsby Popper are the two common I  
21 reference referenced scores by state lugs token,  
22 correct?

23 A. Sure. Yes.

24 Q. Turning to significant findings 16 and  
25 22. Here you report the moment of inertia scores

205

1 for the enacted and illustrative Senate and house  
2 plans, correct?

3 A. Yes.

4 Q. Like Polsby Popper and Reock's moment of  
5 inertia score ranges, from 0 to 1, correct?

6 A. Correct.

7 Q. And 1 is the most compact shape,  
8 correct?

9 A. Correct.

10 Q. And you report the MI scores to the  
11 hundredths place; is that right?

12 A. I believe that's correct, yes, that's  
13 true.

14 Q. And using the moment of inertia measure,  
15 you opposed Mr. Cooper's illustrative plan is

16 lightly more compact than the enacted plan,  
17 correct?

18 A. Correct.

19 Q. You opine that Mr. Cooper had made a  
20 similarly compact to the plan using the moment of  
21 inertia measure, correct?

22 A. The illustrative plan?

23 Q. Yes.

24 A. The house plan?

25 Q. Yes.

206

1 A. Is that you mean?

2 Q. Yes.

3 A. Yes.

4 Q. You would agree wouldn't you that  
5 regardless of whether you are looking at Polsby  
6 Popper Reock or moment of inertia, Mr. Cooper's  
7 illustrative plans are an average as compact as or  
8 more compact than the corresponding enrolled  
9 plans, right?

10 A. I would agree.

11 Q. I next like to discuss figures 30 and  
12 34. In figures 30 and 34, you split what you  
13 describe as quote potential neighborhood splits,

14 unquote. Do I have that right?

15 A. Yes.

16 Q. These are based on splits of census  
17 block groups, correct?

18 A. Yes.

19 Q. And these are based on selected sample,  
20 correct?

21 A. Correct.

22 Q. These you did not run all 500  
23 iterations?

24 A. I did not have time to do digital  
25 analysis of all.

207

1 Q. So yes, you did not run all 500  
2 iterations, correct?

3 A. Correct. They're not iterations, but  
4 correct.

5 Q. Are you familiar with Louisiana lug  
6 sure's joint rule 21?

7 A. No.

8 Q. Are you aware that the lug sure's  
9 redistricting create laid out in rule 21 requires  
10 quote, under rule 21G, each district submitted for  
11 consideration should contain whole election

12 precincts as those are represented as voting  
13 districts or VDTs in the most recent census  
14 redistricting. Shape files for the State of  
15 Louisiana, which corresponds to the data released.  
16 If a VDT must be divide, it shall be divide intoed  
17 a few districts as practical, using census  
18 tabulation boundary. Are you aware of that?

19 A. Now I am, yes.

20 Q. But you weren't before I asked my  
21 question, right, Dr. Murrayay?

22 A. I'm not sure if I read this or not  
23 before, to be honest.

24 Q. You're unsure if you've read joint rule  
25 21 before?

208

1 A. I may have seen this in the past. I'm  
2 not sure.

3 Q. We can pull up Dr. Murray's deposition.  
4 Dr. Murray, did you provide a deposition as part  
5 of this case?

6 A. Yes, I did.

7 Q. If we can turn to page 115, looking at  
8 lines 24 and 25. Question: Are you familiar with  
9 joint rule 21? Answer: That you provided, no.



10           So Dr. Murray, are you familiar with the  
11 criteria as laid out in joint rule 21.

12           A. Well, in terms of the verbiage of joint  
13 rule 21, I'm not necessarily sure that I haven't  
14 seen that before. That's a fact. Am I familiar  
15 with joint rule 21 as an entity, no. But whether  
16 I've been shown some of that verbiage, I can't say  
17 that I haven't seen that.

18           Q. We'll move on. You acknowledge in your  
19 report that quote the illustrative district  
20 generally maintain voting district boundaries and  
21 recognize places of interest; is that correct?

22           A. I think that's correct.

23           Q. Similarly language appears in  
24 significant finding 29 with respect to the house,  
25 correct?

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1           A. I believe so, yes.

2           Q. You would agree that in some instances  
3 keeping a voting district whole might require  
4 splitting a block group?

5           A. It could potentially, yes.

6           Q. Where a block group and a voting  
7 precincts intersect, for example, would be one

8 instance where keeping a voting district whole  
9 might require splitting a block group; do I have  
10 that right?

11 A. Could be, yes.

12 Q. And your report includes no analysis of  
13 whether the splits of block groups you identify  
14 follows voting district boundaries, correct?

15 A. That's correct.

16 Q. I'd like to now discuss figure 32B. If  
17 we can have that on the screen. Thank you,  
18 Stephen. Clusters are correlated with the  
19 political entities or municipal boundaries,  
20 correct?

21 A. Could you repeat?

22 Q. Clusters are correlated with the  
23 political entities or municipal boundaries, right?

24 A. In this case, the cluster in terms of a  
25 block group that's being looked at is just a block

210

1 group.

2 Q. I think we're showing 33B. I mean to  
3 talk about 32b. Give us one second. I'll ask my  
4 question again, Dr. Murray. So in looking at 32B,  
5 clusters are correlated with the political

6 entities or municipal boundaries, right?

7 A. I don't understand what that question  
8 means.

9 Q. Let's move on to figure 33B. This  
10 figure doesn't show voting district boundaries,  
11 correct?

12 A. No, date us not.

13 Q. You don't know where the voting district  
14 boundaries are, right?

15 A. In this case, I do not no.

16 Q. You don't know whether the district  
17 boundaries follow a voting district boundary,  
18 correct?

19 A. In this case, I already said I don't  
20 know.

21 Q. And that's true of all the figures  
22 showing the 27 block group split; is that correct?

23 A. I did not produce figures showing the  
24 voting district boundaries, no.

25 Q. So just so the record is clear, it's

211

1 true that you're not aware of whether the district  
2 boundary follows the voting district bound roarie  
3 across all 27 block group splits, correct?

4 A. Correct.

5 Q. Liked to move now to discuss significant  
6 finding 29 in which you state that quote race  
7 appears to have predominated over maintaining  
8 neighborhoods in many instances. Is that a  
9 correct reading of your report?

10 A. Which paragraph?

11 Q. Significant finding 29.

12 A. Yes.

13 Q. Would you agree with me that land values  
14 drive who can live where?

15 A. I think that's true.

16 Q. Would you agree with me that income  
17 measures reflect land values?

18 A. That's probably true.

19 Q. Is it the same with education?

20 A. To a degree, certainly, higher education  
21 for higher income groups is known to be true.

22 Q. Significant finding 29, this simply  
23 reflect segregates patterns rather than race  
24 predominating over maintained neighborhoods,  
25 correct?

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1 A. May be one explanatory factor.

2 Q. I'd like to move to the findings you  
3 made in your summary. Using block groups rather  
4 than municipal boundaries, changes the  
5 arrangements and therefore recasts the data,  
6 correct?

7 A. Using block groups is different than  
8 municipal boundaries, is that your question?

9 Q. Yes.

10 A. Of course.

11 Q. Changing the size shape or orientation  
12 of a polygon reassigns individual observes to new  
13 groups, correct?

14 A. Not sure what you mean by that.

15 Q. We can come back to that. A change in  
16 the size of the units across mapped region changes  
17 their numbers, correct?

18 A. Again, I'm not sure what you mean by  
19 that.

20 Q. Got a couple more questions for you,  
21 Dr. Murray. Are you aware of the of race  
22 composition in section 2 cases?

23 A. No.

24 Q. Are you familiar with the case ash croft  
25 V Georgia?

1 A. No.

2 Q. Would you agree with the quote that if  
3 one is drawing a voting district, that voting  
4 district needs to be reasonably compact, a  
5 reasonably shaped that must be contiguous, unless  
6 water is involved to respect communities of  
7 interest to meet one person one vote requirements  
8 and be plus or minus 5 percent in the state  
9 legislative plans in the State of Louisiana?

10 A. What about it?

11 Q. Would you agree with me with that  
12 statement?

13 A. That sounds like a common redistricting  
14 type of criteria.

15 Q. Just so the record is clear, you would  
16 agree with that statement?

17 A. I don't know that I agree or disagree.  
18 It's a statement. What am I supposed to agree to?

19 Q. So you just said --

20 A. I agree that it's a statement. You.

21 Q. You agree it's a common redistricting  
22 principle, correct?

23 A. Correct.

24 Q. Focusing on figure 15, which is on page

25 13 of your report. Dr. Murray, did you add the

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1 percentages in this table and arrive at a mean or  
2 average?

3 A. Did I compute the means in this case?

4 EXAMINATION BY PLAINTIFF COUNSEL:

5 Q. No. My question is, did you add the  
6 percentages in this table and arrive at a mean or  
7 average?

8 A. Not sure what you mean by that question.

9 Q. Dr. Murray, would you agree that  
10 measuring compactness inside of illustrative  
11 district is not a requirement under the current  
12 Gingles one standard?

13 DEFENSE COUNSEL:

14 Objection; calls for legal conclusion.

15 THE JUDGE:

16 You want to respond.

17 PLAINTIFF COUNSEL:

18 He's testified about measuring  
19 compactness for the last three hours. I  
20 think he's sufficiently able to --

21 THE JUDGE:

22 You're asking him whether or not it's a

23 standard under a United States supreme Court  
24 case.

25 PLAINTIFF COUNSEL:

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1 I can rephrase.

2 THE JUDGE:

3 Rephrase.

4 Q. Dr. Murray, would you agree that  
5 measuring compactness inside illustrative district  
6 is not a requirement under current redistricting  
7 requirements?

8 A. I don't know that I agree to that at  
9 all. I don't know what that means. I'm not aware  
10 of such a standard.

11 Q. Dr. Murray, would you agree that Reock  
12 and Polsby Popper are industry de facto?

13 A. That seems like a reasonable statement.

14 Q. In fact, you would agree that they are  
15 the most broadly used tests in redistricting  
16 cases, correct?

17 A. That I'm aware of, that seems to be  
18 true, yes.

19 Q. Did you perform any analysis to consider  
20 among other factors the history of voting



21 discrimination in the state's plans and districts  
22 you examined?

23 A. No, I did not.

24 Q. With we pull up figure 28 from  
25 Dr. Murray's report. There was some back and

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1 forth on direct with you and Mr. Lewis about what  
2 figure 28 shows. Just so I understand, figure 28  
3 tells us the population of Louisiana is highly  
4 segregated?

5 A. In 28?

6 Q. Yes.

7 A. This doesn't show it spacially, but it  
8 suggests that there are in fact clusters of high  
9 values here in this case it's white percentage  
10 surrounded by similarly defined area characterized  
11 areas, and then areas where high percentage of  
12 black VAP is surrounded by other areas of high  
13 black voting age population. This figure does  
14 summarize that, yes.

15 Q. Just so the record is clear, this  
16 scatter plot in figure 28 shows that the State of  
17 Louisiana is highly segregated?

18 A. It shows that there are instances, yes,

19 significant clusters. It doesn't show it  
20 spacially, but it suggests because of how they're  
21 plotted is that it's a value of one block group in  
22 relation to its neighbor.

23 Q. Just one moment, Your Honor.

24 PLAINTIFF COUNSEL: No further questions for  
25 this witness.

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1 THE JUDGE: Redistrict.

2 EXAMINATION BY DEFENSE COUNSEL:

3 Q. Your Honor, Patrick Lewis for  
4 Defendants, very briefly. Dr. Murray, are you  
5 aware of a Court that has rejected the moment of  
6 inertia method?

7 A. No, I am not.

8 Q. Okay. And can Polsby Popper and Reock  
9 be used to measure the compactness of a population  
10 as compared to a district boundary?

11 A. No, they cannot.

12 DEFENSE COUNSEL:

13 I have no further questions, Your Honor.

14 THE JUDGE:

15 You may step down. Thank you.

16 It's 4 o'clock. By our prior schedule

17           that we set at the pretrial conference, we're  
18           going to close for the afternoon. We do have  
19           an issue for tomorrow. Has anything changed  
20           Suzie? We only have a court reporter from 10  
21           to 2. We didn't make the arrangements, I  
22           mean, I'm not going to explain why. Just  
23           know that it was not intentional, and that we  
24           did everything we could. So what we'll do is  
25           we'll commence at 10 o'clock sharp, and we'll

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1           take two 15 or 20 minutes breaks between 10  
2           and 2. So bring a power bar or smoothie or  
3           something, we're not taking a lunch break, go  
4           straight from 10 to 2. Any chance we're  
5           going to finish tomorrow, counsel?

6           DEFENSE COUNSEL:

7                     Your Honor, for Defendants, we have one  
8           more witness. And I think --

9           THE JUDGE:

10                    The last expert?

11           DEFENSE COUNSEL:

12                    Yes, Dr. Lewis.

13           THE JUDGE:

14                    Yes.

15 DEFENSE COUNSEL:

16 I think we're resting, and I can't speak  
17 for the Plaintiffs.

18 THE JUDGE:

19 Any concept on rebuttal?

20 PLAINTIFF COUNSEL:

21 I think we are certainly hopeful that we  
22 could wrap up tomorrow. Not sure if Your  
23 Honor is open to continuing for a little  
24 longer tonight to start into their next  
25 witness, but I believe both of the parties

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1 have represented that they're available that  
2 would be helpful to the Court in trying to  
3 wrap up tomorrow. It will depend on how long  
4 Dr. Lewis if we can finish our testimony  
5 tomorrow.

6 THE JUDGE:

7 I'm amenable. Let me poll my staff.

8 Okay. We can go until 5.

9 PLAINTIFF COUNSEL:

10 Thank you, Your Honor.

11 THE JUDGE:

12 Call your next witness.

13 DEFENSE COUNSEL:

14 We call Dr. Jeffrey Lewis to the stand.

15 (WITNESS SWORN).

16 THE CLERK:

17 State your name and spell it for the

18 record.

19 THE WITNESS:

20 My name is Jeffrey Lewis J-E-F-F-R-E-Y,

21 L-E-W-I-S.

22 EXAMINATION BY DEFENSE COUNSEL:

23 Q. Thank you. Your Honor, may I approach

24 with water?

25 THE JUDGE: Yes.

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1 DEFENSE COUNSEL: Kate McKnight on behalf of

2 legislative intervenors.

3 EXAMINATION BY DEFENSE COUNSEL:

4 Q. Good afternoon, Dr. Lewis.

5 A. Good afternoon.

6 Q. What is your role in this matter?

7 A. I've been retained by defense counsel to

8 analyze patterns of voting in races, in Louisiana

9 related to this litigation.

10 Q. Let's pull up two exhibits, LDTX52, and

11 LDTX54. Dr. Lewis, what are these?

12 A. These appear to be the two reports that  
13 I filed in relation to this proceeding.

14 Q. Okay. Let's focus on LDTX52 and turn to  
15 page 8. Let's turn one page to page 9. Is this  
16 your CV?

17 A. Yes.

18 Q. Is it up to date?

19 A. I believe so.

20 Q. Okay. Let's keep this up for just a  
21 moment. What is your educational background?

22 A. I earned my bachelor of arts in  
23 political science and economics from Westlake  
24 university, my Ph.D. in political science from  
25 MIT.

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1 Q. What is your academic experience?

2 A. I'm currently professor of political  
3 science at the university of California Los  
4 Angeles, which I joined in 2001. Prior to that I  
5 was assistant professor of politics in public  
6 policy at Princeton university.

7 Q. Have you served in leadership roles in  
8 the fields of political Methodology or political

9 science?

10 A. Yes, I am past president of the society  
11 for political method injure, which is the learned  
12 society for folks that study the application of  
13 quantitative data, it's questions in political  
14 science. I've also been an editor of the American  
15 political science review, which is the flag ship  
16 journal of political science. I'm past chair of  
17 my department.

18 Q. And what are your teaching interests  
19 relevant to this case?

20 A. My teaching at the moment is focused  
21 largely on graduate training in quantitative  
22 methods. And some part of that at least is  
23 dedicated to studying ways in which administrative  
24 records and other data can be used to infer data  
25 intention, factors.

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1 Q. Let's turn to pages to the next page,  
2 page 2 of your CV through 4. Is this where your  
3 publications are listed in your CV?

4 A. Yes.

5 Q. Okay. And are any of these publication  
6 peer reviewed?

7           A.    I believe them to all be peer reviewed,  
8   yes.

9           Q.    Let's turn to page 3.  Let's turn to  
10   page 4.  Okay.  Have you been retained as an  
11   expert in cases about the topics of political  
12   science, quantitative methods and racially  
13   polarized voting analyses?

14          A.    I have.

15          Q.    Let's turn back to page 2 of your  
16   report, so that the report, and look at paragraph  
17   2.  Is this where you list past cases?

18          A.    Yes.

19          Q.    Have you ever been disqualified by a  
20   Court from testifying as an expert?

21          A.    I have not.

22          DEFENSE COUNSEL:  Your Honor, at this time,  
23   we'd like to move for the acceptance of  
24   Dr. Lewis as an expert in the fields of  
25   political science, quantitative methods, and

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1           racially polarized voting analysis.

2           THE JUDGE:

3                   Cross on the tender?

4           PLAINTIFF COUNSEL:



5                   Good afternoon, Your Honor, Sarah  
6                   rohaney. No objections.

7                   THE JUDGE:

8                   Dr. Jeffrey Lewis will be admitted to  
9                   give opinion testimony in the fields  
10                  identified.

11                  DEFENSE COUNSEL:

12                  Your Honor, at this time as well based  
13                  on stipulations by the parties, we'd like to  
14                  move for admission of his two expert reports  
15                  served LDTX52 and LDTX54.

16                  PLAINTIFF COUNSEL:

17                  No objection Your Honor.

18                  THE JUDGE:

19                  Admitted.

20                  EXAMINATION BY DEFENSE COUNSEL:

21                  Q. Dr. Lewis, what kind of analysis did you  
22                  conduct in your first report in this matter?

23                  A. The bulk of the analysis involved the  
24                  application of so called especially logical  
25                  inference methods to infer from precinct levels

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1                  voting returns and voter registration records, the  
2                  fraction of voters who are identified on the voter

3 registration roles as black, white and other, who  
4 supported candidates for office in the contests  
5 analyzed in each of the districts analyzed.

6 Q. Did you apply a particular method of EI  
7 to conduct this analysis?

8 A. Yes. I used method of EI that as goes  
9 by various different names. But it's the one  
10 which allows the estimation of the support for  
11 multiple candidates by multiple groups. So I  
12 would refer to it by its formal title, which is  
13 multi \*\*\*nomial dersway\*\* ecological inference.

14 Q. Did you review reports from this  
15 Plaintiffs Dr. Lisa Handley?

16 A. I've seen those reports, yes.

17 Q. In your analysis, did you use  
18 Dr. Handley's data?

19 A. Yes, I believe I did. The way in which  
20 I received the data was via an intermediary, Clark  
21 Benson of poll data. It has been represented to  
22 me that the data are those data that were  
23 originally provided by Dr. Handley.

24 Q. The data that was provided by  
25 Dr. Handley, did it include contests other than

1 statewide down ballot elections involving black  
2 candidates?

3 A. Yes.

4 Q. I'd like to ask you about the analysis  
5 you conducted as compared to the analysis that  
6 Dr. Handley conducted in this matter. First, what  
7 question are you and Dr. Handley trying to answer  
8 for the Court?

9 A. I think the questions that are at issue  
10 here, again, are what is the level of support,  
11 whats the level of cohesion, I should perhaps say,  
12 the degree to which black voters support the same  
13 candidate in elect to really contests. Second,  
14 the degree to which white voters vote for that  
15 preferred candidate of black voters. And that's  
16 sort of the I think, you know, referred to in this  
17 area often as cross over. So what white voters,  
18 under the assumption maybe that we're speaking of  
19 a is situation in which the preferred or,  
20 different. What fraction of white voters cross  
21 over to support the candidate preferred by black  
22 voters. So try to estimate those quantities. And  
23 then using those quantities and other features of  
24 the contest, to make some inference about whether  
25 a particular district might elect a black

1 candidate of choice, and what might be required in  
2 terms of the composition of that district or area  
3 in the state that would be again required to elect  
4 a black cabbed at that time -- candidate of  
5 choice.

6 Q. Does the issue of turn outcome into play  
7 in your analysis?

8 A. Yes.

9 Q. How so?

10 A. Well, you know, in -- all this is of  
11 course difficult, because these are -- the facts  
12 that we're asked to talk about here can't be  
13 directly observed because of the secret ballots.  
14 So we can't know the fraction of folks of  
15 different races who score different candidates.  
16 But we could estimate that. And if we knew the  
17 composition of the folks that voted a particular  
18 election, it would be relatively straightforward  
19 to figure out what fraction you would need of that  
20 area to be black or white in order to achieve  
21 50 percent say support for the black preferred  
22 candidate or something like that. That's a  
23 relatively easy calculation. What complicates

24 that a little bit is that what the composition of  
25 the folks who vote is on a particular election,

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1 and the composition of the populations that going  
2 to provide that mix of black and white voters.  
3 Depends on whether voters of each race turn out at  
4 different levels or the same level.

5 Q. Is it fair to say that you -- both you  
6 and Dr. Handley are trying to estimate future  
7 voting behavior based on past election results?

8 A. Yes, that's right. And of course, as  
9 they say in all the financial perspective reports,  
10 the past may not be indicative of the future. But  
11 that's what we have to go on, is trying to  
12 extrapolate, basically, from elections, maybe for  
13 different offices, held at different times and  
14 different context, and used as to make some sort  
15 of conclusion about what might occur; although the  
16 amount of uncertainty is obviously.

17 Q. I understand you testified in past cases  
18 on the issues at play in this case. The types of  
19 analyses that you and Dr. Handley did in this  
20 case, have you seen those conducted in past cases  
21 on voting rights act cases?

22 A. Yes.

23 Q. So we've talked a little bit about the  
24 common question you're trying to say. Now liked  
25 to better understand where you and Dr. Handley may

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1 differ in what type of an analysis you conducted  
2 here. So for your part, what type of analysis did  
3 you conduct to answer this question?

4 A. Well, in addition to the ecological and  
5 French Quarter analysis in estimation of the  
6 support among the different groups for each  
7 candidate in identifying the minor any preferred  
8 candidate so forth and so on, I also looked at the  
9 question of whether there was, I guess what you  
10 might call legally you might call the opportunity  
11 to elect. I'm not going to speak to what the  
12 threshold for that is. That's effectively the  
13 question is, you know, what would the -- would  
14 this particular district provide opportunity,  
15 would the candidate of this preferred by black  
16 voters in each district have annuitant elect, and  
17 that opportunity, I take to be sort of increasing  
18 in the -- indicated by increasing an ounce of  
19 success in past elections as we can reconstruct

20 them. So there are sort of two ways to think  
21 about that. One way, I think, both Dr. Handley  
22 did do, which is kind of sometimes called a  
23 reconstructed election analysis, where you think  
24 about suppose that various other elections that  
25 maybe were statewide elections or elections for

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1 house of representative or whatever they might be,  
2 that were held in the same precincts that are  
3 employed in a particular election math that might  
4 be implemented. You could ask the question, well  
5 if this election had only taken place in those  
6 precincts, who would have won, how much support  
7 would that candidate have won have gotten. The  
8 other thing that you could do is you could ask a  
9 slightly different question, which is if you said,  
10 well, given what we know, what we estimate, so I  
11 shouldn't say know, because again we're just  
12 estimating. There's a lot of uncertainty. The  
13 rate of cohesion to be, what we estimated the  
14 cross over voting to be, what we observed the  
15 level of turn out to be, we can ask holding all of  
16 that constant, what demographic composition of the  
17 population would you need in order to create say

18 an equal chance of the black preferred candidate  
19 running.

20 Q. This second type of analysis you just  
21 described, is that referred to as a percent needed  
22 to win analysis?

23 A. You could call it that, yes.

24 Q. Did Dr. Handley conduct a percent needed  
25 to win analysis in this case?

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1 A. I don't believe so.

2 Q. Okay. And do you know if Dr. Handley is  
3 familiar with the percent needed to win analysis?

4 A. I don't know if she would use that name  
5 or not, but the technique is something that she  
6 and some co authors introduced in the literature.

7 Q. Okay. So what kind of analysis did  
8 Dr. Handley conduct in this case?

9 A. I believe that what she did was sort of  
10 similar with respect to estimating the race and  
11 support for different candidates. I don't think  
12 she applied that district by district, but in  
13 larger aggregates, and then I think the second,  
14 which is different from what I did, but again  
15 broadly similar, and then the second thing that I



16 think she did is the reconstituted or  
17 reconstructed, if you like, election method to  
18 calculate the fraction of times in the races  
19 considered the minority candidate quote unquote  
20 won that election.

21 Q. What did the two types of analysis  
22 provide the Court; recompiled election results on  
23 the one hand and the percent needed to win on the  
24 other BVAP?

25 A. So again, I think both of them speak to

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1 this question of whether the black preferred  
2 candidate in a particular district will have a  
3 chance of winning election. So the candidates,  
4 those voters had a chance to elect the candidate  
5 of their choice. One of them, again sort of takes  
6 as given, the district that's drainage it just  
7 sort of says how this district at this level  
8 performed, tries to estimate that quantity. The  
9 second, I think, tries to go maybe a little bit  
10 beyond that and asks the question, asks the  
11 question sort of what would you need to get to get  
12 performance; did you need a value that was as high  
13 as the one that was built, or do you need one

14 that's higher or lower. But both cases you really  
15 asking a related question.

16 Q. Is it your understanding that you as an  
17 expert preparing an analysis in a case like this,  
18 should not conduct a percent need the to win  
19 analysis on districts that are already drawn?

20 A. I think in a certain sense you could  
21 only perform such analysis on districts that were  
22 already -- drawn, already set forth stipulated.  
23 Yes, so I'm not sure how you could perform an  
24 analysis on districts that hadn't been drawn.

25 Q. At a high level, what does the percent

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1 needed to win analysis take into account?

2 A. Again, it takes into account the level  
3 of -- in this case, black voter cohesion, cross  
4 overby white voters, also, what we might refer to  
5 as crossover voters that may live in that  
6 district, as well as differences in turnout in the  
7 election.

8 Q. Does it also take into account  
9 demographic composition?

10 A. Yes. You're manipulating the  
11 demographic composition when asking the question,

12 you know, how would this district perform if you  
13 like at different levels of black VAP.

14 Q. Did you run the calculations for your  
15 percent needed to win analysis by hand?

16 A. No.

17 Q. Is it all automated?

18 A. Yes. It's all scripted. So queries are  
19 made of the database, and then the algorithms are  
20 plied to the subset for a particular district in  
21 combination with district contest, and then the  
22 summary statistics are generated.

23 Q. About how many combinations were at  
24 issue here?

25 A. There are I think in total, the -- I

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1 sound say we. There's really just me and my  
2 computer. We probably estimated the support for  
3 different candidate contest, district combinations  
4 in the tens of thousands.

5 Q. Okay. Let's pull up what have been  
6 labeled demonstrative Defendants 1 through 4, Your  
7 Honor, these were exchanged prior to today with  
8 Plaintiff's counsel per our agreement. I have  
9 paper copies. Would you like a paper copy, Your

10 Honor?

11 THE JUDGE:

12 Yes. Are these used illustratively, or  
13 are you going to introduce them evidence?

14 DEFENSE COUNSEL:

15 We'd like to introduce them into  
16 evidence.

17 THE JUDGE:

18 I just wanted to know what we were  
19 looking at here, that was Judge.

20 EXAMINATION BY DEFENSE COUNSEL:

21 Q. Dr. Lewis, would it be helpful to have a  
22 paper copy on hand?

23 A. I think we can go from the screen. I'll  
24 let you know if that changes.

25 Q. Dr. Lewis, briefly, could you tell the

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1 Court what these tables are and where the  
2 information comes from?

3 A. Right. So these are subset of the  
4 results that are provided in my original report in  
5 tables, corresponding to table Numbers that are  
6 the same in that reporter. So table 1 is subset  
7 here is subset of the rows of table 1 in that

8 original report, table 2, 3, so forth as we move  
9 threw.

10 Q. So if I were to look at your report, all  
11 this information is in your report, this is just  
12 select pieces of that information; is that fair?

13 A. Yes, I believe so.

14 Q. Let's look at the first column. It says  
15 district. There are two categories, state house  
16 and state that. Could you just start by  
17 explaining the nomenclature here for the Court?

18 A. Yes. I used this shorthand because I  
19 looked at directions both at the enacted plan and  
20 also illustrative plans that were offered in 2022  
21 and in 2022. I used a number of system that helps  
22 me keep straight which is which. H is refers to  
23 house Senate. S Senate district. 23 refers to  
24 the 2023 illustrative districts, and then the  
25 numbers are the district numbers the numbers that

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1 follow the dash.

2 Q. So did you understand that the 2023  
3 illustrative districts were illustrative districts  
4 for those by -- proposed by Plaintiff's expert Mr.  
5 Cooper?

6 A. Yes, that's my understanding.

7 Q. Do you understand that the districts  
8 indicated in these tables in the first column are  
9 the new majority minority districts pro peed by  
10 Plaintiffs in this case?

11 A. That's how they've been represented to  
12 me, yes, I believe that's true.

13 Q. These district numbers are for the  
14 record, past district 1, 23, 38, 60, 65, 68, and  
15 69. And Senate districts 17, 19, and 38; is that  
16 right, Dr. Lewis?

17 A. Yes.

18 Q. Okay. And I see we have four tables  
19 here. Are those the same districts in every  
20 table?

21 A. I believe so, yes.

22 Q. Now, I appreciate this is a Alexandria  
23 solve districts. If you wanted to look at the  
24 results of your analysis for any district, not  
25 listed here, that you were able to an nice, could

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1 you just turn to your expert report in this case?

2 A. I could for those districts that I  
3 analyzed.

4 Q. Okay. Can we walk through, I'd like to  
5 understand the difference between the tables. So  
6 could we start with just the header of table 1,  
7 and explain, and then we'll move on to table 2, 3,  
8 4. So for table 1, what does this show the Court?

9 A. Hero we're focusing on just elections  
10 for offices that were in the what you might call  
11 the primary election stage, which for these  
12 contests which are nonpresidential elections in  
13 Louisiana, state level elections in Louisiana,  
14 they're using a top two election system. So these  
15 are contests in which there are three or more  
16 candidates, vying to be one of the top two  
17 candidates to make it to run off or to win the  
18 primary out right by gaining the majority in that  
19 first stage.

20 Q. Does this table reflect the results of  
21 your percent needed to win analysis?

22 A. It does.

23 Q. Okay. Let's turn to table 2. What does  
24 this show the Court?

25 A. So here we're looking at contests in

1 which there were only two candidates. And so that

2 would be the run off stage elections, and also  
3 first stage or primary elections that only  
4 involved two candidates. So a winner is going to  
5 be determined in that contest.

6 Q. Okay. Does this table show the Court  
7 the results of your percent needed to win analysis  
8 on these districts?

9 A. Yes.

10 Q. Let's turn to table 3. What does this  
11 show the Court?

12 A. Table 3 is analogous to table 1, except  
13 here we focused on contest that included a black  
14 candidate.

15 Q. Finally, let's turn to table 4. For  
16 table 3, pardon me, Dr. Lewis, does that table  
17 show the Court the percent needed to win the  
18 analysis for those types of contests identified in  
19 table 3?

20 A. Yes, it does.

21 Q. Now least move on to table 4. What does  
22 this show the Court?

23 A. Table 4 is analogous to table 2. Now  
24 we're talking about run off where two primary  
25 candidate elections that included a black



1 candidate.

2 Q. Now staying on table 4, I'd like to  
3 understand what the different column headings  
4 mean. We've already gone through what the column  
5 heading district means. So let's start, move on  
6 to the next column over, percent black voting age  
7 population. What does this mean; what does this  
8 show?

9 A. So these are again data that were  
10 provided to me, but I believe to be based on 2020  
11 census data, that show the fraction of the  
12 population of each district that is -- that on the  
13 census identified as black only the first number  
14 or any part black, the second number. Again, this  
15 is because the census allows folks to -- this is a  
16 difference between the census and the voter roll.  
17 For the purposes of the census, individuals could  
18 identify as many, I believe, racial categories as  
19 they want. So some folks would identify  
20 themselves as both, one race and another. So you  
21 could think about people who said, I am only  
22 checked that they were black or African-American  
23 versus folks that would have also indicated other  
24 racial background.

25 Q. Let's move on to the column number of

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1 contests. What does this column show, and why do  
2 these numbers vary?

3 A. Sure. So the number of contests is the  
4 number of contests that were analyzed in arriving  
5 at the numbers that appear to the right of that  
6 column. And the reason they vary is because in  
7 different districts, I had more or fewer contests  
8 to use. Some of the contests that I looked at  
9 were statewide races. So they were operative in  
10 every effectively in every district. And then  
11 there were perhaps -- there were also elections  
12 that weren't statewide. So elections for U.S.  
13 house or state Senate or state house that could be  
14 used for the purposes of answering these questions  
15 for, you know, maybe a single house or Senate  
16 district, or maybe a couple of house or Senate  
17 districts so. Where that was possible, I did  
18 that.

19 Q. Let's turn briefly to table 1. I  
20 noticed there in table 1 number of contests are  
21 higher. Do you see that?

22 A. I do.

23 Q. Could you explain why that is?

24 A. Well, there are two reasons for the  
25 difference in number of contests between table 1

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1 and table 4. One difference is the inclusion of  
2 contests that did not involve a black candidate.  
3 And also, that not every primary election leads to  
4 runoff e.

5 Q. Okay. Let's go back to table 4. We're  
6 here on table 4. Did you only analyze elections  
7 where a black candidate was running?

8 A. No. I also include like -- I also  
9 provide the Court with tables that include  
10 contests in which there was no black candidate,  
11 but also elections in which there was a democrat.

12 Q. Did those elections have a black  
13 preferred candidate identified by EI?

14 A. Yes.

15 Q. And what does that mean black preferred  
16 candidate identified by EI?

17 A. That's a good question. What it means  
18 is that when I applied this algorithm, that makes  
19 a guess about what the rate of support was for  
20 each candidate among voters of different racial

21 groups. Again, you can't it's all mixed up. But  
22 the method making strong assumptions will make a  
23 guess, an estimate of what that rate was. And  
24 then from that, I will identify as the black  
25 preferred candidate, the candidate who received

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1 the majority, or in the case of more than two  
2 candidates, the plurality of the black vote and  
3 similarly for other ethnic groups.

4 Q. Were there instances where a white  
5 candidate would be the candidate of choice for  
6 black voters?

7 A. Well, every contest in which there  
8 appear a white voter, could have been. But there  
9 are instances in which EI estimated there to be a  
10 preferred candidate for black voters that was  
11 white. Of course in particular a contest that  
12 didn't involve a white candidate.

13 Q. Let's move on to the column average  
14 number of precincts. What does that column show?

15 A. Well, what we're doing in here is  
16 inferring these races support and so forth based  
17 on precinct level data. So it's useful to sort of  
18 have a sense of how much information there was to

19 do that. And the average number of Precisions  
20 tells you the average amount of information that  
21 was available to make the inference of Blake co  
22 meaning white crossover support that we'll talk  
23 about in a minute.

24 Q. Okay. Let's move on to the column  
25 percent black preferred candidates democratic.

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1 What does that show the Court?

2 A. That's the fraction of the candidate  
3 that EI identifies as the preferred candidate  
4 of -- the preferred candidate of black voters for  
5 which the -- the -- candidates was democrat. So  
6 in some cases, the candidate there you can see,  
7 you know, very high percentage, but it looks like  
8 perhaps there's one candidate in one contest,  
9 there's not democrat who's identified by EI in  
10 these districts as black preferred.

11 Q. Let's move on to the column average  
12 number of candidates. What does this show?

13 A. That's pretty straightforward. That is  
14 the average number of candidates in each contest  
15 under analysis. In tables 2 and 4, we're just  
16 looking at two candidate runoffs in primaries.

17 The average is two. The minimum is two. The  
18 maximum one is two. There's always two.

19 Q. Let's flip to table 1 to illustrate this  
20 point. Could you talk about average number of  
21 candidates in table 1 and why it's different?

22 A. Sure, because in this case we're looking  
23 at elections that have three or more candidates.  
24 So in many of these contests, there were  
25 substantial number of candidates. You can see the

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1 average exceeds seven in each district.

2 Q. Let's turn to the column black preferred  
3 win rate. What does that show the Court?

4 A. So that is effectively the result of the  
5 reconstitute or reconstructed election analysis  
6 there. So it asks the question, once we've used  
7 the EI to identify the black preferred candidate,  
8 if you had only held the particular election that  
9 we're analyzing in that particular district, would  
10 that black preferred candidate have been  
11 successful. And then the definition of success  
12 here is a little bit different in tables 1 and 2,  
13 you know, between tables 1 and 2 and between  
14 tables 3 and 4. In the three or more candidate

15 elections, these primary contests, the success  
16 measure is just moving on to the next stage or  
17 winning out right. So you don't have to win  
18 outright -- you don't have to come in first. You  
19 just have to sort of live to fight another day.

20 Q. Is the black preferred candidate assumed  
21 under this analysis, or is it calculated or  
22 estimated in some way?

23 A. Yes. The black preferred candidate is  
24 estimated from the EI analysis.

25 Q. On table 4, I see that the win rate is

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1 50 or higher for every district. Does this mean  
2 that black preferred candidates are winning these  
3 districts at a rate of more than half the time,  
4 and sometimes 100 percent of the time?

5 A. Yes, in the contest that we looked at  
6 here, they did, you know, turn the vast years that  
7 we analyzed -- that I analyzed.

8 Q. I'd like to draw one specific example to  
9 ask you a question, Dr. Lewis. On table 4 state  
10 house district 38, so this is H2338, I see that  
11 the BVAP is just barely 50 percent, the black only  
12 is 49 percent, and the any part black is

13 50.8 percent. Do you see that?

14 A. I do.

15 Q. Then coming over to the black preferred  
16 win rate, I see 100 percent figure; is that right?

17 A. Yes.

18 Q. Can we conclude anything about whether  
19 majority minority districts are required to create  
20 an opportunity to elect in this district?

21 PLAINTIFF COUNSEL:

22 Objection on relevance ground. This  
23 question calls for testimony about whether an  
24 opportunity district could hypothetical be  
25 drawn BVAP 50 percent. And the relevant

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1 consideration under Gingles and the reason  
2 Fifth Circuit opinion in Robinson. The only  
3 relevant opinion is whether the enacted  
4 district are opportunity districts as drawn.

5 THE JUDGE:

6 Can you respond.

7 DEFENSE COUNSEL:

8 Your Honor, it sounds like a legal  
9 briefs. This has to do with districts,  
10 illustrative districts that are drawn. And



11 Dr. Lewis is here to testify about percent  
12 BVAP needed to win.

13 THE JUDGE:

14 Okay. Let me ask you this: so if  
15 we're -- if the fifth Circuit has told this  
16 Court that if the Court find a violation of  
17 section 2, that the legislature has to have  
18 an opportunity, correct? You would agree  
19 with that, the legislature has to opportunity  
20 to repair it? The close of this evidence, it  
21 is unlikely this Court is going to enact a  
22 map. We're talking about illustrative maps,  
23 not remediation maps.

24 DEFENSE COUNSEL:

25 Correct. Illustrative maps. There's a

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1 straight remedy phase, let me also say that  
2 this information is relevant to what is  
3 necessary to be drawn. It is relevant to the  
4 Court whether Plaintiffs have put forward a  
5 map, that is a viable remedy.

6 THE JUDGE:

7 Why? If we're going to have a remedy  
8 phase, why don't you have the cart before the

9 horse here? I'm saying it's never going to  
10 be relevant, but why is it relevant now.

11 DEFENSE COUNSEL:

12 There's a number of president behind the  
13 fact in order to make aging showing  
14 Plaintiffs have to come before the Court and  
15 show they have a viable remedy. When I say  
16 remedy, I understand that sounds like  
17 remediation phase. It has to do with  
18 Plaintiff's illustrative plan. They have to  
19 come to you and show --

20 THE JUDGE:

21 In a reasonably configured plan is the  
22 way I read the law, a reasonably configured  
23 illustrative plan.

24 DEFENSE COUNSEL:

25 They also have to show Gingles 3, that

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1 the white block is voting consistently, to  
2 outvote black voters. The testimony here is  
3 about what's happening in these districts and  
4 in these areas.

5 THE JUDGE:

6 I understand -- I actually don't even

7 really dispute the relevance of white  
8 crossover voting. I'm questioning, I guess  
9 you're saying that white crossover voting  
10 creates opportunity districts?

11 DEFENSE COUNSEL:

12 It is correct that white crossover  
13 voting is part of the Gingles analysis, and  
14 creates -- could create either cross over  
15 districts or could contribute to districts  
16 being able to perform.

17 THE JUDGE:

18 You want to respond?

19 PLAINTIFF COUNSEL:

20 We're discussing illustrative districts.  
21 It is entirely irrelevant to Gingles 1 and 2.  
22 Defendants are arguing possibility of  
23 crafting these districts with white crossover  
24 voting does exempt the State of Louisiana  
25 from drawing opportunity district voting.

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1 This is exactly the same argument that was  
2 rejected in Robinson.

3 DEFENSE COUNSEL:

4 Your Honor, there are case -- there's

5 case after case after case about Plaintiffs  
6 needing to come in and show that they have  
7 districts that satisfy Gingles 1. They also  
8 need to satisfy Gingles 3. Plaintiffs, it is  
9 our position and it's in the briefs, they've  
10 presented no evidence that their proposed  
11 districts need to be drawn at 50 percent or  
12 above due to white block voting. They  
13 haven't done that. Dr. Handley came in and  
14 gave a general analysis. We have Dr. Lewis  
15 here doing a very specific analysis not only  
16 to illustrative districts, but to enacted  
17 districts. It's all in his report. It's  
18 relevant to Plaintiffs showing and Plaintiffs  
19 ability to come before the Court and show  
20 that Gingles 3.

21 THE JUDGE:

22 Objection overruled.

23 EXAMINATION BY DEFENSE COUNSEL:

24 Q. Would you like me to ask the question  
25 again, doctor?

1 A. Yes, please.

2 THE JUDGE:

3 I would like you to.

4 EXAMINATION BY DEFENSE COUNSEL:

5 Q. Dr. Lewis, we were looking at H2338. We  
6 were looking at the BVAP level and the black  
7 preferred win rate. Do you remember that?

8 A. I do.

9 Q. Okay. So I was asking for your opinion  
10 about if you see a win rate of 100 percent in  
11 districts drawn barely above 50 percent, is there  
12 anything that you can conclude about whether  
13 majority minority districts are required in order  
14 for black voters to have an opportunity to elect  
15 their candidates of choice?

16 PLAINTIFF COUNSEL:

17 Your Honor, just for the record, can we  
18 have a continuing objection to any further  
19 questions that tend to elicit Dr. Lewis of  
20 the BVAP percentage needed to win?

21 THE JUDGE:

22 Yes.

23 PLAINTIFF COUNSEL:

24 Thank you.

25

1 DEFENSE COUNSEL:

2 I'll put a response on the record as  
3 well, Your Honor. There was no motion in  
4 limine. There was no Daubert motion.

5 THE JUDGE:

6 That's fine. Her objection is  
7 relevance. It's continuing objection. You  
8 can answer if you remember the question.

9 DEFENSE COUNSEL:

10 Thank you, Your Honor.

11 THE WITNESS:

12 I think I do. So I think it's again to  
13 say the conclusion that you would have to  
14 draw, you know, it does again border a little  
15 bit on a legal conclusion about what it means  
16 for something to be an opportunity and so  
17 forth. I think the idea is if again from a  
18 kind of more of a political science than  
19 legal perspective, you know, if you were at  
20 50.8, you might think, well, if you just drop  
21 that down by a point or two would that  
22 100 percent win rate, would that drop below  
23 50 percent, if you just moved a few voters  
24 out of that district. And that's the sort of  
25 thing that this, what you're calling this

1 sort of minimum BVAP needs to win, helps us  
2 understand, is given what we've estimated,  
3 what we believe to be true about the patterns  
4 of voting, we can say something about how you  
5 might be able to adjust that black voting age  
6 population, and still maintain or create  
7 doing it -- depending on which way you want  
8 to move it, still create or maintain the  
9 opportunity for black candidates of choice to  
10 win. And again, that's the -- again, the  
11 limit kind -- the win rate in some ways is  
12 that it can only tell you in this district as  
13 it's drawn, you know, what would it produced  
14 historically.

15 EXAMINATION BY DEFENSE COUNSEL:

16 Q. Moving on to the next column, average  
17 black preferred candidate vote share. Do you see  
18 that?

19 A. I do.

20 Q. Okay. What does that show the Court?

21 A. Again, we're averaging across these six  
22 elections here. We're just saying what was the  
23 average rate of support among all voters for the

24 candidate that was identified as the black  
25 preferred candidate in the district or in that

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1 contest in the district.

2 Q. Let's briefly turn to table 1, where we  
3 have more than two candidates. What does this  
4 column, the column average preferred candidate  
5 vote share, show the Court about contests with  
6 more than seven candidates on average?

7 A. Well, as one would expect, as the number  
8 of candidates increases, the sort of vote shares  
9 received by each of the candidates tends to fall.  
10 So two candidate election, you need a majority in  
11 order to win the election. If you're trying to  
12 get plurality, if they're seven candidates and the  
13 votes are distributed, so you do see there that  
14 the average number of votes received or shared  
15 votes received by the black preferred candidate is  
16 a little lower than those two candidate races as  
17 you would expect. Of course, it could be due to  
18 other things as well, but that's what you  
19 anticipate or expect to see.

20 Q. It also seems a little higher  
21 considering seven candidates. What does that



22 mean, that it is not one seventh of table 4's vote  
23 share?

24 A. Well, I'm not sure. Again, I think  
25 we're still seeing again in these districts that

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1 have large populations, and as we'll see in the  
2 next column average sum, the black cohesion is  
3 pretty high. Of course, that translates into an  
4 over all vote share for that black preferred  
5 candidate that remains quite high, and see  
6 generally high enough to win advancement to the  
7 next stage or outright victory nearly 100 percent  
8 of the time and nearly all the districts.

9 Q. Staying on table 1, I'm seeing in the  
10 column black preferred win rate. Numbers of 100,  
11 100 percent win rate in 8 out of 10 districts  
12 analyzed. Is that a correct read?

13 A. Yes.

14 Q. Let's move back to table 4, please.  
15 Could we move to the column average percent voters  
16 black, and could you tell the Court what that  
17 shows?

18 A. Well, again, the race of the voters is  
19 identified in the voter rolls. And is included in

20 the data that was provided to me. So I can  
21 calculate the fraction of voters in these  
22 elections identified as black.

23 Q. So do you understand that voters in  
24 Louisiana, do they register by race, do they  
25 indicate their race when they register?

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1 A. Yes, that's my understanding.

2 Q. So you didn't have to estimate that  
3 figure; is that right?

4 A. No. That was a relief in this case  
5 versus many of the cases that I work on, in other  
6 parts of the country, where that is not done, and  
7 then a whole big component of this analysis is to  
8 try to estimate which voters are in which  
9 category.

10 Q. Let's move on to the column average EI  
11 black cohesion. What does this show the Court?

12 A. That is the EI algorithms estimate of  
13 the share of the black vote that was received by  
14 the candidate who estimates received the highest  
15 share of black votes.

16 Q. Let's move on to average EI white  
17 crossover support. What does this show the Court?

18           A.    Again, that's the fraction of estimated.  
19   Always estimates like we should never say, oh, we  
20   know that number is 10 or 14.  These are estimates  
21   that are subject to bias, if their assumptions  
22   aren't met, and also uncertainty that arises from  
23   the fact that we're not looking at a very large  
24   number of contests and don't have an enormous  
25   amount of information upon which to base our

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1   estimates.  But what it means, is that EI  
2   estimated for each contest that was considered the  
3   share of the white vote that was cast for the  
4   candidate that the model had previously identified  
5   as the black preferred candidate, and then average  
6   cross those contests to get 10 percent of the 14  
7   and so forth that you see in that column that's  
8   highlighted.

9           Q.    So where you see in this table white  
10   cross year voting and sometimes up to 29 percent,  
11   what does that tell the Court?

12          A.    What you see there in those cases, and I  
13   think across all the cases is the estimated rate  
14   of white cross over voting exceeds -- there's more  
15   white voters are crossing to vote for the black

16 candidate than black candidates are crossing over  
17 to vote for the white candidate. That should be  
18 the first sort of indication that putting aside  
19 differences in turn out that might exist, you can  
20 sort of immediately see that you wouldn't  
21 necessarily need 50 percent or more in order for  
22 the black candidate of choice to prevail, because  
23 the black population is estimated to be more  
24 cohesive. So if you think that if the -- if black  
25 voters sort of did all their voting the first half

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1 of the game and white voters did their voting in  
2 the second half, the black voters could run up the  
3 score enough to win the game. So you don't  
4 actually need the whole half to do that. I don't  
5 know. That's maybe not the right analogy, but you  
6 get the sense of the logic of it. Crossover.

7 Q. Let's move to the column percent  
8 polarized. What does this tell the Court?

9 A. So again, pole risings could have a very  
10 specific legal meaning. My understanding in  
11 different litigation, that term is defined  
12 differently. I'll be very specific about what I  
13 was asked to calculate here, under that label.

14 That's just the fraction of instances in which the  
15 candidate that EI identifies as the preferred  
16 candidate of the black voters is not the same  
17 candidate that it identifies as the preferred  
18 candidate of the white voters. So it's just a  
19 fraction of times in which there is that  
20 disagreement between the two racial groups about  
21 which candidate should hold office.

22 Q. Can you tell the Court, can voting both  
23 be both polarized on the one hand but still have  
24 sufficient crossover for a black candidate of  
25 choice to be elected in a nonmajority black

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1 district?

2 A. Yes, in exactly the way we just  
3 discussed, that if there is more crossover  
4 support, not over 50 percent, so you have pole  
5 rights act, in these two candidate elections in  
6 that sense, but if there's more heterogeny in the  
7 voting of white folks than black folks, then you  
8 wouldn't need 50 percent of the population to be  
9 black in order to elect a black candidate of  
10 choice, again, putting aside differences in  
11 turnout.

12 Q. Moving to the next column, average  
13 percent black VAP to win. Can you tell the Court  
14 what this shows?

15 A. Right. So the idea there again is to  
16 think about a kind of thought experiment where you  
17 could keep other features of the district under  
18 analysis fixed and just alter the fraction of  
19 black voter population, voting age population.  
20 And again, we're going to hold fixed the level of  
21 cohesion, we're going to hold fix the level of  
22 crossover support. We're going to hold fix the  
23 relative size of the white population and the  
24 nonwhite or black, sort of other population.  
25 We're going to hold those things fixed as we sort

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1 of turn the dial on what the size of the black  
2 population is. We're going to tune that dial  
3 until given all those numbers, we reach the point  
4 where we identify the fraction of the voters that  
5 would have to be black in order for the black  
6 preferred candidate to just barely certainly win  
7 by one vote. Once we get that number, we have to  
8 account the differences in number of turnout, hold  
9 those fixed in what they were to be in the

10 context. And add just that to get that number you  
11 see highlighted in yellow. Again, that's an  
12 estimate.

13 Q. Overall, what was your conclusion about  
14 what this type of analysis shows the Court about  
15 Plaintiff's proposed new districts?

16 PLAINTIFF COUNSEL:

17 Objection. This is beyond the scope of  
18 his report. Dr. Lewis did state in his  
19 deposition he can point to no conclusions  
20 other than the numbers in his report asking  
21 him to draw any inferences from those numbers  
22 is clearly beyond the scope.

23 DEFENSE COUNSEL:

24 Your Honor, I'm asking him about his  
25 numbers that are in his report that are

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1 copied here. I'm asking him about his -- the  
2 numbers that are presented here and what they  
3 show about Plaintiff's select new districts.

4 THE JUDGE:

5 Question is did he connect the dots in  
6 his report? You're asking him about his  
7 conclusions, and Ms. rohoney is saying it's

8 outside the scope of his written report.

9 DEFENSE COUNSEL:

10 A moment, Your Honor, trying to locate  
11 it. I beg your pardon, Your Honor. Your  
12 Honor, I can come back to this.

13 THE JUDGE:

14 I looked at his conclusion, I actually  
15 looked at it before today. I would sustain  
16 the objection.

17 DEFENSE COUNSEL:

18 Okay. Your Honor, am I about to move  
19 into a new section of questions. And it's  
20 almost 5. Is now a good time to stop?

21 THE JUDGE:

22 How long are you going to be, 30 or 40  
23 more minutes.

24 DEFENSE COUNSEL:

25 Yes.

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1 THE JUDGE:

2 Yes. We'll take a break for the day.  
3 We'll be in recess. Again the Court  
4 apologizes, we'll be in recess until 10 a.m.,  
5 we'll go straight through until 2.



6 (COURT RECESS AT 4:56 P.M.)

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