

No. 22-807

IN THE

Supreme Court of the United States

THOMAS C. ALEXANDER, *et al.*,

Appellants,

—v.—

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, *et al.*,

Appellees.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA

SUPPLEMENTAL APPENDIX

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Appendix 1

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[STAMP]
Plaintiffs'
Exhibit

26

Case No. 3-21-cv-03302-MBS-TJH-RMG

**Congressional Rebuttal Expert Report
of Dr. Jordan Ragusa**

May 4, 2022

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, in his official capacity as
President of the Senate; LUKE A. RANKIN, in his
official capacity as Chairman of the Senate Judiciary
Committee; JAMES H. LUCAS, in his official
capacity as Speaker of the House of Representatives;
CHRIS MURPHY, in his official capacity as
Chairman of the House of Representatives Judiciary
Committee; WALLACE H. JORDAN, in his official

capacity as Chairman of the House of
Representatives Elections Law Subcommittee;
HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,
Defendants.

Overview

I was asked by plaintiffs' counsel to evaluate the report of Sean Trende, an expert for the defendants in this matter. At the heart of Trende's report is a comparison of South Carolina's newly enacted congressional map to the map drawn after the 2010 Census. Trende often refers to the prior map as the "benchmark plan" and the new map as the "enacted plan." In his report, Trende relies on a mix of summary statistics and demographic data.

Trende finds that the new map splits fewer counties, from 12 to 10, and repairs several split voting tabulation districts, from 65 to 13 (pg. 10). Trende also notes that the enacted plan, like its predecessor, contains equipopulous and contiguous districts (pg. 10) and keeps incumbents in the same district (pg. 21). Finally, Trende concludes that the enacted plan is roughly equivalent to the benchmark plan on common measures of compactness (pgs. 19-20). I do not challenge any of these summary statistics.

Trende also reviews demographic data on the districts. He concludes that the redrawn map

“generally reflects only modest changes from the map that was in effect from 2012-2020” (pg. 35). For example, Trende notes that that the 7th district keeps 99.96% of its prior population, a statistic he calls the district “core.” I do not dispute this characterization of the 7th district; in fact, my report reached the same conclusion with different data.¹ I do, however, challenge two of Trende’s claims regarding the 1st district: that it maintains a “large share” of its core (pg. 18) and that the redrawn map has a “minimal effect” on the district’s racial composition (pg. 35).

CD #1 Core Retention

A key component of Trende’s report concerns “core retention.” Trende defines core retention as “the percentage of a district’s residents who are kept in a district from one redrawing to the next” (pg. 17). His data show that five of the seven districts (CDs #2-5 and CD #7) maintain 94% or more of their pre-redistricting population, with three of the seven above 98% core retention. Once again, the 7th district tops the list, maintaining 99.96% of its prior population. Trende refers to these five districts as having “very high” core retention rates (pg. 18). In contrast, by Trende’s estimates, the 1st district keeps 82.8% of its core while the 6th district keeps 87.6% of its core (pg. 18). Trende refers to these two districts as retaining a “large share” of their pre-redistricting population (pg. 18).

¹ See “Expert Report Evaluating South Carolina’s Congressional Map” dated April 11, 2022. At the heart of my report is an examination of how the precincts were moved between districts. On page 7, I explain that the 7th district is notable for how few precincts were altered during redistricting.

Critically, however, Trende never defines what would qualify as “low” population maintenance, nor does he compare his core retention statistics to some baseline. Of course, no statistic is inherently high or low. As they say, context matters. For example, Trende also notes that the 1st district’s 82.8% core retention rate translates to 140,489 residents who were drawn out of the district (pg. 18). Is 140,489 a large number? I believe it is, in one very important context.

In the 2018 midterm election in the 1st district, Democrat Joe Cunningham defeated Republican Katie Arrington by just 3,982 votes, or about 1% of the total votes cast.² Cunningham was the first Democrat to win election in the 1st district in forty years. Two years later, Cunningham would lose reelection to Republican Nancy Mace by just 5,415 votes, again about 1% of the total votes cast.³ Despite a slight Republican lean, by 2020 the district had become South Carolina’s only competitive district.

I raise this issue because the margin of victory in the 1st district in the two most recent elections is a small fraction of the population that was drawn out of the district during redistricting.⁴ Once again, whether a statistic is high or low requires additional context, and in this context the district lost a large and likely consequential portion of its core. I focus on whether

² I obtained these data from SCVotes.gov, the official website of the South Carolina Election Commission.

³ Finally, according to survey data from the Cooperative Election Study, in these two contests over 95% of Black respondents from the 1st district said they preferred Cunningham to his Republican opponents. I obtained these data from the CES website: <https://cces.gov.harvard.edu/>.

⁴ As noted later in my report, the 140,489 residents moved into the 6th district translates to 113,531 residents of voting age.

Black voters were disproportionately drawn out of the district in the next section.

Another way to think about core retention is to consider the counties that comprise a district. Indeed, what constitutes a district's "core" is also a geographic question. On this matter, Trende says that "South Carolina's district cores have remained surprisingly consistent over the past century." (pg. 10). He arrives at this conclusion by looking at district maps dating back to 1902. In the case of the 1st district, Trende concludes that "Going back to the early 1900s, the 1st District was anchored in Charleston." (pg. 10).

A natural question arises: Is the 1st district *still* anchored in Charleston? I believe the answer is no. Table 1 on the next page presents the 1st district's voting age population by county before and after redistricting. In the columns labeled old and new "VAP" is the county's total voting age population while the columns labeled old and new "Percent" is the county's VAP divided by the total voting age population in the district.

Prior to redistricting, 38% of the 1st district's voting age residents were in Charleston County, 15% greater than the next largest county, Berkeley, at 23%. After redistricting, however, not only does Berkeley County eclipse Charleston with 30% of the new district's voting age population, but Charleston County now ranks *third* for the most populous portion of the district. In the redrawn map, Beaufort County makes up 27% of the 1st district's voting age population compared to Charleston County's 25%. In total, Charleston County's share of the district's

voting age population shrunk by 13% as a result of the redrawn map.⁵

All in all, I do not share Trende's view that the 1st district retains a large portion of its core. Despite the 83% population retention statistic he cites, the raw number of voters drawn out of the district is quite large, especially when considered in the context of recent elections. Given the competitiveness of the 1st district in recent election cycles, seemingly subtle changes in who was added to or removed from the district could affect election outcomes over the subsequent decade.⁶ I explore this issue in more detail in the next section, specifically as it relates to the ability of Black voters elect candidates of their choice. Further, Trende's claim that the state's cores have remained consistent for a century is contradicted by the fact that Charleston County—the district's "anchor" in Trende's own words—now ranks third for the largest county share of the district voting age population.

⁵ I presume Trende's point about the 1st district core is in reference to Charleston County. However, my critique applies to the City of Charleston as well. As Trende notes, the entire city peninsula (considered downtown Charleston) is now in the 6th district, as is the most populated portion of the city, West Ashley (pg. 33). According to the City's "Fast Facts," these two portions comprise 69% of the city's total population. I obtained these data from the city's website: <https://www.charleston-sc.gov/106/Demographics>.

⁶ Although Trende acknowledges that changes in the partisan makeup of the district "likely moved the district out of competitive territory and into reliably Republican territory, at least in the short term," he dismisses changes in the district's racial composition district as "minimal" (pg. 35). I focus on this matter in the second section of my rebuttal.

Table 1: CD #1 County Cores

<u>County</u>	<u>Old</u> <u>VAP</u>	<u>Old</u> <u>Percent</u>	<u>New</u> <u>VAP</u>	<u>New</u> <u>Percent</u>	<u>Change</u>
Jasper	0	0%	4,368	1%	+1%
Colleton	1,186	<1%	2,099	<1%	0%
Dorchester	105,017	16%	94,831	17%	+1%
Beaufort	142,046	22%	151,768	27%	+5%
Berkeley	150,383	23%	173,949	30%	+7%
Charleston	242,758	38%	143,523	25%	-13%
District					
Total	641,390		570,538		

CD #1 Racial Composition

I now examine how the redrawn map affects the racial composition of the 1st district. On this topic, Trende relies on two comparisons.

At the end of his report, Trende compares residents who were removed from the 1st district to those in Charleston and Dorchester counties (pg. 35). As Trende notes, 113,531 residents of voting age were drawn out of the 1st district and into the 6th district, all of them from these two counties. Trende reports a BVAP of 22.5% in Charleston and Dorchester counties, compared to a BVAP of 23.4% of residents drawn out of the 1st district. Based on these statistics, Trende concludes that “the net effect of these moves on the racial composition of these districts is minimal.” (pg. 35).

I believe this comparison paints an incomplete picture as to how the redrawn map affects the racial composition of the 1st district. First, I believe Trende’s estimate uses the wrong denominator in one of his

calculations, and second, Trende's data suffer from a conceptual flaw: they focus on the choices mapmakers *made* and do not consider the choices they *could have* made.

On the first point, recall that Trende compares voters in Charleston and Dorchester counties to those drawn out of the 1st district. In this comparison, the percentages are similar. It is important to keep in mind, however, that sizable portions of both counties were in the 6th district prior to redistricting. Furthermore, these portions of the 6th district have more than double the percentage of Black voters compared to the portions in the 1st district.⁷ Trende's denominator includes these voters in the county BVAP calculation, thus inflating his baseline statistic.

A better comparison, in my view, is to focus on the portions of Charleston and Dorchester counties that were *within* the 1st district prior to redistricting. Doing so provides an apples-to-apples comparison. After all, if the question is how the redrawn map affects the racial composition of the 1st district, why include voters outside the district, especially when most of those voters remained outside the district even after redistricting?⁸

If we recalculate Trende's estimates but focus on the 1st district's portions of the two counties, we find that Black voters were disproportionately drawn out of the

⁷ According to the data, 42.8% of the voting age population of Charleston and Dorchester counties in the old 6th district are Black, compared to 17.7% of the portions of these counties in the 1st district.

⁸ According to the data, just 4,110 residents of voting age were moved from the 6th district into the 1st district from Charleston and Dorchester counties.

1st district. Of the 347,775 voting age residents in the 1st district in Charleston and Dorchester counties under the old map, 61,395 were Black, making the baseline BVAP 17.7%.⁹ Of the 113,531 residents of voting age who were removed from the district from these two counties, 27,626 are Black, making the BVAP for those drawn out of the 1st district 24.3%. In other words, Black voters were 6.6% more likely to be removed from the 1st district compared to their proportions in Charleston and Dorchester counties within the district.

On the second point, Trende's focus on Charleston and Dorchester treats mapmakers' decision to remove voters from these two counties (and not others) as a given. I believe this is conceptually flawed. Table 2 below lists the BVAP in the 1st district prior to redistricting, divided among its five counties. In total, there were 110,761 Black residents of voting age in the old district. We can see that Black voters were not evenly distributed across the counties, however. Charleston County tops the list, with 37,855 Black voters in the prior district configuration, followed by Berkeley (31,227), Dorchester (23,540), Beaufort (18,093) and Colleton (46) counties.

Critically, the voting age population removed from the 1st district correlates (albeit only roughly) with the pre-redistricting BVAP noted in the prior paragraph. Table 2 lists these data in the second column. "VAP Removed" is the county's number of voting age residents (of any race) drawn out of the district divided by the total voting age population in

⁹ I list the total voting age population in the 1st district in each of the counties (the denominator) in Table 1 above. I list the BVAP in the district in each of the counties (the numerator) in Table 2 below.

the district and county.¹⁰ Charleston County once again tops the list, with 42% of its 1st district voting age residents moved to the 6th district by the redrawn map. At the other end of the spectrum, the two counties with the lowest Black voting age population in the district (Colleton and Beaufort) kept 100% of their voting age residents. Simply put: If we focus on just Charleston and Dorchester counties, we ignore portions of the district that mapmakers could have selected for removal but decided to leave intact.

Table 2: CD #1 County BVAP and Population Removed

<u>County</u>	<u>Old BVAP</u>	<u>VAP Removed</u>
Colleton	46	0%
Beaufort	18,093	0%
Dorchester	23,540	12%
Berkeley	31,227	0%
Charleston	37,855	42%
Total	110,761	

Looking at the data in their entirety, as opposed to just two of the five counties, we once again see that Black voters were disproportionately drawn out of the 1st district. As noted earlier, 27,626 Black voters were removed from the 1st district, comprising 24.3% of the 113,531 total voting age residents who were drawn out. By comparison, the BVAP for the 1st district prior

¹⁰ Dorchester County had 105,017 voting age residents prior to redistricting and 12,584 drawn out (or 12% removed) while Charleston County had 242,758 voting age residents prior to redistricting and 100,947 drawn out (or 42% removed).

to redistricting was 17.3%.¹¹ In other words, there is a 7.0% gap between the 1st district's old BVAP and the portion drawn into the 6th district (slightly larger than the 6.6% statistic for the portions of Charleston and Dorchester counties in the district).

It is worth noting that my initial report identified this disparity.¹² At the heart of my report are three statistical models that examine the VTDs selected for each of the redrawn districts. In the second of the three models, I examined whether race, partisanship, or precinct size explain which VTDs were removed from each district.¹³ At issue in this analysis is whether the VTDs moved out of the redrawn districts differ in systematic ways from those kept in the district. Table 3, below, reproduces the results of this analysis for the 1st district.

In this analysis the BVAP variable is statistically significant and positive, indicating that VTDs with a large Black population were more likely to be moved out of the 1st district. In a subsequent calculation in

¹¹ I present the pre- and post-redistricting BVAP for each district in Table 4 at the end of this report.

¹² See "Expert Report Evaluating South Carolina's Congressional Map" dated April 11, 2022.

¹³ I measure a precinct's racial composition using publicly available Census data from 2020. Specifically, I record the Black voting age population (labeled BVAP) of each VTD in the state. In the calculation I include any person who self-identified as Black, including Black in combination with any other category. I also include a variable in my analysis that records each precinct's total voting age population (labeled Total VAP). Lastly, I measure partisanship using the number of votes for Joe Biden in the 2020 general election (labeled Biden Vote). I obtained these data from SCVotes.gov, the official website of the South Carolina Election Commission. Additional details can be found in my prior report.

my original report, I show that VTDs with 100 Black voters had only a 13% chance of being moved out of the 1st district, compared to 60% for VTDs with 1500 Black voters (pg. 5).

Table 3: Analysis of CD #1

<u>Variables</u>	<u>Model 2</u> <u>VTDs Moved Out</u>
Biden Vote	0.39***
BVAP	0.18***
Total VAP	-0.14***
Constant	-2.06***
N	369

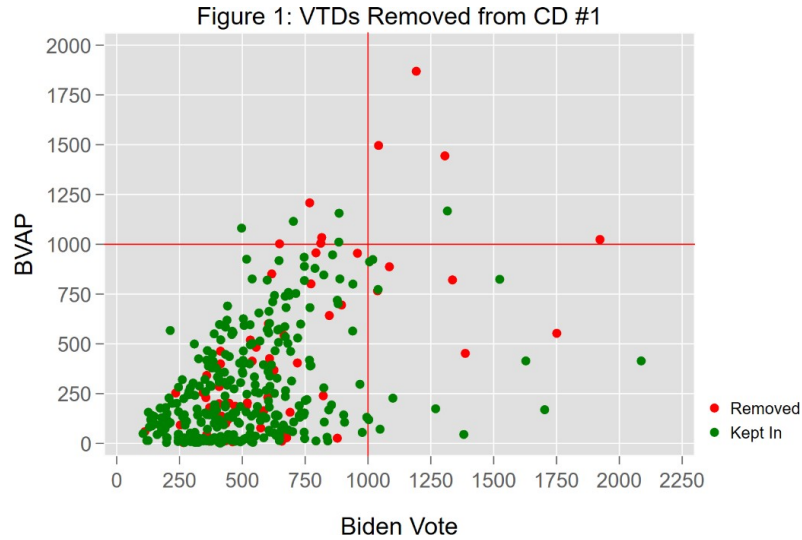
*** p<0.01, ** p<0.05, * p<0.1

Although my report does not focus on partisanship, it is notable that the Biden Vote variable is also statistically significant and positive in the analysis. In other words, the results indicate that *both* Black and Biden voters were disproportionately removed from the 1st district. As noted in footnote 6 above, Trende only acknowledges the latter in his report.

A possible counterpoint is that mapmakers targeted the district's largest county, Charleston, and the largest precincts, given the requirement that the district shed roughly 88,000 voters. If so, perhaps this explains why Black and Biden voters were disproportionately drawn out of the district. My analysis dispels this possibility, however. In fact, because the Total VAP variable is statistically significant and negative in the model, the results reveal that, on balance, mapmakers were more likely to remove from the 1st district VTDs with smaller total populations.

We can see these racial and partisan disparities in a simple scatterplot. Figure 1 below arranges the VTDs in the 1st district prior to redistricting based on their Biden vote (on the x-axis) and BVAP (y-axis). As a reference point, the figure includes two lines at 1000 persons on each axis. Green dots indicate VTDs kept in the district while red dots indicate VTDs that were drawn out. In total, there were 369 precincts in the 1st district prior to redistricting, with sixty-five removed by the redrawn map. So, the baseline probability that any given VTD was drawn out of the district is 17.6%.

One way to read Figure 1 is to look at each quadrant. In the lower left quadrant, there are 339 VTDs with <1000 Biden and Black voters. Among them, 52 (15.3%) were drawn out of the district. In other words, precincts with the fewest Biden and Black voters were less likely to be removed from the district compared to the baseline. At the other extreme, in the upper right quadrant there are five VTDs with >1000 Biden and Black voters. Among them, four (80%) were drawn out of the district. In the lower right quadrant, there are seventeen VTDs with >1000 Biden voters but <1000 Black voters. Although just five of them were removed from the district, the percentage (29.4%) is roughly twice the baseline. Finally, in the upper left quadrant, there are eight VTDs with <1000 Biden voters but >1000 Black voters. Among them, four (50%) were drawn out of the district, approximately three times the baseline.



Another way to read Figure 1 is to look at either side of the reference lines (rather than the four quadrants). On the right side, there are twenty-two VTDs in the 1st district with >1000 Biden voters, nine of which (41%) were drawn out of the district. By comparison, fifty-six out of 347 VTDs with <1000 Biden voters (16%) were removed. In the top of the figure, there are thirteen VTDs in the 1st district with >1000 Black voters, eight of which (62%) were drawn out of the district. By comparison, fifty-seven out of 356 VTDs with <1000 Black voters (16%) were drawn out. Notably, we can see that the four precincts with the largest BVAP in the 1st district were all removed from the district. According to these data, the racial composition of a precinct was a stronger predictor of whether it was removed from the 1st district than its partisan composition.

I examined other reference points to evaluate the robustness of the above results. I find the same patterns. For example, 21% of VTDs in the 1st district with >500 Biden voters were drawn out of the district

compared to 14% for VTDs with <500 Biden voters, while 26% of VTDs with >500 Black voters were drawn out of the district compared to 15% of VTDs with <500 Black voters.

As a final matter, the other statistic Trende relies on in his report is the BVAP in the 1st district before and after redistricting. Trende concludes that the enacted plan produces “almost no change” in the district’s Black voting age population (pg. 22). According to his Table 7, the district’s BVAP shifts from 16.6% under the old map to 16.7% in the redrawn map (pg. 22). Although we use slightly different measures in our respective reports, my data confirm this modest change.¹⁴ Table 4, below, presents my estimate of the Black voting age population for each of the districts before and after redistricting. According to my data, there is a 0.1% increase in the BVAP in the 1st district, nearly identical to Trende’s estimate.¹⁵

¹⁴ I obtain my data on race from the 2020 Census: <http://data.census.gov/>. See table “P3: Race for the Population 18 and Over.” I include in my measure any person who self-identified as Black, including Black in combination with any other category. Trende uses the non-Hispanic Black population.

¹⁵ Although Trende lists the old and new BVAPs as 16.6% and 16.7%, respectively, he cites a 0.2% difference in the third column of his table (pg. 22). No doubt this discrepancy is due to rounding. My estimate, by comparison, rounds down to 0.1%, so practically speaking our estimates are the same.

Table 4: BVAP Change

<u>District</u>	<u>BVAP (Old)</u>	<u>BVAP (New)</u>	<u>BVAP Change</u>
CD #1	17.3	17.4	0.1
CD #2	23.9	25.4	1.5
CD #3	17.4	17.6	0.2
CD #4	18.3	19.0	0.7
CD #5	25.7	24.7	-1.0
CD #6	52.5	46.9	-5.6
CD #7	25.4	25.4	0.0

I believe this comparison suffers from the same flaw noted earlier. Namely, it focuses on the choices mapmakers made and does not consider the choices they could have made. Consider the disparity cited above: that Black voters were 7.0% more likely to be drawn out of the 1st district compared to their percentage in the district prior to redistricting. One way to think about this statistic is in terms of the number of voters removed in excess of strict parity. Namely, if mapmakers drew Black voters out of the district in a proportionate manner, they would number 19,641.¹⁶ Recall that 27,626 Black voters were removed from the district by the redrawn map. In other words, 7,985 additional Black voters were moved out of the 1st district in excess of parity.

Finally, it should be noted that, according to my data, 16,074 Black voters were drawn into the 1st district from the 6th district. On the one hand, this certainly serves to reduce the disparities noted above.

¹⁶ As noted elsewhere in this report, the BVAP prior to redistricting is 17.3%, and 113,531 residents of voting age were removed from the 1st district.

However, there are two points to keep in mind. First, on balance the 1st district shed 11,552 more Black voters than it gained from the 6th district. Second, the data indicate that Black voters were less likely to be moved from the 6th district to the 1st when compared to their proportion in the 6th district. Prior to redistricting, 52.5% of the 6th district's voting age population was Black, compared to 37.7% of those drawn into the 1st district. As a result, 6,332 fewer Black voters were moved from the 6th district into the 1st district than would be considered proportionate.¹⁷ If we combine this number with the 7,985 Black voters who were disproportionately removed from the 1st district, the BVAP in the 1st district would be 19.9%.

All in all, although the Black voting age population hardly changes under the redrawn map, the BVAP in the 1st district could be higher if Black voters were moved between the 1st and 6th districts in a proportionate manner. In his report, Trende acknowledges that the redrawn map alters the partisan composition of the district in a way that "moved the district out of competitive territory and into reliably Republican territory" (pg. 35). I would simply add that the racial composition of the redrawn district contributes to this pattern.

I declare under penalty of perjury that the foregoing is true and correct.

¹⁷ According to the data, 42,679 voting age residents were moved from the 1st district to the 6th district. With a BVAP of 52.5%, this translates to 22,406 voters who would be drawn into the 1st under strict parity.

18a

/s/ Jordan Ragusa
Dr. Jordan Ragusa
May 4, 2022
Charleston, South Carolina

19a

Appendix 2

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[STAMP]
Plaintiffs'
Exhibit

32

No. 3-21-cv-03302-MBS-TJH-RMG

The South Carolina State Conference
of the NAACP, *et al.*,

Plaintiffs,

v.

Alexander, *et al.*,

Defendants.

**EXPERT REPORT
Kosuke Imai, Ph.D.
April 4, 2022**

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I. INTRODUCTION AND SCOPE OF WORK

1. My name is Kosuke Imai, Ph.D., and I am a Professor in the Department of Government and the Department of Statistics at Harvard University. I specialize in the development of statistical methods for and their applications to social science research. I am also affiliated with Harvard's Institute for Quantitative Social Science.

2. I have been asked by counsel representing the plaintiffs in this case to analyze relevant data and provide my expert opinions related to the role that race played in drawing certain districts in South Carolina's Congressional district plan (hereafter "the enacted plan"). To do so, I first conducted a "race-blind" simulation analysis of Districts 1 and 6 to examine how race played a role in determining the boundary of these two districts under the enacted plan.

3. Specifically, I simulate two separate sets of 10,000 alternative boundary lines between Districts 1 and 6 while adhering to other redistricting criteria. These criteria include those specified in the 2021 Guidelines and Criteria for Congressional and Legislative Redistricting adopted by the South Carolina House of Representatives Judiciary Committee and Redistricting Ad Hoc Committee as well as in the 2021 Redistricting Guidelines adopted by the South Carolina Senate Judiciary Committee (hereafter "the South Carolina guidelines"). The first set simulates the entire district boundary of the two districts whereas the second set simulates only the boundary within Charleston County. These localized

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race-blind simulation analyses allow me to determine whether and to what extent the enacted plan's inclusion or exclusion of Black voters in Districts 1 and 6 played a role in determining the boundary of these two districts beyond the purpose of adhering to the traditional redistricting criteria, including those specified in the South Carolina guidelines.

4. My second simulation analysis addresses the possibility that race was considered for compliance with the Voting Rights Act (VRA) when drawing the enacted plan. Specifically, I simulate 10,000 alternative statewide plans such that District 6 under each simulated plan has the overall Black voting age population (BVAP) proportion between 45% and 50% while adhering to other redistricting criteria, including those specified in the South Carolina guidelines.¹ This statewide simulation analysis allows me to determine whether and to what extent the enacted plan's inclusion or exclusion of Black voters played a role in drawing Districts 1, 2, and 5 that surround District 6 beyond the purpose of compliance with the VRA and the traditional redistricting criteria, including those specified in the South Carolina guidelines.

5. I ensured that my simulated plans are generally at least as compliant with the South Carolina guidelines as the enacted plan, on average. To do this, whenever necessary, I instructed the simulation algorithm to split fewer than or an equal number of counties and municipalities in comparison

¹ In this report, I define BVAP as people who are at least 18 years old and any part Black per the Census definition.

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to the enacted plan, on average. In addition, following the enacted plan, I instructed the simulation algorithm to have no incumbency pairing. Thus, these two simulation analyses allow me to determine how race would be treated in districting plans if the districts were drawn under the specified conditions while adhering to other traditional redistricting principles, including those in the South Carolina guidelines.

II. SUMMARY OF OPINIONS

6. My localized race-blind redistricting simulation analysis of Districts 1 and 6 shows that the enacted plan draws their boundary line such that a disproportionately large number of Black voters, particularly those who live in Charleston County, are placed into District 6, leading to an unusually low BVAP proportion in District 1. This simulation analysis demonstrates that race played a significant role beyond the purpose of adhering to the traditional redistricting criteria, including those specified in the South Carolina guidelines.

7. My statewide simulation analysis with the VRA constraint shows that compliance with the VRA cannot explain the above key finding of my localized race-blind simulation analysis: race was a significant factor in drawing the boundary between Districts 1 and 6 under the enacted plan. In addition, this statewide simulation analysis with the VRA constraint demonstrates that the enacted plan unnecessarily cracks Black voters who live in Richland County into Districts 2 and 6 while also cracking Black voters who live in Sumter County into

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Districts 5 and 6. Thus, my analysis shows that race also played a significant role in determining the boundaries between District 6 and its other surrounding districts (i.e., Districts 2 and 5) of the enacted plan, beyond the purpose of complying with the VRA and other traditional redistricting criteria, including those specified in the South Carolina guidelines.

III. QUALIFICATIONS, EXPERIENCE, AND COMPENSATION

8. I am trained as a political scientist (Ph.D. in 2003, Harvard) and a statistician (MA in 2002, Harvard). I have published more than 70 articles in peer reviewed journals, including premier political science journals (e.g., *American Journal of Political Science*, *American Political Science Review*, *Political Analysis*), statistics journals (e.g., *Biometrika*, *Journal of the American Statistical Association*, *Journal of the Royal Statistical Society*), and general science journals (e.g., *Lancet*, *Nature Human Behavior*, *Science Advances*). My work has been widely cited across a diverse set of disciplines. For each of the past four years, Clarivate Analytics, which tracks citation counts in academic journals, has named me as a highly cited researcher in the cross-field category for producing “multiple highly cited papers that rank in the top 1% by citations for field and year in Web of Science.”

9. I started my academic career at Princeton University, where I played a leading role in building interdisciplinary data science communities and programs on campus. I was the founding director of

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Princeton's Program in Statistics and Machine Learning from 2013 to 2017. In 2018, I moved to Harvard, where I am Professor jointly appointed in the Department of Government and the Department of Statistics, the first such appointment in the history of the university. Outside of universities, between 2017 and 2019, I served as the president of the Society for Political Methodology, a premier academic organization of more than one thousand researchers worldwide who conduct methodological research in political science. My introductory statistics textbook for social scientists, *Quantitative Social Science: An Introduction* (Princeton University Press, 2017), has been widely adopted at major research universities in the United States and beyond.

10. Computational social science is one of my major research areas. As part of this research agenda, I have developed simulation algorithms for evaluating legislative redistricting since the beginning of this emerging literature. At Harvard, I lead the Algorithm-Assisted Redistricting Methodology (ALARM; <https://alarm-redist.github.io/>) Project, which studies how algorithms can be used to improve legislative redistricting practice and evaluation.

11. Back in 2014, along with Jonathan Mattingly's team at Duke, my collaborators and I were the first to use Monte Carlo algorithms to generate an ensemble of redistricting plans. Since then, my team has written several methodological articles on redistricting simulation algorithms (Fifield, Higgins, et al. 2020; Fifield, Imai, et al. 2020; McCartan and Imai 2020; Kenny et al. 2021).

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12. I have also developed an open-source software package titled *redist* that allows researchers and policy makers to implement the cutting-edge simulation methods developed by us and others (Kenny et al. 2020). This software package can be installed for free on any personal computer with a Windows, Mac, or Linux operating system. According to a website that tracks the download statistics of R packages, our software package has been downloaded about 30,000 times since 2016.²

13. In addition to redistricting simulation methods, I have also developed the methodology for ecological inference referenced in voting rights cases (Imai, Lu, and Strauss 2008; Imai and Khanna 2016). For example, my methodology for predicting individual's race using voter files and census data was extensively used in a recent decision by the Second Circuit Court of Appeals regarding a redistricting case (*Clerveaux et al. v. East Ramapo Central School District* No. 20-1668).

14. Previously, I have submitted my expert reports, based on redistricting simulation analyses, to the Congressional and General Assembly redistricting cases in Ohio (*League of Women Voters of Ohio et al. v. Ohio Redistricting Commission et al.* The Supreme Court of Ohio, No. 2021-1449; *League of Women Voters of Ohio et al. v. Ohio Redistricting Commission et al.* The Supreme Court of Ohio, No. 2021-1193; *League of Women Voters of Ohio et al. v. Frank LaRose et al.* The Supreme Court of Ohio, No. 2022-

² <https://ipub.com/dev-corner/apps/r-package-downloads/> (accessed on January 17, 2022)

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0303). In both cases, the Ohio Supreme court heavily relied upon my analyses in its decisions (*League of Women Voters of Ohio v. Ohio Redistricting Commission*, Slip Opinion No. 2022-Ohio-65; *Adams v. DeWine*, Slip Opinion No. 2022-Ohio-89). I have also submitted expert reports, which utilize redistricting simulation analyses, to the Alabama Congressional redistricting case in the United States District Court Northern District of Alabama Southern Division (*Milligan et al. v. Merrill et al.* No. 2:2021cv01530), the Pennsylvania State House redistricting case in the Supreme Court of Pennsylvania (*Benninghoff v. 2021 Legislative Reapportionment Commission* No. 11 MM 2022), and the Kentucky State House and Congressional redistricting cases (*Graham et al. v. Adams et al.* Commonwealth of Kentucky Franklin Circuit Court Division, No. 22-CI-00047). I have also submitted an expert report on the South Carolina State House redistricting plan in this case.

15. A copy of my curriculum vitae is attached as Exhibit A.

16. I am being compensated at a rate of \$450 per hour. My compensation does not depend in any way on the outcome of the case or on the opinions and testimony that I provide.

IV. METHODOLOGY

17. I conducted simulation analyses to help evaluate whether the enacted plan was drawn using race as a significant factor. Redistricting simulation algorithms generate a representative sample of all possible plans that satisfy a specified set of criteria. These criteria

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may, for example, include requiring a certain degree of population equality, avoiding pairing of incumbents, drawing compact districts, and limiting the number of counties being split. The resulting simulated plans represent a set of alternative plans that are compliant with these redistricting criteria. One can then evaluate the properties of a proposed plan by comparing it against the simulated plans. If the proposed plan unusually treats particular racial groups in a certain way *when compared to* the ensemble of simulated plans, this serves as empirical evidence that the proposed plan was likely drawn using race as a significant factor.

18. Furthermore, statistical theory allows us to quantify the degree to which the proposed plan is extreme in terms of racial composition, relative to the ensemble of simulated plans. For example, we can estimate the probability of a race-blind simulated plan packing Black people into a district at least as much as a proposed plan does. If this probability is small, then the proposed plan is a statistical outlier because the enacted plan is highly unlikely to come from the race-blind distribution that is used to generate the simulated plans.

19. A primary advantage of the simulation-based approach is its ability to account for the political and geographic features that are specific to each state, including spatial distribution of voters and configuration of administrative boundaries. Simulation methods can also incorporate each state's redistricting rules, criteria, or guidelines. These state-specific features limit the types of redistricting plans that can be drawn, making comparison across states and over

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time difficult. The simulation-based approach therefore allows us to compare the enacted plan to a representative set of alternate districting plans subject to South Carolina's administrative boundaries, political realities, and legal requirements. Appendix A provides a brief introduction to redistricting simulation.

A. Simulation Setup

20. My race-blind local simulation analysis focuses on the boundary between Districts 1 and 6. I conducted a race-blind simulation analysis by generating, without consideration of race, a total of 10,000 alternative district boundaries with the following properties, which are based on the South Carolina guidelines and traditional redistricting principles:

- all relevant districts are geographically contiguous
- all relevant districts do not exceed an overall population deviation of $\pm 0.1\%$ ³

³ This maximal deviation is measured with respect to the ideal population of a congressional District in South Carolina, which is the total population divided by seven, i.e., about 730 people. Although this deviation is greater than what the South Carolina guidelines require, it is an appropriate threshold for my simulation analysis of VTD-level data given that the average VTD population in South Carolina is 2,257. One could further reduce the population deviation of each simulated plan by moving census blocks located on the district boundaries from one district to another, but such adjustments would not materially alter the conclusions of my analysis because the findings are based on patterns of certain Black voting age population of much greater magnitude.

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- no incumbent is paired with another incumbent
- all relevant districts are on average at least as compact as the enacted plan (Appendix C)
- the number of split counties is on average no greater than the corresponding number under the enacted plan (see Appendix D)
- the number of split municipalities is on average no greater than the corresponding number under the enacted plan (see Appendix E)
- no race or partisan information was used

In addition, I also generated a separate set of 10,000 alternative district boundaries within Charleston County while keeping the rest of the district boundary identical to the one in the enacted plan. These simulated districts have the same properties as those described above.

21. These race-blind simulated plans were generated by only considering the above criteria, using the merge-split type simulation algorithm with the enacted plan as a starting plan (E. A. Autry et al. 2021; Carter et al. 2019; briefly described in Appendix B). Importantly, the simulation procedure does not use the information about race at all, and hence I call this a “race-blind” simulation analysis. I provide the detailed information about my simulation procedure in Appendix B. These localized race-blind simulation analyses enable me to examine whether and to what extent race was used as a significant factor in determining the boundary between Districts 1 and 6 beyond the purpose of adhering to the above traditional redistricting criteria.

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22. I also conducted a separate simulation analysis on the statewide map, which generates a total of 10,000 alternative plans with the following properties, which are based on the South Carolina guidelines and traditional redistricting principles:

- all districts are geographically contiguous
- all districts do not exceed an overall population deviation of $\pm 0.1\%$
- no incumbent is paired with another incumbent
- the overall BVAP proportion of District 6 is kept between 45% and 50%⁴
- all districts are on average at least as compact as the enacted plan (Appendix C)
- the number of split counties under the simulated plans is on average no greater than the corresponding number under the enacted plan (see Appendix D)
- the number of split municipalities under the simulated plans is on average no greater than the corresponding number under the enacted plan (see Appendix E)
- no partisan information was used

These simulated plans were generated using the same merge-split type simulation algorithm. I provide the detailed information about my simulation procedure in Appendix B. This statewide simulation

⁴ This range was chosen so that it generally matches with the corresponding BVAP proportion under the enacted plan, which is 46.9%.

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analysis allows me to determine whether and to what extent race was considered as a significant factor in determining the relevant district boundaries of the enacted plan beyond the purpose of compliance with the VRA and the traditional redistricting criteria, including those specified in the South Carolina guidelines.

23. Like the enacted plan, all of my simulated plans do not pair an incumbent in the same district. Therefore, I name each simulated district by first identifying the incumbent that resides in the simulated district, and naming the simulated district by the district number of that incumbent's district assignment in the enacted plan. This renaming procedure allows me to compare each enacted district with a comparable simulated district, even though the two districts often do not cover the same geographic area.

24. For both the localized and statewide simulation analyses, I can easily generate additional plans by running the algorithm longer, but for the purpose of my analysis, 10,000 simulated plans for each county will yield statistically precise conclusions. In other words, generating more than 10,000 plans, while possible, will not materially affect the conclusions of my analysis.

B. Description of Redistricting Simulation Software

25. In my analysis, I used the two open-source software packages for redistricting analysis, *redist* (Kenny et al. 2020) and *redistmetrics* (Kenny et al. 2022), which implement a variety of redistricting

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simulation algorithms as well as other evaluation methods and metrics. My collaborators and I have developed these software packages, so that other researchers and the general public can implement these state-of-the-art methods on their own. I supplemented these packages with code written primarily to account for the redistricting rules, criteria, and guidelines that are specific to South Carolina. All of my analyses were conducted on a personal computer. Indeed, all of my analysis code can be replicated by running my code on any personal computer once the required software packages, which are also freely available and open-source, are installed.

V. LOCALIZED RACE-BLIND SIMULATION ANALYSIS

26. Using the redistricting simulation methodology described above, I evaluated empirical evidence regarding whether and to what extent race was a significant factor in drawing the relevant districts under the enacted plan beyond the traditional redistricting criteria including those specified in the South Carolina guidelines. Specifically, I simulated two separate sets of 10,000 alternative district boundaries between Districts 1 and 6, using the localized race-blind simulation procedures described in Section IV. The first set simulates the entire district boundary between these two districts while the second set simulates the part of the district boundary that is located within Charleston County.

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A. The Boundary between Districts 1 and 6

27. I first show the results of my race-blind simulation analysis that generates 10,000 alternative boundaries between Districts 1 and 6. The left map of Figure I shows the precinct-level BVAP in these two districts where a precinct with a greater number of black voters is shaded with a darker color. The right map of the figure displays, for each precinct, the proportion of the 10,000 race-blind simulated plans that assign it to District 1 instead of District 6. A precinct shaded by a darker color means that it is more likely to belong to District 1 under the race-blind simulated plans.

28. The examination of these two maps show that the district boundary of the enacted plan is highly unusual in comparison to the race-blind simulated plans. Specifically, as shown in the left map, the enacted plan splits Charleston County by including a large number of Black voters who live in the western part of the city of Charleston as well as the city of North Charleston into District 6 (indicated by precincts shaded with relatively dark orange color), while assigning the eastern part of the city of Charleston where few Black voters live to District 1. The right map shows, however, that most of the race-blind simulated plans assign these precincts to District 1 instead of District 6, as indicated by dark blue shade.

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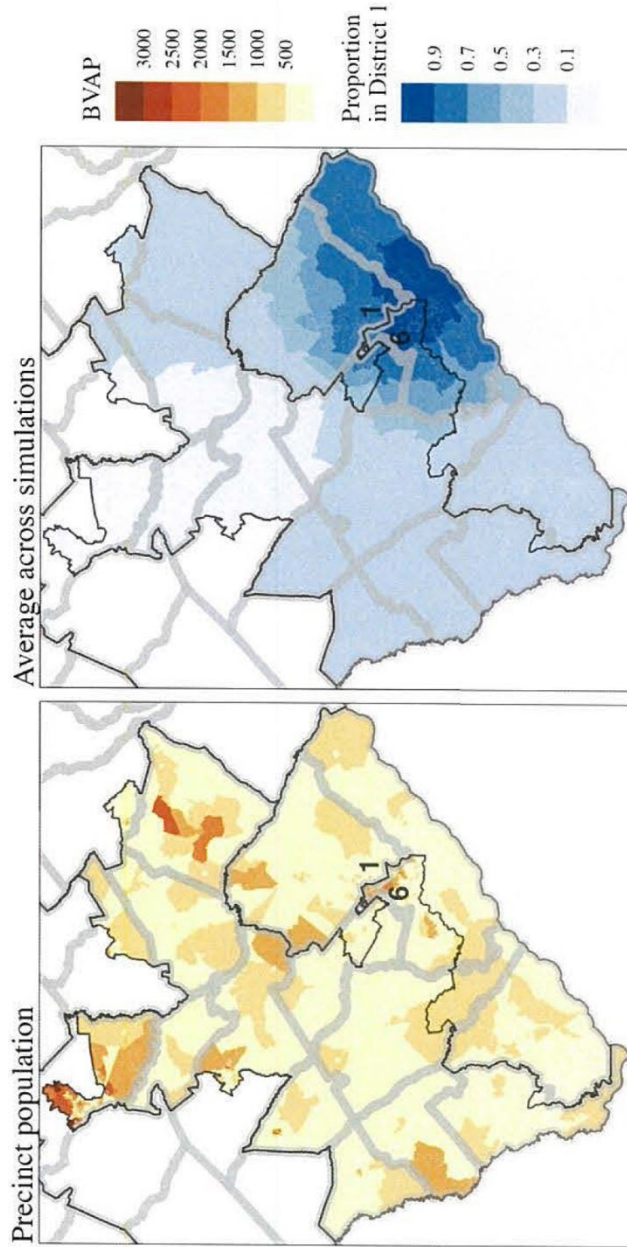


Figure 1: The Boundary between Districts 1 and 6. The left map shows the VTD level Black voting-age population (BVAP) with the boundary between Districts 1 and 6 demarcated by a solid black line. A VTD with a darker orange color has a greater number of Black voters. The grey lines represent county boundaries. In the right map, each precinct is shaded by the proportion of 10,000 race-blind simulated plans that assign it to District 1. A precinct with a darker blue color is more likely to belong to District 1 under the race-blind simulated plans.

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29. As a result of this unusual district boundary, the BVAP proportion of District 1 under the enacted plan is only 17.4%, which is much lower than the race-blind simulated plans. As shown in Figure 2, none of my 10,000 race-blind simulated plans (grey histogram) has a lower BVAP proportion for District 1 than the enacted plan (red line). The average difference in the BVAP proportion of District 1 between the enacted and race-blind simulated plans is about 5.8 percentage points, which corresponds to 3.1 standard deviations of the simulated plans. In other words, the enacted plan places a disproportionately large number of Black voters into District 6, lowering the BVAP proportion of District 1.

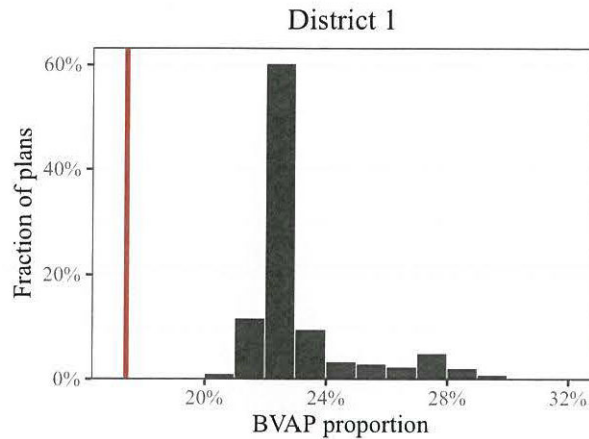


Figure 2: Histogram represents the distribution of the Black voting-age population (BVAP) proportion for District 1, across 10,000 race-blind simulated plans. The red line indicates the corresponding BVAP number under the enacted plan (red vertical line). None of the race-blind simulated plans has a lower BVAP proportion for District 1 than the enacted plan.

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B. Charleston County

30. Next, I conduct another race-blind simulation analysis within Charleston County, which contains parts of Districts 1 and 6 under the enacted plan. In this race-blind simulation analysis, I keep the rest of these two districts unchanged from the enacted plan. This means that the only difference between the enacted and simulated plans is how Charleston County is split between Districts 1 and 6. The resulting simulated plans therefore preserve much of these two districts as defined under the enacted plan.

31. The findings are similar to those discussed above. As mentioned earlier (see the left map of Figure 1), the enacted plan splits Charleston County by placing a disproportionately large number of Black voters into District 6, while assigning relatively few Black voters to District 1. As a result, within Charleston County, the BVAP proportion of District 6 (32.1%) is 21.4 percentage points higher than that of District 1 (10.7%).

32. I examine whether this gap in the within-county BVAP under the enacted and raceblind simulated plans is statistically significant by comparing the enacted plan with the 10,000 localized race-blind simulated plans. The gray histogram in Figure 3 represents the distribution of Black voters who live in Charleston County and are assigned to District 1. The red vertical line indicates the corresponding BVAP number under the enacted plan. The figure shows that District 1 under the enacted plan contains about 15,400 Black voters who live in Charleston County,

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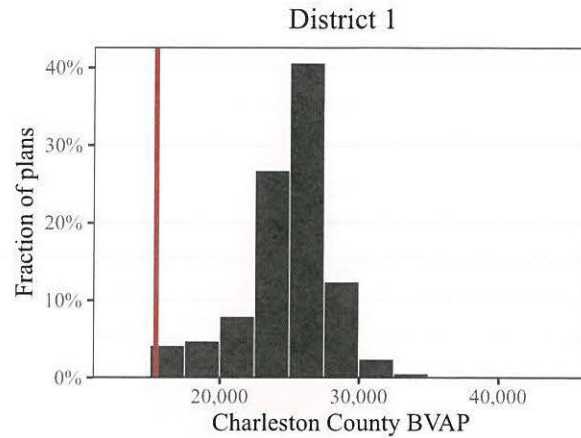


Figure 3: Histogram represents the distribution of the Black voting-age population (BVAP), across 10,000 race-blind simulated plans, who live in Charleston County and are assigned to District 1. The red line indicates the corresponding BVAP number under the enacted plan.

while across my 10,000 race-blind simulated plans, District 1 has approximately 24,900 black voters on average. This difference of 9,500 voters, which corresponds to 2.9 standard deviations of the simulated distribution, is statistically significant. In fact, only 0.2% of the 10,000 race-blind simulated plans place fewer Black voters from Charleston County into District 1 than the enacted plan.

33. In sum, my localized race-blind simulation analysis of Charleston County reaches the same conclusion as my other race-blind simulation analysis that a disproportionately large number of Black voters who live in the county are included into District 6, lowering the BVAP proportion of District 1.

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VI. STATEWIDE SIMULATION ANALYSIS WITH THE VRA CONSTRAINT

34.I also conducted a statewide simulation analysis to address the possibility that race was considered in drawing the district boundaries of the enacted plan in order to comply with the VRA. As

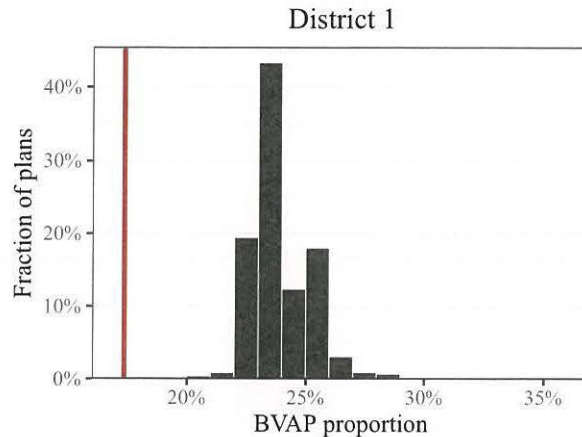


Figure 4: BVAP Proportion in District 1. Histogram represents the distribution of the Black voting-age population (BVAP) proportion, across 10,000 statewide simulated plans with the VRA constraint, within District 1. The red line indicates the corresponding BVAP proportion under the enacted plan.

explained in Section IV.A, I simulated 10,000 alternative plans that keep the overall BVAP proportion of District 6 between 45% and 50% while adhering to other traditional redistricting principles, including those specified in the South Carolina guidelines. Using these simulated plans, I investigate whether and to what extent race was used as a

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significant factor, beyond the purpose of compliance with the VRA and other redistricting criteria. I specifically examine the district boundaries in Charleston, Richland, and Sumter Counties, which correspond to the boundaries between District 6 and Districts 1, 2, and 5, respectively.

A. Charleston County (District 1)

35. I begin by comparing the BVAP proportion of District 1 under the enacted plan with the corresponding number under the simulated plans. Figure 4 shows that the BVAP proportion of District 1 is unusually low under the enacted plan (red vertical line; 17.4%) in comparison to the 10,000 simulated plans with the VRA constraint (grey histogram). On average, the BVAP proportion of District 1 under the enacted plan is 6.5 percentage points (4.5 standard deviations of the simulated distribution) lower than the corresponding number under the simulated plans. Indeed, no simulated plan has a lower BVAP proportion for District 1 than the enacted plan, implying that the enacted plan is a statistical outlier in this regard. This finding is consistent with that under the localized race-blind simulation (shown in Figure 2). Thus, keeping the BVAP proportion of District 6 between 45% and 50% does not materially change the conclusion that the BVAP proportion of District 1 is unusually low.

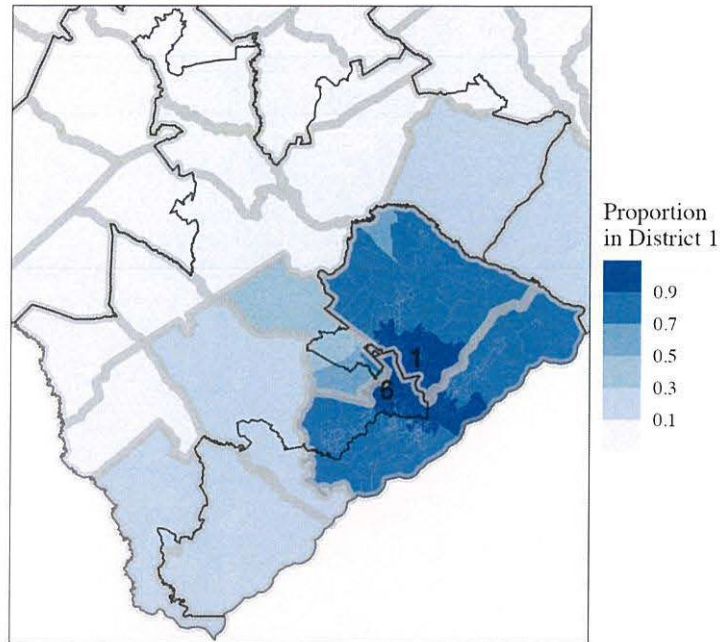
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Figure 5: The Boundary of District 1 and 6 in the Statewide Simulation with the Voting Rights Act (VRA) Constraint. In the map, each precinct is shaded by the proportion of 10,000 simulated plans under the VRA constraint that assign it to District 1. A precinct with a darker blue color is more likely to belong to District 1 under the enacted plan. The solid black line demarcates the district boundaries of the enacted plan. The grey lines represent county boundaries.

36.I next show that the unusually low BVAP proportion of District 1 is at least in part due to the way the district boundary is drawn within Charleston County. Figure 5 presents the proportion of the 10,000 simulated plans under the VRA constraint

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that assign each precinct to District 1. The finding is consistent with that of my localized race-blind simulation analyses shown in Section V (shown in the right map of Figure 1). The way in which the enacted plan splits Charleston County by placing a disproportionately large number of Black voters into District 6 is highly unusual in comparison to the simulated plans. In particular, under the simulated plans, the city of North Charleston where many Black voters live is much more likely to be part of District 1 than District 6 (as indicated by dark blue precincts).

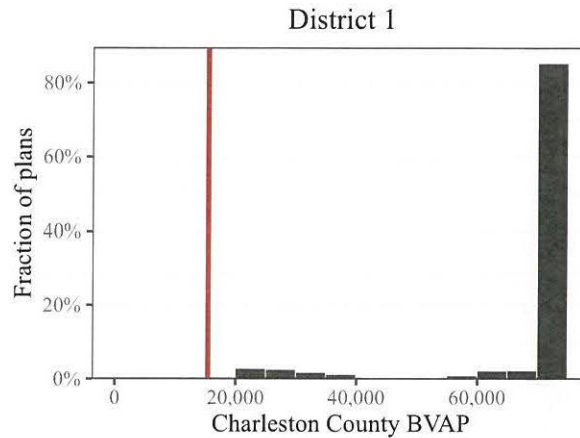


Figure 6: Histogram represents the distribution of the Black voting-age population (BVAP), across 10,000 statewide simulated plans with the VRA constraint, who live in Charleston County and are assigned to District 1. The red line indicates the corresponding BVAP number under the enacted plan.

37. The histogram in Figure 6 further demonstrates this fact by showing the distribution of BVAP

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who live in Charleston County and are assigned to District 1 under the simulated plans with the VRA constraint. The red vertical line indicates the corresponding number under the enacted plan. Under the simulated plans, a much greater number of Black voters who live in Charleston County are assigned to District 1 in comparison to the enacted plan. In fact, a large spike around 74,600 implies that a vast majority of simulated plans (76.3%) assign the entire county to District 1. In contrast, the enacted plan only places about 15,400 Black voters in District 1, lowering its BVAP proportion. Indeed, only 0.27% of the 10,000 simulated plans places fewer Black voters into District 1 than the enacted plan.

38. In sum, my statewide simulation analysis with the VRA constraint shows that the BVAP proportion of District 1 under the enacted plan is unusually low in part due to the way in which Charleston County is split. This finding implies that race was used as a significant factor in determining the boundary between Districts 1 and 6, especially in Charleston County, beyond the purpose of complying with the VRA and the traditional redistricting criteria.

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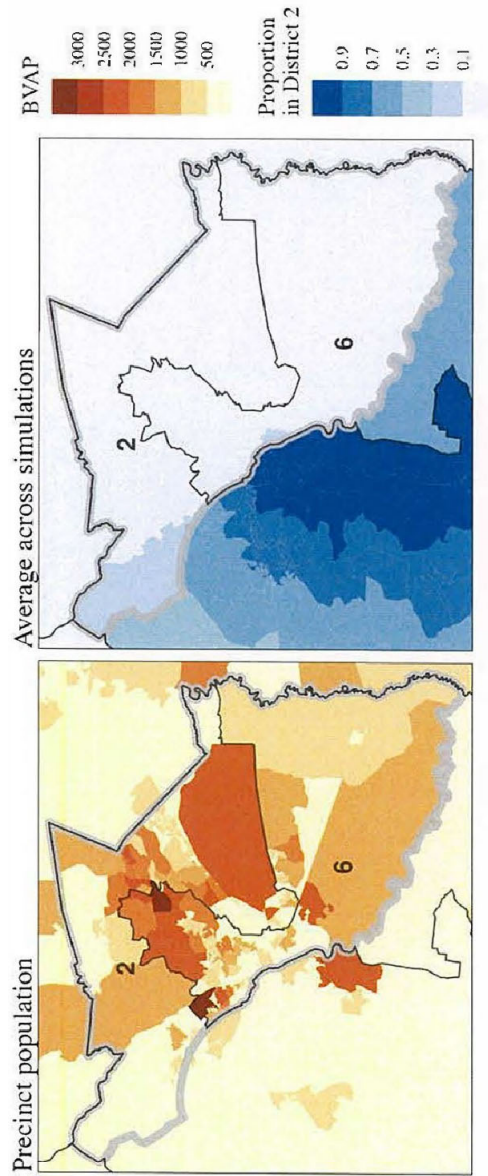


Figure 7: Analysis of Richland County in the Statewide Simulation with the Voting Rights Act (VRA) Constraint. Under the enacted plan, this county consists of Districts 2 and 6, which are demarcated by solid black lines. The grey lines represent county boundaries. The left map shows the precinct-level Black voting-age population (BVAP). In the right map, the districts are shaded by the proportion of 10,000 race-blind simulated plans with the VRA constraint that assign each precinct to District 2. The vast majority of the simulated plans do not include Richland County in District 2.

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B. Richland County (District 2)

39. Next, I examine the district boundary in Richland County using the same set of 10,000 statewide simulated plans with the VRA constraint. As shown in the left map of Figure 7, the enacted plan splits this county by including the northern part of the city of Columbia and its environs where a relatively large number of Black voters live into District 6 while assigning the rest of the county to District 2. In other words, the enacted plan cracks Black voters who live in this county into Districts 2 and 6. As a result, within this county, the BVAP proportion of District 6 is 55.4% while that of District 2 is at 37.1%.

40. The enacted plan's decision to crack Black voters by splitting Richland County into Districts 2 and 6, however, is highly unusual when compared to the simulated plans. The right map of Figure 7 shows that many of the simulated plans do not include Richland County in District 2 at all (as indicated by light blue color). In fact, 39.4% of the simulated plans do not split Richland County at all and all of these simulated plans assign the entire county to District 6. Even when some simulated plans assign a part of Richland County to District 2, they tend to include the northwestern corner of the county, where very few Black voters live (as indicated by slightly darker blue color), rather than cracking Black voters like the enacted plan does.

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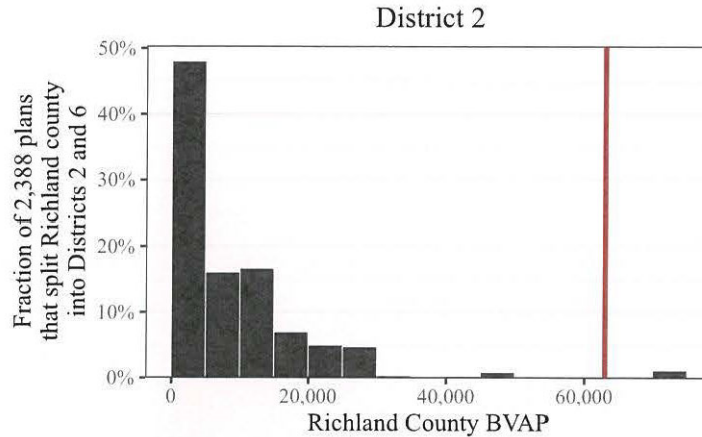


Figure 8: The distribution of Black voting-age population (BVAP) across the subset of plans in which Richland county is split only into Districts 2 and 6. The plans come from statewide plans simulated with the VRA constraint.

41. Although about 23.9% of the simulated plans do divide Richland County into Districts 2 and 6, they do so in a way that is different from the enacted plan. Figure 8 demonstrates this fact by presenting the distribution of BVAP in District 2 among these 2,387 simulated plans that split Richland County into Districts 2 and 6. The grey histogram in the figure shows that these simulated plans place much fewer Black voters in District 2 than the enacted plan. In fact, only 1% of these simulated plans include a greater number of Black voters in District 2 than the enacted plan. The average difference is about 53,900 voters, which corresponds to 4.8 standard deviations of simulated distribution, and is statistically significant. The results are similar even when we include all simulated plans that assign at least some

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part of Richland County to District 2. Among those simulated plans, only 0.6% of them place a greater number of Black voters who live in Richland County into District 2.

42. Thus, my statewide simulation analysis with the VRA constraint shows that the enacted plan unnecessarily cracks Black voters who live in Richland County into Districts 2 and 6. The finding implies that the unusual boundary between Districts 2 and 6 under the enacted plan can neither be explained by compliance with the VRA nor the traditional redistricting criteria.

C. Sumter County (District 5)

43. Finally, I examine the district boundary of Sumter County using the same set of 10,000 statewide simulated plans with the VRA constraint. As shown in the left map of Figure 9, the enacted plan divides Sumter County into Districts 5 and 6 by splitting the city of Sumter, thereby cracking Black voters who live in that area. As a result, about 64% of Black voters who live in Sumter County belong to District 5 while the remaining 36% are assigned to District 6. In contrast, the right map of the figure shows that under the simulated plans with the VRA constraint, no part of Sumter County is likely to belong to District 5 (as indicated by light blue color). Indeed, only 6.9% of the simulated plans split Sumter County into multiple districts. Like Richland County, therefore, this shows that it is unnecessary to crack Black voters by splitting Sumter County in order to comply with the VRA.

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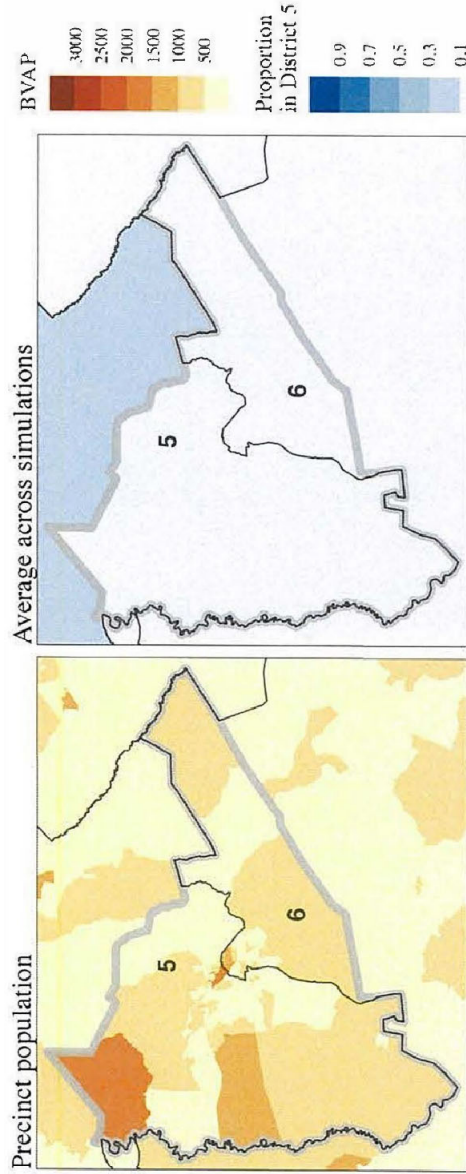


Figure 9: Analysis of Sumter County in the Statewide Simulation with the Voting Rights Act (VRA) Constraint. Under the enacted plan, this county consists of Districts 5 and 6, which are demarcated by solid black lines. The grey lines represent county boundaries. The left map shows the precinct-level Black voting-age population (BVAP). In the right map, the districts are shaded by the proportion of 10,000 race-blind simulated plans with the VRA constraint that assign each precinct to District 5. The vast majority of the simulated plans do not include Sumter County in District 5.

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Table 1: Frequency of Pairings of Districts in Sumter County in Statewide VRA Simulation. Only shows combination that appear in 1 percent or more of the 10,000 simulated plans.

Pairings Frequency	
District 6	90.3%
District 6, District 7	4.5%
District 5	2.4%
District 5, District 6	1.2%

44. Table 1 further shows the relative frequency of district pairings that occur within Sumter County. The enacted plan's decision to split Sumter County into Districts 5 and 6 is highly unusual. In fact, only 1.2% of the 10,000 simulated plans split Sumter County into Districts 5 and 6, like the enacted plan does. In contrast, a vast majority of the simulated plans assign the entirety of Sumter County to a single district (2.4% for District 5 and 90.3% for District 6) without splitting the county.

45. Thus, my statewide simulation analysis with the VRA constraint shows that the enacted plan cracks Black voters who live in Sumter County into Districts 5 and 6. The finding implies that the unusual boundary between Districts 5 and 6 can neither be explained by compliance with the VRA constraint nor the traditional redistricting criteria.

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Pursuant to 28 U.S.C. § 1746, I hereby declare under penalty of perjury that the forgoing is true and correct:

Executed, this day, April 4, 2022, in Cambridge, Massachusetts.

/s/ Kosuke Imai

Kosuke Imai, Ph.D.

VII. APPENDIX**A. Introduction to Redistricting Simulation**

46. In recent years, redistricting simulation algorithms have played an increasingly important role in court cases involving redistricting plans. Simulation evidence has been presented to courts in many states, including Alabama, Michigan, North Carolina, Ohio, and Pennsylvania.⁵

⁵ Declaration of Dr. Jonathan C. Mattingly, *Common Cause v. Lewis* (2019); Testimony of Dr. Jowei Chen, *Common Cause v. Lewis* (2019); Testimony of Dr. Pegden, *Common Cause v. Lewis* (2019); Expert Report of Jonathan Mattingly on the North Carolina State Legislature, *Rucho v. Common Cause* (2019); Expert Report of Jowei Chen, *Rucho v. Common Cause* (2019); Amicus Brief of Mathematicians, Law Professors, and Students in Support of Appellees and Affirmance, *Rucho v. Common Cause* (2019); Brief of Amici Curiae Professors Wesley Pegden, Jonathan Rodden, and Samuel S.-H. Wang in Support of Appellees, *Rucho v. Common Cause* (2019); Intervenor's Memo, *Ohio A. Philip Randolph Inst. et al. v. Larry Householder* (2019); Expert Report of Jowei Chen, *League of Women Voters of Michigan v. Benson* (2019). Expert Report of Kosuke Imai, *League of Women Voters of Ohio et al. v. Ohio Redistricting Commission et al.* (2021). Expert Report of Kosuke Imai, *Milligan et al. v. Merrill et al.* (2021).

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47. Over the past several years, researchers have made major scientific advances to improve the theoretical properties and empirical performance of redistricting simulation algorithms. All of the state-of-the-art redistricting simulation algorithms belong to the family of Monte Carlo methods. They are based on random generation of spanning trees, which are mathematical objects in graph theory (DeFord, Duchin, and Solomon 2021). The use of these random spanning trees allows these state-of-the-art algorithms to efficiently sample a representative set of plans (E. Autry et al. 2020; E. A. Autry et al. 2021; Carter et al. 2019; McCartan and Imai 2020; Kenny et al. 2021). Algorithms developed earlier, which do not use random spanning trees and instead rely on incremental changes to district boundaries, are often not able to do so.

48. These algorithms are designed to sample plans from a specific probability distribution, which means that every legal redistricting plan has certain odds of being generated. The algorithms put as few restrictions as possible on these odds, except to ensure that, on average, the generated plans meet certain criteria. For example, the probabilities are set so that the generated plans reach a certain level of geographic compactness, on average. Other criteria, based on the state in question, may be fed into the algorithm by the researcher. In other words, this target distribution is based on the weakest assumption about the data under the specified constraints.

49. In addition, the algorithms ensure that all of the sampled plans (a) are geographically contiguous,

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and (b) have a population which deviates by no more than a specified amount from a target population.

50. There are two types of general Monte Carlo algorithms which generate redistricting plans with these guarantees and other properties: sequential Monte Carlo (SMC; Doucet, Freitas, and Gordon 2001) and Markov chain Monte Carlo (MCMC; Gilks, Richardson, and Spiegelhalter 1996) algorithms.

51. The SMC algorithm (McCartan and Imai 2020; Kenny et al. 2021) samples many redistricting plans in parallel, starting from a blank map. First, the algorithm draws a random spanning tree and removes an edge from it, creating a “split” in the map, which forms a new district. This process is repeated until the algorithm generates enough plans with just one district drawn. The algorithm calculates a weight for each plan in a specific way so that the algorithm yields a representative sample from the target probability distribution. Next, the algorithm selects one of the drawn plans at random. Plans with greater weights are more likely to be selected. The algorithm then draws another district using the same splitting procedure and calculates a new weight for each updated plan that comports with the target probability distribution. The whole process of random selection and drawing is repeated again and again, each time drawing one additional district on each plan. Once all districts are drawn, the algorithm yields a sample of maps representative of the target probability distribution.

52. The MCMC algorithms (E. Autry et al. 2020; E. A. Autry et al. 2021; Carter et al. 2019) also form districts by drawing a random spanning tree and

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splitting it. Unlike the SMC algorithm, however, these algorithms do not draw redistricting plans from scratch. Instead, the MCMC algorithms start with an existing plan and modify it, merging a random pair of districts and then splitting them a new way.

53. Diagnostic measures exist for both these algorithms which allow users to make sure the algorithms are functioning correctly and accurately. The original papers for these algorithms referenced above provide more detail on the algorithm specifics, empirical validation of their performance, and the appropriateness of the chosen target distribution.

B. Implementation Details

54. I conducted three different simulations. For all simulations, I used the merge-split type MCMC algorithm, as described above and implemented in the open-source R package `redist` my collaborators and I developed (Kenny et al. 2020). To name simulated districts, we simulate plans that do not pair two or more incumbents in the same district, using the incumbency constraint whenever necessary.

55. In the first set of simulations involving Districts 1 and 6, I take the precincts that were assigned to District 1 and 6 in the enacted plan and simulate plans that split this area into two congressional districts. This means that districts 2-5 and 7 are not modified. In the Charleston County simulation, I freeze the district assignments of Districts 1 and 6 outside Charleston County as they are in the enacted plan. This means that only the district boundary within the county is simulated

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while the remaining parts of the relevant districts outside of the county remain unaltered. In the statewide simulation, I do not freeze any districts and simulate plans with 7 congressional districts. Unlike the other two simulations, I use data on race to target specific districts, which I describe below.

56. For each simulation, I generated a total of 10,000 alternative plans by instructing the algorithm so that the resulting simulated plans adhere to the set of redistricting criteria listed in Section IV. Thus, my simulated plans are at least as compliant with these criteria as the enacted plan. Specifically, the 10,000 plans are obtained for each simulation as follows. First, I generated a total of 110,000 to 132,000 plans separately obtained from 10 to 12 parallel Markov chains, each with 11,000 plans. All simulations start the Markov chain with the enacted plan. Second, I discarded the first 1,000 iterations of each Markov chain, a procedure commonly called burn-in, so that initial values do not affect results. Third, in some simulations, I removed plans that still had incumbency pairings so that like the enacted plan all the simulated plans have no incumbency pairing. In the statewide simulation with a VRA constraint, I removed plans in which District 6's BVAP was below 45%. Both of these removals tend to be no more than a trivial proportion of the simulated plans, because of the constraints already encoded in the algorithm. Fourth, I take the last 100,000 of the remaining plans. Finally, I kept every 10th plan from these 100,000 plans, a procedure commonly called thinning, resulting in 10,000 simulated plans for each

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analysis. Below I give the details of the algorithmic inputs for each simulation analysis.

57. Every simulation has a set of constraints so that the resulting simulated plans are compliant with the specified set of redistricting criteria listed in Section IV. Greater values of these strengths generally means that the algorithm is more strongly instructed to sample plans that conform to the selected criterion of interest. The simulations have a default compactness constraint of strength 1. Below, we list additional constraints that are unique to each simulation analysis.

- *Localized District 1 and 6 Simulation:* A soft county split avoidance constraint of strength 0.4, and an incumbency pairing avoidance constraint of strength 1.
- *Localized Charleston County Simulation:* A constraint avoiding splitting municipalities, with a strength of 0.3. The compactness constraint was raised to 1.07.
- *Statewide VRA Simulation:* A custom constraint that penalizes plans in which District 6's BVAP is outside the range of 0.45-0.5. This constraint is given a strength of 8. An incumbency pairing avoidance constraint with a strength of 8 is also added. Finally, there is a soft county split avoid constraint of strength 0.95, and a hierarchical county split constraint that effectively limits the number of counties split to 6.

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C. Compactness of the Simulated Districts

58. I measured compactness with the standard metric of Polsby-Popper score (Figure 10) and the fraction of edges kept (Figure 11). According to these measures, the simulated plans are on average at least as compact as the enacted plan.

D. County Splits of the Simulated Districts

59. Figure 12 shows that the number of counties split under the simulated plans (grey histograms) is no greater than that under the enacted plan (red vertical line). The Charleston County simulation is not shown because it only varies the boundary within a single county, so its county splits will be the same as the enacted plan.

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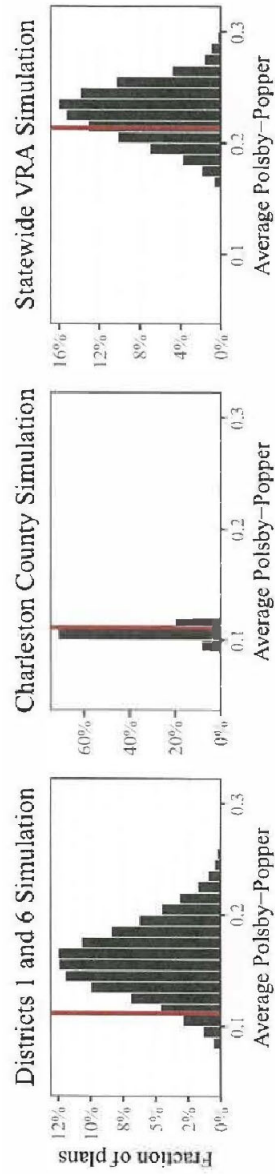


Figure 10: Compactness of Simulations Measured by the Polsby Popper Score. The measure computes the average of the district-level Polsby Popper score for each simulated district. In the Districts 1 and 6 simulation and the Charleston County simulation, there are 2 districts. In the statewide VRA district, there are 7 districts. The histogram represents the compactness of simulated plans while the vertical red line represents the enacted plan. A greater value indicates a more compact redistricting plan.

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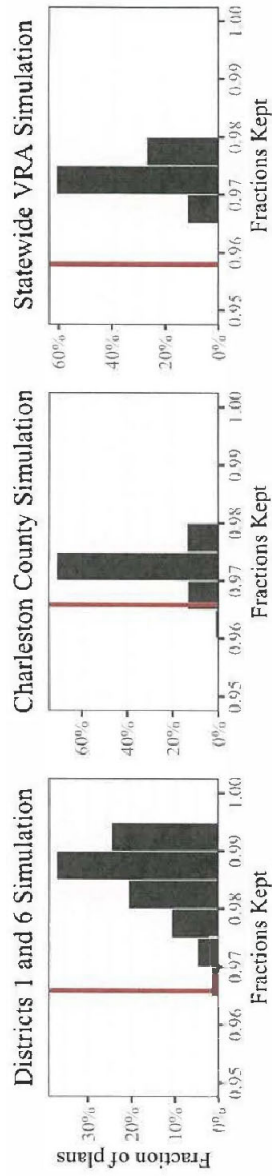


Figure 11: Compactness of Simulations Measured by the Fraction of Edges Kept. The measure computes the fraction of edges kept for each simulated district. The histogram represents the compactness of simulated plans while the vertical red line represents the enacted plan. A greater value indicates a more compact redistricting plan.

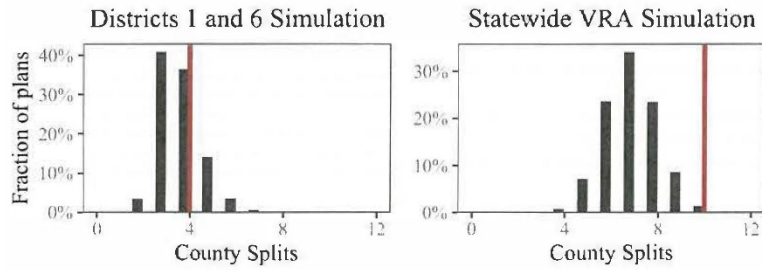
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Figure 12: County splits in simulation. The histogram shows the distribution of the number of split counties under the simulated plans while the red vertical line shows the enacted plan. On average, the simulated plans split fewer number of counties than the enacted plan.

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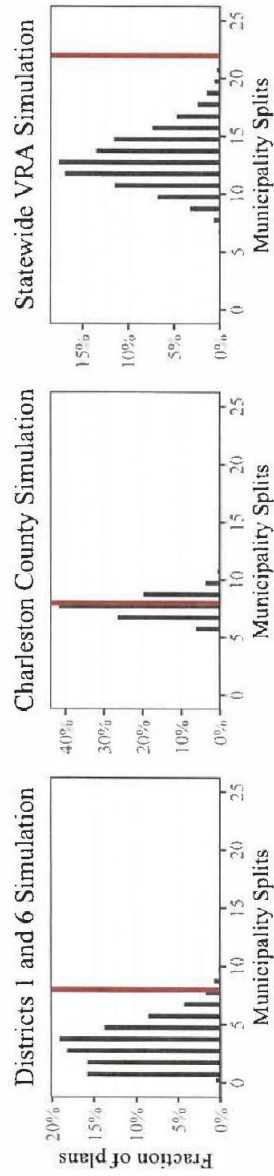


Figure 13: Municipality splits in simulation. The histogram shows the distribution of the number of split municipalities under the simulated plans while the red vertical line shows the enacted plan. On average, the simulated plans split fewer number of municipalities than the enacted plan.

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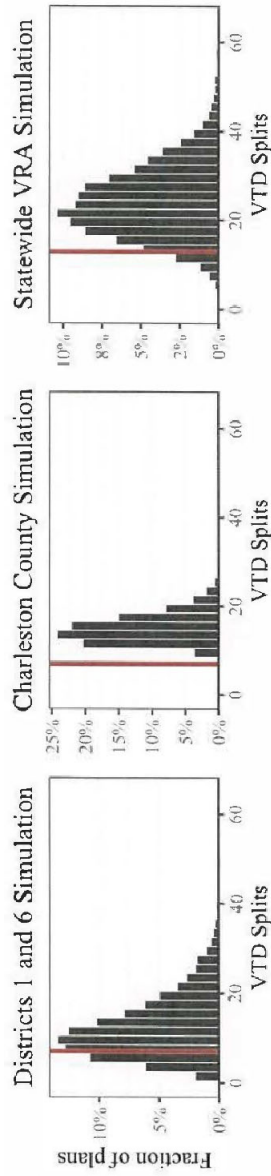


Figure 14: Precinct or Voting Tabulation District (VTD) splits in the simulation. The histogram shows the distribution of the number of split VTDs under the simulated plans while the red vertical line shows the enacted plan.

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E. Municipality Splits of the Simulated Districts

60. Figure 13 shows that the number of municipalities split under the simulated plans (grey histograms) is no greater than that under the enacted plan (red vertical line).

F. Precinct Splits of the Simulated Districts

61. Figure 14 show that the number of split precincts or voting tabulation districts (VTDs) among the simulated plans (grey histogram) is generally compatible with that of the enacted plan (vertical red line) but tends to be somewhat higher on average. This is in part due to the fact that many municipalities split VTDs, implying that there often is a direct trade-off between municipality and precinct splits.

G. Data Sources

G.1. Data Acquisition

62. The 2020 Census Block shapefiles, 2020 Census Place shapefiles, total population by race and ethnicity, and voting age population by race and ethnicity directly were acquired from the Census FTP portal. In this report, when reporting the black voting age population, I count voters in the Census that are any-part black as black.

63. The VTD block assignment files and Census Place block assignment files were acquired from the Census website.

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64. The incumbent addresses were acquired from the Redistricting Data Hub and subsequently modified based on public information and records (e.g., South Carolina State Election Commission filings, South Carolina property records) and input from plaintiffs' counsel. These addresses were then geocoded to census blocks.

65. The passed Congressional plan was acquired from the South Carolina House of Representatives Redistricting 2021 website.

66. The 2020 Census place block assignment files (for city and town boundaries) were obtained from the Census website.

G.2. Data Processing

67. For datasets that were on the 2020 census block level (total population, voting age population, VTD assignment, incumbent addresses, congressional district assignment, and census place assignment), these datasets were joined to the 2020 Census block shapefile.

G.3. Data Aggregation

68. The full block-level dataset was aggregated up to the level of the 2020 voting districts, taking into account (a) discontinuities in voting districts (b) splits of voting districts by the proposed Congressional plan and (c) splits of voting districts by cities and towns.

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Appendix 3

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[STAMP]
Plaintiffs'
Exhibit

48

**Case No. 3-21-cv-03302-JMC-TJH-RMG
THREE-JUDGE PANEL**

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

HENRY D. MCMASTER, in his official capacity as
Governor of South Carolina; THOMAS C.
ALEXANDER, in his official capacity as President of
the Senate; LUKE A. RANKIN, in his official capacity
as Chairman of the Senate Judiciary Committee;
JAMES H. LUCAS, in his official capacity as Speaker
of the House of Representatives; CHRIS MURPHY,
in his official capacity as Chairman of the House of
Representatives Judiciary Committee; WALLACE H.
JORDAN, in his official capacity as Chairman of the
House of Representatives Elections Law Subcommittee;

HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,
Defendants.

Expert Report of Baodong Liu, Ph.D.
re; S.865 (South Carolina's Congressional Map)

April 2, 2022

I. Introduction

I have been retained as an expert by counsel for the Plaintiffs in the above captioned litigation. I have prepared this report pursuant to Federal Rule of Civil Procedure 26(1)(2)(B) regarding S. 865, South Carolina's enacted Congressional Plan.¹

My role as an expert witness regarding the congressional map is threefold. 1) I have been asked to express opinions on whether racially polarized voting (RPV) exists in South Carolina, and whether or not RPV has resulted in the defeat of Black-preferred candidates in South Carolina elections. 2) I have been asked to express my

¹ In this same case, based on a separate schedule for expert disclosures, I have prepared two reports, an initial and rebuttal, regarding South Carolina's enacted House map.

opinions on the effectiveness of the Enacted Congressional Plan in protecting the opportunity of Black voters to elect candidates of their choice, vis-à-vis that of the Plans proposed by the Plaintiffs. 3) Finally, I have also been asked to evaluate whether race plays a greater role than partisanship in the Enacted Plan.

I am being compensated at \$300 per hour for my work on this case. My compensation is not contingent on or affected by the substance of my opinions or the outcome of this litigation. My work in this matter is ongoing, and I reserve the right to amend, modify, or supplement my analysis and opinions.

II. Summary of Professional Qualifications

I am a tenured professor of political science in the Department of Political Science at the University of Utah. I have done extensive research regarding the relationship between election systems and the ability of minority voters to participate fully in the political process and to elect representatives of their choice.

My research has won the Byran Jackson Award for the best study/dissertation about racial voting from the Urban Politics Section of the American Political Science Association, and the Ted Robinson Award from the Southwest Political Science Association. The results of my research have been published in Social Science Quarterly, American Politics Research, Sociological Methods and Research, PS: Political Science and Politics, Urban Affairs Review, Political Behavior, Journal of Urban Affairs, Southeastern Political Review, and American Review of Politics, among other

journals. I am also an author or editor of eight scholarly books including Political Volatility in the United States: How Racial and Religious Groups Win and Lose; Solving the Mystery of the Model Minority; The Election of Barack Obama: How He Won, and Race Rules: Electoral Politics in New Orleans, 1965-2006. I have also served as a member of the Board of Directors/Advisors on many national and international organizations such as the National Association for Ethnic Studies, Urban Affairs Review, Journal of Behavioral and Social Sciences, and International Encyclopedia of Political Science (CQ Press).

As an expert on RPV analysis, I have published peer-reviewed journal articles and books on the cutting-edge techniques used by academic professionals and supported by courts concerning voting rights cases and the electoral history in the South. I have served as an expert witness for minority plaintiffs in vote dilution cases in states such as Alabama, Arkansas, New York, Louisiana, Utah, and Tennessee. My opinions have been accepted by multiple federal courts (e.g., in New York, Louisiana, and Alabama). Furthermore, I have provided my expertise to Native American Rights Fund, Navajo Nation, and the Lawyers' Committee for Civil Rights Under Law in Washington D.C., and NAACP LDF on census differential privacy policy and methodological issues concerning RPV. I have also been invited to be an instructor of RPV analysis in expert convening programs, organized by such organizations as Native American Rights Fund, Ford Foundation, Southern Coalition for Social Justice, and LDF concerning both the 2010 and 2020 rounds of redistricting.

My applied research and grants have included analyses of ranked choice voting, economic development, racial voting patterns, public school science education, school districts' economic impact on local economy, and various citizen surveys. My grants have come from New America, the National Science Foundation, American Political Science Association, the National Humanities Center, Wisconsin Security Research Consortium, Fond du Lac School District, Johnson Controls, Inc, City of Waupaca (WI), the League of Women Voters, American Democracy Project, and Wisconsin Public Service. I also served as the editor of Urban News for the American Political Science Association's Urban Politics Section, and I was elected as a co-chair of the Asian Pacific American Caucus of the American Political Science Association.

I have served as a commentator or opinion writer for the Salt Lake Tribune, ABC4News, Hinkley Forum, NPR, Associated Press, Daily Utah Chronicle, Milwaukee Sentinel Journal, Daily Caller, and KSL, among other media outlets.

At my university, I served as Associate Chair of the Department of Political Science and the Interim Director of the Ethnic Studies Program, the MLK Committee Chair and a faculty senator.

Attached as **Appendix 1** to this report is a curriculum vitae setting forth more detail about my professional background, which includes a list of cases in which I have testified as an expert by deposition and/or at trial and all publications I have authored or co-authored, including forthcoming publications.

III. Racially Polarized Voting: Definition and Measurement

In *Thornburg v. Gingles* (1986), the U.S. Supreme Court identified three conditions that are necessary to show racial vote dilution under Section 2 of the Voting Rights Act (VRA). The *Gingles* test asks whether: 1) the racial minority group is “sufficiently large and geographically compact to constitute a majority in a single-member district”; 2) the minority group is “politically cohesive” (meaning its members tend to vote for the same candidate); and 3) the “majority votes sufficiently as a bloc to enable it ... usually to defeat the minority’s preferred candidate.” In particular, the second and the third preconditions under the *Gingles* indicate the presence of RPV.

Empirically, I used the following two-step operational rules to measure whether a particular election is racially polarized: 1) I first estimate the Black and white group support² for the Black candidate in a biracial election; and 2) if in this biracial election the majority of Black voters cast their vote for the Black candidate, and only a minority of white voters cast their vote for the same Black candidate, then this election is racially polarized.

Since voting in the United States takes place in privacy, the only way to determine whether or not RPV existed in a given election is through statistical procedures. I analyzed the biracial elections based on the Ecological Inference (EI)

² Support is defined as over 50% of votes for a particular candidate.

method developed by Professor Gary King of Harvard University.³ EI is a statistical procedure for estimating voting results of voter groups (in this case grouped by race) and demonstrating the extent to which the race of the voters correlates with voter support for each candidate. EI has been widely used as the most-advanced and reliable statistical procedure for RPV estimates in not only academic research⁴ but also voting rights cases in the last two decades.⁵ To run an EI operation for

³ See Gary King, A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data (Princeton University Press, 1997).

⁴ There are other statistical procedures that have been used in my field (e.g., regression analyses) but are inadequate for the analysis necessary for the RPV analysis I conduct here. For example, a major limitation of Regression analyses is that it may provide unrealistic, even misleading, estimates (e.g., the Black voting group provided a Black candidate with 105.7% of their votes while the non-Black group voted for him/her at the -9.5% level). Regression analyses also unrealistically assume that all Black voters, regardless of which precinct they are assigned, voted at the same rate for the Black candidate in a given election. By comparison, the EI method *always* generates realistic estimates, and it also provides the point estimates for racial voting patterns and the standard errors (or 95% confidence interval) associated with these point estimates, which is to be understood as the uncertainty boundaries beyond the point estimates. The point estimates are to be considered as the most likely vote percentages cast for the Black candidate by different racial groups in a given election.

⁵ See, e.g., Preliminary Injunction Memorandum Opinion & Order, Doc. No. 107, pp. 66-68, 70, 174-75, *Milligan, et al. v. Merrill, et al.*, Case No. 2:21-cv-01530-AMM; *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (July 24, 2022 N.D. Ala. 2022) (3-judge ct.); *Montes v. City of Yakima*, 40 F.Supp.3d 1377, 1402 (E.D. Wash. 2014); *Bone Shirt v. Hazeltine*, 336 F.Supp.2d 976, 1003 (D. S.D. 2004); *Rodriguez v. Pataki*, 308 F.Supp.2d 346, 387-88 (S.D.N.Y. 2004).

South Carolina elections, the specific election return data at the precinct level need to be matched with the racial turnout data provided by South Carolina Election Commission.⁶

IV. Opinions

I have formed the following opinions:

Based on the data available at the time of writing this report, voting in South Carolina during the last four election cycles where there is a choice between or among Black and white candidates is “racially polarized” in that Black voters in all seven (7) general Congressional elections I analyzed have expressed a clear preference for the same candidate, and in the elections I analyzed, the preferred candidate by Black voters was a Black candidate. Furthermore, this preference was not shared by the white voters who were the majority of the electorate.⁷ As a result, the Black preferred candidates (BPCs) were typically defeated in biracial elections in South Carolina.

In addition to the 7 general Congressional elections, I also analyzed nine (9) primary elections for Congressional seats in South Carolina. My

⁶ The election return data at the precinct level are available from South Carolina Election Commission (at <https://www.scvotes.gov/election-results>). See **Appendix 3** for the details regarding data acquisition, matching and aggregation.

⁷ Following the 2010 and 2020 redistricting cycles, white voters comprise a majority of the voters in six of South Carolina’s congressional districts (i.e., CDs 1, 2, 3, 4, 5, 7). Under 2010 and 2020 congressional maps, Black voters constitute a majority and plurality, respectively, of one of those seven districts (i.e., CD6).

findings show that while white voters vote as a bloc against Black-preferred candidates (BPCs) in those primary elections, Black voters demonstrated a much higher level of support for Black candidates who showed a potential of winning in primary elections, such as by getting into a runoff or being an incumbent. When a district is configured in a way that there is no chance for a Black candidate to win, Black voters may choose to vote for a white candidate in a Democratic primary.

Finally, I also analyzed six (6) recent state-wide elections. In five of those elections, voters were given a choice between or among Black and white candidates. The sixth election featured a white candidate competing against another white candidate at the top of the ticket. All of those elections have also been racially polarized.

Moreover, based on the empirical data from the most recent four state-wide elections, it is clear that the redistricting maps for South Carolina's Congressional districts that the two South Carolina NAACP proposed (Plaintiffs' Plans), but were not enacted, outperform the plan enacted by South Carolina (Enacted Plan) in providing an opportunity for Black voters to elect candidates of choice in Congressional elections in the presence of demonstrated RPV patterns.

Based on an empirical analysis, I find that race, rather than presumed party affiliation, is a driving factor in whether voters remain in or are moved in and out of CD 1 in the Enacted Plan.

V. Racially Polarized Voting in South Carolina

In a case challenging a redistricting plan of Congressional districts, such as this one, the empirical evidence of the extent to which racially polarized voting (or lack thereof) has taken place is essential. This is because Plaintiffs' Second Amended Complaint alleges that the Enacted Plan "cracks" Black voters among certain Congressional districts, specifically CDs 1, 2, and 5. Though Plaintiffs have not brought a Section 2 claim, their theory is that the effect of any cracking of Black voters must be considered with the existence of any RPV. If Black voters are cracked and are a minority of voters in a congressional district in which white voters are the majority or supermajority of voters, RPV can function to deny or diminish Black voters' ability to elect or otherwise impact the elections of their preferred candidates. In other words, without RPV, the cracking of Black voters (if proved to be the case) would not have an effect on the opportunity of Black voters to elect candidate of their own choice. If Black and white voters in a disputed jurisdiction usually share the same preference for a particular candidate, or put another way, a sufficient number of white voters cross over usually to support the candidate preferred by Black voters (i.e., no RPV), then regardless how a district composed (including whether Black voters are cracked), the election outcomes should be consistent before and after the redistricting process.

To examine the extent of RPV (or lack of) in South Carolina for Plaintiffs' challenge to certain Congressional districts, recent Congressional elections providing a choice between voting for a

white candidate and voting for a minority (in this case, Black) candidate (i.e., biracial elections) are generally considered the most probative for assessing RPV.⁸ These Congressional elections concerning the electoral offices at issue in this matter are called endogenous elections. With the assistance of the Counsel for the Plaintiffs, I was able to identify 7 general elections in which there was both a Black candidate and a white candidate competing in a district in which white voters form the majority during the last four election cycles.

A) Endogenous General Elections

Table 1 shows the results of EI operations on the 7 endogenous general elections I examined between 2014 and 2020. Using the empirical definition of RPV explained above, I examined the levels of racial support for the Black candidates in these 7 Congressional elections. The most important finding is that Black voters have provided majority support for the Black candidates in all of these elections, and their preference was not shared by a majority of white voters.⁹ Thus, RPV existed in these 7 elections. As a result of RPV, the Black preferred candidates (BPCs) were all defeated in these endogenous elections.

⁸ Recent, biracial endogenous elections generally are the most probative elections. See, e.g., *Gingles*, 478 U.S. at 80; *Bone Shirt v. Hazeltine*, 461 F.3d 1011, 1020-21 (8th Cir. 2006); *U.S. v. Charleston Cnty.*, 318 F. Supp. 2d 302, 313 (D.S.C. 2002).

⁹ I used ei R package to perform RPV analysis through which white and non-white racial group support for the Black candidates were derived based on the merged racial turnout and election return data at the precinct-level (see **Appendix 3** for data source and matching information). The standard errors for racial group support for Black candidates are in the parentheses of **Table 1**.

Table 1: Estimated Racial Support for Black Candidate in Endogenous Elections (General Elections)

Year	Congressional District	Black Candidate	%White Voter Support for Black Candidate (s.e.)	%Black Voter Support for Black Candidate (s.e.)	Black Candidate Won?	RPV?
2020	3	Cleveland	13.21 (.07)	96.61 (.31)	No	Yes
2020	5	Brown	18.22 (.1)	95.31 (.25)	No	Yes
2020	7	Watson	19.78 (.2)	93.67 (.7)	No	Yes
2018	4	Brown	22.65 (.6)	98.58 (.25)	No	Yes
2018	7	Williams	21.81 (.3)	95.45 (.83)	No	Yes
2016	3	Cleveland	12.21 (.13)	65.17 (2.92)	No	Yes
2014	7	Timubu	16.61 (.22)	97.17 (.52)	No	Yes

B) Endogenous Primary Elections

I also was able to identify 9 partisan primary elections for Congress between 2014 and 2020 which involved at least one Black candidate in South Carolina. **Table 2** shows the RPV results for these 9 primary elections.

In three of these 9 primaries, the majority of Black voters voted for a Black candidate who did not receive the majority vote from the white electorate. Thus, RPV exited in these three elections. Two of these three elections involved Brandon Brown, a Black candidate, who first competed in the Democratic primary in Congressional District (CD) 4 in 2018. Brown won enough of the vote in the primary to move on to the Democratic primary runoff. Brown eventually was defeated in the general election due to RPV (see **Table 1** above). The third primary that revealed a RPV pattern was in CD 6's 2014 Democratic primary in which Representative Clyburn, who is Black, defeated his white opponent, Karen Smith.

In the six non-racially polarized elections, two elections (CD 1 of 2020 and CD 6 of 2014) were Republican primaries in which the Black candidates failed to receive support from both white and Black voters and lost the election. In contrast to the racially polarized primaries discussed above, the other four non-racially polarized elections did not involve a Black candidate that was able to make it to runoff or ran as an incumbent. These Democratic primaries took place in CDs 1, 3 and 5 where a Black candidate is very unlikely to win in these racial configurations even if the majority of Black voters supported this candidate.

Table 2: Estimated Racial Support for Black Candidate in Endogenous Elections (Primary Elections)

Year	Congressional District	Primary (Party)	Black Candidate	%White Voters Support for Black Candidate (s.e.)	%Black Voter Support for Black Candidate (s.e.)	Black Candidate Won?	RPV?
2020	1	(Rep)	Mole	5.23 (.1)	24.22 (.99)	No	No
2018	1	(Dem)	Smith	17.93 (.36)	40.55 (.44)	No	No
2018	3	(Dem)	Cleveland	15.31 (.99)	40.24 (.64)	No	No
2018	4	(Dem)	Brown#	8.04 (.65)	50.1 (.66)	Runoff	Yes
2018	4	(Dem/runoff)	Brown##	41.84 (.3)	94.65 (.65)	Yes	Yes
2018	5	(Dem)	Moore###	15.4 (1.9)	18.1 (1.2)	No	No
2014	3	(Dem)	Cleveland	18.35 (1.36)	45.85 (.88)	No	No
2014	6	(Dem)	Clyburn	43.28 (1.11)	94.83 (.28)	Yes	Yes
2014	6	(Rep)	Winn	33.74 (.1)	19.99 (1.6)	No	No

Brown in 2018 Congressional district 4 Democratic primary received 28.5% of the total votes, and got into a runoff with the leading white candidate (Turner) who received 29.5% of the total votes.

At the time of this report, I did not have access to the racial turnout data from the South Carolina Elections Commission for this runoff. Thus, I used the racial demographics based on the 2020 Census in the RPV estimation.

Moore was one of the two Black candidates in the contest, and the other Black candidate (Ali) received the fewest votes cast (only 13.3%) and, as a minor candidate, was not included in this table.

The above finding concerning primary elections is in line with my own empirical studies of voting patterns in the South in which Black voters are strategic in making their voting decisions.¹⁰ Empirical and quantitative research demonstrates that Black voters evaluate the racial composition of a district before casting their votes, and may choose not to support the Black candidate because of the inevitability of Black defeat as a result of white bloc voting in a white-dominant district. The fact that in CD 4, a white voter-dominant district, candidate Brown, who is Black, made it to and won the Democratic primary runoff in 2018 clearly increased the potential to elect Brown in the general election. Notably, based on my research, Brown is the only Black candidate I am aware of to force a runoff after a contested, bi-racial congressional primary election and then be defeated in a contest, bi-racial general election in the last three electoral congressional election cycles. Black voters became much more united behind Brown in both the runoff and the general elections while white voters formed a voting bloc against him and were able to defeat him in the general election.

¹⁰ For a discussion of strategic voting model, see, e.g., Liu, Baodong. 2007. *Race Rules: Electoral Politics in New Orleans, 1965-2006*. Lexington Books; see also Vanderleeuw, James and Baodong Liu, 2002. "Political Empowerment, Mobilization, and Black Voter Roll-off," *Urban Affairs Review* 37 (3): 380-396 (discussing Black voter strategic non-voting); and Hayes, Danny and Seth C. McKee. 2009. "The Participatory Effects of Redistricting" *American Journal of Political Science* 53(4):1006-1021 (discussing how voters engaged in non-voting by avoiding making mistakes in a newly drawn district).

C) Exogeneous Elections

Since the redistricting process involves voters from the whole State of South Carolina, I also examined six elections for statewide elected offices over four recent election cycles. The elections that did not concern the electoral offices at issue in this matter are called exogenous elections. The six statewide exogenous elections in South Carolina were for the 1) U.S. President in 2020, (2) U.S. Senate in 2020, (3) 2018 Secretary of State, (4) 2018 State Treasurer, (5) 2016 U.S. Senate election, and (6) 2014 special U.S. Senate election.

Three of these exogenous elections were biracial, involving both white and Black candidates. The 2020 U.S. President election, however, involved white candidates as the nominees for both major political parties on the top of the ticket.¹¹ Two of these exogenous elections, the 2014 and 2016 Senate elections, featured two Black candidates at the top of the ticket and white candidates as minor-party nominees.

All six exogeneous state-wide elections analyzed in this report showed a high level of racially polarized voting, as shown in **Table 3**.

¹¹ The 2020 election did include a Democratic Vice-President nominee, Kamala Harris, who is Black and an Asian American person.

Table 3. Estimated Racial Support for Black Candidate in Exogenous Elections

Year	Election	General/ Primary	Black- preferred Candidate	%White Voter Support for Black- preferred Candidate (s.e.)	%Black Voter Support for Black- preferred Candidate (s.e.)	Black- preferred Candidate Won in SC?	RPV?
2020	US President	G	Biden	23.43 (.00)	97.37 (.1)	No	Yes
2020	US Senate	G	Harrison	23.49 (.00)	98.91 (.12)	No	Yes
2018	Secretary of State	G	Whittenburg	22.53 (.00)	97.10 (.14)	No	Yes
2018	State Treasurer	G	Glenn	21.80 (.00)	97.33 (.00)	No	Yes
2016	US Senate	G	Dixon	14.42 (.00)	93.07 (.18)	No	Yes
2014	US Senate	Special	Dickerson	13.16 (.00)	95.42 (.17)	No	Yes

Specifically, Joseph Biden in the 2020 Presidential election received 97.37% of Black voter support and only 24.43% of white voter support in South Carolina. In the 2020 U.S. Senate election, Jamie Harrison, a Black candidate, ran against the white incumbent Republican candidate, Lindsay Graham. Harrison received 98.91% of Black voter support and 23.49% of white voter support, and was defeated with 44.2% of the total votes cast.

In the 2018 Secretary of State election, Melvin Whittenburg received 97.1% of Black voter support and only 22.53% of white voter support. In the same year, Rosalyn Glenn, a Black candidate competed in the State Treasurer election against a white Republican opponent, Curtis Loftis. Glenn received 97.33% of Black voter support and only 21.8% of white voter support, and was defeated with 42.5% of the total votes cast.

The final two exogenous elections involved U.S. Senator Tim Scott, a Black Republican candidate, who was elected in the 2014 special election and reelected in the 2016 general election. The RPV analysis shows, however, that he was not the preferred candidate of Black voters in South Carolina. Instead, his opponents, Joyce Dickerson in 2014 and Thomas Dixon in 2016, both Black and Democratic candidates, each received more than 90% of Black voter support. Scott was elected primarily because of the white support for him at more than 70% in both elections. Thus, these two exogenous elections were also highly racially polarized.¹²

¹² Both the 2014 and the 2016 U.S. Senate elections analyzed here involved white candidates running as minor-party nominees who received collectively less than 5% of the total votes cast.

VI. Effectiveness Analyses

1. Background

The 2020 Census shows that Black voters are 25.28% of the voting-age population (VAP) in South Carolina. Based on the pure proportional representation derived from almost a quarter of total VAP, this Black voter presence in South Carolina should translate to more than 1.7 Congressional seats out of the total of seven seats designated to South Carolina. White voters are 65.3% of the VAP, which should translate to about 4.6 seats out of the total seven Congressional seats. My empirical analysis of the Enacted Congressional Plan of South Carolina takes a first look at the number of seats that may be won by white candidates in Congressional elections vis-à-vis BPCs.

Based on the extremely high level of RPV demonstrated above, especially in general Congressional elections in South Carolina, it is more likely for white candidates to win in districts where they are the majority of the VAP. Six of seven CDs based on the Enacted Plan have a white-majority VAP. These are CDs 1 through 5 and CD 7 (white VAP of 71.14% (CD 1), 64.06% (CD 2), 74.05% (CD 3), 67.05% (CD 4), 66.49% (CD 5) and 67.12% (CD 7)). More importantly, Black voters are spread out fairly evenly in these six CDs according to the Enacted Plan. Three of these districts (CDs 1, 3, and 4) have Black voters at about 16-19% of the VAP, while the other two (CDs 2 and 7) have Black voters just about 25% of the VAP. These evenly distributed Black voters in the six CDs lead to a clear advantage of white

voters as Black voting strength is reduced to minimize their success in winning Congressional elections.

Before I present the empirical findings on the probability of winning for Black-preferred candidates in these six districts (i.e., the effectiveness analysis), it is also necessary to note that there is one district based on the Enacted Plan with a Black VAP share that surpassed that of the white VAP.

CD 6 is a district that has elected its Representative, Jim Clyburn, since 1992. As the House Majority Whip, Mr. Clyburn, a Black incumbent, ran his elections in the district with more than a 52.5% VAP identifying as Black before 2022. The newly Enacted Redistricting Plan reduced the Black VAP level to 46.9%, while increasing the white VAP to 44.6%. This racial compositional change certainly makes white voters more influential than they were prior to 2022.

To examine the effects of the Enacted Plan, vis-à-vis those of the two Plans proposed by the Plaintiffs, I provide the Effectiveness Analyses (EAs) in order to show the relative opportunities for Black voters to elect the candidates of their choice in each of the plans. My comparative study of four South Carolina Congressional redistricting plans is based on the data from the four most recent exogenous statewide elections in South Carolina and the racial demographic data from the 2020 census. These four plans are the Enacted Plan that has been passed by the South Carolina Legislature and signed into law by the Governor,

S. 865, the Harpootlian Plan,¹³ and the two congressional plans that the Plaintiff South Carolina NAACP proposed during the legislative process.¹⁴

a. What is an Effectiveness Analysis?

An effectiveness analysis is a comparative study of two or more redistricting plans. This comparative study reports the different opportunities for racial minority voters (in this case, Black voters) to elect the candidates of their choice, given how the different redistricting plans have determined the racial configuration of a certain jurisdiction under legal dispute, and the extent to which RPV has affected the election outcomes in the given jurisdiction.

b. State-Wide Elections Used to Conduct an Effective Analysis

To compare the Enacted Plan with the Plaintiffs' Plans, I used four state-wide exogenous elections about which I have reported the RPV findings above—the 2020 Presidential election, the 2020 U.S. Senate election, the 2018 Secretary of State election and the 2018 State Treasurer election. These four elections were state-wide elections that involved all voters in South Carolina and were from the most recent statewide election cycles, and thus can help project how voters will vote in near future elections in South Carolina.

¹³ [Senate 2021 Redistricting | Plan Proposals \(scsenate.gov\)](https://redistricting.scsenate.gov/planproposals/) (see Floor Amendment 3 – Harpootlian).

¹⁴ <https://redistricting.schouse.gov/publicsubmissions.html> and <https://redistricting.scsenate.gov/planproposal.html> (see NAACP submissions 1 and 2 on the redistricting pages for both South Carolina's House and Senate).

2. Effective Analysis Results

Table 4 shows that both Plaintiff proposed Plans outperform that of the Enacted Plan in providing Black voters an ability to elect BPCs in two districts as compared just one in the Enacted Plan (or the plan implemented following the 2010 census). Both CD 6 and CD 1 have realistic chances to elect BPCs according to either of the Plaintiff's proposed Plans. By comparison, the Enacted Plan not only provides an ability to elect a BPC in only one district (CD 6), but also, as compared to the plan implemented following the 2010 census, the Enacted Plan is likely to be even less effective for Black voters' chance to elect BPCs in CD 1 based on this analysis. It is also worth noting that the Harpootlian Plan also would improve the effectiveness of CD 1 as compared to the Enacted Plan; however it is also less effective than the Plaintiffs' proposed plans. The increase of BVAP to 34% in CD 5 under the Harpootlian Plan would provide the highest opportunity for Black voters to impact election outcomes by increasing the average percentage vote share for BPCs to 47% (as compared to 41% under the Enacted Plan).

Table 4: Effective Analyses for Enacted Congressional Redistricting Plans, SC¹⁵

District	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
BVAP (original)#	17%	24%	17%	18%	26%	53%	25%
Enacted Plan	17%	25%	18%	19%	25%	47%	25%
Harpootlian Plan	21%	22%	16%	16%	34%	50%	18%
Plaintiff_Plan 1	35%	21%	16%	17%	24%	53%	12%
Plaintiff_Plan 2	24%	20%	18%	19%	20%	50%	25%
WVAP (original)	71%	67%	74%	68%	66%	40%	67%
Enacted Plan	71%	64%	74%	67%	67%	45%	67%
Harpootlian Plan	67%	69%	74%	72%	58%	43%	72%
Plaintiff_Plan 1	54%	70%	74%	70%	67%	40%	78%
Plaintiff_Plan 2	65%	69%	74%	68%	70%	42%	67%

¹⁵ BVAP in this table is measured by any-part BVAP from the 2020 census.

District	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
RPV (original)	100%	100%	100%	100%	100%	100%	100%
Enacted Plan	100%	100%	100%	100%	100%	100%	100%
Harpoottlian Plan	100%	100%	100%	100%	100%	100%	100%
Plaintiff_Plan 1	100%	100%	100%	100%	100%	100%	100%
Plaintiff_Plan 2	100%	100%	100%	100%	100%	100%	100%
Average % vote for BPC (original)	45%	42%	31%	38%	41%	68%	41%
Enacted Plan	44%	42%	31%	39%	41%	66%	41%
Harpoottlian Plan	50%	35%	33%	33%	47%	64%	38%
Plaintiff_Plan 1	53%	36%	32%	35%	40%	65%	42%
Plaintiff_Plan 2	51%	39%	31%	38%	37%	65%	41%

A Further Look at How the CDs Are Reconfigured Under the Enacted Plan

Table 5 provides the detailed sources/changes of each Enacted CD. Voters, based on the Enacted Plan, may find themselves either “remaining in” their prior district, or “being moved out” of their prior district (due to the new assignment of their Voting Tabulation Districts or VTDs). The newly Enacted CD 1, for example, according to Table 5, is composed of VTDs of the Census which were originally located in CD 1 (i.e., voters “remained in” CD 1) and CD 6 (i.e., voters were “moved in” to CD 1 from CD 6).

Table 5 also shows that CD 6 (a district that has lost its status as a district comprised of a majority of Black voters) was indeed a district that was reconfigured heavily by the Enacted Plan. Other than CD 1, which saw VTDs moved to CD 6, CDs 2 and 5 are also the original (2010) districts that contributed to the new configuration in CD 6.

Table 5: How VTDs were moved around based on the Enacted CD Plan?

Enacted District	Voters from original Districts	# of VTDs remained	# of VTDs moved out	# of VTDs split into 1+
1	1, 6	301	32	21
2	2, 6	279	6	16
3	3, 4, 5	331	25	11
4	4, 3	214	3	6
5	5, 4	329	10	8
6	6, 1, 2, 5	340	74	25
7	7, 6	322	2	4

The movements of VTDs may derive from many factors. They may be a result of rebalancing populations following the census (as CD 1 was nearly 12% overpopulated, while CD 6 was 11.59% underpopulated), or consolidating incumbents' opportunities to stay in office, or something else. The following section will focus specifically on the question about whether or not there is empirical evidence that race rather than the assumed party affiliation of voters determined which voters were moved in and moved out of CDs in the redistricting process of the Enacted Plan.

VII. An Empirical Test of Race v Party

My empirical analysis of party vis-à-vis race starts with the fact that a voter from a given pre-redistricting CD may face one of the two mutually exclusive conditions:

First, the voter is assigned to the same district based on the Enacted Plan. This is because the VTD in which the voter resides is determined by the Enacted Plan to "remain" in the district. We can call all the VTDs that are determined by the Enacted Plan to remain in the district as the "Core" VTDs of the given district as far as the redistricting is concerned.

Second, the voter is assigned to a different district based on the Enacted Plan. This is because the VTD in which the voter resides is determined by the Enacted Plan to "move out" of the district. We can call all the VTDs that are determined by the Enacted Plan to move out of the district as the "Out" VTDs as far as the redistricting is concerned.

It is also important to point out that as the redistricting decides whether and how to put VTDs into the “Core” or “Out” categories in terms of the pre-redistricting district, new voters are “moved into” the given district from outside of the district. We can call these the “Into” VTDs.

Thus, for a new district that is reconfigured based on the Enacted Plan, we use the three categories of **Core**, **Out**, and **Into** to differentiate all the voters whose new district may be related to the given district one way or another. Once VTDs are classified based on the above categories, we can then examine how different voters are assigned to their respective districts. In particular, we are interested in whether a voter’s racial identity vis-à-vis the presumed partisanship of this voter has a relationship to whether a voter remains in his/her original district (core) or is moved into or out of a district.

Empirically, if race is not a driving factor in the Enacted Plan, then a voter is randomly assigned to a district without any statistically-proven evidence of the association between race and assignment category. The same can be said for partisanship: if partisanship is not a driving factor in the Enacted Plan, then a voter is randomly assigned to a district without any statistically-proven evidence of the association between party affiliation and assignment category.

The Plaintiffs allege that the Enacted Plan violates the Constitution because of the existence of racial (not partisan) gerrymandering and intentional vote dilution. In particular, the Plaintiffs challenge CDs 1, 2 and 5 under these legal theories. The newly reconfigured and

enacted CD 1 is located in the Southern region of South Carolina that includes all or parts of six counties (Beaufort, Berkeley, Charleston, Colleton, Dorchester, and Jasper). The City of Charleston, in particular, is the largest city in South Carolina that spreads across both Berkeley and Charleston Counties. With the rapid population growth at the 18.19% rate in Charleston in the last decade, the redistricting process in South Carolina had to consider the effect on the Black community which represents almost 22% of the city's population.

To empirically examine whether race vis-à-vis party plays a role in the redistricting process for the Enacted Plan involving CDs 1 and 2, I use the racial turnout data from the 2018 Governor's Democratic primary and the 2018 Governor's Republican primary from the South Carolina Election Commission. The racial turnout data from these gubernatorial partisan primaries are the most reliable data because in South Carolina (which does not have partisan voter registration data) voters may decide which party to vote for in a partisan primary. The 2018 gubernatorial race involves candidates from both major parties who held competitive primary contests simultaneously. **Table 6** shows the counts of the voters in the Democratic and Republican primaries in the 2018 gubernatorial race. Furthermore, Table 6 lists the crosstabs of party and race for the primaries.

Table 6
Race v Party in CD 1 of Enacted Plan,
South Carolina¹⁶

	White_ Dem	Black_ Dem	White_ Rep	Black_ Rep
Core	15,825 (17.3%)	10,121 (11.1%)	64,331 (70.3%)	1,236 (1.4%)
Into	524 (9.0%)	2,176 (37.2%)	2,742 (46.8%)	415 (7.1%)
Out	3,651 (22.1%)	3,640 (22.0%)	9,103 (55.0%)	164 (1.0%)

The first row of Table 6 shows clearly that white voters are much more likely to be in the Republican primary whereas Blacks voters are more likely to be in the Democratic primary, in terms of the **Core** category (i.e., those voters whose VTD remained in CD 1 based on the Enacted Plan).¹⁷ Democratic voters are in the first two columns of Table 6 while Republican voters are in the third and fourth columns. The white Democratic voters are 17.3% of the total voters that remained in CD 1 while only 11.1% of these “kept-in” voters are Black Democratic voters.

Table 6 also provide more details about the voters who are “moved into” and “moved out of” CD 1 based on the Enacted Plan. Clearly if party rather

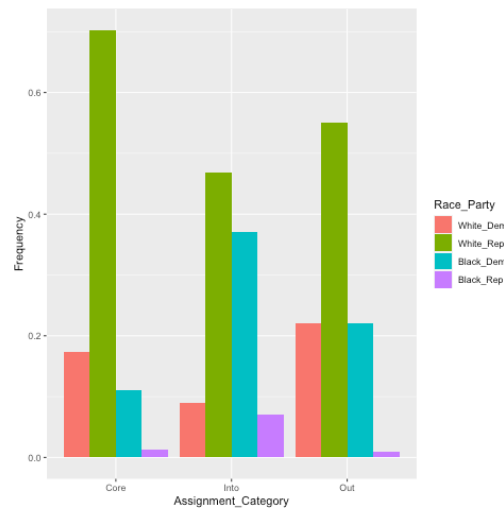
¹⁶ The cell values of this table are from the 2018 gubernatorial partisan primary data published by the South Carolina Election Commission.

¹⁷ There were also voters who did not vote in these primaries. They are excluded from this empirical analysis because of lack of data on their racial identity and partisan participation.

than race was the driving explanation for why voters were moved out or in CD 1, equal shares of white and Black voters with the same party affiliation would be impacted. But this is not the case based on my analysis.

Figure 1 visualizes the findings presented in Table 6.

Figure 1
Visualizing Race v Party of CD 1
of Enacted Plan, South Carolina



The “Core” category on the left of Figure 1 shows that white Republicans are clearly the most dominant electoral sub-group and white Democrats are the second largest group in the Enacted CD 1. Black voters, on the other hand, are the smallest in the “Core” category regardless of their partisanship. This finding provides the first indicia that race may be more important than party in the Enacted Plan.

Moving from the left to the right in **Figure 1**, we see the “Into” and “Out” categories. Again, if party rather than race was the driving explanation for why voters were moved out or into CD 1, equal shares of white and Black voters with the same party affiliation would be impacted across each category. **Figure 1** shows, however, that regardless of party participation in the two primary elections analyzed, Black voters, unlike their small shares in the Core category, are much more likely to be moved out or moved into CD 1.¹⁸ In particular, it is through the cracking of Black voters in the Northern Charleston area and moving them into CD 6, and moving in Black voters from CD 6 into CD 1, that the Enacted Plan reveals the cracking of Black voting strength particularly in CD1.

Additionally, my empirical analysis also shows that voters in precincts with large white VAPs who voted in the Democratic primary in 2018 were moved from CD 2, particularly in Richland, into CD 6, though precincts with voters identified as Black Democrats (based on the 2018 primary) were left in CD 2. **Table 7** provides the detailed

¹⁸ Under the Enacted Plan, Black voters are moved into CD 1 from both Berkeley and Beaufort counties. In both cases, this is because these counties were made whole in CD 1 when they had previously been split under the post-2010 congressional map. In particular, on the surface some effort was made to improve CD 1’s respect for traditional principles by keeping Berkeley County whole. Nonetheless, almost all of the areas moved in to CD 1 are the parts of Berkeley County that were previously in CD 6 which have heavy Black populations. Furthermore, to keep the Black VAP in CD 1 low, the Enacted Plan replaced the Black voters moved in to CD1 from Berkeley by moving out even more Black voters from the Charleston area.

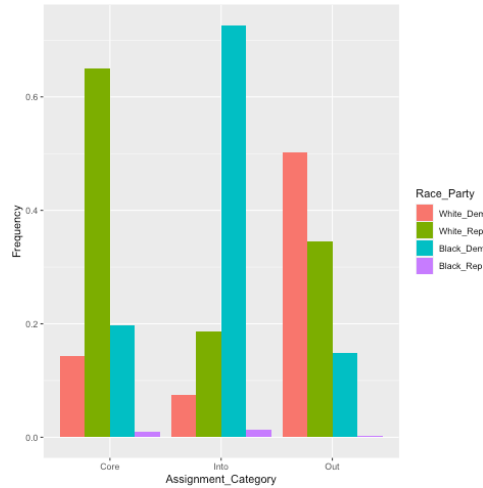
counts of the voters in the Democratic and Republican primaries in the 2018 gubernatorial race for CD 2. As shown in **Table 7**, there were 14,051 white Democrats that were left in CD 2 after 1,682 white Democrats were moved to CD 6 under the Enacted Plan. In contrast, as many as 19,337 Black Democrats were left in CD 2 and only 496 Black Democrats were moved into CD 6.

Table 7
Race v Party in CD 2 of Enacted Plan,
South Carolina

	White_ Dem	Black_ Dem	White_ Rep	Black_ Rep
Core	14,051 (14.3%)	19,337 (19.7%)	63,799 (65.0%)	973 (1%)
Into	95 (7.4%)	930 (72.7%)	238 (18.6%)	17 (1.3%)
Out	1,682 (50.3%)	496 (14.8%)	1,158 (34.6%)	10 (.3%)

If party rather than race was the driving explanation for why voters were moved out or left in CD 2, equal shares of white and Black voters with the same party affiliation would be impacted, but that is not what is shown in **Figure 2**. Black Democratic voters and white Democratic voters are the largest sub-groups in the “Into” and “Out” categories. Thus, there is also empirical evidence for the greater role of race than party as far as to how voters were impacted in CD 2.

Figure 2
Visualizing Race v Party of CD 2
of Enacted Plan, South Carolina



VIII. A verification study of race v. party

In this section, I provide a further verification study of the conclusion I made above concerning the greater role that race plays vis-à-vis party in the Enacted Congressional Map. This verification study is derived from an approach adopted by Dr. Stephen Ansolabehere in *Harris v. McCrory*, 159 F. Supp. 3d 600 (M.D.N.C. 2016), aff'd sub nom. *Cooper v. Harris*, 137 S. Ct. 1455, (2017).

Based on Dr. Ansolabehere's approach, the redistricting process involves the decision of drawing voters from a larger base area to assign them to the given district according to the redistricting plan. This larger base area is called the "envelope," which essentially is the collection of counties that encompass all sub areas that voters reside in. As explained above, in the

Enacted CD 1, for example, voters are from six counties of South Carolina—Beaufort, Berkeley, Charleston, Colleton, Dorchester, and Jasper. These six counties collectively are called the envelop for CD 1 in the Enacted Map.

To find whether or not race (or party) plays a major role in the Enacted Plan, one can evaluate the probability of voters being assigned to the district of interest. If race is not a driving factor, then white and Black voters in the envelope would have roughly the same probability of being assigned to the district. If, on the other hand, Black voters are found to be assigned to the district with a much higher/lower rate than white voters, then race is proved to be no longer a random factor.

Using 2020 Census data, **Table 8** shows how voters are assigned from the envelop to the district with respect to Enacted CD 1. The first row indicates that voters in all six counties (i.e., the envelope) have a 68.87% chance of being assigned to CD 1. But white voters have a greater probability of being assigned to CD 1 (74.43%) as opposed to Black voters (52.69%).

Table 8: Enacted CD 1 and Assignments of Voters from the Envelope

Group	VAP in Envelope	VAP in District	(% of the Group in Envelope assigned to District)
Total	82,8405	570,538	(68.87%)
White	545,365	405,889	(74.43%)
Black	175,920	92,684	(52.69%)
Hispanic	59,440	38,918	(65.47%)
Other	47,680	33,047	(69.31%)

Again, if we use the 2018 Democratic and Republican Gubernatorial primaries data, we can examine how voters from the envelope are assigned to CD 1 and evaluate whether race plays a bigger role than party in the Enacted Plan. **Table 9** shows the results of this evaluation.

Table 9: Enacted CD 1 and Assignments of Voters—race v. party

Party Primary	Number of Voters in Envelop	Number of Voters in District	(% of Group That is in District)
White_ DEM	24,083	16,614	68.99
Black_ DEM	25,397	12,864	50.65
White_ REP	85,108	68,716	80.74
Black_ REP	2,053	1,697	82.67

As shown in **Table 9**, with respect to voters in the same Democratic Party, white Democratic voters (68.99%) are much more likely to be assigned to CD 1 from the envelope than Black Democratic voters (50.65%). With respect to the Republican Party, Black Republican voters are slightly more likely (82.67%) to be assigned to CD 1 than white Republican voters (80.74%). But there are only a total of 2,053 Black Republicans in the envelope. In comparison, there were as many as 25,397 Black Democrats. Thus, the overall probability of Black voters (no matter their party affiliation) of being assigned to CD 1 is much lower than that of white voters.

Table 10 shows how voters are assigned from the envelope to the district with respect to Enacted CD 2. The first row indicates that voters in the envelope have a 73.28% chance of being assigned to CD 2. But white voters have a greater probability of being assigned to CD 2 (83.33%) as opposed to Black voters (53.93%).

Table 10: Enacted CD 2 and Assignments of Voters from the Envelope

Group	VAP in Envelope	VAP in District	(% of the Group in Envelope assigned to District)
Total	768343	563028	(73.28%)
White	432872	360714	(83.33%)
Black	249655	134639	(53.93%)
Hispanic	41120	33556	(81.61%)
Other	44696	34119	(76.34%)

Table 11 shows the results of the crosstabs of party and race for Enacted CD 2. Again, with respect to voters in the same Democratic Party, white Democratic voters (70.87%) are much more likely to be assigned to CD 2 from the envelope than Black Democratic voters (48.81%). With respect to the Republican Party, white Republican voters are also more likely (90.62%) to be assigned to CD 2 than Black Republican voters (68.61%). Thus, the probability of Black voters being assigned to CD 2 (regardless of their party affiliation) is much lower than that of white voters.

Table 11: Enacted CD 2 and Assignments of Voters—race v. party

Party Primary	Number of Voters in Envelop	Number of Voters in District	(% of Group That is in District)
White_ DEM	21154	14991	70.87
Black_ DEM	45343	22133	48.81
White_ REP	74410	67433	90.62
Black_ REP	1552	1065	68.61

In sum, this section confirms my findings presented in the previous section about the driving and greater effect that the race of a voter as compared to their party affiliation (based on an analysis of two, recent gubernatorial primaries) determines the assignment of voters to districts in the Enacted Map, particularly for CDs 1 and 2.

IX. Conclusion

The empirical analyses clearly revealed that in 7 out of the 7 general Congressional elections in which Black voters expressed a preference for Black candidates, that preference was not shared by a majority of white voters. This RPV pattern is confirmed not only by these endogenous, biracial general elections, but also by the six statewide exogenous elections during the last three election cycles. Despite the highly cohesive bloc voting by Black voters for the Black preferred candidates, the white majority voters typically voted as bloc to defeat the candidates preferred by Black voters in

these elections. Thus, my empirical analysis indicates that the characteristics of “racial polarization,” as defined by the Supreme Court in *Thornburg v. Gingles*, (478 U.S. 30 at 53 n.21), exist in South Carolina’s recent elections.

To address the effect of RPV on the opportunity of Black voters in South Carolina to elect the candidate of their choice, the Plaintiff’s two proposed Plans are clearly more effective than the Enacted Redistricting Plan in providing Black voters the opportunity to elect their preferred candidates in two rather than one congressional districts. Additionally, a plan proposed by a South Carolina Senator Harpootlian, also is more effective than the Enacted Redistricting Plan, though less than Plaintiff’s two proposed Plans, in providing Black voters the opportunity to elect their preferred candidates in two rather than one congressional districts.

Moreover, there is strong empirical evidence that race, rather than presumed party affiliation, is a driving factor in whether voters remain or are moved in and out of the districts challenged by Plaintiffs, particularly CDs 1 and 2, in the Enacted Plan.

X. Appendix

Appendix 1: Curriculum Vita.

Appendix 2: Past Voting Rights Expert Work

Appendix 3: Data Acquisition, Processing and Aggregation Process

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light.

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Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed on: Date: April 6, 2022

/s/ Baodong Lin
Baodong Liu, Ph.D

Appendix II

**Voting Rights Cases in which I Served
as an Expert Witness**

Milligan, et al. v. Merrill, et al., Case No. 2:21-cv-01530-AMM and *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (N.D. Ala. 2021).

Traci Jones et al v. Jefferson County Board of Education et al, (N.D. Ala. 2019).

CMA v. Arkansas, (E.D. Ark. 2019).

Alabama State Conference of NAACP v. Pleasant Grove, (N.D. Ala. 2018).

Navajo Nation, et al, v. San Juan County, et al, (D. Utah 2012).

League of Women Voters of Florida, et al v. Detzner, et al, (Fla. 2012).

Anne Pope et. al. v. County of Albany and the Albany County Board of Elections (N.D.N.Y.2011).

Radogno, et al v. State Board of Elections, et al, (N.D. III. 2011).

NAACP v. St. Landry Parish et al, (W.D. La. 2003).

Arbor Hill Concerned Citizens Neighborhood Association et al v. County of Albany, (N.D.N.Y. 2003).

Hardeman County Branch of NAACP v. Frost, (Tenn. 2003).

Appendix III

Data Acquisition

1. We acquired 2014, 2016, 2018, and 2020 precinct-level shapefiles from the Voting and Election Science Team at the University of Florida. We joined those shapefiles to 2014, 2016, 2018, and 2020 precinct-level election returns from the South Carolina Election Commission, which were processed and cleaned by OpenElections.
 - a. For the 2014 precinct-level election returns, we harmonized and joined those to the 2016 precinct-level shapefile acquired from the Voting and Election Science Team.
 - b. Since absentee and provisional vote was reported at the county level prior to the 2020 general election, we distributed the county-level absentee and provisional vote for each candidate to the precincts in the county, proportional to the share of the candidate's vote total in the county that was reported from each precinct.
2. We acquired 2014, 2016, 2018, and 2020 precinct-level reports of turnout by race and ethnicity from a third party who received them from the South Carolina Election Commission. Since these were not available for the 2014 general election or the 2010 Democratic primary, we downloaded precinct-level reports of turnout broken down by white and nonwhite voters from the South Carolina Election Commission's website.
3. We acquired 2010 precinct-level reports of vote choice for the Democratic primary from the South Carolina Election commission.

4. We acquired 2020 Census Block shapefiles, total population by race and ethnicity, and voting age population by race and ethnicity directly from the Census FTP portal.
5. We acquired 2010 Census Block shapefiles, total population by race and ethnicity, and voting age population by race and ethnicity from the Census FTP portal, using the R package PL94171.
6. We acquired VTD block assignment files and South Carolina congressional district block assignment files for the current plan from the Census website.
7. We acquired incumbent addresses from the Redistricting Data Hub. We then supplemented those with edits to incumbent addresses based on public information and records (e.g., information posted on the South Carolina State House website, South Carolina State Election Commission filings, and South Carolina property records) and input from Plaintiffs' counsel team, which were then geocoded to census blocks.
8. We acquired the enacted Congressional Plan from the South Carolina House of Representatives Redistricting 2021 website.

Data Processing

1. For datasets that were on the 2020 census block level (total population, voting age population, VTD assignment, current/passed/plaintiff State House district assignment), we joined these datasets to the 2020 Census block shapefile.
2. For datasets that were not on the level of the census block (2014, 2016, 2018, and 2020 election returns – precinct; 2014, 2016, 2018,

and 2020 turnout reports – precinct), we disaggregated them down to the 2020 census block level. We then joined them to the 2020 Census block shapefile.

3. For data on the level of the 2010 precincts (2010 voting returns, 2010 voter turnout by race and ethnicity), we joined these up to 2010 VTDs cleaned and processed by the Harvard Election Data Archive team. We then disaggregated these down to the level of the 2020 Census blocks.
4. For data on the level of the 2010 Census blocks, we used the Census’s block relationship files to pro-rate these to the level of the 2020 Census blocks.

Data Aggregation

1. We aggregated the full block-level dataset up to the level of the 2020 voting districts, taking into account splits of voting districts by the current and passed Congressional Plans.

[[STAMP]
Plaintiffs'
Exhibit

59

Table 9: Enacted CD 1 and Assignments of Voters—race v. party

Party Primary	Number of Voters in Envelop	Number of Voters in District	(% of Group That is in District)
White_ DEM	24,083	16,614	68.99
Black_ DEM	25,397	12,864	50.65
White_ REP	85,108	68,716	80.74
Black_ REP	2,053	1,697	82.67

**Counsel's Note: As explained in the body of Dr. Liu's report, the "envelope" refers to the broader region from which mapmakers could have drawn the district's population, which, for CD1, consisted of six counties: Beaufort, Berkeley, Charleston, Colleton, Dorchester, and Jasper. PX 48 at 19.*

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Appendix 4

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[[STAMP]
Plaintiffs'
Exhibit

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No. 3-21-cv-03302-MBS-TJH-RMG

THREE-JUDGE PANEL

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, in his official capacity as
President of the Senate; LUKE A. RANKIN, in his
official capacity as Chairman of the Senate Judiciary
Committee; JAMES H. LUCAS, in his official
capacity as Speaker of the House of Representatives;
CHRIS MURPHY, in his official capacity as
Chairman of the House of Representatives Judiciary
Committee; WALLACE H. JORDAN, in his official
capacity as Chairman of the House of
Representatives Elections Law Subcommittee;

HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their official
capacities as members of the South Carolina Election
Commission,

Defendants.

Rebuttal Report of Baodong Liu, Ph.D.
re Congressional Map

May 2, 2022

I have been asked to express my opinion about the April 18, 2022 report of Mr. Sean P. Trende, an expert for the Defendants in the above captioned litigation, and to determine whether it supports or undermines my own report, findings, and opinions in this case regarding the challenged Congressional districts. This rebuttal report is divided into three sections. The first section summarizes the main differences between Mr. Trende report and my own expert report disclosed on April 6. The second section points out the errors in Mr. Trende's applications of redistricting principles. The third section provides general comments about the limitations of Mr. Trende's methodology to assess the Enacted Congressional Plan, as well as the misleading conclusions derived from his analyses.

The Main Disagreements between Mr. Trende's Report and My Own Report

Mr. Trende focuses his attention on the extent to which the Enacted Map differs from what he called “the Benchmark Plan” put “in effect from 2012 to 2020” (Trende p. 6). In doing so, he concludes that “The Enacted Map generally reflects only modest changes from the Benchmark Plan” (Trende p. 7). This conclusion is based on the following empirical observations:

- The Enacted Map “retains high percentages of the cores of all of the Benchmark Districts” (Trende p. 7)
- In the places where the Enacted Map modified the Benchmark Map, according to Trende, the Enacted Map (Trende p. 7):
 1. Reduces the number of split counties;
 2. Reduces the number of split Voting Tabulation Districts (VTDs) (which he incorrectly treats as synonymous with precincts);
 3. Repairs the split precincts (to make them whole); and
 4. Leads to minimum changes to the Black Voting Age Populations (BVAP) of the districts (Trende p. 22)

Despite my concerns about his methodology and the data he relied upon described below, Mr. Trende and I agree that the Enacted Plan makes District 1 “meaningfully more Republican” (Trende p. 35; also see Liu p. 17). Mr. Trende and I also agree that the Enacted Plan has made counties such as Berkeley County whole (Trende p. 33; Liu p. 17 & fn. 18).

The major differences between the findings in Mr. Trende's report and my own, however, are that I relied extensively on empirical analyses of both the role of race and party to draw my conclusion that "there is strong empirical evidence that race, rather than presumed party affiliation, is a driving factor in whether voters remain or are moved in and out of the districts challenged by Plaintiffs, particularly CDs 1 and 2, in the Enacted Plan" (Liu p. 21).

The reason why Mr. Trende failed to account for the role of race vis-à-vis that of party is because of his flawed methodology. As shown in **Table 1** below, Mr. Trende did not engage in any racially polarized voting (RPV) analysis which is essential for any expert witness responsible for providing empirical evidence concerning the role of race in voting-rights related lawsuits.¹

¹ As I indicated in my report, "Though Plaintiffs have not brought a Section 2 claim, their theory is that the effect of any cracking of Black voters must be considered with the existence of any RPV. If Black voters are cracked and are a minority of voters in a congressional district in which white voters are the majority or supermajority of voters, RPV can function to deny or diminish Black voters' ability to elect or otherwise impact the elections of their preferred candidates. In other words, without RPV, the cracking of Black voters (if proved to be the case) would not have an effect on the opportunity of Black voters to elect candidate of their own choice. If Black and white voters in a disputed jurisdiction usually share the same preference for a particular candidate, or put another way, a sufficient number of white voters cross over usually to support the candidate preferred by Black voters (i.e., no RPV), then regardless how a district composed (including whether Black voters are cracked), the election outcomes should be consistent before and after the redistricting process" (Liu p. 6).

Table 1: The Methodologies of Trend and Liu, Compared²

	Trende Report	Liu Report
Racially Polarized Voting	No	Yes
Biracial Congressional Elections	No	Yes
Biracial State-wide Elections	No [#]	Yes
Effectiveness Analysis	No	Yes
Partisan Primary Election	No	Yes
Party v. Race	No	Yes

The only state-wide election Mr. Trende analyzed was the 2020 presidential election. But he did not examine the extent to which that election exhibited RPV between Black and white voters.

Mr. Trende did not provide empirical results for how any Congressional elections in South Carolina (i.e., endogenous elections) may or may not reveal the clear differing candidate preference of Black and white voters. Even for the only statewide election he analyzed (i.e., the 2020 presidential election), he simply reported the levels of support for then presidential candidate Biden in various districts under the Enacted Map and the Benchmark Map. Mr. Trende did not include a single biracial election in his dataset that would allow him to assess the role of race.

² Equal population, compactness, and incumbent protection are also addressed by Mr. Trende. They are not examined in my reports, as I understand that they are discussed by other experts retained by the counsel for the Plaintiffs.

Mr. Trende's report did not engage in any comparative study of the Enacted Plan with the alternative plans provided by Plaintiff, other members of the public, and Senator Harpootlian. Thus, his analysis is not based on any scientific rigor. At most his report justifies the lines and the voters placed within or without them in Enacted Plan based on a review of selective criteria. As I will illustrate below, even by using this limited criterion, such as whether the Enacted Map reduces the number of split counties in relation to the Benchmark Map, his report failed to address the role of race, and therefore, only led to misleading conclusions.

The Errors in Mr. Trende's Applications of Redistricting Principles

Four principles governing the redistricting process were identified by Mr. Trende, who referenced *Colleton County Council v. McConnell*, 201 F.Supp.2D 618 (2012) to identify these principles:

- Recognizing communities of interest;
- Preserving district cores;
- Respecting county and municipal boundaries, as well as geographic boundaries; and
- Keeping incumbents' residences in their districts (Trende p. 9).

Furthermore, Mr. Trende stressed that "The [South Carolina State] House guidelines further specify that county, municipal, and precinct boundaries may be relevant when considering communities of interest; the [State] Senate guidelines make minimizing the number of splits at those three levels separate criteria" (Trende p. 9). To evaluate whether the Enacted Plan followed these principles, Mr. Trende examined the extent to which the number of split

counties is reduced in the Enacted Plan, compared to the Benchmark Plan.³

Mr. Trende rightly indicated that the number of split counties has been reduced to 10 from 12 under the Enacted Plan (Trende p. 7). However, he did not examine what counties were split (or why) under the Enacted Plan. If “recognizing communities of interest” and “respecting county and municipal boundaries” are both important redistricting principles that explain the congressional lines at issue, then it is necessary to consider whether any communities of interest and/or municipalities with significant Black populations in South Carolina have been singled out to be the likely recipients of the violation of these principles. **Table 2** lists all 10 counties that are still split under the Enacted Plan.

³ Mr. Trende also used the reduction of the number of split precincts as the justification for why the Enacted Plan improved over the Benchmark Plan. He, however, seemed to equate precincts VTDs. Census geo-units, namely VTDs, usually are the unit for RPV analysts to match Census data with political precincts where voters cast their ballot in elections. But these two units are not always matched exactly. Moreover, the boundaries of precincts may shift within a 10-year span while the boundaries of VTDs always are fixed between two census rounds.

Table 2: Split Counties based on Enacted Plan

County	Districts
Charleston	1, 6
Colleton	1, 6
Dorchester	1, 6
Jasper	1, 6
Orangeburg	2, 6
Richland	2, 6
Greenville	3, 4
Spartanburg	4, 5
Sumter	5, 6
Florence	6, 7

The first four counties in the list (Charleston, Colleton, Dorchester and Jasper) are split between CDs 1 and 6. Four other counties in the list (Orangeburg, Richland, Sumter and Florence) also have portions in CD 6. Clearly, under the Enacted Plan the bulk of counties that are split involve CDs 1 and 6.

Additionally, I consider the racial makeup of the counties that are split under the Enacted Plan. **Table 3** shows detailed racial breakdowns in these split counties.

Table 3: The Racial Composition of Split Counties, Enacted Plan

County	VAP	Black	White	Black %	White %
Charleston	327819	74641	219685	22.77%	67.01%
Colleton	30042	10475	17835	34.87%	59.37%
Dorchester	115215	31948	77329	27.73%	67.12%
Florence	104040	43548	56968	41.86%	54.76%
Greenville	398064	74441	290451	18.70%	72.97%
Jasper	21314	7767	11616	36.44%	54.50%
Orangeburg	64365	39634	22803	61.58%	35.43%
Richland	319486	149669	153216	46.85%	47.96%
Spartanburg	251587	50922	171238	20.24%	68.06%
Sumter	73918	34919	34358	47.24%	46.48%

Seven out of the 10 split counties have BVAPs greater than 25.28% --- the share of BVAP at the state level according to the 2020 Census.⁴ Three of them have BVAPs of more than 41% of the total VAP. In short, the counties that are split have a larger share of Black voters than the state BVAP share. Even in Charleston County, which has a BVAP of 22.77% (smaller than the state BVAP share as a whole), there are a total of 327,819 eligible Black voters, the second highest number of eligible Black voters among the 10 split counties. **Figure 1** displays visually how Black and white voters are distributed differently in the split counties as opposed to non-split counties.

⁴ The BVAP numbers reported in the table are based on any-part BVAP (see Liu p.13, footnote 15).

Figure 1: Split Counties v. Non-Split Counties

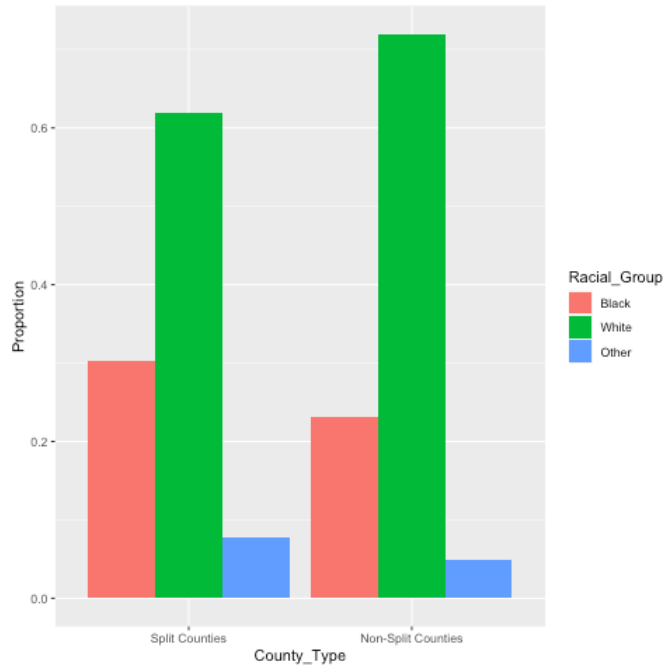


Figure 1 compares the 10 split counties with those 36 counties that are whole according to the Enacted Plan. Black eligible voters are about 30% of the total voters in the 10 split counties, as indicated by the red bar to the left of the figure. With respect to the 36 non-split counties, Black voters are only about 23% of the total voters, as indicated by the red bar to the right of the Figure. In short, Black eligible voters are disproportionately more likely to be in the split-county category than in the non-split-county category under the Enacted Map.

In contrast, white eligible voters makeup just over 60% of the split county category and they have a much higher share in the non-split-county category, as high as over 70%. In other words, white voters are

much more likely to be in the non-split-county category than in the split-county category. All in all, the disproportionately greater chance for Black eligible voters to be put in the split-county category by the Enacted Plan is reflected in Figure 1. To prove this disproportionality statistically, we can also use a statistical analysis called “Pearson’s chi-squared test”, as shown below:

Chi-squared = 25930, df = 1, p-value < 2.2e-16
95 percent confidence interval: (0.0718 0.0736)

The above Pearson’s chi-square statistics showed that Black voters in South Carolina have at least more than 7.18% probability of being assigned to the split-county category under the Enacted Plan than to the non-split-county category. Statistically, the difference cannot be explained by random factor alone ($p < .001$).

The only place where Mr. Trende discusses the role of race in his report is where he indicates that the Enacted Plan “results in minimal changes to the Black Voting Age Populations (BVAPs) of the districts” (Trende p. 22). For him, as long as the newly drawn districts do not drastically change the ratios of BVAPs in districts that pre-existed in the Benchmark Map, the Enacted Plan can then be described as following the redistricting principles of respecting communities of interest and respecting county and municipal boundaries. The split of Black voters between CD 1 and CD 6 is simply explained by Mr. Trende as conforming “with natural geographic boundaries” (Trende p. 34) or making County (such as Berkeley County) whole (Trende p. 33), or repairing the precincts. For Mr. Trende, Black voters’ communities of interest can be sacrificed for the sake of “natural geographic boundaries” or making his selective counties (e.g., Berkeley) whole, but not

keeping whole other counties with larger shares/size of Black voters (e.g., Charleston).

**The Misleading Findings and Conclusions of
the Trende Report on the Role of Partisan
Gerrymandering**

Mr. Trende also attempts to justify the Enacted Plan based on the extent to which the cores of the Congressional Districts based on the Benchmark Map are retained in the new plan (see Table 3, Trende p. 17). Mr. Trende neither conducted an analysis of the racial composition of the cores of districts, nor compared the likely party affiliation of voters inside the cores. Thus, his report does not have the vigor to attribute the Enacted Plan to partisan or racial consideration (or both). Unlike my report which empirically compared and contrasted the racial and partisan makeup of voters, Mr. Trende's entire report did not evaluate race and party simultaneously.⁵ For example, looking at the 2018 gubernatorial primary, I investigated in the Enacted CD 1 what kind of voters, in terms of both race and participation in the Democratic and Republican primary elections, are kept in the "core". More specifically, I found that "white Democratic voters are 17.3% of the total voters that remained in CD 1 while only 11.1% of these 'kept-in' voters are Black Democratic voters" (Liu p.16).

Using President Biden's 2020 vote shares in various districts, Mr. Trende indicated that CD 1 based on the Enacted Plan reduced Biden's vote share to 45.6%

⁵ Even if one focuses on racial composition alone, it is clear that the Enacted Plan drew the core of CD 1 from the envelop of six counties much in a way that is more favorable to white voters than to Black voters, as my report empirically showed (see Table 6, Liu p. 16).

and made “the First District on net three points more Republican on the two-party vote share” (Trende p. 35). While the Republican advantage in District 1 is undeniable, Mr. Trende also made the following misleading claim:

“All told, 140,489 residents are moved from the First to the Sixth, of whom 113,531 are of voting age. Of these voting-age residents, 63.9% are non-Hispanic White, while 23.4% are Black. This compares to an overall combined BVAP in Charleston and Dorchester Counties of 22.5%, so the net effect of these moves on the racial composition of these districts is minimal” (Trende p. 35).

This statement is misleading because using the movement of voters from Charleston and Dorchester counties does not tell us the whole story of how CDs 1 and 6 are constructed in the Enacted Plan. There are also voters from Berkeley County that are moved from CD 6 to CD 1. Mr. Trende indicates that the BVAP of Charleston and Dorchester counties is 22.5%, but many of those Black voters were already in CD 6. Therefore the BVAP of all the areas in those counties that were available to be moved into CD 6, but was not, was only about 12%.

Furthermore, based on my empirical analysis that uses the actual racial turnout data from the 2018 primaries, “with respect to voters in the same Democratic Party, white Democratic voters (68.99%) are much more likely to be assigned to CD 1 from the envelop [of CD 1] than Black Democratic voters (50.65%)” (Liu p. 20). In other words, it is mainly the focus on the race of voters rather than their likely party affiliation that determines how CD 1 is constructed.

Conclusion

While Mr. Trende correctly indicated in his report that the number of split counties is reduced from 12 to 10 in the Enacted Plan, he failed to examine the internal racial compositions of those counties that remained split between the CDs, particularly CD 1 and CD 6. The fact that it is Black voters who are more likely to be the target of split counties reveals that race is still the major factor in how the new congressional districts in the Enacted Plan are constructed. Mr. Trende's report also lacks scientific rigor due to its flawed methodology that ignores empirical analyses of racially polarized voting, the levels of effectiveness of competing redistricting plans for Black voters to elect or otherwise impact the elections of the candidate of their choice, and the testing of the roles of race vis-à-vis party in South Carolina. His flawed method also led to many misleading conclusions about the Republican advantage in CD 1 while (mis)applying certain redistricting principles to downplay the role of the racial makeup of voters in counties and precincts that were moved in or out or remained in CDs in the Enacted Plan.

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light.

Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed on: Date: May 2, 2022

/s/ Baodong Liu

Baodong Liu, Ph.D.

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Appendix 5

**Report on South Carolina
Congressional Districts**

Moon Duchin

**Professor of Mathematics, Tufts University
Collaborating Faculty in Race,
Colonialism, and Diaspora Studies
Senior Fellow, Tisch College of Civic Life**

April 11, 2022

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Plaintiffs'
Exhibit

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1 Background and qualifications

I am a Professor of Mathematics and a Senior Fellow in the Jonathan M. Tisch College of Civic Life at Tufts University. At Tisch College, I am the director and principal investigator of an interdisciplinary research lab focused on geometric and computational aspects of redistricting. My areas of research and teaching include the structure of census data, the history of the U.S. Census, the design and implementation of randomized algorithms for generating districting plans, and the analysis of redistricting more broadly. I was recently awarded a major grant from the National Science Foundation to study *Network Science of Census Data*.

I am compensated at \$300/hour for my work in this case. I have previously written reports and provided testimony by deposition, a hearing, or at trial in North Carolina, Pennsylvania, Wisconsin, and Alabama, as well as for the challenge in this case to certain South Carolina House of Representatives districts.¹ A full copy of my CV is attached to this report.

1.1 Assignment

I have been asked to examine the Congressional districts enacted in South Carolina (Enacted2022), together with the maps from the previous census cycle (Previous2012), alternative maps presented

¹ *NC League of Conservation Voters, et al. v. Hall, et al.* No. 21-cvs-500085 (Wake Cnty. Sup. Ct. 2021); *Carter v. Chapman*, No. 7 MM 2022, 2022 WL 702894 (Pa. Mar. 9, 2022); *Johnson v. Wis. Elections Comm'n*, No. 2021AP14500A, 2022 WL 621082 (Wis. Mar. 3, 2022); *Milligan, et al. v. Merrill, et al.*, Case No. 2:21-cv-01530-AMM and *Thomas, et al. v. Merrill, et al.*, Case No. 2:21-cv-01531-AMM (N.D. Ala. 2021).

during the legislative process (notably the map submitted with the Harpootlian Amendment, which I have denoted Harpootlian) as well as those by the South Carolina NAACP (SC-NAACP1, SC-NAACP2), the League of Women Voters of South Carolina (LWVSC), and by other members of the public (Foster, Harrison, Muscatel, Sukovich, and Roberts). The eleven maps under consideration are shown on the following two pages.

In comparing these maps, my focus is to assess the state's enacted plan. My analysis will consider the possibility of excessively race-conscious line-drawing, especially noting when traditional districting principles have been undermined in a manner that results in "cracking"—splitting communities and dispersing their voters over multiple districts. I will consider whether this cracking ultimately leads to discernible vote dilution for the Black population of South Carolina.

All work in this report was completed by me and by research assistants working under my direct supervision.

1.2 Materials

Materials consulted in the preparation of this report include the following.

- A major source is Census data, primarily the Decennial Census releases (i.e., the PL 94171). Other data products from the Census Bureau, including the American Community Survey and the TIGER/Line shapefiles, were also used.
- For priorities and criteria, I consulted the publications by the South Carolina House of Representatives Redistricting Ad Hoc

Committee on *2021 Guidelines and Criteria for Congressional and Legislative Redistricting*, and the corresponding publication for the Senate. These are available at [5, 8].

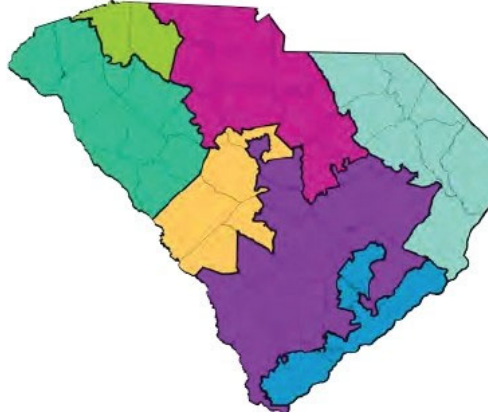
- The state's Congressional plan and numerous publicly submitted alternative plans are available on the state's website [6, 9].
- Community of interest testimony was collected at public meetings and is recorded on the state's website [7, 10].

Congressional Maps

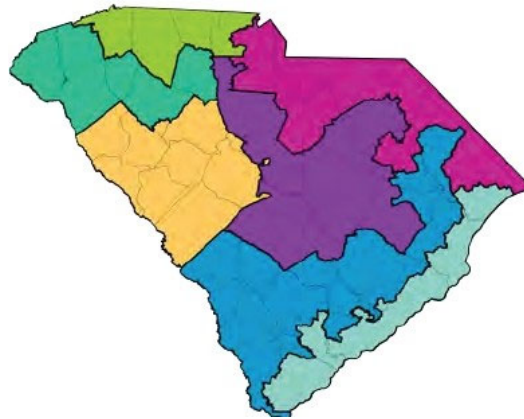


Enacted 2022

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Previous 2012

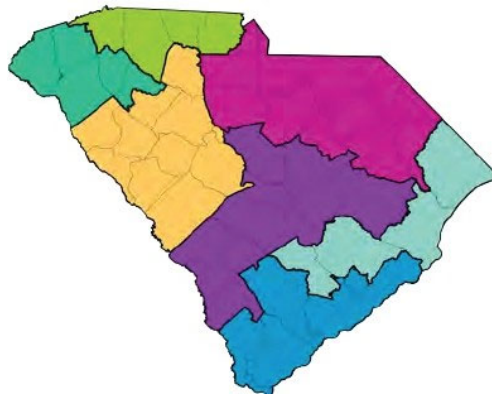


SC-NAACP1

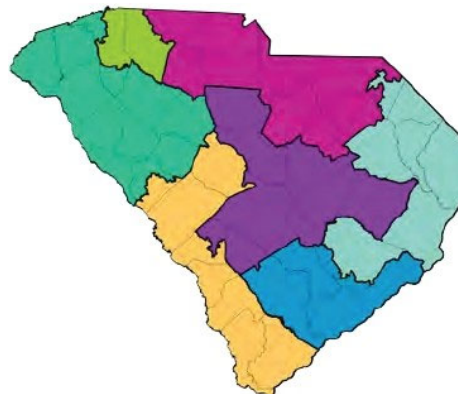
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SC-NAACP2



Harpootlian

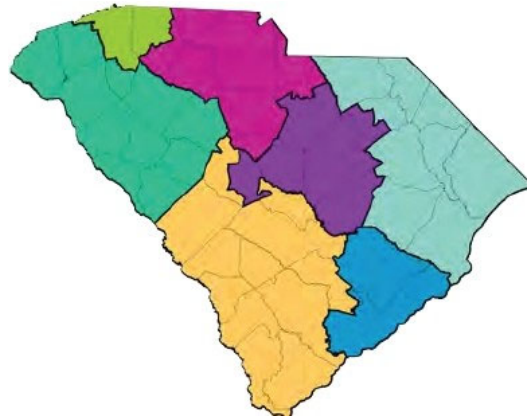


LWVSC

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D.Foster (Stanford Law)

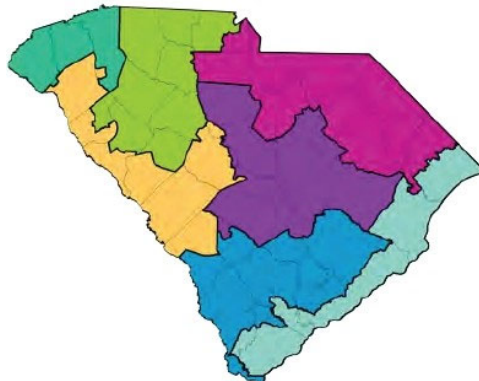


H. Harrison
(no affiliation given)

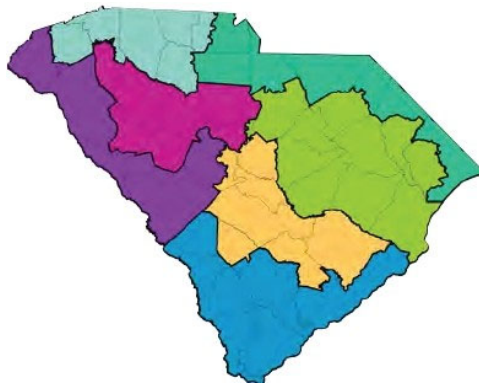
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G. Muscatel (Stanford Law)



J. Sukovich
(Newberry County Democrats)



M. Roberts
(no affiliation given)

2 Demographics in South Carolina

In South Carolina, the total population from the 2020 Decennial Census is 5,118,425. Of those, 1,370,542 are identified as Black on their Census forms—this makes up roughly 26.78% of the population. By focusing on those who answered “Yes” to the question of Black racial identity, we use what is sometimes called the *Any Part Black* definition of Black population—this means Black alone or in combination with any other racial or ethnic category. If the most restrictive definition of Black population were used instead, namely non-Hispanic respondents choosing Black and no other race, then the population number would drop to 1,269,031, or 24.79% of population. For the remainder of this report, “Black” refers to the larger definition.

When considering residents of voting age, the Black population is enumerated at 1,014,656 out of 4,014,460, or 25.28%. I will refer to this population share as BVAP, or Black voting age population. Passing to estimates of Black *citizen* voting age population (or BCVAP), the share shifts to 1,007,692 out of 3,877,913, or 25.99%.

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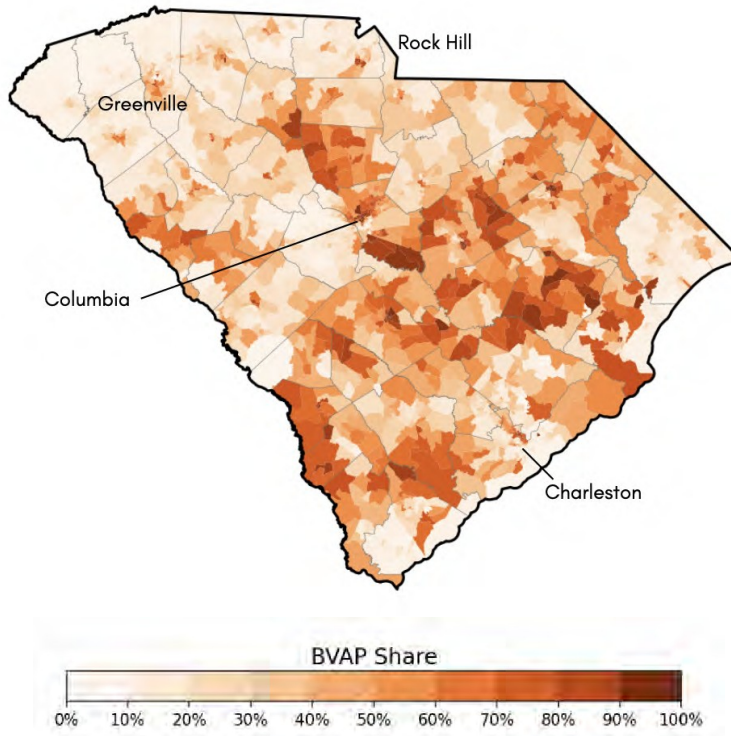


Figure 1: This choropleth map shows the share of Black voting age population shaded by VTD (i.e., by voting precinct) across South Carolina, overlaid with the boundaries of the 46 counties.

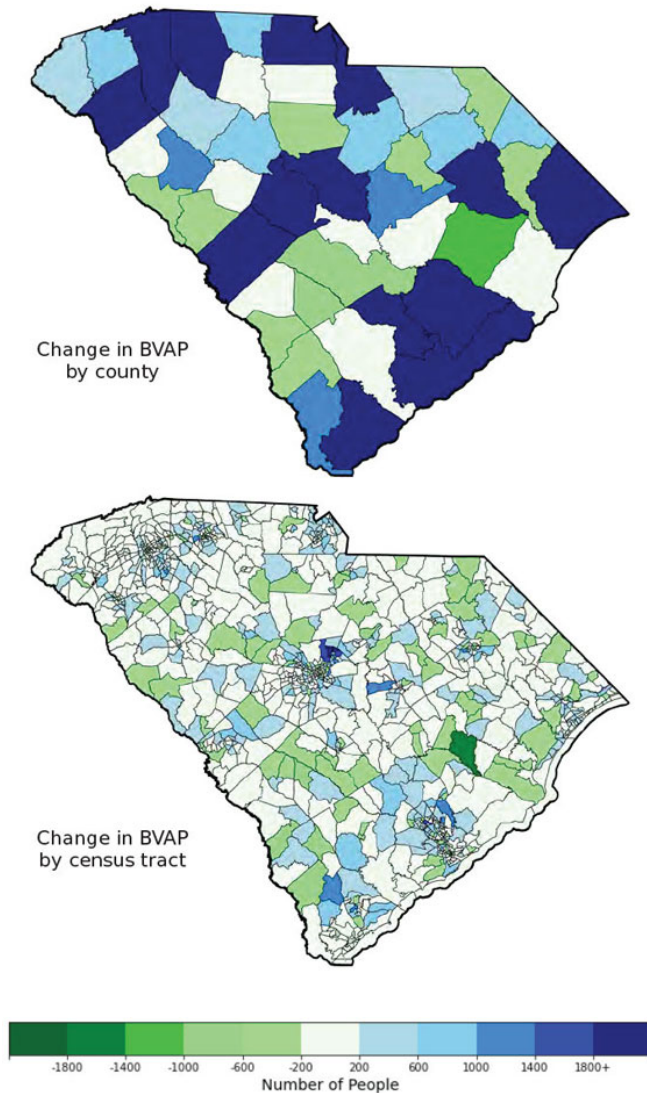


Figure 2: These maps show the shifts in Black population in South Carolina, according to American Community Survey estimates comparing 2010 and 2019. Black population has grown in the Columbia area and parts of greater Charleston, particularly, creating the demographic conditions for increased electoral influence.

3 Redistricting Criteria

The Guidelines issued by the House and Senate are substantially similar; I will focus below on the House Guidelines and make notes as to where the Senate Guidelines agree or differ.

3.1 First-tier requirements

Minority opportunity. The first specific districting criterion discussed in the House Guidelines is the safeguarding of minority opportunity to elect candidates of choice, referencing the Voting Rights Act of 1965 and more generally federal and state law. The House Guidelines affirm that “Any proposed redistricting plan that is demonstrated to have the intent or effect of dispersing or concentrating minority population in a manner that prevents minorities from electing their candidates of choice will neither be accepted nor approved.”²

I note that both sets of Guidelines clearly contemplate the use of race data in ensuring compliance with the VRA: “race may be a factor considered in the creation of redistricting plans, but it shall not be the predominant factor motivating the legislature’s decisions concerning the redistricting plan and shall not unconstitutionally predominate over other criteria set forth in these guidelines.”³

Population balance. The standard interpretation of *One Person, One Vote* is that districts, especially Congressional districts, should be balanced to near

² The Senate Guidelines are nearly identical, noting that Congressional plans “must not have either the purpose or the effect of diluting minority voting strength”.

³ The Senate language is similar: “consideration of race is permissible,” but any predominance of race-neutral considerations must be narrowly tailored.

mathematical equality of population, using total population from the Decennial Census.

For population balancing, the House Guidelines cite the Congressional ideal of 731,204 people per district derived from the PL94-171 and, by referencing “strict equality,” imply that we should seek to have four districts at 731,204 and three at 731,203. The Senate Guidelines explicitly call for one-person top-to-bottom deviation for Congressional districts.

3.2 Second-tier requirements

The previous criteria (covered in I-IV of the House Guidelines) are rooted in the Constitution and in federal and state law. Next, the Guidelines delineate four traditional principles that should be considered in South Carolina redistricting, though their role is clearly meant to be subordinate to the requirements of I-IV, and therefore they may need to give way in case of conflict.⁴

Contiguity. A district is regarded as contiguous when it is one connected piece. More precisely, a district formed from census blocks is called contiguous by the standard definition if it is possible to transit from any part of the district to any other part through a sequence of blocks that share boundary segments of positive length from one to the next. In South Carolina, in accordance with the guidance in Section V of the House Guidelines, contiguity by water is acceptable; however, areas that

⁴ Similarly, the Senate Guidelines cover population balance and minority opportunity in Section I, then contiguity in Section II, putting communities of interest, district cores, the integrity of political subdivisions (counties, cities, towns, and VTDs), and compactness into Section III, entitled “Additional Considerations.”

only intersect at a single point or “points of adjoining corners” are not considered contiguous. Interestingly, point contiguity is allowed in the Senate Guidelines, as long as pairs of districts do not cross over each other at such a point.

Compactness. The criterion of district compactness is the principle that districts should be reasonably shaped, not eccentric or irregular. The House Guidelines note that districts that are not visually compact can sometimes be justified by the shape of census block boundaries or natural geography and by the creation of districts to comply with the VRA.⁵

The House Guidelines remark that compactness “should be judged in part by the configuration of prior plans... [but] should not be judged based upon any mathematical, statistical, or formula-based calculation or determination.” Despite this expressed preference, metrics are routinely used in redistricting analysis and litigation, so I will report them here.

The two most common compactness metrics are the Polsby-Popper score and the Reock score. These are both *contour-based* scores that rely on the outline of the district on a map. *Polsby-Popper* is a ratio formed by comparing the district’s area to its perimeter. *Reock* considers how much of the smallest bounding circle is filled out by the district’s area. Recently,

⁵ Compactness is also sometimes used to describe population distributions rather than districts; in that usage, compact populations are those that are clustered rather than dispersed. Notably, the Senate Guidelines shy away from shape considerations entirely, referencing what is sometimes called *functional compactness*: “the extent to which points of the district are joined by roads, media outlets, or other means for constituents to communicate effectively with each other and with their representative.”

mathematicians have argued for the use of discrete compactness metrics that de-emphasize the outline and instead consider how the districts are formed from units of census geography. *Block cut edges* is a metric that counts the number of census blocks that are adjacent to each other in the state, but are assigned to different districts. This assesses the “scissors complexity” of a plan, giving a measure of how many blocks would have to be separated from one another to divide up all the districts. An advantage of the contour scores is that they are familiar and in wide use. An advantage of discrete scores is that they do not excessively penalize districts for having winding boundaries when those boundaries come from physical geography, like coastlines or rivers.

Communities of interest (COIs) and political boundaries. Communities of interest are geographical areas where residents have shared interests relevant to their representational needs. The Senate Guidelines spell this out as “geographical, demographic, historic, or other characteristics that cause people to identify with one another, including economic, social, cultural, language, political, and recreational activity interests.” (This is condensed but similar to the language in the House Guidelines.)

In numerous states, the legislature or other government offices launched an effort to collect COI testimony accompanied by digital mapping from members of the public, coordinated with the new Decennial Census data. I have reviewed the public testimony collected by the state and published online on the redistricting sites for the Senate and House [10 7]. The oral testimony was not accompanied by mapping submissions, but I have made a serious

effort to screen it comprehensively and take it into account in this report wherever possible.

Many submitted comments were broad or theoretical, such as the general importance of communities; preserving county and municipal boundaries; concerns about partisan and racial gerrymandering; competitiveness; transparency and public participation; and deprioritizing incumbency protections. But notably, speakers also named particular counties, regions, or metropolitan areas with specific representational concerns. For instance, commenters spoke to Dorchester County, the Lowcountry, North Charleston, Orangeburg, Columbia, and Sumter communities of interest, which will be discussed below in the detailed district review (§5).

In line with some of the public commenters, the House Guidelines fold what is usually a separate principle into the category of COIs. Namely, it is very common in redistricting to require respect for political boundaries, especially for the boundaries of counties, cities, and towns. In South Carolina, counties, municipalities, and precinct/VTD lines are explicitly classified as a part of the COI principle, “but will be given no greater weight, as a matter of state policy, than other identifiable communities of interest.” The Senate Guidelines split out respect for counties (III.C), cities and towns (III.D), and VTDs/precincts (III.E) under separate headings.

4 Review of metrics for Congressional maps

This section reports metrics for all of the Congressional maps discussed in this report. These include measurements of traditional redistricting criteria such as compactness and geographic splits, as well as demographic data.

4.1 Racial demographics

The plans submitted to the legislature for consideration differ greatly in their distribution of Black population over the districts. The following tables present the BVAP by district for each of the plans, and then identify the number of districts surpassing thresholds of 50, 40, and 30% BVAP. Recall that, as described above, BVAP measurements in this report are with respect to so-called Any Part Black categories (i.e., Black alone or in combination).

	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
Previous2012	0.173	0.239	0.174	0.183	0.257	0.525	0.254
Enacted2022	0.174	0.254	0.176	0.19	0.247	0.469	0.254
SC-NAACP1	0.349	0.205	0.16	0.172	0.244	0.528	0.117
SC-NAACP2	0.24	0.202	0.18	0.185	0.202	0.503	0.254
Harpoottlian	0.212	0.219	0.156	0.162	0.337	0.497	0.184
LWVSC	0.233	0.197	0.169	0.191	0.244	0.488	0.245
Foster	0.244	0.208	0.143	0.153	0.202	0.323	0.496
Muscatel	0.167	0.248	0.178	0.184	0.247	0.488	0.254
Harrison	0.233	0.276	0.185	0.177	0.277	0.352	0.267
Sukovich	0.293	0.184	0.143	0.211	0.319	0.493	0.129
Roberts	0.233	0.315	0.197	0.386	0.321	0.167	0.151

	#districts with >50% BVAP	# districts with >40% BVAP	#districts with >30% BVAP
Previous2012	1	1	1
Enacted2022	0	1	1
SC-NAACP1	1	1	2
SC-NAACP2	1	1	1
Harpoottlian	0	1	2
LWVSC	0	1	1
Foster	0	1	2
Muscatel	0	1	1
Harrison	0	0	1
Sukovich	0	1	2
Roberts	0	0	3

Table 1: The first table gives Black voting age population share by district for the plans under consideration. The second table shows the number of districts that have BVAP over 50%, 40%, and 30%, respectively.

4.2 Population deviation

One Person, One Vote calls for plans to have nearly equal population across their districts. Over the ten years between Decennial Census releases, districts grow quite malapportioned due to natural population shifts between and within the states. In South Carolina, the deviation grew to over 170,000 from top to bottom.

All of the new plans reduce the deviation significantly, with Enacted2022, SC-NAACP1, SC-NAACP2, Harpootlian, LWVSC, Foster, and Muscatel all achieving top-to-bottom deviation in the single digits.

	Maximum positive deviation	Maximum negative deviation	Top-to-bottom deviation
Previous2012	87,689	-84,741	172,430
Enacted2022	0	-1	1
SC-NAACP1	1	-1	2
SC-NAACP2	1	-3	4
Harpootlian	1	-3	4
LWVSC	3	-2	5
Foster	0	-1	1
Muscatel	0	-1	1
Harrison	630	-668	1298
Sukovich	746	-944	1690
Roberts	1790	-724	2514

Table 2: Population deviation in each plan.

4.3 Compactness

In terms of district shape, the state's enacted plan, like the state's plan from the previous cycle, is only moderately compact compared to some of the other proposals submitted to the legislature. For example, LWVSC and SC-NAACP2 plans are more compact than both state maps—Previous2012 and Enacted2022—by all three featured metrics of compactness. The Harpootlian plan beats the state's maps on the Polsby-Popper and cut edges scores, though not on the Reock score.

	avg Polsby-Popper (higher is better)	avg Reock (higher is better)	Block cut edges (lower is better)
Previous2012	0.202	0.369	3217
Enacted2022	0.210	0.361	2843
Harpootlian	0.235	0.327	2227
LWVSC	0.224	0.379	2392
SC-NAACP1	0.165	0.270	3578
SC-NAACP2	0.240	0.371	2343
Foster	0.273	0.376	2313
Muscatel	0.216	0.371	2955
Harrison	0.289	0.443	2074
Sukovich	0.208	0.324	2636
Roberts	0.177	0.308	3091

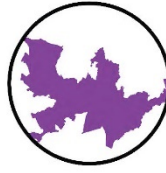
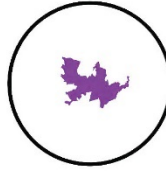


Table 3: Comparing compactness scores via one discrete and two contour-based metrics. The Polsby-Popper score compares a district's area to the area of the circle with the same perimeter (left). The Reock score compares a district's area to the area of the smallest circle that contains the district (right). These are illustrated using CD 6 from the state's plan Enacted2022, which has an extremely low Polsby-Popper score of 0.0754 (left) and a more moderate Reock score of 0.3569 (right).

4.4 Political subdivisions

Respect for the integrity of political subdivisions—units such as counties and cities—is a traditional principle in its own right. In South Carolina, it is also named as a communities of interest consideration in the legislative Guidelines.

In the tables below, each “splits” score counts the number of units that are assigned to multiple districts, while each “pieces” score adds up, over the divided units, how many districts they touch. For example, if one county is split two ways and another is split three ways, this would count as a total of two split counties and five county pieces.

In Table 4, we see the splits/pieces counts for counties and county subdivisions. County subdivisions are a census data product; subdivisions nest inside counties and respect municipalities, tending to have more regular boundary lines than municipalities themselves.

	County Splits (out of 46)	County Pieces	Subdivision Splits (out of 271)	Subdivision Pieces
Previous2012	12	24	39	78
Enacted2022	10	20	29	58
SC-NAACP1	19	39	49	99
SC-NAACP2	14	30	30	61
Harpoottlian	7	14	12	24
LWVSC	6	12	24	48
Foster	9	19	26	53
Muscatel	12	24	31	62
Harrison	6	12	15	30
Sukovich	13	26	23	46
Roberts	7	15	22	46

Table 4: This table presents the number of county and county subdivision splits and pieces in each plan.

In the cities and towns analysis, I will distinguish the splits and pieces that merely impact the *territory* from the splits that actually divide *population*. Note that the population splits are often smaller, because boundaries of cities can be quite complicated and sometimes only an unpopulated outlying area is divided from the rest of the city—this would count as a territory split, but not as a population split. Table 5 shows the counts.

	City Splits (out of 69)	City Pieces	Town Splits (out of 202)	Town Pieces
Previous2012	13/13	26/26	6/5	12/10
Enacted2022	10/10	20/20	12/10	24/20
SC-NAACP1	15/13	30/26	11/10	22/20
SC-NAACP2	9/7	18/14	13/10	27/21
Harpoottlian	9/7	18/14	7/6	14/12
LWSC	6/5	12/10	5/4	10/8
Foster	11/10	22/20	8/5	16/10
Muscatel	16/16	32/32	7/6	14/12
Harrison	11/11	22/22	6/6	13/12
Sukovich	14/13	28/26	8/7	16/14
Roberts	14/11	30/24	8/8	16/16

Table 5: This table presents city and town splits for each plan, with both territory splits and population splits shown. For example, the Harpoottlian plan city splits are shown as 9 / 7, meaning that the plan splits the territory of nine cities across multiple districts, but only seven of those splits involve populated blocks.

4.5 Incumbancy

The plans under consideration vary in their treatment of incumbents, from zero to three pairings.

- Previous2012: none
- Enacted2022: none
- SC-NAACP1: none
- SC-NAACP2: none
- Harpootlian: none
- LWVSC: one pair
 - CD 3: Duncan (R) / Timmons (R)
- Foster: one pair
 - CD 4: Rice (R) / Mace (R)
- Muscatel: none
- Harrison: one pair
 - CD 6: Clyburn (D) / Wilson (R)
- Sukovich: one pair
 - CD 4: Rice (R) / Norman (R)
- Roberts: three pairs
 - CD 2: Wilson (R) / Mace (R)
 - CD 3: Rice (R) / Norman (R)
 - CD 5: Duncan (R) / Clyburn (D)

5 Detailed district review

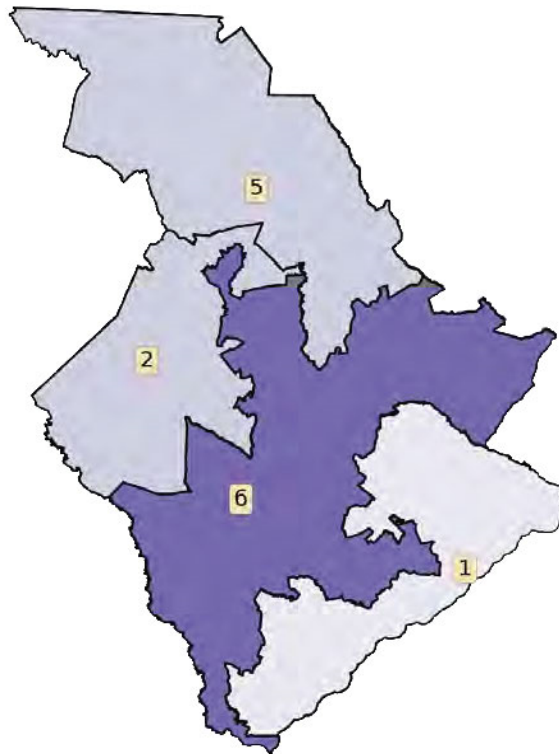
The complaint filed by the SC-NAACP cites Congressional districts 1, 2, and 5 from the newlyproposed plan Enacted2022 as having being drawn to dilute Black voting power. Since these districts surround district 6—the only district in the

state's plan that presents electoral opportunity to Black voters—we will discuss CD 1, CD 2, and CD 5 in relation to CD 6.

First, we recall the levels of Black voting age population and the compactness scores for each district. Note: only Polsby-Popper is cited here because it is by far the most commonly used compactness score. Cut edges, in particular, is only defined for whole plans and not for individual districts.

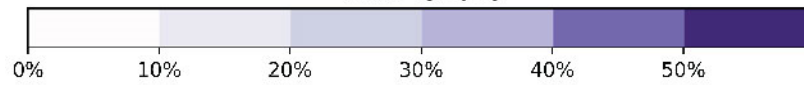
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Enacted2022	1	2	5	6
BVAP	.174	.254	.247	.469
Polsby-Popper	.146	.171	.229	.077



Enacted2022

BVAP Share



In the reconfiguration between Previous2012 and Enacted2022, the movement of terrain between key districts is shown below in Figure 3

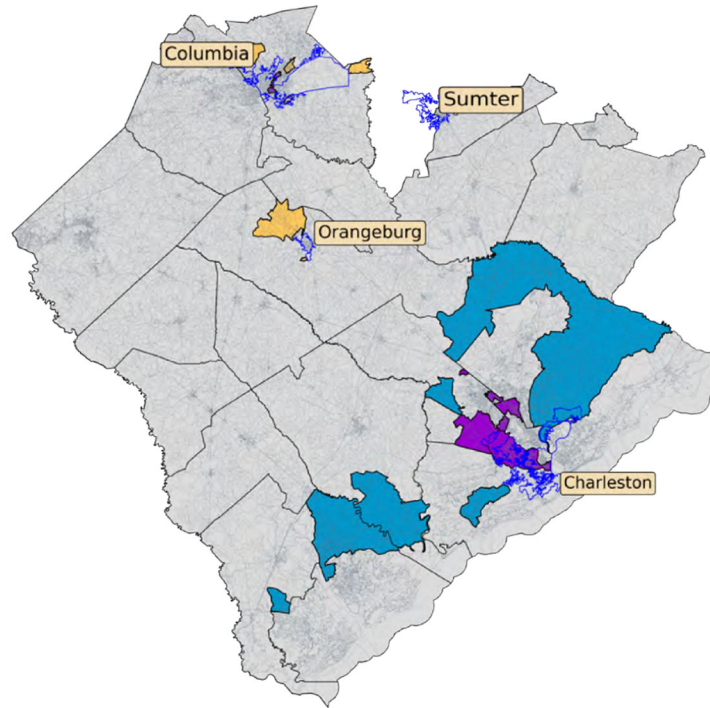


Figure 3: Terrain moved in and out of CD 6. Areas are colored in terms of their district reassignment. Yellow areas were moved from CD 6 to CD 2; blue was moved from CD 6 to CD 1, and purple areas were moved into CD 6 from the neighboring districts.

As the figure makes clear, the reassignment is happening in scattered chunks and shards, and is not aimed at healing key splits of cities and communities that were frequently cited in the public testimony, including Columbia, Sumter, Orangeburg, and Charleston. This produces a map that cuts those

areas in a way that neither respects traditional redistricting principles nor publicly identified community needs, as I will detail in the remainder of this section.

5.1 CD 1

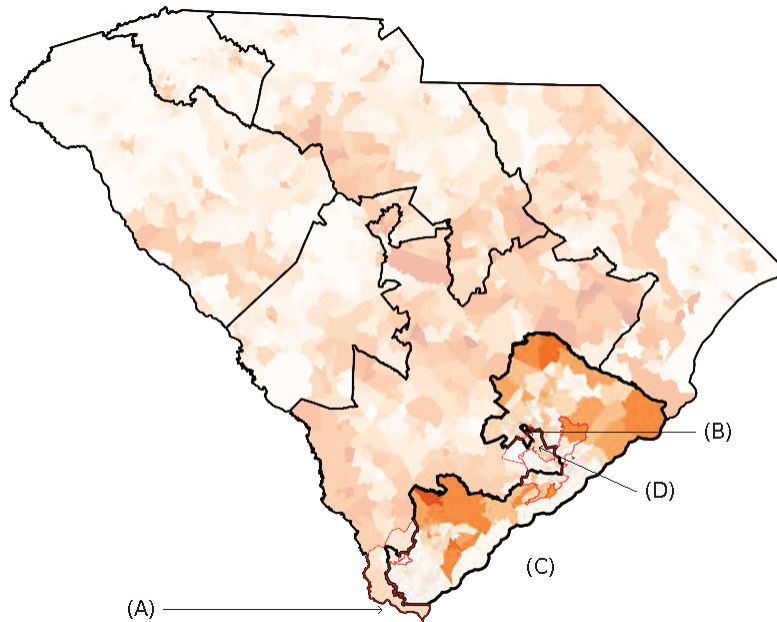


Figure 4: CD 1 is highlighted, with the Black voting age population as in Figure 1 and split cities outlined in red.

The first Congressional district in the Enacted2022 map comprises all of Berkeley and Beaufort Counties and pieces of Jasper, Colleton, Charleston, and Dorchester Counties. Within Charleston County, the CD 1 and CD 6 boundary follows natural geography, but only until reaching Berkeley County.

(A) Jasper County split. Jasper County, which was previously intact in the enacted 2012 map,

is split. Only two of its precincts are included in the new CD 1.

(B) Dorchester County split illogically. The district makes an unnecessary detour from Berkeley County into Dorchester County, involving six precinct splits that do not follow any major roadways or bodies of water. The reasons for splitting precincts are not clear, but they result in two separate pieces of Dorchester County being found in CD 6. The split precinct pieces show a noticeable racial skew—five out of six split precincts have a significant BVAP differential between the piece in CD 1 and the piece in CD 6, with higher Black population share on the CD 6 side, consistent with a strategy of cracking in CD 1.

(C) Coastal and Lowcountry COIs disregarded. COI testimony asks to keep together the coastal communities and “Lowcountry” counties—principally Jasper, Charleston, Colleton, and Beaufort—but these are split in the state’s map. By contrast, the Harpootlian proposal is highly cognizant of these COIs.

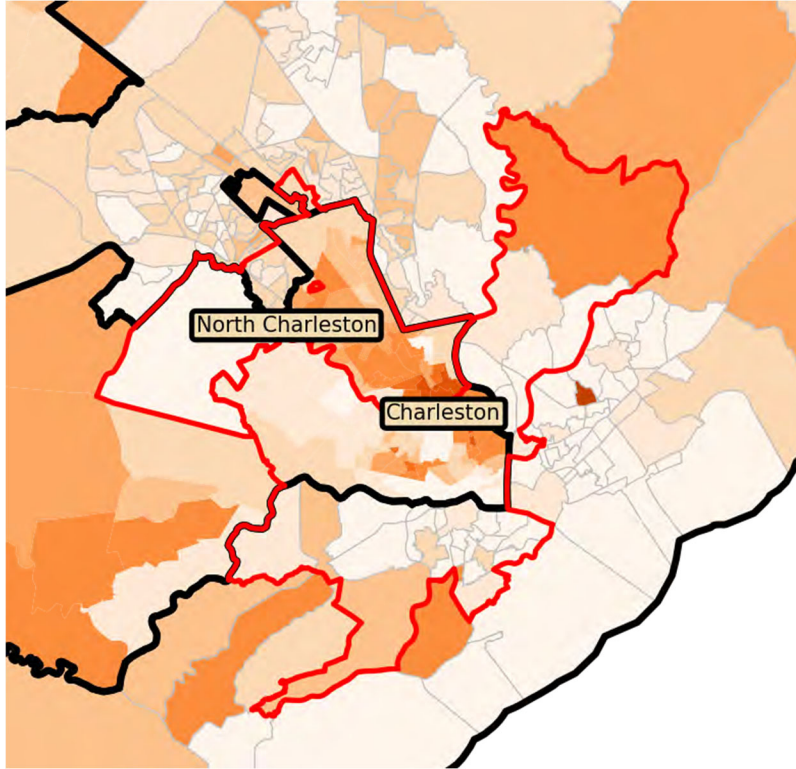


Figure 5: North Charleston is split between CD 1 and CD 6 as the district line winds between counties, in and out of the city, and through neighborhoods with significant Black population.

(D) Charleston County split erratically.

Charleston County boundaries appear to be selectively followed, ignoring communities cited in public testimony, which notably highlights “Charleston and surrounding towns.” The cities of Summerville and Ladson are part of both Berkeley and Dorchester Counties, while North Charleston spans these two counties as well as Charleston County. The state has split all three cities: for Summerville and Ladson, the district boundary follows the

county line, but for North Charleston the district winds around to grab a small piece of the city. (See Figure 5) All of these important communities could have been kept whole. Public comment is particularly vocal on North Charleston, saying that the city has more in common with Charleston than with Columbia, and more in common with the Lowlands than the Midlands.

5.2 CD 2

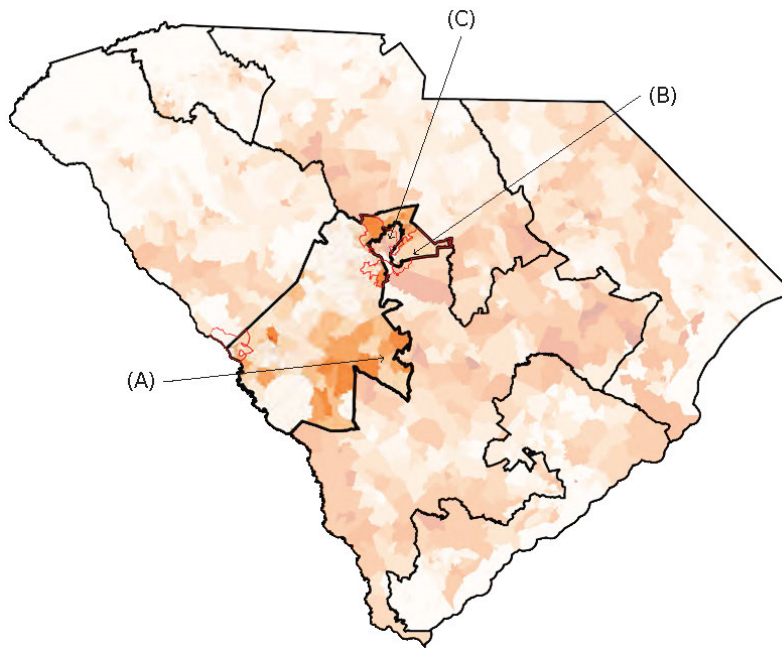


Figure 6: CD 2 is highlighted, with the Black voting age population as in Figure 1 and split cities outlined in red.

The second district is made up of the entirety of Aiken, Barnwell, and Lexington Counties and pieces of Orangeburg and Richland Counties.

- (A) **Orangeburg separated from CD 2.** The CD 2 boundary forms a ring around the western Orangeburg suburbs, keeping the city of Orangeburg in CD 6. The public comment indicates, by contrast, that Orangeburg has more in common with the adjoining areas of CD 2.
- (B) **Hook into Columbia.** In Richland County, CD 2 wraps circuitously around the greater Columbia area in a non-compact hook shape in the prior plan Previous2012—and though the details are different, that hook shape is preserved in the new plan Enacted2022. It appears to crack voters by drawing district boundaries through an area in northern Richland with high BVAP. (See Figure 7.)

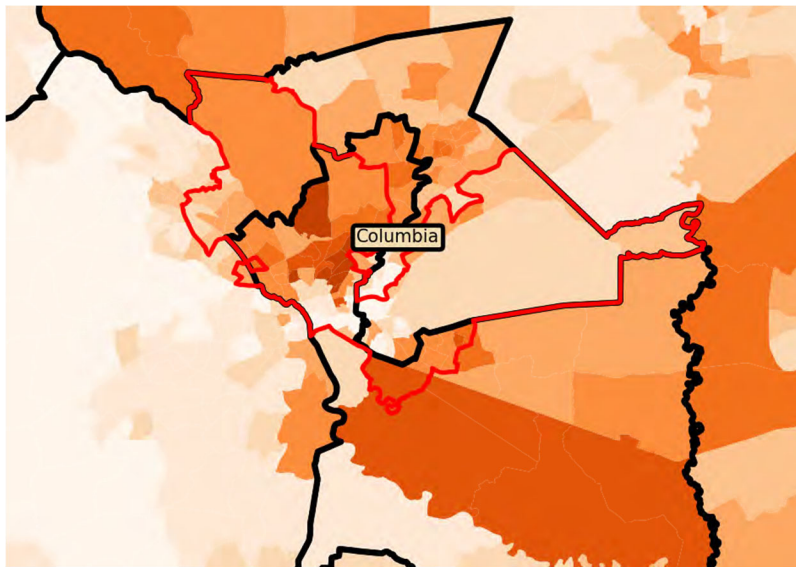


Figure 7: District lines wrap around and divide the city of Columbia. This splits both the city and the county in a manner that cracks Black population.

(C) Splitting in and around Columbia. In Richland County, the cities of Cayce, Columbia, and Forest Acres are all split, along with two precincts that are split in a manner that does not appear to follow major roads. If the district line traced along the Richland County boundary, or at least divided the county in a less winding manner, it would avoid needless splitting and confusion. Some public comment suggests that the Columbia area contains communities that are linked, but that these linked communities were divided by the CD 6 “bulb” in Columbia. As William Maxie testified: “Do people in downtown Columbia not have that much in common with people from Forest Acres or people right across the [Congaree] river? No, they do. That’s where a lot of people live and a lot of those people work.” (Appendix B)

5.3 CD 5

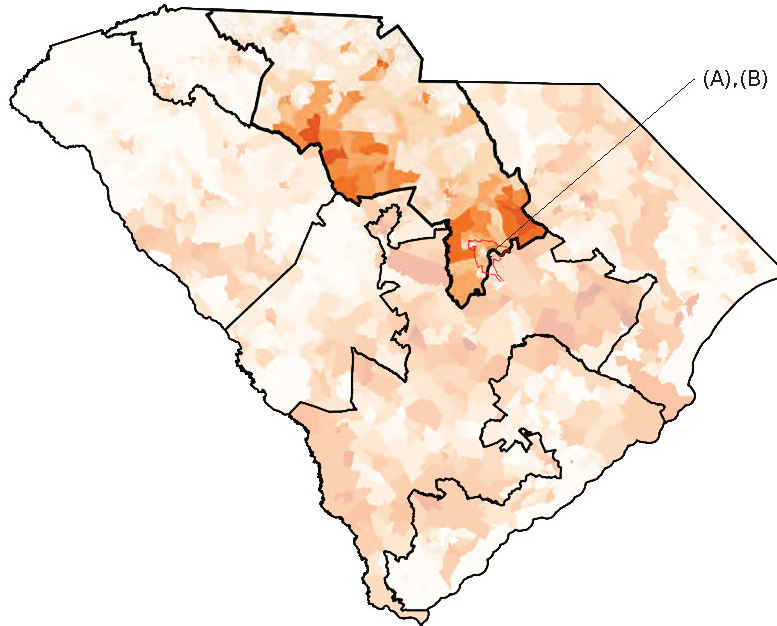


Figure 8: CD 5 is highlighted, with the Black voting age population shown as in Figure 1 and the split city of Sumter (pop. 43,463) outlined in red.

The fifth district covers all of Cherokee, York, Union, Chester, Lancaster, Fairfield, Kershaw, and Lee Counties and pieces of Spartanburg County along the CD 5 and CD 4 boundary and Sumter County along the CD 5 and CD 6 boundary.

(A) Sumter COI not respected. The city of Sumter and the neighborhoods of East Sumter and Mulberry are three majority-Black communities split by the enacted map.⁶ The public testimony suggests that the city of

⁶ Sumter in particular is roughly 51% Black by population.

Sumter and Sumter County are each important communities—these are referenced by at least four commenters. For instance, Archie Parnell testified that “I think there is a community of interest here in Sumter and I would urge you to continue with your criteria that you’ve adopted 10 years ago and, hopefully, keep counties together.”

(B) Sumter split is illogical. In Sumter County, one precinct is split along several low-density residential roads (W Oakland Ave, Cemetery Road, Carver Street, Green Swamp Road, Bradford Street, and Council Street). This portion of W Oakland Ave and all of Cemetery Road appear to be in the middle of a cemetery.

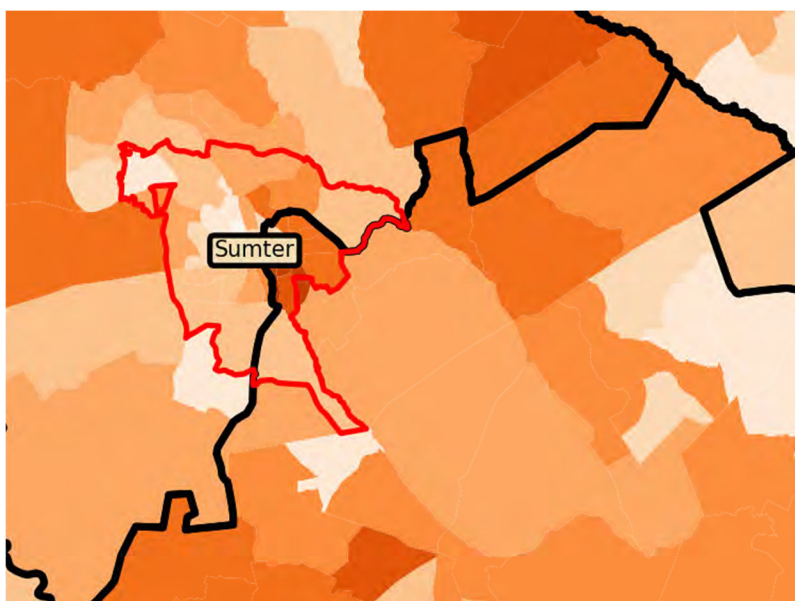


Figure 9: Sumter, a small majority-Black city cited in public testimony as an important community, is split in the state’s map as the CD 5/CD 6 dividing line wends through a heavily Black region.

See Appendix B for a large selection of public testimony supporting the points raised in this section.

6 Vote dilution compared to the neutral baseline

In order to illustrate the universe of possibilities when some or all districts are redrawn, I have used a method that is increasingly popular in the peer-reviewed scientific literature as well as courts of law.⁷ This is called the *ensemble method* for redistricting, where randomized algorithms are used to construct large numbers of sample plans that vary district lines while holding the rules and geography constant. This is a popular method for determining whether some property of districting plans is an inevitable consequence of the rules and geography, or whether neutrally drawn alternatives show evidence that the unusual property is intentional. In this section, I will investigate evidence of whether the state's plan has *cracked* the Black population across districts 1, 2, 5, and 7, which show sharply less Black population than the level in CD 6. To do this I will focus on the demographic statistics of *the district with second-highest BVAP* in the state's plans, compared to alternatives.

I have used the Python package GerryChain, developed in my Lab and openly available to the public since 2018, to generate several ensembles of 100,000 alternative plans each. Population balance

⁷ In this cycle, ensemble evidence has been accepted by courts in North Carolina, Pennsylvania, and Ohio. In the previous cycle, it formed a key component of the evidence in North Carolina and Pennsylvania that resulted in the invalidation of enacted plans in each state. Peer-reviewed publications include [2 3 1] and many more.

and contiguity are enforced throughout the algorithm, and it is implemented with a preference for compactness and for the preservation of counties and municipalities. I performed runs which attempt to prioritize the preservation of certain communities of interest identified in public testimony, and also runs that did not operationalize the COI concept. (For details, see Supplement A.) Ensemble generation made no use of race data and are *neutral* with respect to all other properties except those listed here.

6.1 Statewide

Using neutral ensembles of districting maps, we can compare the properties of a plan to alternative statewide plans that were made under traditional criteria. A histogram showing the distribution of Black population in the *second-highest district* is given in Figure 10. Cracking would tend to show up as unusually low BVAP in the second-highest district. This is exactly what we observe in Figure 10.

Comparing to the neutral ensemble—which was constructed with the same natural and physical geography that faced the legislature, and with the traditional districting principles enforced—illustrates that the cracking that was qualitatively described in the last section does indeed amount to dilution of Black population with respect to a neutral baseline. And we note that the contrast with the SC-NAACP1 and Harpootlian maps, which draw CD 6 with higher BVAP than Enacted2022 (see Table 1), makes it clear that the BVAP dropoff is not merely a function of maintaining CD 6 at near-majority levels.

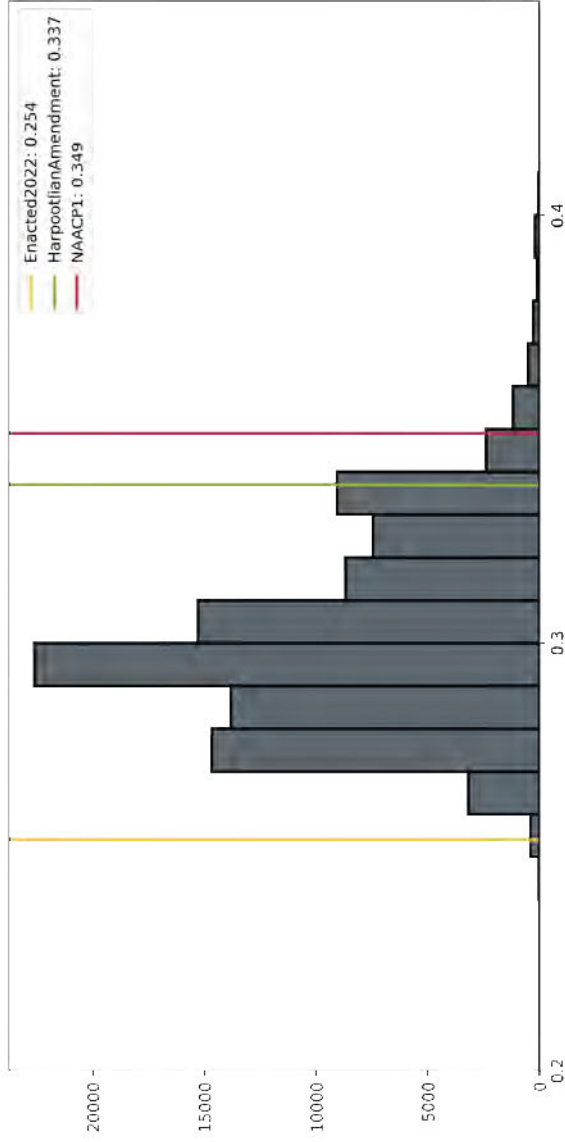


Figure 10: This histogram compares the district with *second-highest* BVAP in three current plans to those from 100,000 alternative plans. Most neutral plans are at or near 30% BVAP in their second highest district, while the state's plan is especially low. The SC-NAACP1 and Harpothian plans are not cracked compared to the ensemble, even though they maintain CD 6 with BVAP levels above those in the state's plan.

6.2 Focused area

The complaint filed by the SC-NAACP specifically seeks relief for the dilution of Black voters in CD 1, CD 2, and CD 5. These districts cannot be adequately analyzed without the inclusion of CD 6 to the cluster. In order to show how these districts can be re-drawn, I have generated a new ensemble of 100,000 maps that only scrambles these four, preserving the state's CD 2, CD 3, and CD 7 exactly as drawn. In addition, I have identified an example of an alternative map (shown in Figure 11) that maintains CD 6 in nearly its exact configuration while un-cracking CD 5. Importantly, the alternative plan does not create an additional majority Black district; rather, its CD 5 has just over 30% BVAP—a strengthened additional district, like CD 1 in the SC-NAACP1 alternative plan.⁸

Thus, whether we use a whole-state redraw or a targeted redraw, we find the state's plan to crack the Black population of South Carolina. As this section makes clear, many other possibilities were available to the state.

⁸ In the following section, I will explain a metric of the “effectiveness” of a district for Black voters, using four probative elections provided by counsel. In this alternative map, CD 5 does not always have a win for the Black candidate of choice—but that candidate receives at least 47.5% of the vote in each of the four elections, winning outright in one of the four. That performance corroborates the claim that this is a strengthened district for Black voters, and one in which a candidate would likely have to campaign in a way that led to some Black support in order to prevail.

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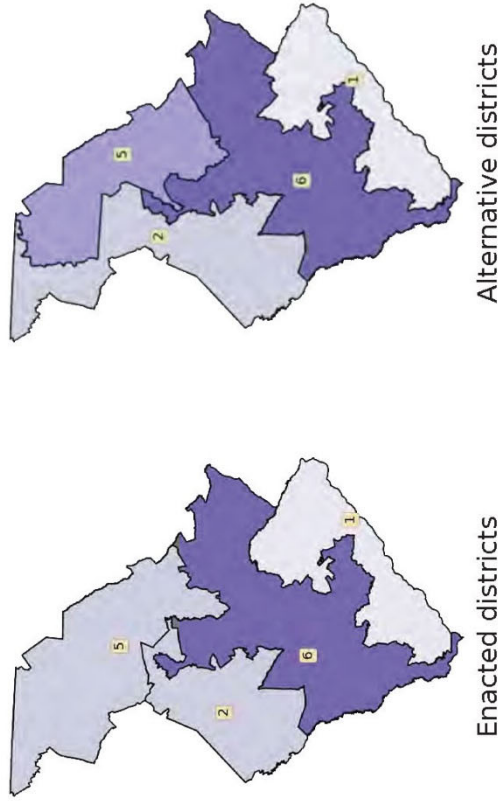


Figure 11: Histogram of BVAP in the second-highest district, comparing the low BVAP observed in the proposed plan to an ensemble of 100,000 sample plans that redraw only districts 1, 2, 5, and 6. An alternative plan is also shown—it leaves CD 6 and therefore CD 1 nearly unchanged, and unpacks this focus area mostly by changing a single (CD 2 / CD 5) boundary line.

7 Electoral opportunity for Black voters

Minority electoral opportunity is ultimately best gauged not by racial proportions in the population, but by an electoral history that shows that candidates of choice can be both nominated and elected. To measure that, we have used four recent statewide elections that were identified by counsel as particularly probative for Black electoral opportunity. These are the Secretary of State and Treasurer elections from 2018 and the U.S. Senator and President elections from 2020. In each case, a Black-identified candidate was on the ballot (including Kamala Harris on the Biden ticket). These elections have also been confirmed by counsel to display racially polarized voting, in which Black voters cohesively support the candidate of choice, while White voters form enough of a bloc to defeat these candidates in each election.

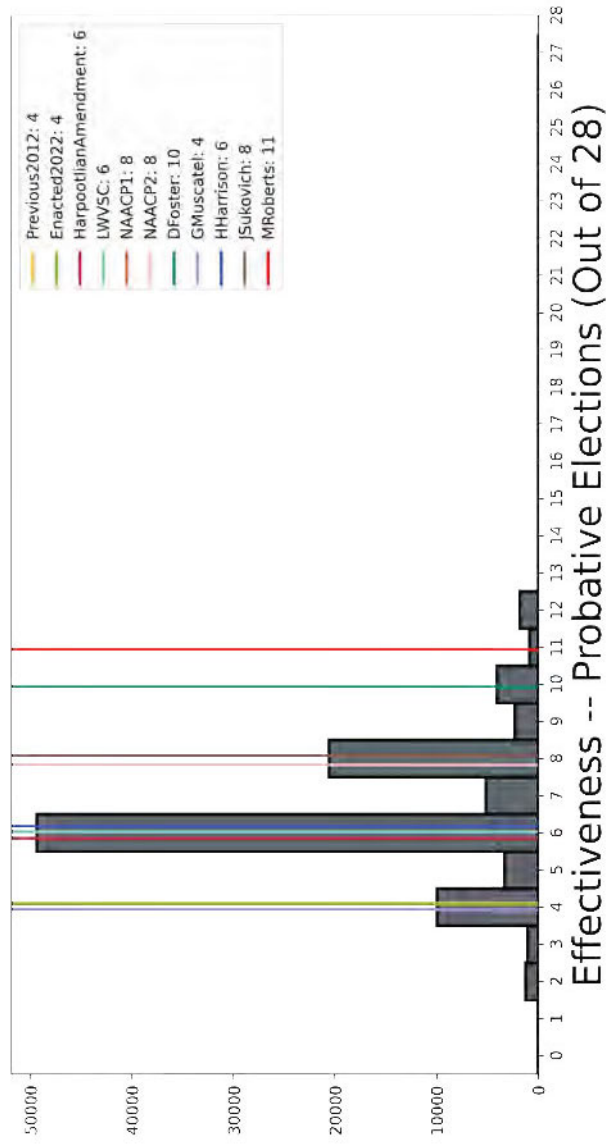
If the Black candidate of choice won in each of the 4 elections in a district, we can label the district as highly *effective* from the point of view of Black electoral opportunity. The overall effectiveness of a 7-district plan is the sum of these 0-4 scores over each district, giving an overall score on a scale of 0-28.

	Black candidates of choice
Secretary of State 2018	Melvin Whittenburg
Treasurer 2018	Rosalyn Glenn
U.S. Senator 2020	Jaime Harrison
President 2020	Joe Biden / Kamala Harris

Table 6: Black candidates of choice were identified in a racially polarized voting analysis provided by counsel.

	Effectiveness	By District						
	(out of 28)	1	2	3	4	5	6	7
Previous2012	4	-	-	-	-	-	4	-
Enacted2022	4	-	-	-	-	-	4	-
Harpootlian	6	2	-	-	-	-	4	-
LWVSC	6	2	-	-	-	-	4	-
SC-NAACP1	8	4	-	-	-	-	4	-
SC-NAACP2	8	4	-	-	-	-	4	-
Foster	10	4	-	-	-	-	2	4
Muscatel	4	-	-	-	-	-	4	-
Harrison	6	2	-	-	-	-	4	-
Sukovich	8	4	-	-	-	-	4	-
Roberts	11	2	3	-	4	2	-	-

Table 7: Effectiveness score across each proposed congressional plan in the four elections identified as probative for Black electoral opportunity. The state's plans from 2012 and 2022 confine Black electoral opportunity to a single district, where all four Black candidates of choice would have won the district, while none of them would have won in the other six districts. Only one other map under consideration (Muscatel) limits Black opportunities as starkly. Other plans extend effectiveness to more districts. SC-NAACP1 and SC-NAACP2 are reliably effective in both CD 1 and CD 6, while Harpootlian, for instance, would keep CD 1 within reach.



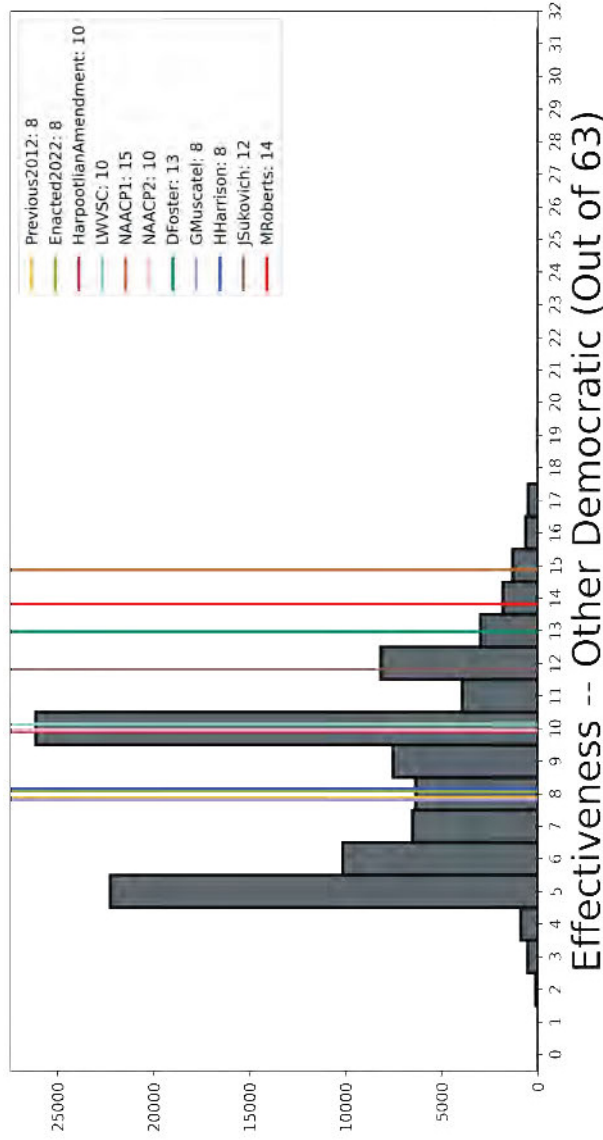


Figure 12: The comparison to 100,000 neutral plans shows that maps with such low levels of opportunity for Black voters are rarely found by chance (top), while the generic Democratic performance is much more typical (bottom). In particular, Previous2012 and Enacted2022 are both in the 12.4th percentile of effectiveness when it comes to the four probative elections for Black voters, but are right near the middle of the distribution (46.9th percentile) in the other seven contests evaluated here.

We can make use of the neutral ensembles presented earlier to consider whether it is possible that such concentration of Black opportunity is merely a function of political geography. We find that it is not. Only 12.4% of maps drawn in a race-neutral fashion (top of Figure 12) have as low an effectiveness score as the state's plan when considering the probative elections. By far the most common outcome for these blindly drawn maps is 6 wins for the Black candidate of choice, with another significant spike at 8. This shows that many alternatives that were available to the legislature—from the SC-NAACP options to the LWV map to the compromise plan represented by the Harpootlian amendment—will tend to allow Black voters an opportunity to elect candidates of choice at a level in keeping with the human and political geography of the state. The state's maps from ten years ago and again from this year are the ones that are demonstrably dilutive, and as we've seen, they submerge traditional principles in order to secure this outcome.

This finding is even much strengthened by considering the wider dataset of all recent statewide general elections (bottom of Figure 12). This time, seven more general elections are evaluated: Attorney General 2018, Governor 2014, Governor 2018, Lt. Governor 2014, President 2016, Secretary of State 2014, Superintendent of Education 2014, U.S. Senator 2014, and U.S. Senator 2016. If we compare the four that are considered probative for Black electoral opportunity against the nine that are not designated in this way, the picture becomes extremely clear.

The state's plans Previous2012 and Enacted2022 are not outliers in their performance in generic partisan races, where they sit very near the middle of

the pack; rather, they only stand out in the races with a Black candidate on the ballot, where the preferences of Black voters most diverge from those of White voters. Thus, it is not plausible that the concentration of Black voters in the state's plan was merely a side effect of partisan concerns. The state's plan is quite ordinary (46.9th percentile) in its effectiveness for the generic Democratic voter, but only shows up as unusually ineffective (dropping to the 12.4th percentile) when the races most probative for Black voters are separately considered.

8 Conclusion

By comparing various plans for South Carolina Congressional districting, I find that the state's plan Enacted2022 expressly contravenes the legislature's own Guidelines, which clearly state that "Any proposed redistricting plan that is demonstrated to have the intent or effect of dispersing or concentrating minority population in a manner that prevents minorities from electing their candidates of choice will neither be accepted nor approved." Considering this strong guidance, and the increased Black population in the Columbia and Charleston areas (see Figure 2), we would expect increased electoral opportunities for Black voters to be reflected in the Congressional plan. By each kind of analysis provided above, we see that this is not the case; instead, Black population is cracked across Congressional districts 1, 2, and 5 in a way that demonstrably diminishes Black voters' ability to elect candidates of choice.

The state's plan draws its boundaries with a series of steps that (a) sacrifice traditional districting principles, and (b) harm Black voters by clear dilution of their voting power. These are shown in

Section 4-5 and Sections 6-7 respectively. And I do not find these harms to be incidental. Each time I examined a decision with both racial and partisan elements in the design of the state's plan, I found that racial factors predominated over not only traditional principles, but even over partisan ones.

In this report, I have identified indicators of dilution of the Black vote both by showing the comparison to neutral plans and, crucially, by comparison to other plans that were available to the legislature at the time of plan adoption. The alternative provided in the Harpootlian Amendment, particularly, is far more respectful of communities of interest and goes a long way to remediate the vote dilution of the state's plan. The presence of that option—and the state's selection, instead, of a plan with less Black electoral opportunity and generally inferior metrics across the traditional principles—is strong evidence of dilutive intent.

References

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- [3] Gregory Herschlag, Han Sung Kang, Justin Luo, Christy Vaughn Graves, Sachet Bangia, Robert Ravier and Jonathan C. Mattingly, *Quantifying Gerrymandering in North Carolina*. **Statistics and Public Policy**, Volume 7, No. 1 (2020), 30–38.

- [4] MGGG Redistricting Lab, *GerryChain Python Library*. GitHub Repository. github.com/mggg/gerrychain
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A Generation of ensembles of districting plans

Ensembles of alternative districting plans were made with the open-source Python package *GerryChain*, which has been publicly available since 2018 [4].

The basic step begins with a graph representing the geographical units of South Carolina, then fuses two districts chosen at random. We draw a random tree (graph with no cycles) that spans the double-

district; next, the tree is cut at an edge that creates two complementary balanced pieces, which become the new districts replacing the ones that were fused. The district generation process enforces that every district has population within 1% of ideal district size; if the tree has no cut edge leaving sufficiently balanced pieces, then a new tree is drawn. Contiguity is required throughout, as a consequence of the fact that deleting an edge from a tree always leaves two connected components. Compactness is highly favored throughout this process, because compact districts have far more spanning trees [2].

To choose the random tree, a method called *minimum spanning trees* is employed, using weights that encourage county and subdivision integrity. Within-county edges are given a random weight in [0, 1] while those between counties or county subdivisions receive a weight with a +1 “surcharge.” This surcharge is additive, so an edge between different counties and between different divisions have a +2, effectively drawing from [2, 3]. I also ran a variant that added a “surcharge” for splitting certain COIs frequently mentioned in the public hearing testimony, as shown below in Figure 13. Supporting selections from the COI testimony have been included in the supplementary sections below.

The random tree is chosen by drawing weights from these intervals and then finding the (typically unique) spanning tree of minimum weight. In addition, when that tree is cut to separate new districts, the algorithm first seeks for a between-county edge as the cut, if it is possible within balance constraints. This promotes the selection of spanning trees that restrict to counties and municipalities in a single connected piece, which will tend to keep counties and municipalities un-split in the districts.

Convergence diagnostics for this kind of process are performed by varying the starting point and the random number seed, as well as by comparing outputs after 10,000 steps to those after 100,000; comparing outputs with and without filters like county/subdivision/COI preservation; and comparing runs with population deviation thresholded at 1% to alternative runs with 2% or 0.5% leeway. Together, these provided me with high confidence that 100,000 steps is enough in this particular districting setting (Congressional districts in South Carolina) to produce stable and reliable statistics. The recombination procedure targets the *spanning tree distribution* on plans. For more information on recombination and convergence heuristics, see especially [2].

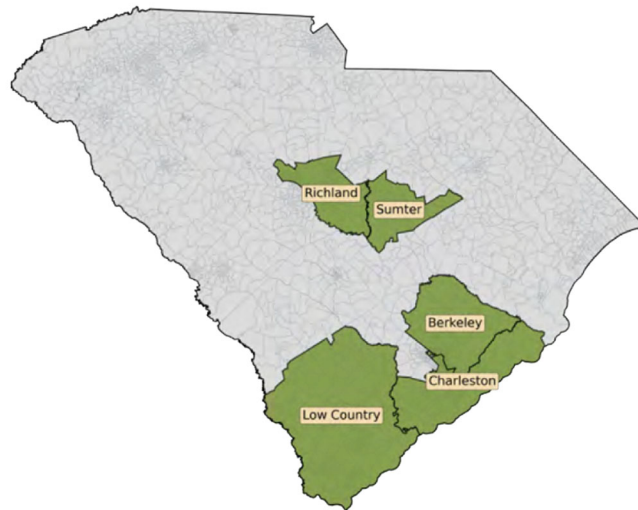


Figure 13: A selection of COIs identified in public testimony. For this report, ensembles were generated both *with* and *without* an emphasis on maintaining these COIs whole. The differences in BVAP and other measurable properties were minimal.

B Selections from public testimony

Below, I have included selections from the public testimony conducted by the South Carolina legislature and available in full at [7 10]. The Senate public hearings took place July 27-August 12, 2021. The House public hearings were held from September 8-October 4, 2021.

I have organized these by their relevance to the features of CD 1, CD 2, and CD 5 discussed above in Section 5 I have included the speakers' stated affiliations where available.

Jasper County split

Mary Ann Bromley. "The economic importance of the Jasper Port Project is an excellent example of a shared community of interest for residents of both counties in that area."

Dorchester County split illogically

Tim Lewis, Chair of Dorchester County Democratic Party. "So I'd like to look at Dorchester County specifically, because that is our community of interest... Dorchester County I like to call a donor county... We share five senate representatives. And if you look at that map right there, actually, one of those – two of those areas, just little slivers. So what happens is that we donate our voters to other senate districts so they can get their votes. Well, the challenge with that, of course, is that those small slivers do not really truly have true representation. Those senators and so forth live in other districts. They truly are not represented by those folks... But, I mean, we have two senators that represent us well and I think have the interest of the county and our uniqueness of our county, the uniqueness of Summerville, the uniqueness of St. George in their

mind, Senator Stephens and Senator Bennett. Those other areas are donors.”

Coastal and Lowcountry COIs disregarded.

Blaine Lotz. “In some ways, the formation of today’s First Congressional District was a step in the right direction; that is, having Lowcountry counties, such as Charleston and Beaufort, in single district. Unfortunately, your predecessor republicans played politics by carving out the northwestern quadrant of Beaufort County, largely rural, largely African-American, and largely democratic, and moved it into the single majority/minority congressional district, the Sixth, Jim Clyburn’s district. The goal was to [dilute] Beaufort County in the First Congressional District keeping it in republican control. The same thing was done in other First District counties, keeping million-dollar beach homes on the coast in the district, but moving their inland working-class neighbors into the Sixth District.”

Scott Anderson, Beaufort Federation of Republican Men. “We also currently have representatives that both understand and act on the values that make the Lowcountry special... Our growth, tourism, coastal – the coastal environment, just to name a few. Just as those in the midlands and the upstate have unique needs, I implore the committee to maintain districts that are representative of our diverse state.”

Mayor Bill T. Young, Jr. Mayor of Walterboro. “Colleton County is very divided. We have four senators and four representatives, and none of these elected officials are dependent on Colleton County for their elections, so they do what elected officials do, they pay attention to the areas that elect them. We believe that it’s Colleton’s turn to have a larger

portion of its districts, and I would ask you, on behalf of the people of Walterboro and Colleton County, that you keep Colleton County together as much as possible as a community of interest.”

Mayor Steve Murray, Mayor of Beaufort. “I see Beaufort County as a community of interest in terms of our educational challenges, our infrastructure challenges, social and cultural, our historic assets and how we’re trying to link those together... [W]hen you look at our challenges around beach erosion, around offshore testing and seismic drilling – seismic testing off of drilling, nesting shorebirds and conservation issues, again, infrastructure around bridges, it is a community of interest as well. So I hope as you’re considering drawing those maps, that you would think about Beaufort County as a community of interest and you would think about that coastal district – continue to think about that as a community of interest.”

Mayor Tim Goodwin, Mayor of Folly Beach. “South Carolina’s beach communities are relatively few in number and small in population, yet we all face unique challenges that is applicable only to beach communities, and they can be quite large.”

Council Member Dickie Schweers, Charleston County Council. “What I would like to do is specifically address communities of interest, but specifically coastal communities of interest. ... And what I would ask you is to please continue allowing those districts to properly represent those coastal communities. The commonalities I see, because they’re coastal districts, include tourism; housing, and especially housing cost; outdoor recreation; port and shipping activity; boating; hunting; fisheries.”

Jerry Ashmore, Port Royal Town Council. “We’re a community of interest along the coast. We need to keep coastal communities in a district that share natural resources, beaches, estuaries, and tourism. We’re in this together and we all share similar concerns all for the good of the Lowcountry.”

Mayor Jane Darby, Mayor of Edisto Beach. “I want to address a little bit further, the community of interest. We know our community has an odd shape... So what I would like to bring is a few more things in the community of interests for our district. The most important factor to consider, and is vastly more important for the welfare of us, is that we all share the same problems, and it’s all related [to] a maritime environment.”

Jodie Strutek. “Here in Beaufort County, we are at a disadvantage because legislators have used our voters as a political football in the drawing of congressional districts and senate districts. It prevents us from being adequately heard by our representation. We’ve heard the testimony of my peers tonight. Our communities, specifically subcommunities of color, are split into different districts despite being a part of Beaufort County.”

Mayra Rivera-Vazquez, Chair of the Beaufort County Democratic Party. “The Latino community is one of the fastest growing communities in America this decade, and Beaufort County is not an exception. Beaufort County is one of the top five counties with the highest Latino population in the state, with 11.1 percent. Three cities in the county have the largest Latino population in South Carolina, Bluffto with 16.84 percent, Port Royal with 12.55 percent, and Hilton Head with 11.81 percent. The Lowcountry 1st Congressional District has the largest number of

Latino voters in South Carolina with 4 percent. As the Senate Subcommittee on Redistricting examines communities of interest as essential criteria to preserving and enhancing the political strength of those communities, the expansion of the Latino population in Beaufort County must be addressed... As South Carolina, we draw lines for electoral district this year. The Latino community in Beaufort County, as a community of interest, cannot afford to sit on the sidelines.”

Council Member Steve Murdaugh, Colleton County Council. “I am here speaking on behalf of the citizens of Colleton County... Well, if you want to talk about communities of interest, you already have communities of interest. You have councils of government. We have Lowcountry councils of government. Look at your counties that are there. We’re members of the Southern Carolina Economic Development Lines. Look at the counties that are there. We don’t have any community ventures with Dorchester or that district. I think that would be a starting point to try to get more of Colleton into a – some of these other districts.”

Christine deVries. “But I actually wanted to speak directly to the issues with Beaufort County. We’ve had several people before, spoke very well to how we’re a vibrant place and full of active citizens and that we all believe that Beaufort County should be a community of interest, and I certainly concur with that. I think it’s critical that in our redistricting process, that Beaufort County is preserved and enhanced and ensure we do have strong representation, in both the US Congress and the South Carolina Legislature, and that our representation is not diluted by unnecessarily

dividing parts of the county between legislative districts.”

Queen Quet (Marquetta L. Goodwine). “I am very pleased to have this opportunity to speak on behalf of the Gullah/Geechees that reside on the Sea Islands, in particular as a community of interest. I’m a native of St. Helena Island, also with family roots on Polawana Island and Datha Island; and that’s here in Beaufort County, South Carolina. But we also have a kinship with Edisto Island... And it’s important for us who are natives here to sustain this very environment, because we are inextricably tied to it. I always tell everyone that the land is our family and the waterways are our bloodline. So we’re working on a resiliency project with the EPA for St. Helena Island. And we’d love to see that duplicated throughout these sea islands because of sea level rise; we have intense heat; and, of course, as already mentioned, we’re in a hurricane zone as it is. So we need to sustain this coastline, and we thank you-all for doing the work that you’re doing as coastal representatives that are there, because I see one of my good buddies there that helped stop the offshore drilling. And I want you-all to make sure that you don’t drill down on these communities of interest and don’t leave (speaking Gullah) out there, because we be Gullah/Geechee anointed people and we’re so glad if I have a chance to be a part of the process and make sure that you’re aware of us and that our cultural community is sustained environmentally and culturally.”

Mark Hartley. “I represent the 1st District on the board, and the 1st District is – congressional district is largely coastal. It runs along South Carolina coast from Calibogue Sounds in Jasper County through the coastal portions of Beaufort, Colleton, and Charleston

Counties up to the Santee River. As the 1st Congressional District Representative on DNR board, I can attest to the 1st Congressional District is a community of interest. The district's geography and coastal natural resources are unique and some of the most magnificent in the – in the nation... Their community interest arise from their unique geographic and coastal natural resources. They border the Atlantic Ocean with a chain of barrier isles. They have extensive saltwater river – river-run estuaries extending far inland. Virtually all coastal tidelands of South Carolina, which are extremely important for water fowl and other endangered species, are in these two senate districts. They have over 70 miles of protected coastline and over a half million protected acres in the Ace Basin, Cape Romain Wildlife Refuge, Santee Delta, and Winyah Bay.”

Meade Dillon. “I am blessed by God to live in what I call the Lowcountry. Yes, I am in Mt. Pleasant; but I can be at the beach in about 15 or 20 minutes, I can be downtown in historic Charleston in about 15 or 20 minutes, or I can be heading up to Moncks Corner or Lake Marion to visit friends on the lake up there, all in a relatively short period of time. And so many of the previous speakers have focused on, oh, Mt. Pleasant, it's a community. Well, guess what? It is not a bubble and I don't stay in it and I think most of those others speakers don't stay in Mt. Pleasant as well. And so my point is very simple. Senators who have a little piece of Mt. Pleasant and a little piece of the barrier islands and a little piece of the inland, they're going to reflect my community and my interests because they're going to get the whole picture. We have a great variety here in Charleston and in Berkeley and Dorchester County, and so

having representatives which have a little piece of all those will help make sure that they really understand the value of living here in the Lowcountry.”

William Walker. “What I’m very worried about is a major part of our life blood here in South Carolina and the Lowcountry is the Gullah-Geechee community, and we must be sure that we take care of those communities and that we make sure that the candidates have a shot at nominating and voting for candidates that are going to support interest of the Gullah-Geechee community as well as the African-American community.”

Timothy Wyld. “I live in Sun City, which should be in the dictionary as the definition of a community of interest. Unfortunately, I live on the north side of Sun City, and even the map that your wonderful cartographer has drawn over there does not recognize our little section of Sun City that is in James Clyburn’s district. We are not contiguous with any county other than Beaufort. We are totally surrounded by Beaufort County. We can’t have conversations with our neighbors, our friends, our gym partners, our tennis partners, our golf partners because they all vote in CD1 and we’re stuck voting in CD6. It makes absolutely no sense. You can go by any of the criteria you’re using, we’re a community of interest. We have been set apart because Pulte annexed us to the City of Hardeeville to get lower development costs, and we got stuck in Jasper County as a result. I’m begging you to fix this oversight. It just doesn’t make sense.”

Representative Jermaine Johnson. “It absolutely makes no sense whatsoever that, you know, we have somebody representing up here that’s, you know, down in Charleston or somebody that’s in Charleston

is representing somebody in Columbia or somebody way down in Edgefield and Aiken and you've got to come down here. This makes no sense."

Michael Sawiki. "I would like to speak to the Committee about the natural geography sometimes connected by water, sometimes connected by land that we along the shore of South Carolina Coast. There is no question that this is one of the most beautiful and pristine environments in the nation. It is a special place because of the many rivers that flow through the marshlands into the sea. These rivers and marshes are alive with hundreds of varieties of fish, shellfish, shrimp, animals and birds of all kind. Many of the creatures that live in the deeper oceans began their lives in the South Carolina marshes and rivers. Some of [] us who live in this beautiful part of the state were fortunate enough to be born here. And many of us came here because of the natural beauty. I think that I speak for most of us who know the importance of protecting the preserve – and preserving what we have here... because elected officials who live and work along the Coast share a common love and understanding for the area and those of us whole live here, we would like to see the Low Country be treated as a community of interest when the redistricting takes place."

Willie Terrell, Young Republicans of Beaufort County. "But in a way, I feel like I represent many young people throughout the Low Country. Because up and down the South Carolina coast, our needs, our wants, our aspirations are much of the same. Many of us, like myself, were born and raised in the Low Country. We love it. We like to make it our home and raise our family here. In order to do so we need two things: One, quality education, and, two, opportunities."

Council Member Logan Cunningham, Beaufort County Council and Vice President of the Republican Club. “But I will tell you that the representatives that we’ve had for this time, or our new representatives, the policies that are put in place here for Beaufort County and the Low Country have made it a desirable and successful place for people to continue to come to... It’s about the fact that the values and the conservative policies that we’ve had here in the Low Country, that have made it successful... We stand here in Beaufort County with our Low Country values. And we’re prepared to continue to defend them, because they have been successful here and in the state.”

Charleston County split erratically

A.J. Davis. “I live in the southern end of North Charleston right outside of the old Naval base. I consider my community of interest not only that geographic area, but the marginalized African-American populations, both native and adopted, or in local terms, the benyas and the comeyas. I’ve called Charleston home for the last 20 years... I live in the Chicora Community but share a kindred spirit with most of the southern end of North Charleston south of Park Circle. Like many of the folks who have come before me, I express concern that this process will afford marginalized communities such as mine legitimate, effective political representation. As Ms. Singleton so eloquently put it, it’s about more than votes, but the impact to human lives. Due to population changes, communities like mine were havens for members of the African-American populations that have been displaced due to [gentrification], specifically from areas like downtown and West Ashley.”

Kelly Gorby. “I’m glad the one gentleman bought up the maps of Charleston County, because as far as the U.S. Congressional District is concerned, that shape is crazy. Charleston County deserved to be in one U.S. Congressional District. North Charleston problems, North Charleston interests should be considered with the rest of Charleston County and not with Columbia. That’s where our airport is. That’s where our tourists are coming into town. They’re sleeping in those hotels. They’re shopping at Tanger Outlets. There’s really no reason that they shouldn’t be considered in our same U.S. Congressional District. So I would also advocate for that.”

Emily Mayer. “First, I would like to start with our congressional district lines. Beaufort County is currently split among two different congressional districts... As the population of Beaufort County is well within the limits of what a congressional district can hold, I implore you to find out why this section of Beaufort County has been cut out of being represented by the same congressperson as the rest of their county members, as we are a part of the same community with interests regarding our public educational system. Additionally, Congressional District 1 extends up the shores through Charleston County. But, as you can see on the map, it cuts out North Charleston and then goes in again to Berkeley County. Again, noting that that North Charleston demographic is overwhelming[ly] less white compared to the areas of Charleston and Berkeley Counties that are included in Congressional District 1 all the way to Monks Corner, all the way up in that Berkeley County area, which is 68 percent white. I ask again why this cutout is necessary? If we’re talking about continual lines, the shapes of our

district, why not make it more continuous to allow communities of the same counties to stay together? These lines don't feel as if they meet the requirements needed... I add to the sentiments that were made earlier that Beaufort County is a community of interest within itself."

Brady Quirk-Garvan. "Charleston and the broader tri-county have seen tremendous growth in the last decade and, despite the global pandemic, it shows no signs of slowing down... Keeping neighborhoods [and] geographic zones together are important not only because it allows constituents to know their representatives, but because it allows for greater economic progress. When Senators and House members draw elongated districts and stretch districts across rivers, oceans, and county lines, it creates problems when it comes to advocacy for district. It is difficult to be the best advocate for your constituents when a district involves multiple counties and widely different geographic areas. The needs of a dense suburb like Mt. Pleasant and Charleston County are very different from rural Berkeley County, and sometimes their needs are antithetical to one another; and yet we have districts where senators are asked to provide the same level of advocacy to both, and that just doesn't happen. Another example of this is my congressional district, District 6, which runs from here in North Charleston up to Columbia. And I can assure you, living here, that North Charleston is much more intertwined with Charleston and the Lowcountry than it is with the Midlands."

David Quick. "So the slicing and dicing, it ultimately comes down to this gerrymandering stuff... We need our – our congressional district not to stretch all the way down. We've got three hubs on the

coast and, let's face it, the coast is one of our big drivers of South Carolina's economy. You've got – you've got the Grand Strand, you've got Charleston, and you've got Hilton Head and Beaufort. These are very distinct hubs. Let's try to think along those hub lines, you know, and those natural boundaries. And, really, let's make – let's make these lines make sense and not confuse voters anymore... And just like so many people said, people in North Charleston have more in common with people in Charleston than they do in Columbia."

Zachary Kronsberg. "I agree with what Mr. Quirk-Garvan said earlier about North Charleston and, frankly, half of downtown having more in common with the rest of Charleston County than they do with Columbia. So I think that it would make sense for them to be in the U.S. Congressional 1st District instead of the 6th District."

Shayna Howell. "I urge you to consider [Charleston] county a community of interest and not split it so many ways...While I appreciate the idea of the coast as a group of residents with shared interests, I believe we would be better served by districts that don't split so many county lines – residents of these coastal counties typically all care about our coastal resources – so their voice will not be diluted."

Emmett Robert Murray Jr. "Where did the input for this ridiculous change come from? Was a blindfold and dart board involved? I have read a [] good deal about gerrymandering, but this is my first time at seeing it up close and personal. I'm sure that this map that I am looking at showing this oddball projection protruding into district 1 must be a misdirected key punch. It is beyond belief that state bean counters have decided that the interest of the

West Ashley residents of Charleston Co. and the people of the rural counties of Clarendon, Orangeburg and Darlington are anywhere close to similar. This political anomaly needs to be corrected before it is set in stone.”

Lynn Schuler Teague, League of Women Voters South Carolina. “The League plan accurately reflects the diverse population is what is increasingly a network of closely tied satellite communities around a center in urban Charleston. The League proposal shows that much of this important community of interest could easily be kept together in CD 1. The Senate’s [draft] map, on the other hand, produces what in our measure is a 14-percentage point partisan gap by slicing and dicing this clear community of interest in unreasonable ways. Charleston itself is split. Adjacent North Charleston would continue to be put into a district with Columbia, more than a hundred miles away, although it is very much a part of the social and economic networks associated with Charleston. James Island and Johns Island would be split. What would the people of South Carolina sacrifice so that the General Assembly can achieve this gerrymander?”

Gloria Aslanidis. “My home is in the City of Charleston and the County of Charleston. I’m sure Dorchester County is a lovely place to live, but I see no community of interest.”

Orangeburg separated from CD 2

Chester Palmer. “[Orangeburg County has] much more in common with Columbia and Richland and Lexington than we do with Charleston. And that’s something that you need to consider when you redraw the district lines.”

Larry Wagner. “Now, what do those folks down in the tail of Georgia have to do – a commonality with Orangeburg-Calhoun County where we live in St. Matthews?”

State Representative Jerry Govan. “The redistricting process should incorporate more of the City of Orangeburg and more of the nearby suburbs, considering the history of this district. The City of Orangeburg and surrounding areas in Central Orangeburg County should continue to have a voice in their respective areas.”

Hook around Columbia

William Maxie. “And so when you go to redistrict this time – and there’s been a lot of growth in South Carolina, and y’all have to make a lot of changes – I would urge you to make sure that these districts are fair, obviously, and equitable, but make sure that they make sense geometrically ... I mean, you know, the 2nd District is a good example where Representative Wilson is. I mean, it reaches around the City of Columbia, and to what end is that? I mean, do people in downtown Columbia not have that much in common with people from Forest Acres or people right across the river? No, they do. That’s where a lot of those people live and a lot of those people work, so, you know, the shape of these districts is important, and y’all really need to make sure that towns and counties stay whole to make sure that our communities of interest are represented. That’s not just a legal term. That’s just the people that we live with and work with, that we worship with and that we spend all of our time with.”

Splitting in and around Columbia**Jonnieka Farr, Co-chair of Columbia Branch of NAACP Political Action Committee and Chair Richland County Democratic Women's Council.**

"I live in the Northeast Columbia area ... I would like for the redistricting committee to ensure that redistricting is not done in such a way that arbitrary lines are drawn splitting neighborhoods"

Lynn Schuler Teague. "CD 2 should not have a finger projecting through Columbia. In Richland County, the effort to get CD 2 to Fort Jackson drives CD 2 through the Black communities of northwest Richland, separating them from neighboring communities to allow the incumbent to "keep" Fort Jackson within "his" district. Why must a legislator have a specific base within his district to protect it in deliberations of the House Armed Services Committee? Also, how does an incumbent's interest constitute a community of interest-especially where it requires violating a clear and very real community of interest of minority voters?"

Sumter COI is not respected

Archie Parnell. "And here we are in Sumter and Sumter is split down the middle. The historic district where I live, three blocks down is a different congressional district. Two blocks up is a different congressional district. And I think there is a community of interest here in Sumter and I would urge you to continue with your criteria that you've adopted 10 years ago and, hopefully, keep counties together. Now, I realize that these various criteria are not all in one direction. Sometimes they conflict with each other and so you cannot just always have a win/win on everything. But I would urge you that the lines that are drawn in Sumter be redrawn in order

to make it more of a unit, more of a community of interest.”

John Reilly. “I’m not in a big populated area, but everything else I do is in Sumter. And everything that people in my neighborhood do is in Sumter. We’re attached to Shaw, so that’s kind of how we – everything is Sumter oriented, but our representation, if I have anything to say to anybody, is in Richland. Which really doesn’t make any sense for us.”

Anthony Nyser. “So like I was saying, I’ve only been a resident of South Carolina, namely Sumter, for a couple of years. The first two years I lived in town was normal. And then when I bought a home at the beginning of this year, I’m wanting to say it’s about a three mile difference between the old home and the new home, but I have a completely different representation at all levels. And that’s something that was really concerning to me because I still shop at the same Piggly Wiggly. Everyone is Sumter still goes to the same one Starbucks. We all have very, very aligned interests, lifestyles. There’s some obvious socioeconomic differences in town, but it’s still one town, one community.”

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light. Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed this 11th day of April, 2022.

/s/ Moon Duchin

Moon Duchin

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Appendix 6

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Plaintiffs'
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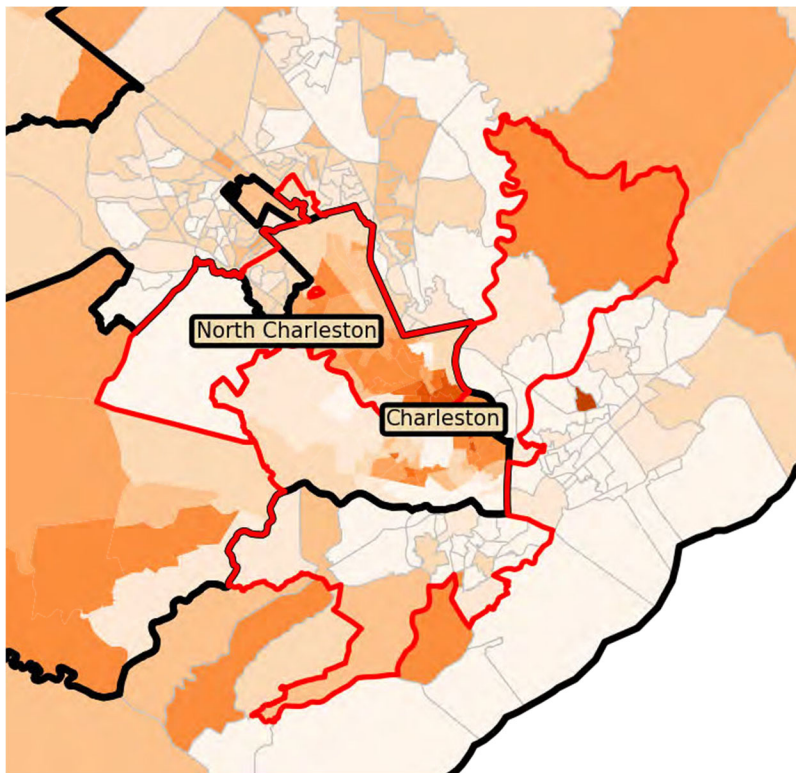


Figure 5: North Charleston is split between CD 1 and CD 6 as the district line winds between counties, in and out of the city, and through neighborhoods with significant Black population.*

**Counsel's Note: As stated in the body of Dr. Duchin's report, the shading reflects BVAP%, with lighter precincts reflecting lower BVAP. PX 67 at 5, fig.1; id. at 16, fig.4. And as explained during trial, the red line represents municipal boundaries, while the black line represents district boundaries; the Charleston/ North Charleston municipal boundary here represents a smoothed out municipal line containing all the precincts that overlap with the municipalities. Tr. 312:2-17; 1535:1-14.*

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Appendix 7

**Report on South Carolina
Congressional Districts**

**Moon Duchin
Professor of Mathematics, Tufts University
Collaborating Faculty in Race, Colonialism, and
Diaspora Studies
Senior Fellow, Tisch College of Civic Life**

May 4, 2022

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Plaintiffs'
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1 Assignment

I am a professor of Mathematics and a Senior Fellow in the Jonathan M. Tisch College of Civic Life at Tufts University. My previous report in this case is dated April 11, 2022, and it contains a full account of my relevant background and qualifications.

In the current report, I have been asked to provide a brief response to the Expert Report of Sean P. Trende, dated April 18, 2022.

2 Summary

- The state's plan is described by Mr. Trende as placing top priority on core retention, as measured by the very high percentage of the

population whose district assignment in Enacted2022 is identical to their district assignment in the “benchmark” Previous2012. But South Carolina’s demographics and electoral dynamics, as well as the national legal framework, have all shifted in the last ten years. Thus a map with very high core retention can be dilutive of Black voting power while its predecessor was acceptable under a different set of facts and rules. That is the case with the current South Carolina Congressional maps.

- Even if core retention is elevated to the top echelon of districting priorities, my report confirms that this does not lock in the dilutive effects found in the state’s plan. The alternative plan shown in my previous report (Section 6.2, incl. Figure 11) is just one example—92% of the population is assigned to districts exactly as in Enacted2022, and indeed the alternative plan mainly differs in a single boundary between two districts, but this plan nonetheless outperforms the Enacted2022 plan in terms of the ability of Black voters to elect their candidates of choice.
- The state’s plan is described by Mr. Trende as placing a high priority on “repairing” split counties and precincts. But the number of split counties is similar to that in the benchmark plan, as is the number of split precincts (though the count is described misleadingly in the Trende Report). By contrast, as detailed in the previous report and below, there was another Congressional plan proposed during the legislative process—the Harpootlian map—with substantially fewer political subdivision splits. This map is comparable or superior to the state’s plan Enacted2022 in all traditional

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districting principles (Section 4 of previous report), and provides measurably greater minority opportunity to elect. This plan was considered and rejected by the legislature.

- Compared to the benchmark from ten years ago, the state's plan repairs splits selectively; it conspicuously fails to heal cities and other areas of particular salience for Black communities (such as the city of Sumter), as they were highlighted in the legislature's own public hearings. This is discussed in Section 5 of my previous report and is expanded on in the present report.
- The Trende Report makes no mention at all of several issues that are discussed in my previous report and are clearly salient to the evaluation of South Carolina Congressional districts.
 - Respect for the boundaries of cities and towns, not just for counties and precincts.
 - Respect for communities of interest, as described in many hours of public testimony for the South Carolina House and Senate.
 - Comparison to nine alternative plans available in the public record that collectively establish a baseline for minority opportunity-to-elect against the current demographic backdrop.
 - Evidence that the state's plan Enacted2022 is more extreme in the elections most probative for Black electoral opportunity than in the performance of generic Democratic candidates.

3 Core retention

In the Trende Report, a brief history of the district shapes is presented before reporting the core retention percentages for each district in his Table 3, from the lowest value of 82.84% population retention in CD 1 to a highest value of 99.96% retention in CD 7. By contrast, the core preservation numbers for the Harpootlian plan, for example, run from roughly 54-73% percent, with 60-65% retention in CD 1 and CD 6.

The retention of prior districts is a commonly articulated principle in redistricting. It can be described in terms with a positive or a negative valence. When positively described, core preservation promotes “continuity of representation.” When more skeptically described, it is the most direct form of incumbent favoritism available to line-drawers, maintaining current representatives in districts with maximum name recognition and a history of success. In this case, the appeal to core preservation is used to keep minority population dispersed across multiple districts, whereas the shifting population and the reduction in BVAP in CD 6 would likely have led to the creation of new opportunities in a neutral process. I am not aware of any principle in law or in published redistricting guidelines that allows for a threshold level of high core preservation to justify excessively race-conscious decisions with a known dilutive effect.

The hook into Charleston is defended by Mr. Trende as having been introduced in past redistricting cycles, and merely retained in the current map. This is an excellent example to show that the “repairing” and “smoothing out” of boundaries was carried out in a highly selective

manner by the state, as I will further detail below in §4. When existing configurations harm Black communities through cracking, such as the hook configuration in Charleston or the split of Sumter—both clearly and explicitly identified in public testimony collected by the legislature and discussed in Section 5 of my previous report—these were not altered in the new enacted plans, with preservation of district cores serving as a shield.

3.1 Reconciling district cores with non-dilution

The alternative plan shown in my previous report (Section 6.2, incl. Figure 11) illustrates that it is possible, if desired, to maintain extremely high core retention in a manner that does not dilute minority voters' opportunity to elect. That alternative plan has nearly 100% agreement with Enacted2022 in five districts (CD 1,3,4,6,7). It essentially revises the state's plan in a single boundary line: the division of CD 2 from CD 5. This means it has an average core retention score of nearly 92%, when compared to the state's plan Enacted2022. However, this modest change is enough to secure markedly better electoral opportunity for Black voters. As noted in the earlier report (footnote 8, page 23), the alternative plan sees an electoral performance of at least 47.5% of the two-way vote for the Black voters' candidate of choice in all four highly probative elections.

4 Respect for boundaries, Communities of interest

In Mr. Trende's report, he writes that "The Enacted Plan also reduces the number of split precincts to 13, from 65." However, this is misleading. Precincts are administrative units that are locally defined and maintained; they can and do change regularly for any of a diverse set of reasons. Every ten years, prior to the release of the new population data in the PL94-

171, the Census Bureau releases a geography file called *voting tabulation districts*, or VTDs. These are developed in collaboration with a designated partner from the state in order to best reflect current precincts, aligned to census geography. By comparing the Previous2012 plan to both sets of units, I have confirmed that the benchmark splits 65 2020 VTDs, but only splits 13 2010 VTDs.

That is, in contrast to Mr. Trende’s representation, the new plan Enacted2022 is not far more respectful of precinct boundaries than its predecessor, but comparable. By contrast, the legislatively proposed Harpootlian plan has superior performance on county, subdivision, and city splits to the state’s plan Enacted2022. The alternative plan splits 7 counties instead of 10; 12 county subdivisions instead of 29; and 7 cities instead of 10.¹

Notably, the superior performance of the Harpootlian plan is not merely mechanical; rather, as the legislative record shows, the plan was drawn by State Senator Richard Harpootlian after careful review of the public testimony about important communities of interest for redistricting.

The splits clearly identified as being most harmful to Black voters—such as Sumter (40% White) and key neighborhoods of Charleston—are not addressed in the state’s new plan. Instead, more heavily White cities (Beaufort – 65% White, Goose Creek – 58% White, Hanahan – 65% White) are made whole.²

¹ As noted in my earlier report, this counts splits of *populated* municipal territory. All comparisons can be found in Section 4 of that report.

² All percentages in this comparison are non-Hispanic single-race White percentages of population.

The selective treatment of political boundaries demonstrates a race-conscious line-drawing process.

4.1 Other traditional principles

As noted in Section 4 of my previous report, the state’s plan Enacted2022 is also generally inferior to alternatives such as the Harpootlian plan on metrics of compactness. The Harpootlian plan is better on the average Polsby-Popper score and on the cut edge count; in addition, it is superior on another metric cited by Mr. Trende—the so-called “inverse Schwartzberg” score, discussed by him on p19-20—as well as on the convex hull score, another common compactness metric.³

The only compactness metric on which the state’s plan looks better is the Reock score (see Table 3 of my initial report), which rewards districts for fitting snugly in a circle. The hooking shape of CD 2 in the state’s plan and the erratic boundary of CD 6 are therefore not heavily penalized by this score, even though the districts are visibly non-compact.

5 Conclusion

In the large, indications of racial gerrymandering are easy to detect in the Enacted2022 plan. In the changes made against the map from from ten years prior, Jim Clyburn’s CD 6 saw its Black voting age population share markedly diminished, dropping from 52.5% BVAP to 46.9%, a difference of 5-6

³ The “inverse Schwartzberg” score of a district is just the square root of its Polsby-Popper score, so if a district is superior on one of these scores then it must be superior on the other. The average convex hull score of a district in Enacted2022 is .767 while for Harpootlian it is .773. This score measures how much each district deviates from a simpler polygon called its *convex hull*, and scores closer to 1 are better.

percentage points. However, though the adjacent districts CD 5 and CD 7 were next in line in BVAP proportion, each having over 25% BVAP, neither of these received an increase in their BVAP share—instead, CD 7 remained essentially untouched while CD 5 actually lost a percentage point.⁴

	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7
Previous2012	0.173	0.239	0.174	0.183	0.257	0.525	0.254
Enacted2022	0.174	0.254	0.176	0.190	0.247	0.469	0.254
Harpoonlian	0.212	0.219	0.156	0.162	0.337	0.497	0.184

Table 1: **BVAP shares by district.** (Repeated from previous report, Table 1.)

Rather than being assigned to CD 5 or CD 7, the Black population was cracked over multiple districts in a manner that ensured that the opportunity to elect candidates of choice would remain out of reach. This was not done merely by chance, but through selective decisions to smooth and heal splits in areas more heavily populated with White voters, while leaving areas with greater Black population shares illogically split.

Indeed, the randomized districting analysis performed in Section 7 of my prior report, which was not discussed by Mr. Trende, shows that the state’s plan is far more of an outlier in its performance on the elections most probative for Black voters than it is in a generic general election. (See especially previous Figure 12.)

⁴ Meanwhile, South Carolina has been growing less White overall, with the WVAP share dropping from 66.7% in 2010 to 64.9% in 2020. Greater Charleston and the Lowcountry region have seen some of the greatest increases in BVAP overall. Demographics and trends are discussed in Section 2 of my prior report.

Finally, the Trende Report is completely silent on comparing the state's chosen plan to the other options that were before the legislature at the time of adoption, especially the Harpootlian plan. That alternative plan is generally superior to the state's plan on traditional principles (particularly splits and compactness, shown in Section 4 of earlier report and Section 4.1 above) while showing deference to communities of interest identified in the public record (quoted in Appendix B) and affording measurably greater opportunity for Black voters to elect candidates of choice (previous Section 7).

I also presented an alternative plan (previous Section 6.2), which bears over 92% resemblance to the state's plan while demonstrably reducing its fence-out effect for Black voters' candidate preferences. This shows that even the elevation of core preservation to the highest echelon of districting priorities does not need to lock in the racially dilutive impact of the state's plan. Instead, the strict confinement of Black electoral opportunity to a single district—CD 6—emerges as the leading hypothesis for the design principles that drove the construction of the Enacted2022 plan.

I reserve the right to continue to supplement my report in light of additional facts, testimony and/or materials that may come to light. Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct according to the best of my knowledge, information, and belief.

Executed this 4th day of May, 2022.

/s/ Moon Duchin

Moon Duchin

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Appendix 8

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

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Plaintiffs'
Exhibit

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Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

HENRY D. MCMASTER, in his official capacity as
Governor of South Carolina; HARVEY PEELER, in
his official capacity as President of the Senate; LUKE
A. RANKIN, in his official capacity as Chairman of
the Senate Judiciary Committee; JAMES H. LUCAS,
in his official capacity as Speaker of the House of
Representatives; CHRIS MURPHY, in his official
capacity as Chairman of the House of
Representatives Judiciary Committee; WALLACE H.
JORDAN in his official capacity as Chairman of the
House of Representatives Elections Law
Subcommittee; HOWARD KNABB, in his official
capacity as interim Executive Director of the South
Carolina State Election Commission; JOHN WELLS,

209a

JOANNE DAY, CLIFFORD J. ELDER, LINDA
MCCALL, and SCOTT MOSELEY, in their official
capacities as members of the South Carolina State
Election Commission,

Defendants.

Transcription of Video File:

20220110HJudiciaryHouseRedistrictingAd11612_1

Date: January 10, 2022

Runtime: 0:13:45

CHAIRMAN JORDAN: -- we put out a second
version of the map.

REPRESENTATIVE BERNSTEIN: And I
appreciate you -- your willingness to answer my
questions. As the committee members probably
already can tell, I'm gon-- I'm against the alternative
plan, and would be voting against that plan when the
time comes. And I would hope other members on this
committee would follow suit. Thank you very much.

CHAIRMAN JORDAN: Thank you.

REPRESENTATIVE W. NEWTON: Mr. Chairman,
thank you. I appreciate the opportunity to make a
few comments. And I just want to comment,
obviously, on House staff plan alternative one. I --
you know, being a representative from Beaufort
County, the sampling of emails and testimony that
we've gotten here was echoed throughout my private
life, both at home and at the law firm, over the last
handful of weeks since the testimony started focusing

on congressional plans. And resounding theme is that Beaufort County has been bounced around from the first to the second, back to the first, and now it looks like that was -- that was just an attempt to try to shove that part of South Carolina somewhere. Which is often a orphan/step child mentality that gets taken, certainly in the -- some of the barrier islands of Beaufort County. And it was made pretty clear that, certainly the residents of House District 120 as well as 118 and 121, were concerned about just trying to find a home for them now. That the community of interest in coastal Beaufort County and in Beaufort County, are aligned with those in Charleston not only economically in terms of tourism, the -- but also environmentally. And I think that's pretty clear when you go back and look at the public hearings that were held, with regard to offshore drilling and some of the other issues that have come up.

So, I, you know, I personally believe that the alternative one respects the testimony that was offered about keeping Beaufort County in the First Congressional District. I think when you look at the district lines overall, it closely matches, -- as you commented, subject to modulation based on population -- but the lines that have been previously blessed by the justice department. So, I -- as a representative of that part of the state, I do stand in support of House plan alternative one. Thank you.

CHAIRMAN JORDAN: Yes, sir. Representative --

REPRESENTATIVE HENEGAN: Thank you --

CHAIRMAN JORDAN: -- Henegan?

REPRESENTATIVE HENEGAN: -- thank you very much, Representative Jordan. I -- my only concern is when I look at the district map, it appears to me only

one of them can be drawn where a minority can win, and that is a major concern for me. And I went through every one of them, the percentages of black and white is so much lower except in that number six is the only one that I see that's a possibility. And that was -- that's the concern that I have with that. That's major for -- thing for me. We -- really, sincerely, I was hoping that we would have more, so there would be more opportunity for minorities to run.

CHAIRMAN JORDAN: Is that -- is that a question or a comment?

REPRESENTATIVE HENEGAN: No, I'm making a comment.

CHAIRMAN JORDAN: Okay.

REPRESENTATIVE HENEGAN: Uh-huh.

CHAIRMAN JORDAN: Certainly.

REPRESENTATIVE HENEGAN: And therefore, the alternative one I cannot support. I --

CHAIRMAN JORDAN: I understand.

REPRESENTATIVE HENEGAN: -- yeah.

CHAIRMAN JORDAN: Representative Bernstein?

REPRESENTATIVE BERNSTEIN: Well, this is kind of a question that I did not thoroughly investigate. And maybe Representative Newton can answer this. Is there a way to put -- keep Charleston whole and Beaufort County whole, and make that District 1?

REPRESENTATIVE W. NEWTON: Uh-uh.

CHAIRMAN JORDAN: I don't think the math works in that scenario, there's just --

REPRESENTATIVE BERNSTEIN: (Inaudible).

CHAIRMAN JORDAN: -- too many people -- too many people in that area of the state to make those numbers. You know, just like -- again, --

REPRESENTATIVE BERNSTEIN: I mean, taking out Berkley, I guess, would -- it would have to be.

CHAIRMAN JORDAN: If you -- if you go back, you know, Charleston's split currently. Charleston's split. It -- I think we have a math problem as much as anything, as you've got a certain number of people. And I guess, you could split part of Beaufort, and perhaps do that, but you're going to end up with a split in --

REPRESENTATIVE W. NEWTON: Right, so Beaufort -- Representative Bernstein, you may recall, Beaufort was in the first, then it was put in the second, then in the last redistricting it got put back in the first, when the congressional line was done up in Horry County. And at some point, I guess the population is going to reach, where the coast will need three (inaudible) -- three, probably that it will want three seats. And depending on how far inland. But I -- as the Chairman commented, I think that the population is just too much, and -- to take all of Beaufort and put with all of Charleston. And what it appears that this does is, you know, Charleston County, obviously, is split today, but arguably the coastal areas of Charleston, they're community of interests, even though while bearing the same name, I think, are pretty different than North Charleston. And I certainly am comfortable in saying that the community of interests of people in Beaufort County, in the environmental sensitive areas, is vastly different than the community of interest in Lexington, South Carolina. And they've made that abundantly clear.

REPRESENTATIVE BERNSTEIN: It's just -- the -- just carving out a portion of Charleston County to put it in District 6, clearly is -- the rationale would be because it is a majority/minority district, and it only makes it more packed. We're packing that district by carving out, particularly North Charleston, in my opinion, on this staff plan. And you don't need to respond to that, Representative Newton, I was just -- I understand your concerns, because of your representation of Beaufort, and there was some legitimate testimony about keeping Beaufort in the First Congressional District. But I think it's also important that Charleston remain whole, and looking at those numbers, and to figure out what's more important, keeping Charleston whole or Beaufort in -- at -- whole in the first. Thank you.

REPRESENTATIVE W. NEWTON: Mr. Chairman, is -- Charle-- I mean, the split is now in Charleston, is --

CHAIRMAN JORDAN: Correct.

REPRESENTATIVE W. NEWTON: -- is the same as in the -- brought forward in this new map, correct? Essentially.

CHAIRMAN JORDAN: Essentially, yes.

REPRESENTATIVE W. NEWTON: Okay.

CHAIRMAN JORDAN: That's correct. At the end of the day, this was -- this was always going to be a difficult process --

UNIDENTIFIED SPEAKER: Yeah.

CHAIRMAN JORDAN: -- and choice of dividing areas. You know, we have 731,000 people, and this isn't like a House District with 40,000, or you know, and by -- oh, by the way, we follow the law -- as Mr.

Elliott's pointed out in this process a few times -- we don't have a deviation in this process, we're trying to hit the nail on the head. So, getting people, you know, population-wise, in as specific a way as possible is -- has -- was always going to be a difficult thing, and provide difficult choices. So, Representative Elliott?

REPRESENTATIVE ELLIOTT: Yes, sir. Thank you, Mr. Chairman. And as you correctly point out, and in this process with the congressional maps, we have to get down to basically one person deviation. But you know, as I look across the map, and the -- and the different seven districts, it -- somebody has, as you just said, got to be split somewhere. Greenville county -- the Fourth Congressional District, which is comprised of Greenville and Spartanburg Counties, both counties are split between two different congressional districts. So, that does happen, it's not just unique to Charleston. It's -- it -- Spartanburg's in the fifth and in the fourth, and in -- Greenville is in the third and in the fourth. So, that -- that's -- it's just, unfortunately, they don't -- the requisite number of people don't just match up perfectly to county lines.

CHAIRMAN JORDAN: Any other questions/comments? Seeing none, is there a -- is there a motion? Representative Collins?

REPRESENTATIVE COLLINS: Chairman, I move that we pass Congressional House staff plan alternative number one.

CHAIRMAN JORDAN: Alright, we have a motion for the alternative plan. I believe --

REPRESENTATIVE ELLIOTT: Second.

CHAIRMAN JORDAN: -- second by Representative Elliott.

MS. DEAN: Okay.

CHAIRMAN JORDAN: That will --

MS. DEAN: (Inaudible) their talking about (inaudible) bill S. 865? And then (inaudible) --

CHAIRMAN JORDAN: Well, let's --

MS. DEAN: -- (inaudible).

CHAIRMAN JORDAN: -- make sure we get that right. So, this --

MS. DEAN: (Inaudible) S?

CHAIRMAN JORDAN: Yes, this is technically on S. 865. We want to make sure everybody understands that, that we're on that particular bill. So, we've got a motion and a second.

MS. DEAN: All those in favor? (Inaudible) --

CHAIRMAN JORDAN: All those -- all those in favor of amending S. 865, signify --

MS. DEAN: (Inaudible) alternative one.

CHAIRMAN JORDAN: -- with alternative one, signify by saying, "aye."

REPRESENTATIVE W. NEWTON: Aye.

CHAIRMAN JORDAN: Aye. Hold on, we've got a question.

MS. DEAN: (Inaudible).

CHAIRMAN JORDAN: So, just to make sure we get this right, and to give you all a -- we've been out of -- out of school for a little bit here, we're getting back started in full session, of course, tomorrow. So, we're -- this is to amend S. 865. I caught, I think, there were four of us. I was an "aye," recorded on

that. So, there are four of those. All those not in favor?

REPRESENTATIVE BERNSTEIN: No.

REPRESENTATIVE HENEGAN: No.

CHAIRMAN JORDAN: Two.

REPRESENTATIVE BERNSTEIN: Uh-huh.

CHAIRMAN JORDAN: So, now that amends the bill. So, now we'll call the roll in favor -- or as to the bill itself. Does everyone understand that?

REPRESENTATIVE BERNSTEIN: N.

REPRESENTATIVE HENEGAN: No. (Inaudible) try again?

REPRESENTATIVE BERNSTEIN: (Inaudible) --

CHAIRMAN JORDAN: I'm trying.

REPRESENTATIVE BERNSTEIN: Mr. Chairman, for clarification --

CHAIRMAN JORDAN: Sure.

REPRESENTATIVE BERNSTEIN: -- purposes, S. 865 is the Senate bill? Obviously, --

CHAIRMAN JORDAN: That's --

REPRESENTATIVE BERNSTEIN: -- right? If it's S, --

CHAIRMAN JORDAN: -- that's correct.

REPRESENTATIVE BERNSTEIN: -- it's -- right. And so, we've just amended it with our alternative plan, and now we're taking a vote on the amended version of S. 865.

CHAIRMAN JORDAN: That's correct.

REPRESENTATIVE BERNSTEIN: Is that correct?

CHAIRMAN JORDAN: That's correct.

MS. DEAN: (Inaudible) roll call is required and ordered?

CHAIRMAN JORDAN: Yep.

MS. DEAN: Okay. Representative Jordan?

CHAIRMAN JORDAN: Aye.

MS. DEAN: Representative Bamberg? Not voting. Representative Bernstein?

REPRESENTATIVE BERNSTEIN: No.

MS. DEAN: Representative Collins?

REPRESENTATIVE COLLINS: Aye.

MS. DEAN: Representative Elliott?

REPRESENTATIVE ELLIOTT: Aye.

MS. DEAN: Representative Henegan?

REPRESENTATIVE HENEGAN: No.

MS. DEAN: Representative Weston Newton?

REPRESENTATIVE W. NEWTON: Aye.

MS. DEAN: By a vote of four to two, 865 passes as amended.

CHAIRMAN JORDAN: Alright, so now we're technically on 4492, and let me explain that briefly. It's the same technical language. It's just giving us two vehicles in which, procedurally, once we get to the house floor, we have options procedurally on that. So, again, it's the exact same language we've just -- or map, or version, we've just approved by way of 865. Does that make sense? Yes, sir.

REPRESENTATIVE W. NEWTON: Mr. Chairman? So, we'll need a vote to amend --

MS. DEAN: 449--

REPRESENTATIVE W. NEWTON: -- first?

CHAIRMAN JORDAN: That's correct.

REPRESENTATIVE W. NEWTON: (Inaudible) just like we did.

CHAIRMAN JORDAN: Yep.

REPRESENTATIVE W. NEWTON: And then we'll need a vote to approve --

CHAIRMAN JORDAN: That's exactly right. I just wanted to be --

REPRESENTATIVE W. NEWTON: -- (inaudible) 4492? Okay.

CHAIRMAN JORDAN: That's exactly right.

REPRESENTATIVE W. NEWTON: Got it.

CHAIRMAN JORDAN: And so, I don't know that we need any additional discussion, because we've discussed the nuts and bolts of the legislation. So, at this point I'll entertain a motion. Representative Collins?

REPRESENTATIVE COLLINS: I move to amend H. 4492 with our Congressional House staff plan, alternative number one.

CHAIRMAN JORDAN: Alright, second from Representative Elliott.

MS. DEAN: All those in favor?

CHAIRMAN JORDAN: All those in favor say, "aye." Aye.

REPRESENTATIVE ELLIOT: Aye.

REPRESENTATIVE COLLINS: Aye.

REPRESENTATIVE W. NEWTON: Aye.

CHAIRMAN JORDAN: All those opposed?

REPRESENTATIVE BERNSTEIN: No.

REPRESENTATIVE HENEGAN: No.

CHAIRMAN JORDAN: Alright, 4492 now amended. Oh, --

MS. DEAN: (Inaudible) before us, --

CHAIRMAN JORDAN: -- is before us, --

MS. DEAN: -- roll call is required --

CHAIRMAN JORDAN: -- roll call is --

MS. DEAN: -- and ordered.

CHAIRMAN JORDAN: -- required and ordered.

MS. DEAN: Okay. Representative Jordan?

CHAIRMAN JORDAN: Aye.

MS. DEAN: Representative Bamberg? Not voting. Representative Bernstein?

REPRESENTATIVE BERNSTEIN: No.

MS. DEAN: Representative Collins?

REPRESENTATIVE COLLINS: Aye.

MS. DEAN: Representative Elliott?

REPRESENTATIVE ELLIOTT: Aye.

MS. DEAN: Representative Henegan?

REPRESENTATIVE HENEGAN: No.

MS. DEAN: Representative Weston Newton?

REPRESENTATIVE W. NEWTON: Aye.

MS. DEAN: 4492 receives a favorable as amended.

CHAIRMAN JORDAN: Alright.

UNIDENTIFIED SPEAKER 2: Thank you.

CHAIRMAN JORDAN: That concludes the business of today. Thank you, ladies and gentleman.

UNIDENTIFIED SPEAKER 2: Thank you.

CHAIRMAN JORDAN: Appreciate your time and effort. It's been a long road, let's see if we can't wrap it up later today in full judiciary. Thank y'all very much. The meetings adjourned.

UNIDENTIFIED SPEAKER 2: You probably can't (inaudible).

UNIDENTIFIED SPEAKER 3: (Inaudible).

(End of recording.)

CERTIFICATE

I, Alexandria Brobst, Transcriptionist, do hereby certify that I was authorized to and did listen to and transcribe the foregoing recorded proceedings and that the transcript is a true record to the best of my professional ability.

Dated this 12th day of January, 2022.

/s/ Alexandria Brobst

Alexandria Brobst

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Appendix 9

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[STAMP]
Plaintiffs'
Exhibit
115

Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

HENRY D. MCMASTER, in his official capacity as
Governor of South Carolina; HARVEY PEELER, in
his official capacity as President of the Senate; LUKE
A. RANKIN, in his official capacity as Chairman of
the Senate Judiciary Committee; JAMES H. LUCAS,
in his official capacity as Speaker of the House of
Representatives; CHRIS MURPHY, in his official
capacity as Chairman of the House of
Representatives Judiciary Committee; WALLACE H.
JORDAN in his official capacity as Chairman of the
House of Representatives Elections Law
Subcommittee; HOWARD KNABB, in his official
capacity as interim Executive Director of the South
Carolina State Election Commission; JOHN WELLS,
JOANNE DAY, CLIFFORD J. ELDER, LINDA

222a

MCCALL, and SCOTT MOSELEY, in their official
capacities as members of the South Carolina State
Election Commission,

Defendants.

TRANSCRIPTION OF PROCEEDINGS

Wednesday, January 19, 2022

File Name:

20220119SJudiciaryFullCommittee11673_1.mp4

Run Time: 01:17:25 (hours, minutes, seconds)

SENATOR RANKIN: All right, guys. Ladies and gentlemen, Madam Court Reporter, welcome back. We are going to start this out of orderly called meeting, obviously, due to our delay yesterday. And glad to see everybody's here with us and the sun's shining. Maybe there's a little ice on the road in upstate, I don't know.

But we will now start the full judiciary committee with the single purpose of taking up the congressional redistricting plan. And so, hopefully, before us today will be two options, which the subcommittee last Thursday advanced both to the full committee for debate and consideration.

And so rather than restate the long, long recitation of what has happened with this entire subject beginning in August until today, I will dispense with that and we will go right into the bill itself.

And correct me if I'm wrong, but we have a shell bill 966, which is what we introduced last week to

effectively receive and amend whatever we adopt here today and to get that up and on the floor.

There was a -- and there still is a court deadline effectively, but we're, again, loosely adhering to that, which required at its initial stage that we had to -- the House and Senate had to come to a resolution with a plan by yesterday, the 18th.

That deadline does not appear to be hanging over us here. But nonetheless, we do plan to get this bill out of this committee and to the floor and hopefully see what happens there and get it back to the House.

And so that, procedurally, kind of a little history of where we are and what our intentions are. (Indiscernible) your question.

SENATOR HUTTO: I can -- these are really long. Is there just a picture? Do you have the pictures to go along with this?

SENATOR RANKIN: There are pictures. And those pictures, which is a plan, a map --

SENATOR HUTTO: Yeah, yeah, the map.

SENATOR RANKIN: -- is what you're talking about.

SENATOR HUTTO: That's what I'm asking about.

SENATOR RANKIN: That's -- that was produced on our website, and it is in your notebook as well.

SENATOR HUTTO: It's in the notebook. Okay.

SENATOR RANKIN: Yeah. And so there are two options there: Amendment 1 and Amendment 2 and/or 2A, I guess. So we'll jump into those in a second.

But bottom line, again, our goal is to -- with this shell bill, and then we're going to turn it over to the subcommittee members with their competing plans for our consideration today. Obviously, have the election for these districts set and beginning in 22. We provide for the repeal of the current congressional districts, except that they would be continuing in effect for filling vacancies.

Third, the President, the Senate, and Speaker have an unconditional right to intervene in any state or federal court action concerning these, provide intervening or participating litigation would not be a waiver of our privilege. 24-hour notice from the Attorney General of a complaint concerning the valid -- validity, excuse me, of this act.

Then we authorize and empower the President, the Speaker, again, to employ attorneys for this litigation in the defense of our legislative or congressional districts.

And then, similarly, authorize the President or the Speaker to participate in the litigation regarding the redistricting.

Again, this is -- this -- this -- effectively, the shell bill of what we have before us. And now, we have in your notebooks six tabs, obviously, plan -- a House plan, the Senate Amendment 1 and Senate Amendment 2 and 2A.

So Senator Campsen, as the author of Senate Amendment 1 at our subcommittee, I'm going to turn it over to Senator Campsen Now to discuss that, and then we'll turn it over to Senator Harpootlian on the other side. So Senator Campsen.

SENATOR KIMPSON: (Indiscernible), Mr. Chairman.

SENATOR RANKIN: Senator Kimpson?

SENATOR KIMPSON: Thank you, Mr. Chair. If -- if the Senator could just refer to the tab, if we could just have reference to the tab numbers as we discuss these plans, I'd appreciate it. Thank you.

SENATOR RANKIN: Very good. It looks like you might be in our building. Are you quarantining from one of us in particular or maybe you're not in our building.

SENATOR KIMPSON: I am in the building. I'm just following some protocol. You know, I -- we -- I believe in medicine and the science, and we've got a jam-packed room.

SENATOR RANKIN: Okay.

SENATOR KIMPSON: I'm taking precautionary steps to make sure that my children are not exposed to COVID.

SENATOR RANKIN: Not quibbling with that. You've got the notebook, though, right?

SENATOR KIMPSON: (Nodding affirmatively.)

SENATOR RANKIN: Okay. Good. All right. Senator Kimpson.

SENATOR MALLOY: Mr. Chair, I have a question.

SENATOR RANKIN: Senator Malloy.

SENATOR MALLOY: So the -- the status that we -- that we're in now with this -- with this bill, I just want to make certain that I understand. So we -- so we have the shell that's here before us now, correct?

SENATOR RANKIN: Correct.

SENATOR MALLOY: We have a bill that's returned from the House on the floor. Is that the same bill?

SENATOR RANKIN: It's a Senate bill they returned to us. That is a different number. Is it 860?

UNIDENTIFIED SPEAKER: 865.

SENATOR MALLOY: 865.

SENATOR RANKIN: Yeah.

SENATOR MALLOY: So -- and so the -- so the plan is then to -- to try and pass this bill, but use that as a vehicle?

SENATOR RANKIN: Correct.

SENATOR MALLOY: Okay.

SENATOR RANKIN: We would amend the Senate bill with whatever we adopt here and on the floor and then take that off and send that back to the House.

SENATOR MALLOY: Okay. And so -- and so the -- the only two measures that we have in front of us today is a measure that we have from the Senator from Charleston and the senator from Richland that would be amending this shell bill so that we can have the -- the ability for this committee, 23 of us --

UNIDENTIFIED SPEAKER: (Indiscernible).

SENATOR MALLOY: Excuse me.

UNIDENTIFIED SPEAKER: Yeah.

SENATOR MALLOY: We have the -- the 23 of us to then -- to then adopt, make it a committee -- possibly make this a committee report. Then -- then at some point in time have the committee report attached to the bill in the Senate. Is that -- the bill in the Senate.

UNIDENTIFIED SPEAKER: As passed by the House, yeah.

SENATOR MALLOY: And return from -- from the House that's -- that's already on our calendar.

UNIDENTIFIED SPEAKER: Correct.

SENATOR MALLOY: Okay. And so pardon the inquiry, those are the only two amendments that we have on the -- on the bill here in this committee for --

SENATOR RANKIN: For today's purposes, yes.

UNIDENTIFIED SPEAKER: One is the amendment to (indiscernible), and then there's two (indiscernible) amendments.

SENATOR MALLOY: Okay. And so do we have -- do we know whether or not we have any amendments that are on the bill that is on the floor?

UNIDENTIFIED SPEAKER: Not yet.

SENATOR MALLOY: We don't -- not yet or there is nothing yet?

UNIDENTIFIED SPEAKER: There's nothing yet.

SENATOR MALLOY: Okay. And so the report is that there's no amendments on the floor, so I'm trying to see how you mesh all of this in together to make certain that we can have a process and procedure so that we -- I can adequately follow it.

And then -- and then so both of these amendments that we have from the people that were on the committee, correct?

SENATOR RANKIN: Correct.

SENATOR MALLOY: Okay. All right. Thank you.

SENATOR RANKIN: All right. Senator Campsen.

SENATOR HARPOOTLIAN: Chairman, could I make one further (indiscernible) the Senator from Darlington raised? So the House bill sent back over is -- is not going to be the vehicle --

SENATOR MALLOY: It's the Senate bill.

SENATOR HARPOOTLIAN: Oh, it's the Senate bill returned from the House?

SENATOR MALLOY: Correct.

SENATOR HARPOOTLIAN: Okay. That's -- I wasn't clear on that. I just wanted to make sure. Okay. Great.

SENATOR RANKIN: Senator Campsen.

SENATOR CAMPSAN: Thank you, Mr. President. What I'm about to explain can be found behind Tab 4. That's the Senate Amendment 1 to the House judiciary plan.

This amendment to the House judiciary plan restores key aspects of the senate staff plan and is intended to be responsive to some of the public input received by the subcommittee.

The amendment keeps 36 counties whole and splits 13 VTDs. In the Midlands, the amendment restores the split in Orangeburg County, as drawn in the Senate staff plan, and keeps Calhoun County whole as in the House version.

In Richland County, St. Andrews and the Broad River Corridor are moved back to the Sixth District in the amendment. The amendment also follows the boundaries between Senate Districts 21 and 22 in dividing -- as the dividing line between Congressional Districts 2 and 6 in Eastern Columbia.

In the Lowcountry, the -- in the amendment Jasper, Beaufort, and Colleton counties are -- are kept as drawn in the House judiciary plan with Hardeeville in southern Jasper County and -- in District 6 and all of Beaufort County in the First District.

In Charleston County, the amendment follows natural geographic boundaries such as the Stono River and Wadmalaw sound, adding approximately 16,000 people in Wadmalaw Island and Johns Island to the First District, moving them from the Sixth.

The entire peninsula of North Charleston are in the Sixth Congressional District with the Cooper River as a natural boundary between the First and the Sixth.

The West Ashley portion of Charleston County is also whole in Congressional District Six, separating West Ashley from James Island and Johns Island following the Stono River.

Rural areas in western Dorchester County moved from the First District to the Sixth in the amendment, along with the West Ashley portion of Dorchester County. Ridgeville remains in the Sixth District as drawn in the House judiciary version of the plan.

More of a rural Berkeley County -- more of rural Berkeley County around Lake Moultrie is added to the First District moving it from the Sixth.

And you have a picture of the -- of the plan behind Tab 4.

SENATOR RANKIN: All right. Any questions?

SENATOR HUTTO: I have one.

SENATOR RANKIN: Senator Hutto.

SENATOR HUTTO: So I've seen several maps that -- that keep Charleston whole or at least keep Charleston and Columbia out of the same district. It just seems to me with the three major metropolitan areas that you shouldn't have one congressional district that spans two of those metropolitan areas.

Can you speak to that? I mean, why would we draw a district that's got Charleston and Columbia in the same district?

SENATOR CAMPSER: Well, that district is really still the -- kind of was drawn in the 1990s originally, the genesis of this district. It's been changed over time. Was reaffirmed in 2012 in the Bacchus decision.

And the issue is you have so much population in the urban areas that you -- you need to -- you need to use that population. It's hard to keep that population whole.

You have -- you have Spart -- Greenville/Spartanburg is split. Columbia's split. All the major -- major metropolitan areas really are (indiscernible).

SENATOR HUTTO: You're talking about county is split.

SENATOR CAMPSER: Right.

SENATOR HUTTO: But Greenville and Spartanburg are whole within the Fourth, the cities. Why can't the City of Charleston be in one and the City of Columbia be in a separate one? Why do they need to be in the same one?

SENATOR CAMPSER: Well, we're following -- this is a -- you know, a least amount of change with regards to that dynamic of the Sixth District.

SENATOR HUTTO: All right. So -- so you're saying -- saying that they -- we're just following the least change mode as opposed to --

SENATOR CAMPSSEN: No, I'm saying --

SENATOR HUTTO: And I understood our parameters --

SENATOR CAMPSSEN: I'm saying that's one --

SENATOR HUTTO: -- for trying to keep cities whole.

SENATOR CAMPSSEN: I'm saying that is one -- that is one factor.

SENATOR HUTTO: All right. But isn't another factor to try and keep --

SENATOR CAMPSSEN: Constituent consistency is what (indiscernible).

SENATOR HUTTO: Right. Okay. Thank you.

SENATOR RANKIN: Senator Kimpson.

SENATOR KIMPSON: Yes. Thank you, Mr. Chairman. Senator, can you just -- can you just explain to me the change in BVAP from the current way the lines exist versus this proposal? Do you understand the question?

SENATOR CAMPSSEN: Yeah. The current -- the current is 51 percent, and the map is 45 percent.

UNIDENTIFIED SPEAKER: In the Sixth.

SENATOR CAMPSSEN: In the Sixth.

SENATOR KIMPSON: Oh, the current -- and I'm talking about with respect to District 1.

SENATOR CAMPSSEN: Oh, with District 1.

SENATOR KIMPSON: Yeah, and (indiscernible) --

SENATOR CAMPSEN: If I'm correct --

SENATOR KIMPSON: (Indiscernible) the map, the black voter participation under the current map change are (indiscernible).

SENATOR CAMPSEN: It's -- the BVAP in the First goes from 16.56 to 16.72.

SENATOR KIMPSON: So currently on 16 --

SENATOR CAMPSEN: So virtually unchanged.

SENATOR KIMPSON: Okay.

SENATOR CAMPSEN: Virtually unchanged.

SENATOR KIMPSON: So currently, it's 16.5 percent. Under the new map, it would be 16.7 percent under your proposal, correct?

SENATOR CAMPSEN: Correct.

SENATOR RANKIN: Senator Stephens.

SENATOR STEPHENS: Senator, looking at your map, your amended -- your amendment, looking at BVAP and WVAP, it appears, though, in the Sixth Congressional District, WVAP is 44.5 and BVAP is 45.9.

What's the -- what's the -- what's the premise behind that, understanding that the Sixth Congressional District was basically a minority drawn district.

With this map, you will practically lose about -- when you're going from 51 percent BVAP to 40, 45, you're talking about a 6 percent decrease in the -- the voter population of African Americans.

SENATOR CAMPSEN: Well, it goes from -- it goes from 51.4 to 45.9 is what it does. And it's -- it's

because you had to shed 100,000 voting age population because of population grows -- growth.

SENATOR STEPHENS: And is a great number of that -- as I look at -- I'm looking back and forth between the two maps. Looking at the -- I guess you can call it the eastern side of Berkeley County is where you picked up quite a few voters on your -- on this particular map, if I'm looking at it right.

SENATOR CAMPSSEN: On the -- say that again, on what?

SENATOR STEPHENS: Okay. On your --

SENATOR CAMPSSEN: Where?

SENATOR STEPHENS: On your amended map, I'm looking at Berkeley County and the addition of the eastern side of Berkeley County added into -- well, taken away, actually, from District Number 6 and now reside in District Number 1. Is that correct from what I'm seeing?

SENATOR CAMPSSEN: Yes.

SENATOR STEPHENS: And not looking at the numbers yet, but do you know off the top of your head how many -- what the population shift from -- from that area? I think that's -- that's one of the fastest growing areas in the --

SENATOR CAMPSSEN: I can tell you districtwide. I don't have it at the top of my head as far the -- districtwide it was 100,947 voting age population went from the First to the Sixth.

SENATOR STEPHENS: And was the premise behind this amendment to make the district more competitive? And I'm talking about District Number 6 and District Number 1.

SENATOR CAMPSEN: Now, the goal was to adhere to our redistricting principles, which include continuity of representation, constituent consistency, following geographic boundaries.

Like on the amendment that I offered there, the following of geographic and boundaries was a -- a major change that -- an improvement that we've made from what the House passed.

SENATOR STEPHENS: So with that being said, do we not think that the southern part of Colleton County and Jasper County need to be given the same consideration, as I see that they went from the Sixth Congressional District to the First Congressional District? It's just a question.

SENATOR CAMPSEN: Well, you have -- you -- another principle is -- is communities of interest, and you do have along -- along that coastline, you do have communities of interest, communities in those counties dealing with similar issues like flooding and hurricanes and beach re-nourishment and things like that.

And that also is the -- the set -- the First District traditionally has -- has gone down into that area of Colleton and -- and Beaufort Counties and Jasper.

SENATOR STEPHENS: Okay. Thank you, Senator. Thank you, Mr. Chair.

SENATOR RANKIN: Senator Margie Bright Matthews.

SENATOR MATTHEWS: Thank you, Mr. Chair. Senator Campsen, just a couple of questions looking at your map. You -- can you just, for those people who might not know this, tell us the areas in the Lowcountry that you represent. And with that,

explain why it is important that you have a -- you represent a community of interests in your senate district. Just give us an overview of your areas.

SENATOR CAMPSEN: Yeah, well, I represent parts of Charleston, Colleton, and Beaufort Counties.

SENATOR MATTHEWS: And you were --

SENATOR CAMPSEN: And I represent the -- the coastal port -- portions, largely, although inland portions in -- in Mount Pleasant -- although Mount Pleasant is -- is certainly near the coast or on the harbor, and down to Port Royal Sound. So my -- my Senate district goes from Bulls Bay down to Port Royal Sound.

SENATOR MATTHEWS: And one of the tenets of your representation of this area is primarily you scan an area that basically are on the coastline and represent communities of interests that would be concerned with conservation in that area, as well as all of the things that you deal with as chair of the committee ag -- not agriculture.

SENATOR CAMPSEN: Fish, Game and --

SENATOR MATTHEWS: Fish -- I should not call it feathers and whatever committee, but Fish, Game, and Forestry committee. Those are things that are important. Other things are important, but those are things that are important to your constituents in your senate district, correct?

SENATOR CAMPSEN: That's correct, yes.

SENATOR MATTHEWS: And that is why when advocating for the way that you wanted to make sure that your -- your senate district continued in the -- after this last census evaluation, you wanted to make

sure that your communities of interest remained the same, correct?

SENATOR CAMPSEN: Yes.

SENATOR MATTHEWS: And so you would agree that we -- when this subcommittee, when we looked at the congressional maps, particularly in our area, the area that you and I -- we serve on a lot of the same delegations in the Lowcountry, you would agree that one of the primary things that we started out in -- in our subcommittee when looking at the numbers, you would agree that we saw very clearly from the census that the middle of South Carolina, the inland portions of South Carolina, we saw a pattern of them losing census numbers as opposed to gaining.

SENATOR CAMPSEN: That's correct.

SENATOR MATTHEWS: And you would agree that in areas up near York County, you would also agree that areas near Greenville, Georgetown, Horry, Charleston, and Jasper showed a significant pattern of having -- being areas that experienced the greatest number of increase in population? You would agree with that?

SENATOR CAMPSEN: Yes.

SENATOR MATTHEWS: And you would also agree that considering the pattern there, that the Lowcountry, particularly those areas such as Jasper County, Sun City area, Beaufort, Hilton Head, you would agree that Charleston, Georgetown, Myrtle Beach had the greatest degree of increase in population because of an influx of folks to the Lowcountry?

SENATOR CAMPSEN: Horry County had the largest growth by --

SENATOR MATTHEWS: Correct.

SENATOR CAMPSEN: -- a wide margin.

SENATOR MATTHEWS: Yeah, I get that. What I'm saying is generally there was a pattern there that people wanted to be on the water?

SENATOR CAMPSEN: That's correct.

SENATOR MATTHEWS: Okay. Now, what I am having -- and you would agree that there's a content - - contiguity issue as it relates to an analysis of what we have to go to -- go through in redrawing or either amending the maps? Was there -- is that true?

SENATOR CAMPSEN: Yes.

SENATOR MATTHEWS: Was there a significant consideration that you felt that needed to be -- that we placed as a priority at the initial outset of redrawing these maps that we were going to leave -- we wanted to leave representation as it was because wasn't that one of the primary things that the League of Women Voters, as well as a lot of other folks that came to us and said, hey, we want to make sure that community of interests work together, not necessarily protecting the same elected folks that represented an area. Isn't that right?

SENATOR CAMPSEN: Well, that is one of the issues. Continuity of representation is one of the issues.

SENATOR MATTHEWS: As you sit --

SENATOR CAMPSEN: (Indiscernible) principles.

SENATOR MATTHEWS: -- here today, which do you think is most important, making sure that a district remains the same or following the flow of the census data?

SENATOR CAMPSEN: Well, one -- they -- one is no more important than the other. There is a panoply or redistricting principles that are brought to bear. And there has to be -- there's no -- there's equal weight with regards to these principles that you're referring to.

SENATOR MATTHEWS: In your opinion, there is --

SENATOR CAMPSEN: Well, not --

SENATOR MATTHEWS: -- equal weight?

SENATOR CAMPSEN: -- when it comes to certain issues like Voting Rights Act and things like that but when it comes to communities of -- communities of interest.

SENATOR MATTHEWS: Well, Senator, I -- I'm in Colleton County. You represent a portion of Colleton County. I also represent Hampton and Jasper, as well as Charleston. I do not represent Berkeley.

But I sat, as you did, through several hours' worth of public hearings. And I seem to remember, as I took copious notes like yourself, that we had speaker after speaker -- and I understand some folks have gotten together and had folks to send in written comments.

But I sat through and I listened over and over to a lot of the folks that came before our committee that said, number one, they wanted to keep Charles -- they thought that the -- one of the proposed maps that kept Charleston whole went along with the principle of keeping that community of interest together. Did -- were you present at those hearings?

SENATOR CAMPSEN: Well, I've heard that and I've also heard people say they -- they'd rather have two congressmen representing them than one.

SENATOR MATTHEWS: I heard that --

SENATOR CAMPSEN: Because two advocates are better than one. I've heard that principle, too.

SENATOR MATTHEWS: I had -- I heard that from a couple of people. It seems like we had people in Berkeley County wanting to be aligned with Charles -- be in the same congressional district as Charleston. But they didn't necessarily say anything about the congressman they would have. It seems like they wanted to be with Charleston because of an economic alliance agreement that they had in place. And --

SENATOR CAMPSEN: Well, there is -- there is -- as you know, there's the tri --

SENATOR MATTHEWS: That has --

SENATOR CAMPSEN: It's been referred to as the tri-county area for decades, and so they're economically inter --

SENATOR MATTHEWS: But we --

SENATOR CAMPSEN: -- twined.

SENATOR MATTHEWS: Follow me if you would. I heard Berkeley kept saying that they liked the fact that they were in an economic alliance, and that was basically members of county -- different county councils and town councils that said those things.

But we didn't hear Charleston saying that they needed -- they thought that they had a community of interests in common with Berkeley. It seems like one

loved the other one, but the other one -- the love wasn't necessarily returned.

SENATOR CAMPSEN: I -- I -- that's not my recollection. In fact, if you look at the tri-county area, you have untold number of public and private entities that even refer to themselves. The Tri-County Chamber of Commerce, the Tri-County Board of Realtors, the --

SENATOR MATTHEWS: Well, we have --

SENATOR CAMPSEN: -- Tri-County Council of Governments and -- because they're -- because they're an economic engine that are inextricably intertwined, so.

SENATOR MATTHEWS: Okay. So if we follow that economic engine, we have the Southern Carolina Alliance that has Beaufort, Jasper, Colleton, Hampton, Bamberg, Barnwell. So if we follow that economic alliance analysis, then we're going to say that we're going to move the Second into that, and because that's the same -- that's -- that's the same economic alliance.

What I'm trying to say is throughout the state of South Carolina, there are a lot of alliances for different reasons, mostly economic. My -- my biggest problem here is, number one, we have -- it appears that this is a -- and -- and I might be wrong.

According to the numbers, it appears that this is a typical gerrymandered Congressional Seat 6 where you packed all of -- you went in under -- into Charleston and pulled out areas of West Ashley and other areas in North Charleston just to put blacks into Congressional District 6.

And it creates a -- it looks like -- I don't know what it -- it looks like a funky boot print that goes into Congressional District 1.

SENATOR CAMPSEN: Well, Senator, I can tell you the statistics don't bear that out.

SENATOR MATTHEWS: Well, they don't, well, if you look at --

SENATOR CAMPSEN: Because -- because --

SENATOR MATTHEWS: Sorry.

SENATOR CAMPSEN: Because of the 100,947 voting age population that went from the First to the Sixth, 66 percent were white and 22 percent were black.

SENATOR MATTHEWS: Well, let's not -- since you brought up that, let's -- what is the Biden -- Biden/Trump numbers from the First Congressional District that you have?

SENATOR CAMPSEN: Trump numbers are 54.39, and the Cook Political Report has it at 52.1 Trump, so two different sets of metrics. But within the margin of error of poll -- of any poll.

SENATOR MATTHEWS: Okay. And so what's the Democratic versus the Republican for the First District as drawn and the way it was?

SENATOR CAMPSEN: I'm not sure what -- which metric are you wanting to use?

SENATOR MATTHEWS: Whatever one that was made available to all the committee members, because I don't necessarily believe that we had the different metrics that you're referring -- that were presented to our subcommittee. I just want to make sure we're on the same page.

SENATOR CAMPSEN: Well, the benchmark was 53.03.

SENATOR MATTHEWS: For?

SENATOR CAMPSEN: Trump. That's the benchmark. And under the amendment it's 54.39, so it's a little over 1 percentage point change.

SENATOR MATTHEWS: So --

SENATOR CAMPSEN: It's not a massive change.

SENATOR MATTHEWS: So --

SENATOR CAMPSEN: So under the benchmark, the Trump numbers in the First were 53.03. Under Amendment 1, they're 54.39.

SENATOR MATTHEWS: Well, I'm going to tell you where I have a big problem. The biggest problem I have if -- if you're going to -- you -- I listened to you carefully, and you said: Conservation issues is an important issues. Constituent consistency.

It would appear that if we're going to go along with the coastline being the First Congressional District, and that's always been one of the things that they've campaigned on and championed for, it would appear that the least appropriate extension of the congressional -- First Congressional District, the last thing you would want to do would go up into Berkeley.

Instead, you would want to go into Georgetown because that is on the coast, and that would have accomplished the numbers that you needed. But instead, it appears that Congressional District Six is broken up by that water pattern there. I assume that is Santee where it separates Clarendon verse -- from Calhoun. And you jump over to Santee Calhoun to

take the Sixth Congressional District into -- all the way from Clarendon into Williamsburg.

SENATOR CAMPSEN: Well, a big -- a big part of Berkeley is currently in the First in the benchmark. And as far as why -- why did these changes have to happen is because you had -- you had about 80,000 people that the Sixth had to pick up. You had about 80,000 people that the First had to -- had to shed.

SENATOR MATTHEWS: And those 80,000 --

SENATOR CAMPSEN: And that's why we had -- that's why these changes are happening, because of the 14th Amendment requirement of one man, one vote.

And unlike our districts where we can have a 5 percent variation, these districts -- when it comes to congressional districts, a one person deviation is all you can have, which makes it even much more -- more difficult.

But when you have that type of population growth in a -- in a district that is juxtapositioned next to one that had about the same amount of population loss, you're going to have -- you're going to have to have some changes to comply with the 14th Amendment.

SENATOR MATTHEWS: Last question, Senator -- my last -- next to the last question. My problem is then -- and I understand the 1 percent deviation on congressional maps.

SENATOR CAMPSEN: It's one person, not 1 percent.

SENATOR MATTHEWS: One person deviation on congressional maps, then that could also have been accomplished by keeping Jasper -- keeping Hilton Head, Sun City on the coast in the First

Congressional District, and giving -- and those 80,000 people were there and available in Berkeley. Keep it - - that could have gone to the Sixth Congressional District. I mean, it's just -- just a matter of moving the numbers. Isn't that correct?

SENATOR CAMPSEN: Well, there are a lot of ways you can draw a -- a reapportionment map, no matter which -- whether it's congressional or state legislative. That's for sure.

SENATOR MATTHEWS: This is my last question. But you are exactly right, there are a lot of ways that you could draw.

Am I correct in understanding that this particular map that is -- that we're talking about that House Plan to Senate Amendment 1 that you've just presented to us, is this not the same map that was presented and recommended by the National Republican Party?

SENATOR CAMPSEN: No. I've had --

SENATOR MATTHEWS: This is not the one that was presented ins subcommittee?

SENATOR CAMPSEN: I've had no -- I've had no communication with them on redistricting.

SENATOR MATTHEWS: Well, that's not my question.

SENATOR CAMPSEN: But I -- no, I --

SENATOR MATTHEWS: Is this the same one that was presented at our House -- our Senate subcommittee meeting when you were chair --

SENATOR CAMPSEN: No, it's not.

SENATOR MATTHEWS: Okay. Okay. Thank you.

SENATOR CAMPSEN: This is much improved over that.

SENATOR MATTHEWS: Thank you.

SENATOR HARPOOTLIAN: Senator, let me make sure we understand the land -- the legal landscape in 2021 and '22, as compared to 2010 and 2012. It is very different, is it not?

SENATOR CAMPSEN: The -- the -- what landscape?

SENATOR HARPOOTLIAN: The legal landscape, the scrutiny, the legal -- the legal framework for these reapportionment plans.

SENATOR CAMPSEN: Versus 2010?

SENATOR HARPOOTLIAN: Yes.

SENATOR CAMPSEN: There are some changes, yes.

SENATOR HARPOOTLIAN: Well, major changes.

SENATOR CAMPSEN: There are some significant changes.

SENATOR HARPOOTLIAN: So Section 3 -- Section 4 and 5 of the Voting Rights Act is no longer, is it -- isn't that correct?

SENATOR CAMPSEN: That's correct.

SENATOR HARPOOTLIAN: And as a result, there's no Justice Department preclearance, right?

SENATOR CAMPSEN: That's correct.

SENATOR HARPOOTLIAN: There's no prohibition against retrogression, given as long as it meets Section 2 analysis, correct?

SENATOR CAMPSEN: As long as the subject of that analysis, that's correct.

SENATOR HARPOOTLIAN: So when we talk about redistricting and -- you know, I don't need to bore you with the history of how we got to the racial preference issues beginning in 1988 with the Justice Department insisting on minority/majority districts. You would agree with me that this process began 30-something years ago, correct?

SENATOR CAMPSEN: That -- that resulted in the drawing of the first in the '90s? Yes.

SENATOR HARPOOTLIAN: Right.

SENATOR CAMPSEN: It did.

SENATOR HARPOOTLIAN: And so with the with the elimination of Section 4 and Section 5, we don't have that kind of analysis. Really, all we have now is the Gingles analysis. Are you familiar with the Gingles case?

SENATOR CAMPSEN: I'm familiar with the Gingles case.

SENATOR HARPOOTLIAN: And so what you really want to know is whether there is racial bloc voting, I mean, in terms of adjusting these districts. I mean, it's instead of worrying about what the percentage of African American vote is, you want to know whether there's racial bloc voting; is that correct? In other words, will -- is there a group of white people that would never vote for black people? And you can do that, and that analysis is done all the time.

SENATOR CAMPSEN: Is this the third Gingles test?

SENATOR HARPOOTLIAN: Is that correct?

SENATOR CAMPSEN: That's -- generally, that's my understanding of it.

SENATOR HARPOOTLIAN: Okay. Was there any racial bloc voting analysis done? If so, by who? Was there an expert? Typically, they're experts involved. Was there any racial bloc voting analysis done in the -- in compiling this plan?

SENATOR CAMPSEN: Well, that's not for -- that's something that would happen if and when a plan is litigated. As far as that analysis that -- I'm not aware of that being done here, but that's something that -- that would be what a -- a plaintiff, if they were to file suit against this, would -- would provide and argue.

SENATOR HARPOOTLIAN: Well, you -- well, I understand that would be something raised by somebody in a lawsuit. But assuming we're trying to avoid a lawsuit, wouldn't it have been productive to get racial bloc voting analysis done so that we all understand whether or not to -- to in create -- in creating this -- this --

SENATOR CAMPSEN: Well --

SENATOR HARPOOTLIAN: -- plan, that that -- that was not a factor that --

SENATOR CAMPSEN: Well, I have it -- it would have resulted in us perhaps taking race into account and having racial targets, which would be --

SENATOR HARPOOTLIAN: Acceptable under Gingles?

SENATOR CAMPSEN: No. That's -- that's an analysis that -- that the Court is -- is to apply. But we are -- we are to not take race primarily into account in drawing this.

SENATOR HARPOOTLIAN: Primarily.

SENATOR CAMPSEN: And I took it hardly at all into account.

SENATOR HARPOOTLIAN: Well, but every -- every --

SENATOR CAMPSEN: And it's up to -- it's up to up to a Court if someone files an action to make that -- to do that analysis and do -- and make that claim. But we don't want to get -- we don't want to draw districts on the basis of race. We want to draw it on the basis of -- of other redistricting principles.

SENATOR HARPOOTLIAN: So why do we have race in any of this analysis? I mean, when I -- the analysis, I've got page after page on all these plans.

SENATOR CAMPSEN: The staff have -- I mean, they -- they provide that.

SENATOR HARPOOTLIAN: Why?

SENATOR CAMPSEN: As far as looking at drawing districts, I didn't -- I didn't consider any of that. I wanted them to tell me if we were in a -- if we had any problems, you know, with --

SENATOR HARPOOTLIAN: But how would you --

SENATOR CAMPSEN: -- Gingles or anything else. But I wanted to be colorblind.

SENATOR HARPOOTLIAN: Well, but you weren't colorblind, were you?

SENATOR CAMPSEN: It can be a factor, but it's not a predominant factor.

SENATOR HARPOOTLIAN: But if you had done --

SENATOR CAMPSEN: A racial (indiscernible) would factor --

SENATOR HARPOOTLIAN: -- a racial bloc voting analysis, you would have -- you could have determined whether or not race was a factor that -- that should have been taken into consideration. If you did -- I mean, if the analysis as it was in 1988 or '86 when I ran for county council, virtually no white person would vote for a black person, period, in Richmond County.

And so that's why we went to single member districts. That analysis was done. You don't think we should have done that analysis before drafting this plan? And if your answer is no, I'll move on.

SENATOR CAMPSSEN: Well, I know you wanted -- you wanted that, but I think the subcommittee decided not to do that.

SENATOR HARPOOTLIAN: I understand (indiscernible).

SENATOR CAMPSSEN: It was not my decision, but it was a subcommittee decision.

SENATOR HARPOOTLIAN: But in drafting this plan, you did not take into consideration any racial bloc voting analysis and --

SENATOR CAMPSSEN: We did not do that analysis, as the subcommittee conclude -- decided that we would not.

SENATOR HARPOOTLIAN: Right. So would that - - that idea to even do racial bloc analysis was rejected by the subcommittee and, therefore, was not a consideration in your plan, two plans. But -- but there are two plans. In this plan, correct? Okay.

So let me move on to -- we talked about Gingles and the radical change in the analysis being done by a Court. This plan splits 10 counties, is that correct?

SENATOR CAMPSEN: It's 13.

SENATOR HARPOOTLIAN: 13. Eight of those are in the Sixth District, is that correct, Or bordering the Sixth District? Eight of the 13.

SENATOR CAMPSEN: I'd have to get you that number. I'm not exactly sure at this point.

SENATOR HARPOOTLIAN: I looked at it. It looked like eight to me.

SENATOR CAMPSEN: Okay.

SENATOR HARPOOTLIAN: Eight --

UNIDENTIFIED SPEAKER: Counties.

SENATOR HARPOOTLIAN: -- counties split to accommodate the plan's outline of Congressional District Six. Eight of the -- eight of the 13.

SENATOR CAMPSEN: Okay. Yeah, some staff says it's eight.

SENATOR HARPOOTLIAN: And in -- for instance, in -- you would agree with me that -- that the Sixth District basically goes from the Atlantic Ocean to now within a couple miles of Lake Murray; is that correct?

SENATOR CAMPSEN: Well, it's not right on the ocean, but close.

SENATOR HARPOOTLIAN: How -- how far --

SENATOR CAMPSEN: From the harbor, from Charleston Harbor.

SENATOR HARPOOTLIAN: I'm sorry. In our -- Midland's view, the harbor is the ocean.

SENATOR CAMPSEN: From the coastal view, the ocean is at -- east of the beach.

SENATOR HARPOOTLIAN: The water.

SENATOR CAMPSSEN: Yes.

SENATOR HARPOOTLIAN: Well, I mean, that's a -- but it goes from the Charleston Harbor to the Lake Murray Marina. I mean, I guess it's for -- you're looking for somebody with sea -- sea legs or ocean background, water background, sailing background, would be more suited because those two ends are where you can sail a boat, right? I mean, it doesn't --

SENATOR CAMPSSEN: You can't really sail a boat up at Lake Murray, but --

SENATOR HARPOOTLIAN: No, but you can sail a boat in Lake Murray.

SENATOR CAMPSSEN: Yes, you can.

SENATOR RANKIN: Real quick, I'm going to interrupt. You were stating that the number of county splits was what in this plan -- in his plan?

SENATOR CAMPSSEN: 13.

SENATOR RANKIN: Perhaps you're right. Staff's count is 10.

UNIDENTIFIED SPEAKER: 10 statewide.

SENATOR RANKIN: 10 statewide. Are you talking about within the First Congressional District?

UNIDENTIFIED SPEAKER: No.

SENATOR HARPOOTLIAN: No, I'm saying 10 statewide, and Eight of the ten --

SENATOR RANKIN: Are in the Sixth?

SENATOR HARPOOTLIAN: In the Sixth. Am I correct (indiscernible).

SENATOR RANKIN: In the existing benchmark, they're nine.

SENATOR HARPOOTLIAN: Okay. Let's -- let's talk about the existing benchmark.

SENATOR RANKIN: And I'm not trying to --

SENATOR HARPOOTLIAN: No, no.

SENATOR RANKIN: -- get buried in that minutia, but, again, just for -- to correct the record, it's ten and eight.

SENATOR HARPOOTLIAN: Right, right.

SENATOR RANKIN: Okay.

SENATOR HARPOOTLIAN: So -- so the -- let's talk about the existing --

SENATOR RANKIN: Talk into your mic. There's a Senator in the front can't hear you. Please, sir.

SENATOR HARPOOTLIAN: Which one?

SENATOR RANKIN: The One that is most important for you at this moment.

SENATOR HARPOOTLIAN: So we have this concept apparently in this plan that what -- what -- I mean, they're core constituencies, I understand that, but that we shouldn't -- we should minimize changing the -- a plan that was approved in 2012; is that correct?

SENATOR CAMPSER: Well, no, I -- it's just an application of the constituent consistency of a district, that that's a reapportionment principle that you have -- honor lines that have previously been established. And -- and the -- and the district has changed over time, but it's changed on the margins over time is what's happened.

SENATOR HARPOOTLIAN: Well, there's some dispute about that. But more importantly, you would concede, I assume --

SENATOR CAMPSEN: And with the population, you have to have a lot of -- more change with the population growth.

SENATOR HARPOOTLIAN: You would concede that old plan, the benchmark plan, was the product of Justice Department preclearance, 2000 (indiscernible)?

SENATOR CAMPSEN: It was -- it was a three-judge panel that approved it in the Bacchus decision.

SENATOR HARPOOTLIAN: (Indiscernible) included a Justice Department review and then a -- a judicial panel?

SENATOR CAMPSEN: Yeah. You had a Justice Department preclearance requirement at that time. And -- and -- and then it was after that was accomplished, it was litigated and upheld by a three-judge panel.

SENATOR HARPOOTLIAN: But we don't -- we're not operating under those constraints anymore, are we, with Section 4 and 5 gone? (Indiscernible) --

SENATOR CAMPSEN: But you're still subject to Section 2.

SENATOR HARPOOTLIAN: Section 2.

SENATOR CAMPSEN: But yeah, but the preclearance part is not there.

SENATOR HARPOOTLIAN: Right. Well, not only the preclearance part, but the input of the Justice Department, and the likelihood of litigation is much

less under -- under the current -- the current scheme, right, because all that's left is Section 2.

SENATOR CAMPSSEN: I wouldn't say that. It may be more, actually.

SENATOR HARPOOTLIAN: Well, if you draw plans like this, it is. So my -- I guess -- I'm sorry. Going too long?

What I'm trying to get at is this. Honoring a plan which was constructed under law that no longer exists is what -- is what the benchmark plan is. The benchmark plan was drawn by the courts in concert with inter -- inter -- a plan that had been criticized by the Justice Department; is that correct?

SENATOR CAMPSSEN: Well, it was upheld by a Court in 2012, as recently as 2012.

SENATOR HARPOOTLIAN: Right. So they blessed it. But the plan was as a result of Justice Department objections or not?

SENATOR CAMPSSEN: In 2012?

SENATOR HARPOOTLIAN: Yes.

SENATOR CAMPSSEN: I -- I don't think so, but I'm not certain about that.

SENATOR HARPOOTLIAN: I guess what I'm saying is this, this is the first time we haven't had to worry about retrogression, correct?

SENATOR CAMPSSEN: You still have to worry about retrogression.

SENATOR HARPOOTLIAN: Only under a Section 2 analysis.

SENATOR CAMPSSEN: Well, yes.

SENATOR HARPOOTLIAN: And you can't really tell about that unless you've done racial bloc voting analysis, but we're not going to go back through that again, because you can't do the Section 2 analysis.

SENATOR MALLOY: It appears the court reporter is having a little bit difficulty hearing.

THE COURT REPORTER: No, it's good. It's just when you completely turn your face away.

SENATOR HARPOOTLIAN: I was -- I was just -- I was brought up to look at people when I talk to them.

SENATOR MALLOY: If she brought up -- they've got to record this.

THE COURT REPORTER: I feel you, but I've just got to get it down.

SENATOR HARPOOTLIAN: Well, I'll speak much louder then.

UNIDENTIFIED SPEAKER: Maybe what you're saying is --

SENATOR HARPOOTLIAN: Senator Talley is -- is -- whatever he can tolerate.

UNIDENTIFIED SPEAKER: All right. Senator Harpootlian.

SENATOR HARPOOTLIAN: Okay. So -- and it's interesting to me, continuity is -- is a issue, a standard we're looking at, right?

SENATOR CAMPSER: Yes.

SENATOR HARPOOTLIAN: And you would agree that in your plan, you -- there is a -- let me make sure I don't get this wrong. But there is a part of the -- your plan in which the contiguity is met by crossing the Cooper River; is that correct?

SENATOR CAMPSSEN: Well, yes. And you -- that's -- that's something that's a characterization that's endemic to the Lowcountry. We have rivers all over the Lowcountry. But communities -- but communities still are considered the same community, even though they cross a bridge, they drive across the bridge.

SENATOR HARPOOTLIAN: Did you look at -- did you analyze whether or not you could meet that same -- those necessities by using land, rather than water? Is there any analysis, written analysis?

SENATOR CAMPSSEN: It's very difficult in the Lowcountry.

SENATOR HARPOOTLIAN: But has that -- was that analysis done?

SENATOR CAMPSSEN: That was considered. But again, in the Lowcountry it's almost -- it's just a function of geography and nature.

SENATOR HARPOOTLIAN: So are there -- by the way, is there written communications or analysis done by staff on this plan that you were -- that you were given? For instance, why you go by water rather than land.

SENATOR CAMPSSEN: I have nothing. I know that water continuity is permitted under the reapportionment principles, but that's -- that's the only written document.

SENATOR HARPOOTLIAN: But no analysis -- no analysis of whether meeting the same goals could have been done by crossing land rather than water?

SENATOR CAMPSSEN: Well, if you don't cross water in Charleston, you're going to end up with districts that go --

SENATOR HARPOOTLIAN: So your answer's (indiscernible).

SENATOR CAMPSSEN: -- all the way to Newberry County probably.

SENATOR HARPOOTLIAN: So your answer -- your answer would be no?

SENATOR CAMPSSEN: No to what question?

SENATOR HARPOOTLIAN: If there was no analysis of -- could you meet the same goals by crossing land rather than water.

SENATOR CAMPSSEN: Well, there were at times discussions about that, but --

SENATOR HARPOOTLIAN: Where?

SENATOR CAMPSSEN: Where geographically?

SENATOR HARPOOTLIAN: No. I mean, I wasn't privy to any discussion.

SENATOR CAMPSSEN: Well, I mean, in -- I've discussed -- you spent time with staffs discussing, you know, maps, and I have as well, so.

SENATOR HARPOOTLIAN: (Indiscernible).

SENATOR CAMPSSEN: I know you have -- you have your own map you're going to present, but --

SENATOR HARPOOTLIAN: Yeah. I had to pay somebody to do it.

SENATOR CAMPSSEN: Yeah.

SENATOR HARPOOTLIAN: But that's okay.

SENATOR CAMPSSEN: You didn't have to, Senator, but --

SENATOR HARPOOTLIAN: Oh, I think so. I think I had to because we are about to do something,

perpetuate a racist scheme for the next 10 years, which we had to live with. One of the reasons I ran -- the major reason I ran for the Senate was that we would not replicate this race-based gerrymandering, and that's what this plan does.

SENATOR RANKIN: All right, Senator. Questions, please.

SENATOR HARPOOTLIAN: Well, he asked me. I'm responding.

SENATOR RANKIN: All right. So any more questions?

SENATOR HARPOOTLIAN: I do.

SENATOR RANKIN: All right.

SENATOR HARPOOTLIAN: So -- and I'm going to wrap this up fairly quickly. I know you'll be happy to hear. How many municipal boundaries were -- were divided under your plan?

SENATOR CAMPSSEN: Let me get that data. 13.

SENATOR HARPOOTLIAN: 13. Can -- could it have been less? Could you have designed a plan with less municipal divisions?

SENATOR CAMPSSEN: It's 22. Well, you -- theoretically, I'm sure you could always devise a plan with -- with less splits. That'd be possible, but --

SENATOR HARPOOTLIAN: You would agree with me that our guidelines were that we should attempt to divide count -- not attempted to avoid abiding -- dividing counties, municipalities, and precincts?

SENATOR HUTTO: (Speaking sotto voce.)

SENATOR CAMPSSEN: Okay. Splits wholly within a county are only seven. Okay. Under the Senate

Amendment 1 under the benchmark, there are eight. So if you try to keep counties -- to the extent you keep counties whole, you necessarily split some municipalities. So it's seven under the benchmark, eight under this plan when you -- when you deal with --

SENATOR HUTTO: Eight existing, seven --

SENATOR CAMPSEN: Eight existing, seven under this plan. When -- when you deal with counties that are wholly within -- within a county.

SENATOR HARPOOTLIAN: Cities wholly within a county, but --

SENATOR CAMPSEN: I mean cities wholly within a county, correct.

SENATOR HARPOOTLIAN: But when you look at -- you've split counties and cities. How many total cities are split? 22, right?

SENATOR CAMPSEN: There's -- there's 22 in this and 19 in the benchmark.

SENATOR HARPOOTLIAN: And all that ties back into the benchmark? You're looking at the benchmark as -- I mean, if you could have not changed the benchmark, that would have been great, right?

SENATOR CAMPSEN: No.

SENATOR HARPOOTLIAN: I mean, it's the benchmark.

SENATOR CAMPSEN: Then you have some cities that are split when you follow rivers too. I mean, you have Casey is that way, Charleston's that way.

SENATOR HARPOOTLIAN: So but you would agree with me that the portions of Charleston that are not contained -- that are -- that are shifted to the

Sixth District have basically African -- significant African American population, correct?

SENATOR CAMPSEN: No, no. Again, I'll say that the --

SENATOR HARPOOTLIAN: So why were they -- why -- why are they in the Sixth District?

SENATOR CAMPSEN: The voting age population that went from the First to the Sixth?

SENATOR HARPOOTLIAN: Not that went from -- no, because it was already in the Sixth. I'm talking about what -- the population in Charleston County that went to the Sixth, what's the African American or black voting age population of that piece, whether it was in the Sixth before or not?

If you --if you take the position that dividing Charleston was bad in 2012 and -- and you're perpetuating that in this, you can't look at what was shifted, what is there? What -- if you look at Charleston County and the piece of Charleston County that you propose to put in the Sixth, what's the African American population percentage?

SENATOR CAMPSEN: Yeah, it's -- it's about 50/50. I get the staff to give the number.

SENATOR HARPOOTLIAN: The piece is about 50/50, as opposed to the whole county. The proportion of African American voters in that piece is higher than it is in the county in total; is that correct?

SENATOR CAMPSEN: In the -- the --

SENATOR HARPOOTLIAN: No.

SENATOR CAMPSEN: The percentage that are in the Sixth is higher than the percentage in the county as a whole?

SENATOR HARPOOTLIAN: Yes. African American population.

SENATOR CAMPSEN: It's -- isn't that it? Is that the figure there?

SENATOR KIMPSON: Charleston County is about 30 -- 30 percent black.

SENATOR HARPOOTLIAN: And this -- and according to what we just heard, the piece that is in the Sixth District under this plan is 50/50. So significantly a higher percentage of African American population being put into the Sixth.

SENATOR RANKIN: But -- and perhaps I'm wrong on this, but I'm told -- again, not to get to your point. But if the sense is that moving those -- that population was a racial-motivated decision, I'm told that the -- it wasn't moving blacks only. It was moving white and Black and both Democratic performing population but not based on a racial split.

SENATOR HARPOOTLIAN: Well, the Court will look at the numbers. We don't have to hash that out today.

SENATOR RANKIN: So for that -- in that point, let's move on so we don't get tied up on the 50/50. Okay?

SENATOR HARPOOTLIAN: Okay.

SENATOR CAMPSEN: The Charleston County VBAP, is that what you're asking, Senator?

SENATOR HARPOOTLIAN: Yes.

SENATOR HUTTO: In District 6 --

SENATOR CAMPSEN: In District Six is 31.18 percent.

SENATOR HARPOOTLIAN: As drawn by you?

SENATOR CAMPSEN: Under this amendment, yes.

SENATOR HARPOOTLIAN: Okay. And what is the county as a whole?

SENATOR HUTTO: 22 percent.

SENATOR CAMPSEN: 22 percent.

SENATOR HARPOOTLIAN: So it's 22 percent, county as a whole. 31 percent of the district's -- of Congressional District Six piece. So it -- it would be -- right. I mean, it's the proportion is what I'm interested in.

It's -- so it's -- the piece in the Sixth District is significantly more African American than the county as a whole? Yes?

SENATOR CAMPSEN: 10 percent more.

SENATOR HARPOOTLIAN: 10 percent is significant. When we start doing the budget, trust me, it'll be significant. Okay.

Let me make one last point, and that is this. In -- no, strike that. I don't have one last point. I'm done.

SENATOR MALLOY: Mr. President, Mr. Chairman. Pardon the inquiry, so we have another committee that's going on. How many proxies do we have?

SENATOR RANKIN: Well, we got a majority here now, but then we've got a number of proxies that are ready to (indiscernible).

SENATOR MALLOY: I heard from the Senator from Orangeburg.

UNIDENTIFIED SPEAKER: Six -- six proxies.

SENATOR MALLOY: So and the -- my next -- my next parliamentary inquiry, it just seems as -- seems as though that we've been here now an hour and 10 minutes, and the conversation has largely been amongst the subcommittee members.

And so my question is, is that: Were there any votes taken on either of these amendments in the subcommittee?

SENATOR RANKIN: We advanced both plans to have fuller debate here, and I think we're about to be finished with that debate, unless there's other questions. I'm not trying to cut anybody off.

UNIDENTIFIED SPEAKER: (Indiscernible) .

SENATOR MALLOY: Was there -- but was there a vote on the --

(Indiscernible cross-talk.)

SENATOR MALLOY: Okay. It's my question. It's my question. My question was is that was there a vote on this in the subcommittee, or did you just say advance the -- if you advanced it, that's fine. I just want to know. Okay. Okay.

And so -- and so I'm getting to the point as to what the -- the plan today is to -- is to -- is to vote on both of these amendments today and then carry them on to the floor.

SENATOR RANKIN: Correct.

SENATOR MALLOY: Okay. And so is there any wisdom in the process that, as it was described to us today, is to have some discussion here, carry these over to the floor because one thing that I'm -- I'm very conscious of is, is that finance committee has not -- would not have a chance to vote but one time.

We on this committee get a chance to end up voting once under normal procedures. We'll get at least second and third reading in the posture that we have this bill in today. We get one vote on the congressional plan.

I just want to make certain that, one, that we have a chance to -- to fully vet this out, understanding -- I think we can all -- I understand where it may end up. But I just want to make certain that we're -- that we're careful as we're going forward because what we're doing, the process is is that we get -- we get a chance to vote once.

We normally get a second and third reading on the floor. This time, we only get one vote, and then it's -- the bill is sent back to the House.

And so is there any wisdom into -- into having this discussion? And obviously, we do whatever you -- whatever you end up saying. But I think that is there any wisdom in having this full discussion here, which it seems to be engaging to some extent, and then -- and then carrying these amendments over in -- in case there's something else that happens on the floor?

SENATOR RANKIN: Well, the plan would be, again, respectfully to all members, that we either have some more conversation and question and exchange on this plan and then Senator Harpootlian's plan today and that we vote today.

And no bar for any member not on the subcommittee, but otherwise, finance committee or elsewhere, to offer their own amendments on the floor. It won't be one and done unless we all decide that it needs to be a one and done. There will be ample opportunity to continue this on the floor, so if the --

SENATOR MALLOY: Right. So but -- and the point I just wanted to make and -- and then I can get back to discussion is that this is a bill returned from the -- from the House, Senate bill, and so we don't get second and third reading on the floor. We get just the reading on the floor.

And so there will be -- part of our process is is that normally we will end up getting a second and third reading. And so the curious point is is that if we -- if we carry them over, we have the -- the discussion on the floor again in which it will be a discussion on the floor; or will the one that does not pass, then will it be reintroduced on the floor again?

UNIDENTIFIED SPEAKER: (Indiscernible).

SENATOR MALLOY: Okay.

SENATOR RANKIN: So my goal, and for the record's purposes, we need to vote on these day today or at whatever time the committee decides to. My hope would be today.

SENATOR MALLOY: And is he -- and is he -- and I'm -- I want to get to this transportation meeting. But is the intent to take this bill up on the Senate floor today?

SENATOR RANKIN: I don't know how we can do that.

SENATOR MALLOY: Okay. I would encourage us not to.

SENATOR RANKIN: Somebody can raise the point.

SENATOR MALLOY: Okay.

SENATOR RANKIN: We are not under the court -- the early court order of a January 18th deadline. We

would like to make efficient work of this, but there's not going to be any hurry to preclude amendments.

SENATOR MALLOY: Right.

SENATOR RANKIN: And floor discussion.

SENATOR MALLOY: I think that -- and that deadline --

SENATOR RANKIN: Which will come in full or fashion later.

SENATOR MALLOY: And as a point of clarity, that deadline was -- was 18 -- the 18th, which was yesterday. And so but we still want to move as quickly as possible beyond that deadline, even -- even though we think that -- that they may be debating -- they may end up debating, having another plan before them now. So we're not in real jeopardy of getting our plan out, if it's -- if it's not today.

SENATOR RANKIN: Correct.

SENATOR MALLOY: Okay.

SENATOR RANKIN: All right. Senator -- any other questions of Senator Campsen? Oh, Senator Sabb?

SENATOR SABB: Thank you. Thank you, Mr. Chairman. Does the Senator from Charleston yield?

UNIDENTIFIED SPEAKER: Yes.

SENATOR SABB: Senator, of course, you and I both sat on the subcommittee. And would you agree with me, particularly in the last hearing that we had, that the vast majority of the comments that we had centered around the question as to whether or not Charleston ought be whole and whether or not the plan and -- and specifically the plan that's before us now ought be the operative plan because of the -- what do you call it, the tri-county group, Berkeley,

Charleston, and -- and Dorchester and their economic relationship.

Would you agree with me that the vast majority of the comments that we had related to whether we ought to go with your plan because it maintains those three counties together and their economic interests that they've fostered over the years versus whether or not we ought to keep Charleston whole?

SENATOR CAMPSSEN: Well, during the Zoom meeting testimony --

SENATOR SABB: Yes, sir.

SENATOR CAMPSSEN: -- that might have -- that was -- a majority did that, voted -- or expressed opinions in that fashion. Although we -- we also have a lot of input from e-mails and other way -- other -- and letters and that have equal weight. Just because you weren't on the Zoom meeting -- the Zoom meeting is not weighted heavier.

And so I -- it's my understanding we have a lot of diverse opinions on that, that -- which one is weighted more, I'm not completely sure. But I do know that there is a lot more input from folks who like being represented by two members of Congress instead of one because two advocates is better than one.

I mean, I've heard that from -- from constituents as well. So we can't let the Zoom meeting be the -- the final -- the final determination of what type of input the public wants because I understand there's a lot of other input that's received electronically.

SENATOR SABB: And Senator, do you know that I -- I agree with you and -- and appreciate that. And I guess my question would be whether or not -- and I

know you've identified one other idea, and that is the idea of being represented by two congressmen as opposed to one.

But did the vast majority of the written communication center around a desire to either keep those three counties together or keep Charleston whole? I mean, so were those fairly consistent with what we heard on the Zoom call?

SENATOR CAMPSEN: I really can't answer that. I know there's been a lot of input --

SENATOR SABB: Okay.

SENATOR CAMPSEN: -- both ways. But I -- but there has been -- and I have heard from folks who want to keep -- who don't want Berkeley and Dorchester County to be in the Seventh District, for example, because they have a real connection with the tri-county area. It's -- it's an integrated economy. And so I have received a lot of input from that, and I think the staff has as well.

SENATOR SABB: Yes, sir. And, of course, Senator, under your current plan Charleston is split. It's divided. Is that correct?

SENATOR CAMPSEN: Yeah. That's the way it's been since 1990.

SENATOR SABB: Yes, sir.

SENATOR CAMPSEN: It is. And it's also the way Richland is and -- and as far as the county goes, Greenville and Spartanburg as well. All the municipal, high population municipal MSAs share that --

SENATOR SABB: And, Senator, you --

SENATOR CAMPSEN: -- characteristic.

SENATOR SABB: Yes, sir. And did you know that one of the things that struck me, coming from one of the citizens in the Charleston area, was how the plan splits West Ashley and that the comment, by at least one of the gentlemen that is qualified to do an analysis on these plans, concluded that the only explanation that he could have for that was the fact that race was an -- an overriding factor?

SENATOR CAMPSER: Well, it doesn't -- the House plan may have done that, but the Senate plan did not split West Ashley. I mean, it -- it followed the Stono River which keeps -- keeps James Island and the Sea Islands basically in a --

SENATOR SABB: I may have misunderstood that.

SENATOR CAMPSER: And West Ashley in the -- in the Sixth.

SENATOR SABB: Okay. Thank you, Senator.

SENATOR RANKIN: Other questions of Senator Campsen? All right.

Would there be a motion on behalf of.

SENATOR KIMPSON: Mr. Chairman? Mr. Chairman?

SENATOR RANKIN: Senator Kimpson.

SENATOR KIMPSON: I'll be very brief, Mr. Chairman. Does the Senator yield for questions, Senator Campsen?

SENATOR CAMPSER: Yes.

SENATOR KIMPSON: Senator, did you know as the Senator who represents more people than anybody else in the General Assembly from Charleston -- and I'm speaking of myself -- the people

of Charleston want to be kept whole. Did you know that?

SENATOR CAMPSEN: Not -- it's not a unanimous decision, Senator, I know that.

SENATOR KIMPSON: Thank you, Mr. Chair.

SENATOR RANKIN: All right. Thank you. Now, would there be any other questions of full committee members? If not, entertain a motion on behalf of Senator Campsen's plan.

SENATOR MALLOY: Mr. President.

SENATOR RANKIN: Still --

SENATOR MALLOY: Mr. Chairman.

SENATOR RANKIN: Yes, sir. Senator Malloy.

SENATOR MALLOY: So I -- so I'm looking around here, and again, I go back to the point that we have -- that we've had some discussion here for another hour and 15 minutes, and mostly amongst this subcommittee.

I would respectfully move that we carry both of these amendments over and that we take them up on the floor. It's no prejudice to anyone. I mean, it's obvious what's happening here. The record -- the record is going to reflect the will of this committee.

And I don't see the benefit of -- of actually just having a vote just to have a vote for this whenever -- whenever we're going to end up having the vote on the floor anyway. And it joins in with the members of the Finance Committee, which would be the entire Senate.

And so this will be one of only two amendments possibly that we will have. We've had -- we had a detailed discussion here. We have to -- we're going to

have the same discussion on the floor. We're going to have to have a debate on the floor again. It is a vote on the floor, which would include the other 23 people. And so we know that we have -- we are finite here, and so -- so with that, I would move to carry both amendments over.

SENATOR RANKIN: Motion. Any second?

UNIDENTIFIED SPEAKER: Second.

UNIDENTIFIED SPEAKER: Second.

SENATOR RANKIN: All right. And respectfully, now, motion -- motion under discussion. If I may, respectfully, no different than the Finance Committee subcommittee's work going to the full -- again, I think we owe the subcommittee members a vote on their work.

No prejudice. Again, that you vote for a bill today doesn't mean you can't vote against it on the floor. Procedurally, I think we need a vote because I can't imagine Senator Peeler, Finance Committee Chairman, effectively saying in the open floor debate about a budget: We didn't take a vote. Again, no harm either way.

So again, I would respectfully urge us to take these up, vote, whatever amendments come. Again, we've got a motion now for one, but to your point -- I want to insist on that.

SENATOR MALLOY: Yeah. Let me -- let me withdraw it so we can have a little -- little discussion on it so because normally no -- no -- no -- no debate on the carry of a motion, so withdraw it temporarily.

The reason, though, is is that there was no vote in the subcommittee. And so if there was an opportunity

for -- to -- for casting votes, if there's no vote in in the subcommittee, I don't know. I don't know.

SENATOR SABB: Senator, if (indiscernible) will permit, there was a vote in subcommittee. I just wanted you to know that.

SENATOR MALLOY: I was just told that it was advanced, and then --

SENATOR SABB: That would not be accurate.

SENATOR MALLOY: Well -- well, you know, you did vote in a subcommittee? And what was the vote?

UNIDENTIFIED SPEAKER: Unanimous to advance --

UNIDENTIFIED SPEAKER: Both of them.

SENATOR MALLOY: Okay. So there was a vote in the subcommittee.

UNIDENTIFIED SPEAKER: For one or the other --

SENATOR MALLOY: So then that goes even further, then, of the necessity to end up having -- having one here when we're going to have the same debate again. And with that, I just respectfully move to carry -- carry -- carry it over.

SENATOR RANKIN: All right. All in favor of the motion to carry over, say aye.

MULTIPLE SPEAKERS: Aye.

SENATOR RANKIN: All right. Those in opposition, say aye -- or nay -- nay.

MULTIPLE SPEAKERS: Nay.

SENATOR RANKIN: Nay. Does -- do you request a -- all right. Motion fails.

Senator Campsen, you have a motion?

SENATOR CAMPSSEN: I have a motion to adopt Senate Amendment 1.

SENATOR RANKIN: Is there a second?

UNIDENTIFIED SPEAKER: Second.

SENATOR RANKIN: All right. Second.

All in favor say aye.

MULTIPLE SPEAKERS: Aye.

SENATOR RANKIN: And those in opposition say nay?

MULTIPLE SPEAKERS: Nay.

SENATOR RANKIN: Do we need a show of hands?

UNIDENTIFIED SPEAKER: Yes.

SENATOR RANKIN: All right. So let's show of hands and proxies. First, show of hands in support of Senator Campsen's amendment, please raise your right hand, left hand, whichever, both hands, pick your -- all right.

UNIDENTIFIED SPEAKER: Eight.

SENATOR RANKIN: Eight present. Proxies?

UNIDENTIFIED SPEAKER: I have -- may I see --

UNIDENTIFIED SPEAKER: I have Kimbrell.

SENATOR RANKIN: So Kimbrell votes aye.

UNIDENTIFIED SPEAKER: Massey, aye. Climer, aye.

UNIDENTIFIED SPEAKER: Johnson.

UNIDENTIFIED SPEAKER: Aye.

UNIDENTIFIED SPEAKER: Aye. Aye.

SENATOR RANKIN: All right. Ernst & Young accounting firm. In a second. All right. By a vote of 13 in support. Now let's count the nay votes again and proxies.

UNIDENTIFIED SPEAKER: Hutto votes negative.

SENATOR RANKIN: Senator Kimpson, you're voting nay as well?

SENATOR KIMPSON: Nay. Nay.

UNIDENTIFIED SPEAKER: Mia is voting nay.

SENATOR RANKIN: Mia, Senator McLeod, is voting as well. She votes nay.

UNIDENTIFIED SPEAKER: (Indiscernible).

SENATOR RANKIN: By vote of --

SENATOR MALLOY: Senator from Orangeburg, I have his proxy, and he votes no.

SENATOR RANKIN: We think by a vote of 13 to eight.

SENATOR MALLOY: And also my vote is no.

SENATOR RANKIN: All right. So that motion advances.

Are there any other amendments that would be proposed today? Senator Harpootlian.

SENATOR HARPOOTLIAN: Mr. Chairman, the proposal labeled 2A I'm going to withdraw from committee consideration, reserving my right to present an amendment on the floor.

SENATOR RANKIN: Okay. And so, again, as we have -- we all say it. We all wonder what it means. You got many more bites of the apple that you're not

attempting it here at the full committee. And so -- an apple, an orange, pick your --

SENATOR HARPOOTLIAN: Banana.

SENATOR RANKIN: A banana, whichever. So we've got a revision of the vote with Senator Kimbrell's proxy. It is 14 to 8. So Ernst & Young will certify these in June.

So would there be a motion on to the bill now as amended?

SENATOR MALLOY: I use the same vote, Mr. Chairman.

SENATOR RANKIN: All right.

SENATOR HARPOOTLIAN: Unanimous consent to the same vote?

SENATOR RANKIN: All right. Unanimous consent motion made, seconded that we use the same outcome of the last vote. All in favor say aye.

MULTIPLE SPEAKERS: Aye.

SENATOR RANKIN: Any opposition to that? All right. By a vote of 14 to 8, the Bill 965 will advance, and we will see you on the floor shortly. Thank you all so much.

* End of Recording *

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C E R T I F I C A T E

I, Robin L. Deal, Florida Professional Court Reporter and Transcriptionist, do hereby certify that I was authorized to and did listen to and transcribe the foregoing recorded proceedings and that the transcript is a true record to the best of my professional ability.

Dated this 20th day of January, 2022.

/s/ Robin L. Deal

ROBIN L. DEAL

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Appendix 10

SC NAACP v. McMASTER

[STAMP]
Plaintiffs'
Exhibit

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TRANSCRIPT OF VIDEO-RECORDED
PROCEEDINGS

SENATE OF SOUTH CAROLINA

January 20, 2022

(Transcription Time 1:43:00 – 6:32:20)

Transcribed By:

TERRI NESTORE

CSR No. 5614, RPR, CRR

Transcript pages 6 to 9

both the Senate and the congressional plans and we received congressional plans in November –

PRESIDENT ALEXANDER: Senator from Lexington, for what purpose do you rise.

SENATOR SETZLER: Senator, could yield for a quick friendly question?

PRESIDENT ALEXANDER: Senator yield?

Senator yields.

SENATOR SETZLER: Senator, do you have a map that you can have passed out of what these are?

SENATOR RANKIN: We can public these. There's a baseline, there's an amendment we have before us and then there will be another amendment, and I think those are on the website as well but again, we'll have that made available to you.

Then after we passed the Senate and the House plans in early December, we turned our attention to the congressional redistricting. Wednesday of last week we introduced 966, the skeleton bill for congressional redistricting and then the House amended their bill, adopted its congressional plan by adopting our bill which is our role now H-65, and they returned that to us on the 13th.

That day, the 13th, we met to hear testimony on the two proposed plans. The Senate amendments, again, which are on our website. Y'all confirmed for me that those are on the website. Rayden, did we put the plans?

Yeah, plans are on the website. So again, we can print -- we're now publishing Senator from Lexington's, Senator Setzler, again, you can see it here. We'll have it up for y'all to review as you ponder this.

So we heard from 60 folks last week and received over a thousand written comments on those amendments and we reported, we voted those out last Thursday, both of those out unanimously to the full committee, which as you know, met yesterday and we took both of those up with a vote of 14-8 in favor of Senate Amendment 1, which is what we'll be talking about a little bit more later.

And then today my intent is to present to y'all, along with Senators Massey from the Midlands,

Senator Talley from Upstate, Senator Campsen from the Lowcountry and Tri-County area, this overview of this information.

One comment and the information that we have and have produced to all is an overview of what we have a comparison of these, and to Senator Margie Bright Matthews's credit, a comparison of these plans produced from this information was available to some, available to all today. Yesterday to some, available to all today.

No attempt to hide the ball here.

And then one other matter.

When making sure that everything that is in that document was on the website for God and country to see, we discovered that one thing was not, and that is a core constituency comparison of Senate 1 or Amendment 1 and Amendment 2. That was emailed to our website guy at LSA on January 11th he was supposed to publish this, emailed from Will Roberts. That is now on the website and again, that is a very specific but general information Mr. Opperman and others will have that and again, so fully, finally and factually, we all have all that we have.

And so my apologies to the world for some sense, perhaps, that we didn't and to the credit of those who insisted we do, and I'll gladly receive that and take umbrage and/or ownership.

And so we all have what we all have.

So now moving forward, let me just make an overview of the entire plan and then I'm going to talk about the PD and then I'm going to hand it over to Senator Massey to talk about the Midlands.

Again, overall, Congressional Districts 2, 3, 4, 5 and 7 grew at a similar rate as the rest of the state, largely unchanged from the benchmark plan. Benchmark means that's what we did before, that's what our seven congressman have run on since 2010-2012.

Growth, obviously, in District 1 substantially outpaced the rest of the state. Upwards of about 86,000 more people in the 1st District, which is the Charleston coastal area, and District 6, which is presently held by Congressman Clyburn, lost population of about the same amount, 86-ish thousand people.

So those two, District 6 and 1, underwent fairly significant changes in population and -- but the demographic and partisan makeup of each district is substantially similar to the benchmark, meaning the 2012 plan.

In terms of geography, in terms of this plan we have, there are ten split counties, seven split VTDs, voter tabulation data, compared to 12 split and 65 in that benchmark plan. That's an overview, again.

Now let me tack to the PD and the grand strand.

PRESIDENT ALEXANDER: Senator from Columbia, for what purpose do you rise?

SENATOR MCLEOD: To see if the Senator would yield for a friendly question.

PRESIDENT ALEXANDER: Senator yields.

SENATOR MCLEOD: Senator, you referred to the guidelines. Do you have any opposition to explaining what the guidelines were that our committee under your leadership came up with prior to even starting the

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Transcript pages 20 to 27

areas of southern Greenville, as I just mentioned, and District 5 came more into the rural and suburban areas of eastern or northeastern Spartanburg County.

District 5 connects the eastern side of the Upstate with the central Midlands running from eastern Spartanburg County along the North Carolina through Cherokee, York, Lancaster, Chester, Union, Fairfield, Kershaw and Lee Counties, as well as the western half of Sumter County.

Changing -- or the amendment before you retains nearly 95 percent of District V's benchmark population, adding approximately 36,000 people from District 4 in the rural northeastern part of Spartanburg County, as I mentioned earlier, and a number of people in Sumter County. Mr. President, that concludes my overview.

PRESIDENT ALEXANDER: Senator from Charleston -- so you've completed and given up the floor, okay.

SENATOR CAMPSER: I'll do this from my desk, Mr. President.

PRESIDENT ALEXANDER: Senator from Charleston, Senator Campsen is recognized.

SENATOR CAMPSER: Thank you, Mr. President. I'm going to give a Lowcountry and Tri-County area overview.

As with the grand strand, the southern half of the coast experienced substantial growth over the last ten years; however, this growth occurred in pockets and was not homogeneous across the two Congressional Districts in the area.

Under the benchmark plan, District 1 was overpopulated by nearly 88,000 people, while District 6 was underpopulated by nearly 85,000 people.

District 1 predominantly represents residential coastal communities in the Lowcountry and Tri-County area.

In the Lowcountry, District 1 includes all of Beaufort County, approximately 4,500 people in the Sun City community in Jasper County, and approximately 2300 people in the Edisto and Green Pond communities of Colleton County.

In the Tri-County area, District 1 includes all of Berkeley County, the majority of the population in Dorchester County around the Summerville area and nearly 180,000 people in Mount Pleasant and the Sea Islands in Charleston County.

Changes from the benchmark. District 1 retains 82 percent of its benchmark population and adds 53,000 people from the 6th District, including 13,000 people in Beaufort County and 29,000 people in Berkeley County.

In Charleston County, the amendment follows natural geographic boundaries such as the Stono River and Wadmalaw Sound, adding approximately 16,000 people on Wadmalaw Island and Johns Island to the 1st District from the 6th.

The 6th District represents the portions of Jasper, Colleton, Dorchester, and Charleston Counties that are not included in District 1 along the coast, as well as Allendale, Bamberg, Calhoun, Clarendon, Hampton and Williamsburg Counties in their entirety.

District 6 also includes portions of Orangeburg, Richland, Sumter and Florence Counties.

In the Lowcountry, District 6 includes the majority of the population in Jasper and Colleton Counties, with the exception of Jasper County's Sun City community and coastal portions of Colleton County in the Green Pond and Edisto precincts.

In the Tri-County area District 6 includes approximately 34,000 people in Dorchester County, including areas such as St. George, Ridgeville, rural Dorchester County... I lost my... outside of Summerville, and the West Ashley portion of Dorchester County.

District 6 also includes approximately 228,000 people in Charleston County. The entire Charleston Peninsula in north Charleston are in the 6th District, with the Cooper River as a natural boundary between the 1st and the 6th Districts.

The West Ashley portion of Charleston County is also in the 6th, with the Stono River separating West Ashley from James Island and Johns Island in District 1.

Change -- as for changes from the benchmark, District 6 retains more than 87 percent of its benchmark population and adds approximately 140,000 people from District 1 in the Tri-County area.

Now I'd like to address some -- because District 1 and District 6 seem to have had the most focus in recent days, I want to address a few other -- make a few other points with regard to the District and the first point I would like to make is that this plan is a minimal change plan from the current District, and I'll give you some statistics that demonstrate that.

When it comes to constituent consistency, in this plan, Amendment 1, in the 1st District, 82.4 percent of its current population remains in the 1st.

Under the competing plan that you're going to hear later, only 65-and-a-half percent remain in the 1st.

When it comes to the 2nd Congressional District, 98.01 percent of the population currently in the 2nd District remain in the 2nd. Under the plan you're going to hear later today, only 66.56 percent of the population in District 2 remains in the District.

Look at District 3. Under this amendment, 98.02 percent of District 3 residents remain in the 3rd District. Under the plan you'll hear later, just 72.8 percent remain in the District.

District 4, 94.34 percent under this plan remain in the 4th District. The amendment -- the proposal you're going to hear later today, 71.5 percent remain in the 4th District.

District 5, 94.38 percent of the population remain in the 5th District of the current residents.

Under the plan you'll hear later, only 54, almost half .84 percent remain in the 5th.

You go to the 6th District, even though we had a lot of growth around the 6th, we still were able in this plan to have 87-and-a-half percent of the current residents of the 6th District remain in the 6th. Under the plan you'll hear later, it will only be 61.4 percent.

The 7th District has an amazing 99.96 percent constituent consistency, whereas under the proposed amendment, it dramatically changes to 56.08 percent.

So this is a minimal plan and this constituent consistency numbers are evidence of that and that's one of the reapportionment guidelines that we draw plans by.

I'm not going to take any questions until I finish my presentation, and then I'll be happy to, Mr. President.

So this is a minimal change plan from a plan that was approved by a federal court -- actually by the United States Supreme Court -- as recently as 2012 in the Backus decision.

Now 2012 is like yesterday in reapportionment time, okay, because you only do reapportionment every ten years. That was the last reapportionment we did and the Supreme Court upheld our current benchmark and the current benchmark I just read to you, the very minor changes that we've made in this plan, Amendment 1, from the current benchmark both honoring the constituent consistency guideline, but also based upon a plan that the Supreme Court upheld in 2012.

And to the extent District 1 and District 6 had the change, it's really driven by growth because the chairman mentioned earlier, we had 87,000 people in the 1st District that had to -- we had to shed and we had 84,000 people or 85,000 in the 6th District that the 6th District had to pick up.

Now I want to also address the issue of some allegations of partisan gerrymandering. I'd like to give some numbers that I think will demonstrate that that's really not the case.

In the 1st District, if you look at the Trump vote in the 1st, under the benchmark it was 53.03 percent.

That's the benchmark Trump vote in 2020.

Under Amendment 1, the vote would be 54.39 percent. That's an increase of only 1.36 percent. If you look at Amendment 2 that's going to be presented

later, it goes from 53.03 percent Trump to 48.17 percent Trump, as far as the political numbers go.

As for constituent consistency, I've already addressed that. But what you see in the constituent consistency numbers is if you're going to make this type of dramatic change to the 1st and the 6th that the 2nd amendment's going to propose, you have to radically change the rest of the state. Some of the other Districts losing 50 percent of their constituents under the -- not which, of course, violates that guideline constituent consistency.

And I'm also going to address the black voting, the black voting age population in the District because there's been some allegations about some form of racial motivation here and when you look at the numbers, the benchmark plan has in the 1st District 16.56 percent black voting age population. Under this plan, Amendment 1, it has a 16.72 voting age population. Very little change.

Under Amendment 2 that you're going to see later, it's higher, it goes to 20.57 percent.

The notion -- some have said, well, you've packed minority voters into the 6th District. Well, you look at the benchmark plan for the 6th, it's 51.44 black voting age population. Under this amendment, the black voting age population goes down to 45.9 percent.

So certainly the allegations of packing have -- are not panned out when you look at the statistics.

You had 113,000 people move from a voting age population, move from the 1st to the 6th District. Of that number, of that amount, 72,601 were white voters and 26,617 were African-Americans.

So you had a 63 percent -- 63.9 percent white vote move from the 1st to the 6th and only a 23.4 African-American. Again, did not pack the 6th.

Now I'd like to just real quickly, because the 1st and the 6th seem to be obtaining -- attracting the most attention, I want to real quickly go through how the -- how both the 1st and the 6th, how we met the redistricting guidelines when we drew these plans.

With regard to population equality, we are within the variance. And again, I'm going to reiterate, the changes had to happen to the 1st and the 6th because the 1st had tremendous growth and the 6th had about the same amount of people that grew in the 1st that it needed to pick up and it's that growth and that growth pattern that really has driven this process.

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C E R T I F I C A T E

I, TERRI NESTORE, Certified Shorthand Reporter/Transcriptionist, do hereby certify that I was authorized to transcribe the foregoing recorded proceeding, and that the transcript is a true and accurate transcription of my shorthand notes, to the best of my ability, taken while listening to the provided recording.

I further certify that I am not of counsel or attorney for either or any of the parties to said proceedings, nor in any way interested in the events of this cause, and that I am not related to any of the parties thereto.

Dated this 24th day of January, 2022.

/s/ Terri Nestore

TERRI NESTORE, CSR 5614, RPR, CRR

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Appendix 11

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[STAMP]
Plaintiffs'
Exhibit

721

From: Robert Joseph Oppermann <joseph@oppermannlawfirm.com>

Sent: Tuesday, January 18, 2022 2:57 PM

To: Will Roberts; Andy Fiffick

Subject: Re: Reports

Attachments: Written Testimony - Oppermann.docx

This is an update to my written report addressing the difference in district core percentages. I note that both analyses are using the same numerator, just different denominators because they frame the question differently, and that both analyses provide accurate answers, just answers to slightly different questions. I hope it is helpful in preventing unnecessary confusion.

On Tue, Jan 18, 2022 at 8:58 AM Will Roberts <WillRoberts@scsenate.gov> wrote:

Hey,

Here are the reports for 2a.

Will

Written Testimony Offered to the Redistricting Subcommittee of the South Carolina Senate Judiciary Committee Regarding House Plan 2 Senate Amendments 1 and 2, pursuant to request on January 13th, 2022

My name is Joseph Oppermann. I am a resident of Anderson County, and I am a licensed attorney in the State of South Carolina. I have advised local governments and attorneys on matters relating to redistricting in both the 2011 and 2021-22 redistricting cycles, and I have used redistricting software to draft statewide, county-level and municipal-level plans. I drafted Senate Amendment 2 at the direction of Sen. Harpootlian.

In my testimony, I will compare the two plans based upon their compliance with the Senate Redistricting Guidelines adopted on September 17th, 2021.

Senate Guidelines -A Comparison

Population Equality

The guidelines express a preference for deviation of no more than 1. Both plans achieve this.¹

Voting Rights

The Senate Guidelines forbid violation of Section 2 of the Voting Rights Act, as interpreted by *Thornburg v. Gingles* and its progeny.

¹ Herein I analyze Senate Amendment 2 as updated (Senate Amendment 2a) though that plan prior to update would meet the second prong of *Karcher v. Daggett* in light of *Tennant v. Jefferson County Commission* given its closer compliance with the legitimate state objectives described in the Senate Guidelines.

Of the three *Gingles* factors, the first two are certainly met with respect to District Six as a general matter, non-specific to either plan. As to the third factor, this will depend upon the proposed district analyzed. This third factor *is* plan specific. If all three factors are met, it would be necessary to perform a “totality of the circumstances” analysis based on existing case law to determine if a violation has occurred. If any one of the three factors is not met, there is no violation, and the inquiry ends.

The first factor inquires, “Is the racial or language minority group sufficiently numerous and compact to form a majority in a single-member district?” Voting Age Population or “VAP” is the basis for this inquiry. “Compact” is a term of art in Section 2 analysis and assumes a different meaning in other kinds of analysis under redistricting law. However, in this case, a “reasonably compact” majority minority district can be drawn upon the basis of Black Voting Age Population (BVAP). The first factor is therefore met.

The second factor inquires, “Is the minority group politically cohesive?” In this case, based on a review of voting patterns in the State of South Carolina, the answer is yes. The second factor is therefore met.

The third factor inquires, “Does the majority group vote sufficiently as a bloc to enable it. . .usually to defeat the minority’s preferred candidate?” This analysis proceeds according to the district and must therefore be applied to a proposed district in a plan under consideration.

For District Six in Senate Amendment 2, the answer is no. Please see the Appendix for an analysis of this question.

Since the third factor is not met, the inquiry ends and there is no violation of Section 2's prohibition of vote dilution.

No "third factor" analysis has been publicly shared for Senate Amendment 1's proposed District Six. Without specific evidence that members can consider disproving violation with respect to the third *Gingles* factor, Senate Amendment 1 compares poorly with Senate Amendment 2 on demonstrated compliance with the Voting Rights Act.

For example, if the third factor should be met in Senate Amendment 1's proposed District Six, a time- and cost-intensive "totality of the circumstances" analysis based on the requirements of existing case law would need to be performed to determine if the district is compliant. No publicly published evidence exists suggesting such an analysis has at any point been performed in this redistricting cycle by either the House or the Senate.

Avoidance of Racial Gerymandering

Senate Amendment 2 avoids racial gerrymandering by closely observing the race-neutral Senate Guidelines. Senate Amendment 2's proposed District Six splits only two counties (Richland and Georgetown), three precincts (Dutch Fork I and Dutch Fork 3 in Richland and Bethel in Georgetown), and one municipality (Irmo) where the split does not occur solely as a function of the municipality having incorporated areas in more than one county, as in the cases of Blythewood, Honea Path, or North Augusta, for example.

Senate Amendment 1's proposed District Six splits eight counties -- all but two of the ten counties split in its overall plan. Senate Amendment 1's proposed District Six splits eleven precincts -- all but two of the

thirteen precincts split in its overall plan. Senate Amendment 1's proposed District Six also splits the municipalities of Charleston, North Charleston, Sumter, Columbia, Forest Acres, Hardeeville and the small town of Scranton in Florence County, where the split does not occur solely as a function of the municipality having incorporated areas in more than one county.

Facially, this is troubling. Senate Amendment 2's map demonstrates these splits are not necessary to achieve population equality or compliance with the Voting Rights Act.

Because the subordination of race-neutral principles such as the Senate Guidelines is probative of a predominant racial motive, it is better to return to racial gerrymandering after fully comparing the plans under the Senate Guidelines.

Contiguity

Senate Amendment 2 is better in this measure. Senate Amendment 1's proposed District One is not contiguous by land, in that the portion east of the Cooper River is not connected by any land route to the portion west of the Ashley River. While the Senate Guidelines state: "*Contiguity by water is acceptable to link territory within a district provided that there is a reasonable opportunity to access all parts of the district and the linkage is designed to meet the other criteria stated herein,*" it is unclear what other criteria this linkage by water – the harbor transit between Forts Moultrie and Johnson – is designed to meet. In an era of paved highways, engine-powered watercraft and airplanes, there is doubtless "a reasonable opportunity to access all parts of the district." It is unclear under what circumstances such an opportunity would not exist.

Communities of Interest

A comparison by this measure is difficult, given the permissive, open-ended “may” language of the Senate Guidelines. Geographic commonalities, one of the measures of communities of interest listed, can be measured objectively by such boundaries as counties, precincts, and municipal limits. If one excludes objectively measurable geographic commonalities, it is possible to assess the respective plans as equally viable by this guideline, depending on which of the many possible suggested measures one chooses to emphasize.

Constituent Consistency

Both plans keep the residences of incumbent U.S. Representatives in their respective districts, avoiding contests between incumbents. This Guideline repeatedly defines “Constituent Consistency” with reference to the word “core.” In Senate Amendment 2, District One retains 65.56% of its population from the 2011 plan. District Two retains 66.56%. District Three retains 72.8%. District Four retains 71.5%. District Five retains 54.8%. District Six retains 61.46%. District Seven retains 56% of its population under the current plan.² Senate Amendment 1 has

² Staff analysis differs somewhat from mine in this respect. The reason for that is the Subcommittee’s report frames the question differently. While we rely on the same population numbers for the numerator, I use the existing districts’ 2020 population as denominator, and the Subcommittee report uses the proposed districts’ 2020 population as a denominator. My written testimony answers the question “How much of the *existing district’s* population remains in the proposed district?” and the Committee report answers the question “How much of the *proposed district’s* population comes from the existing district(s)?” Both analyses are accurate, they simply answer different questions.

boundaries more like the plan adopted in 2011, but close adherence to the 2011 benchmark plan is nowhere listed or described in the Senate or House Guidelines. Both plans meet the requirements of this guideline.

Minimizing Divisions of County Boundaries

Senate Amendment 2 has six county splits, while Senate Amendment 1 has ten.

Minimizing Divisions of Municipal Boundaries

It is important to view municipal splitting with reference to whether the municipality would be split but for incorporated territory in more than one county, since virtually all elections in South Carolina, including Congressional elections, are administered by county election agencies. Municipal boundaries in South Carolina often do not follow precinct lines, and the legitimate state interest in reducing voter confusion, public cost and administrative burdens related to more than one Congressional ballot style per precinct should be considered. The Senate Guidelines do not make these distinctions, but they are relevant in their impact on voters and cost to taxpayers.

Focus is given here to municipal divisions where the split does not occur solely because a municipality includes more than one county, like Yemassee or Blythewood, for example.

Municipal divisions of this nature occur in Senate Amendment 2 in Greenville, Laurens, Clinton, Rock Hill, Irmo, and Goose Creek. In each instance, municipal integrity has been subordinated to population equality, the separation of incumbents into their respective districts, and the avoidance of splitting precincts. In the case of Clinton, no

population appears to be divided. In the case of Greenville, the vast majority of the municipal population is maintained in one district. Population splits are more significant for Laurens, Rock Hill and Goose Creek. The splits for Laurens and Goose Creek are around 80/20, while the split for Rock Hill is closer to 85/15. Irmo is unique among these municipalities in that it has significant portions within its municipal limits within two different counties. It is included here because the Richland County portion is split between Districts Six and Two, though only a small portion of Irmo in Richland County joins its Lexington County section in District Two.

Greenville is divided between Districts Three and Four, with most of the city in Three. Laurens and Clinton are divided between Districts Three and Two. Rock Hill is divided between Districts Four and Five, with the far larger portion of the city in Five. Goose Creek is divided between Districts Seven and One, with the larger portion of the city in Seven.

Senate Amendment 1's municipal divisions of this nature include Sumter, Columbia, Forest Acres, Charleston, North Charleston, Hardeeville, Scranton, Simpsonville and Fountain Inn. The Simpsonville and Fountain Inn splits are miniscule in their impact on population and occur on the border between its proposed Districts Three and Four. *All* the other municipal splits of this kind occur on the borders of District Six. The Sumter, Columbia and Charleston divisions split significant portions of their respective municipalities, as does the Scranton division, when one considers the small size of that municipality. The predominance of municipal divisions implicating District Six, and the almost total dearth of municipal divisions unrelated to county splits for non-District

Six boundaries is one of the strangest features of Senate Amendment 1 but is consistent with the plan's heavy predominance of split counties and precincts along the boundaries of District Six.

According to the municipality guideline, Senate Amendment 2 performs slightly better when considering the numbers of non-county splitting municipalities, and especially when considering the severity of population impact.

When considered in conjunction with the Avoidance of Racial Gerrymandering guideline, the differences between the plans are stark.

Minimizing Divisions of Voting Precinct Boundaries

Senate Amendment 2 performs better in this measure. It contains ten precinct splits, while Senate Amendment 1 contains thirteen.

Again, the most arresting difference between the plans relates to the location of departures from race-neutral guidelines. Eleven of thirteen precinct divisions for Senate Amendment 1 occur on the boundaries of District Six.

By contrast, Senate Amendment 2's precinct divisions are evenly distributed throughout the state. It splits the Cainhoy precinct in Berkeley County along its District One and Seven boundary. It splits the Laurens 6, Clinton Mill, and Bailey precincts in Laurens County along the boundary of District Two and District Three. It splits the Greenville 4 precinct in Greenville County along the District Three and Four boundary. It splits the Oakridge and Ebinport precincts along the boundary of Four and Five in York County. It splits the Dutch Fork 1 and 3 precincts along the boundary of Two and Six in Richland County. Finally, it splits the Bethel precinct

in Georgetown County between Districts Six and Seven.

Compactness

Senate Amendment 2 is preferable here for reasons covered in previous sections. Its districts are all connected internally by land routes and its shapes are not irregular beyond the peculiarities of county boundaries. About some of the guidelines on this subject, the plans are evenly matched. But for geography and connectivity, they are not. Striking yet again is that Senate Amendment 1 departs from compactness of shape along the boundaries of District Six, notably around Richland County's boundary with Two and the Charleston/Dorchester boundaries with One. Two dragon heads appear to stare one another down from across 1-26, one nestled in a dismembered District One.

Data

Both plans are based on the 2020 Census.

Conclusion as to Senate Guidelines

Senate Amendment 2 closely complies with the Senate Redistricting Subcommittee's Guidelines. Senate Amendment 1 does not. Rather, it unnecessarily departs from the Guidelines, and *where* it departs is revealing. Senate Amendment 1's departures consistently occur along the boundaries of its proposed District Six. These departures are not necessary to comply with the Voting Rights Act or achieve equal population, as demonstrated by Senate Amendment 2.

Senate Amendment 1's consistent and clustered departures from the Senate Guidelines along the boundaries of its proposed District Six evince a

predominant racial motive in violation of the 14th Amendment prohibition of racial gerrymandering. It should not be adopted.

Appendix

Third *Gingles* factor: “Does the majority group vote sufficiently as a bloc to enable it... usually to defeat the minority’s preferred candidate?”

Given constraints of time and resources, I cannot offer here the usual evidence as to the third *Gingles* factor which would include bivariate regression analysis, ecological inference analysis, or some combination thereof. However, in this instance a conclusive answer to the third factor’s inquiry is logically and easily demonstrated by a review of election results in the last four November general election cycles, in part due the proposed district’s county and precinct integrity. These cycles every two years are specifically relevant because they are when U.S. House Districts regularly elect their representatives. Election results are available to the public at the State Election Commission’s website, scvotes.gov.

For a simple method of analysis that, at least in this instance, can logically answer thjs inquiry in the absence of racially polarized voting analysis, consider the vote performance of the lowest performing minority-preferred Black candidate appearing on the ballot of every voter in the proposed District Six: In 2014 Joyce Dickerson in the U.S. Senate race, in 2016 Thomas Dixon in the U.S. Senate race, in 2018 Melvin Whittenburg in the Secretary of State race, and in 2020 Jaime Harrison in the U.S. Senate race. Jaime Harrison in 2020 was the only black candidate on the ballot for every voter, so that is the only race

available for consistent analysis across the proposed district.

The proposed District Six, as per the map, includes all of Allendale, Bamberg, Barnwell, Calhoun, Clarendon, Hampton, Orangeburg, Sumter and Williamsburg Counties. It also contains a small portion of Georgetown County, and the bulk of Richland County. The small portion of Georgetown includes the Andrews, Andrews Outside, Pleasant Hill, and Potato Bed Ferry precincts. It also includes a sliver of the Bethel precinct, but since that precinct is split, and the proposed District Six portion contains less than 10% of the precinct's total census population, I omit it from analysis here. The portion of Richland in the proposed District Six contains the entire county, except the full Ballentine 1 and 2, Springville 1 and 2 and Spring Hill precincts, and split portions of Dutch Fork I and 3. These precincts and precinct portions are in Senate Amendment 2's proposed District Two. Because almost all of Dutch Fork 1's population is allocated to the proposed District Six, it is included. Because almost all of Dutch Fork 3's population is allocated to the proposed District Two, it is omitted. The vote totals cited below can be verified by the State Election Commission's published official results at scvotes.gov.

For 2014, adding all the full counties and the Richland and Georgetown portions in the proposed District Six, Joyce Dickerson received 127,129 votes. Tim Scott received 81,198.

Following the same method for 2016, Thomas Dixon received 178,727 votes. Tim Scott received 122,505.

For 2018, Melvin Whittenburg received 160,840 votes. Mark Hammond received 90,757.

For 2020, Jaime Harrison received 227,486 votes and Lindsey Graham received 116,935. In fairness, Jaime Harrison's campaign is not a good fit for "lowest-performing," but since the Graham-Harrison race in 2020 was the only election with a top-of-the-ticket Black candidate on every ballot for the proposed district, it is relevant for consideration.

The lowest performing minority-supported Black candidates in these elections nonetheless won substantial victories in the proposed District Six. Because the minority community's preferred candidates won solid victories in the proposed district in 2014, 2016, 2018, and 2020, despite a Non-Hispanic Black 18+ population of only 48.59%, it is sound to conclude the majority (white) community does not vote sufficiently as a bloc usually to enable it to defeat the minority (black) community's candidate of choice. Not only does such a result not "usually" occur, it has not occurred at all in elections recent enough to be relevant for this analysis.

While this method is not the usual evidence offered to answer the third *Gingles* factor inquiry, in this instance, it answers the question conclusively.

Under Senate Amendment 2, the third factor is clearly not met, the inquiry ends, and there is thus no violation of Section 2 of the Voting Rights Act.

Appendix 12

7 Member Republican Plan Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOL_Blk	% NH_DOL_Blk	VAP	% VAP	HVAP	%HVAP	NH_WVAP	%NH_WVAP	NH_DOL_BVAP	% NH_DOL_BVAP
1	731,204	0	0.00%	53,931	7.38%	483,365	66.11%	155,143	21.22%	586,966	80.27%	36,042	6.14%	404,759	68.96%	117,013	19.94%
2	731,203	-1	0.00%	55,554	7.60%	412,231	56.38%	227,394	31.10%	572,579	78.31%	35,964	6.28%	339,782	59.34%	170,941	29.85%
3	731,204	0	0.00%	42,374	5.80%	419,755	57.41%	237,051	32.42%	568,062	77.69%	27,485	4.84%	341,164	60.06%	175,850	30.96%
4	731,204	0	0.00%	68,790	9.41%	512,089	70.03%	108,263	14.81%	573,462	78.43%	45,499	7.93%	417,732	72.84%	79,146	13.80%
5	731,203	-1	0.00%	54,482	7.45%	485,461	66.39%	146,622	20.05%	558,642	76.40%	34,977	6.26%	385,772	69.06%	106,492	19.06%
6	731,203	-1	0.00%	47,085	6.44%	456,017	62.37%	189,037	25.85%	576,394	78.83%	31,094	5.39%	374,317	64.94%	142,091	24.65%
7	731,204	0	0.00%	30,622	4.19%	409,634	56.02%	260,377	35.61%	578,355	79.10%	20,063	3.47%	340,449	58.87%	195,519	33.81%

S. C. Senate Judiciary Committee

Plaintiffs' Exhibit
291

Exhibit

SCSENATE_00025791

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User:
 Plan Name: Benchmark Congressional with 2020 Data
 Plan Type:

Population Summary

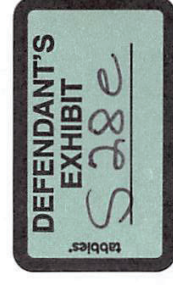
Thursday, January 13, 2022 8:44 AM

District	Population	Deviation	% Devn.	[Hispanic Origin]	[% Hispanic Origin]	NH_Wht	[% NH_Wht]	NH_DOJ_Blk	[% NH_DOJ_Blk]
1	818,893	87,689	11.99%	66,733	8.15%	556,715	67.98%	145,634	17.78%
2	721,829	-9,375	-1.28%	50,120	6.94%	452,493	62.69%	177,418	24.58%
3	706,785	-24,419	-3.34%	42,205	5.97%	506,897	71.72%	127,015	17.97%
4	760,233	29,029	3.97%	77,314	10.17%	495,681	65.2%	142,496	18.74%
5	736,286	5,082	0.70%	40,874	5.55%	464,621	63.1%	191,538	26.01%
6	646,463	-84,741	-11.59%	39,477	6.11%	237,317	36.71%	344,592	53.3%
7	727,936	-3,268	-0.45%	36,115	4.96%	464,828	63.86%	195,194	26.81%

Total Population: 5,118,425
 Ideal District Population: 731,204

Summary Statistics:

Population Range: 646,463 to 818,893
 Ratio Range: 0.27
 Absolute Range: -84,741 to 87,689
 Absolute Overall Range: 172,430
 Relative Range: -11.00% to 11.99%
 Relative Overall Range: 23.58%
 Absolute Mean Deviation: 34,800.43
 Relative Mean Deviation: 4.76%
 Standard Deviation: 48,452.87



User:
 Plan Name: Benchmark Congressional with 2020 Data
 Plan Type:

Population Summary

Thursday, January 13, 2022

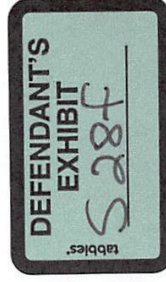
8:45 AM

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]
1	818,893	87,689	11.99%	641,390	78.32%	43,755	6.82%	455,332	70.99%
2	721,829	-9,375	-1.28%	556,839	77.14%	32,704	5.87%	365,440	65.63%
3	706,785	-24,419	-3.34%	557,631	78.9%	27,128	4.86%	413,026	74.07%
4	760,233	29,029	3.97%	587,921	77.33%	50,772	8.64%	400,160	68.06%
5	736,286	5,082	0.70%	567,369	77.06%	26,171	4.61%	371,789	65.53%
6	646,463	-84,741	-11.59%	517,064	79.98%	26,997	5.22%	204,639	39.58%
7	727,936	-3,268	-0.45%	586,246	80.54%	23,597	4.03%	393,589	67.14%

Total Population: 5,118,425
 Ideal District Population: 731,204

Summary Statistics:

Population Range: 646,463 to 818,893
 Ratio Range: 0.27
 Absolute Range: -84,741 to 87,689
 Absolute Overall Range: 172,430
 Relative Range: -11.00% to 11.99%
 Relative Overall Range: 23.58%
 Absolute Mean Deviation: 34,800.43
 Relative Mean Deviation: 4.76%
 Standard Deviation: 48,452.87

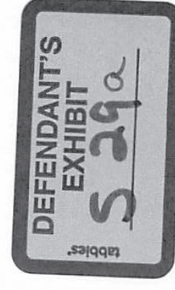


Appendix 15

House Plan 2 Senate Amendment 1

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOL_Blk	% NH_DOL_Blk	VAP	% VAP	HVAP	% HVAP	NH_WVAP	% NH_WVAP	NH_DOL_BVAP	% NH_DOL_BVAP
1	731,203	-1	0.00%	59,591	8.15%	498,807	68.22%	130,245	17.81%	570,538	78.03%	38,918	6.82%	405,889	71.14%	95,400	16.72%
2	731,203	-1	0.00%	51,434	7.03%	446,768	61.10%	190,488	26.05%	563,028	77.00%	33,556	5.96%	360,714	64.07%	137,891	24.49%
3	731,204	0	0.00%	42,512	5.81%	524,457	71.73%	132,875	18.17%	577,297	78.95%	27,422	4.75%	427,484	74.05%	98,848	17.12%
4	731,204	0	0.00%	77,653	10.62%	468,620	64.09%	142,090	19.43%	565,412	77.33%	50,888	9.00%	379,099	67.05%	104,145	18.42%
5	731,204	0	0.00%	39,825	5.45%	468,920	64.13%	182,332	24.94%	562,685	76.95%	25,482	4.53%	374,151	66.49%	135,206	24.03%
6	731,204	0	0.00%	45,619	6.24%	304,061	41.58%	349,653	47.82%	586,760	80.25%	31,196	5.32%	261,421	44.55%	269,326	45.90%
7	731,203	-1	0.00%	36,204	4.95%	466,919	63.86%	196,204	26.83%	588,740	80.52%	23,662	4.02%	395,217	67.13%	146,236	24.84%

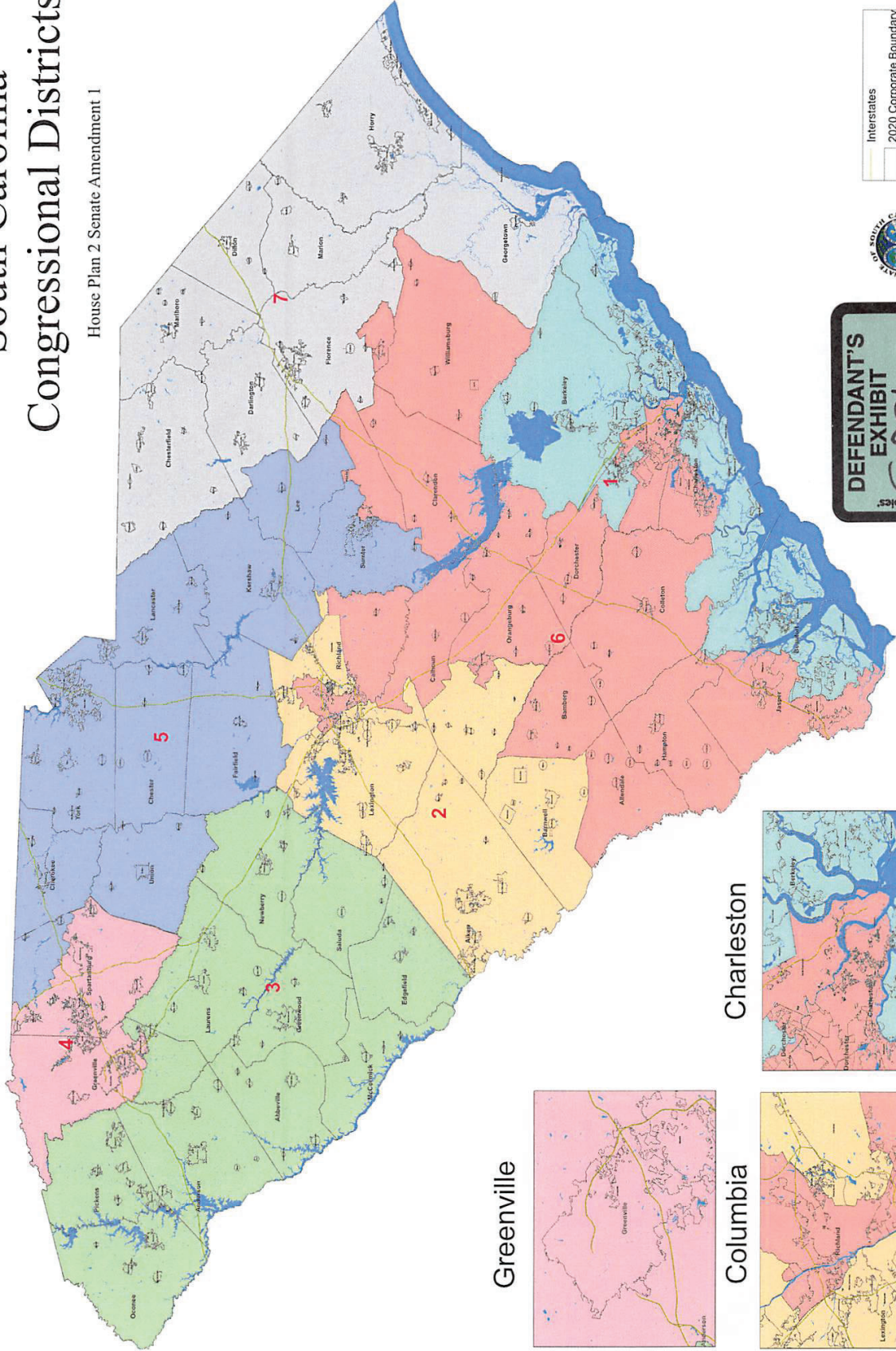
S.C. Senate Judiciary Committee



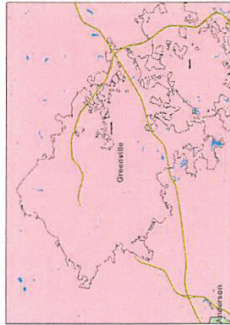
SCSENATE_00003147

South Carolina Congressional Districts

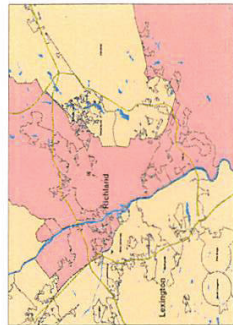
House Plan 2 Senate Amendment 1



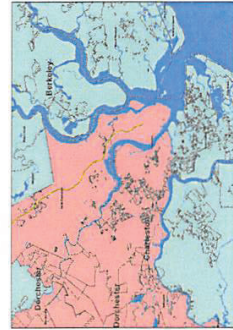
Greenville



Columbia



Charleston



User:
 Plan Name: House Plan 2 Senate Amendment 1
 Plan Type:

Population Summary

Tuesday, January 11, 2022

9:08 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Wht]	NH_Wht [% NH_Wht]	NH_DOJ_Blck	NH_DOJ_Blck	[% NH_DOJ_Blck]
1	731,203	-1	0.00%	59,591	8.15%	498,807	68.22%	130,245	17.81%	17.81%
2	731,203	-1	0.00%	51,434	7.03%	446,768	61.1%	190,488	26.05%	26.05%
3	731,204	0	0.00%	42,512	5.81%	524,457	71.73%	132,875	18.17%	18.17%
4	731,204	0	0.00%	77,653	10.62%	468,620	64.09%	142,090	19.43%	19.43%
5	731,204	0	0.00%	39,825	5.45%	468,920	64.13%	182,332	24.94%	24.94%
6	731,204	0	0.00%	45,619	6.24%	304,061	41.58%	349,653	47.82%	47.82%
7	731,203	-1	0.00%	36,204	4.95%	466,919	63.86%	196,204	26.83%	26.83%

Total: 5,118,425
 Ideal District: 731,204



Appendix 18

House Plan 2 Senate Amendment 2 Plan Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOL_BIK	% NH_DOL_BIK	VAP	% VAP	HVAP	%HVAP	NH_WVAP	%NH_WVAP	NH_DOL_BVAP	% NH_DOL_BVAP
1	731,205	1	0.00%	67,258	9.20%	467,845	63.98%	159,131	21.76%	585,290	80.04%	44,998	7.69%	392,333	67.03%	120,379	20.57%
2	731,204	0	0.00%	49,071	6.71%	482,965	66.05%	164,513	22.50%	570,189	77.98%	31,326	5.49%	392,422	68.82%	121,406	21.29%
3	731,203	-1	0.00%	50,606	6.92%	523,816	71.64%	118,621	16.22%	572,754	78.33%	33,194	5.80%	424,564	74.13%	86,659	15.13%
4	731,201	-3	0.00%	66,678	9.12%	502,238	68.69%	122,075	16.70%	564,580	77.21%	43,166	7.65%	403,463	71.46%	88,677	15.71%
5	731,204	0	0.00%	34,335	4.70%	409,663	56.03%	250,265	34.23%	564,534	77.21%	22,189	3.93%	330,096	58.47%	186,598	33.05%
6	731,205	1	0.00%	35,466	4.85%	293,654	40.16%	367,540	50.27%	576,485	78.84%	24,575	4.26%	245,676	42.62%	280,133	48.59%
7	731,203	-1	0.00%	49,424	6.76%	498,371	68.16%	141,742	19.38%	580,628	79.41%	31,676	5.46%	415,421	71.55%	103,200	17.77%



User:
 Plan Name: House Plan 2 Senate Amendment 2
 Plan Type:

Population Summary

Tuesday, January 11, 2022

3:20 PM

Summary Statistics:

Population Range: 731,201 to 731,205
 Ratio Range: 0.00
 Absolute Range: -3 to 1
 Absolute Overall Range: 4
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.00
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.29

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Wht]	NH_Doj_Blk	NH_Doj_Blk [% NH_Doj_Blk]
1	731,205	1	0.00%	67,258	9.2%	467,845	159,131	21.76%
2	731,204	0	0.00%	49,071	6.71%	482,965	164,513	22.5%
3	731,203	-1	0.00%	50,606	6.92%	523,816	118,621	16.22%
4	731,201	-3	0.00%	66,678	9.12%	502,238	122,075	16.7%
5	731,204	0	0.00%	34,335	4.7%	409,663	250,265	34.23%
6	731,205	1	0.00%	35,466	4.85%	293,654	367,540	50.26%
7	731,203	-1	0.00%	49,424	6.76%	498,371	141,742	19.38%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: House Plan 2 Senate Amendment 2
 Plan Type:

Population Summary

Tuesday, January 11, 2022

3:21 PM

Summary Statistics:

Population Range: 731,201 to 731,205
 Ratio Range: 0.00
 Absolute Range: -3 to 1
 Absolute Overall Range: 4
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.00
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.29

District	Population	Devn.	% 18+ Pop	[18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]	
1	731,205	1	0.00%	585,290	80.04%	44,998	7.69%	392,333	67.03%	120,379	20.57%
2	731,204	0	0.00%	570,189	77.98%	31,326	5.49%	392,422	68.82%	121,406	21.29%
3	731,203	-1	0.00%	572,754	78.33%	33,194	5.8%	424,564	74.13%	86,659	15.13%
4	731,201	-3	0.00%	564,580	77.21%	43,166	7.65%	403,463	71.46%	88,677	15.71%
5	731,204	0	0.00%	564,534	77.21%	22,189	3.93%	330,096	58.47%	186,598	33.05%
6	731,205	1	0.00%	576,485	78.84%	24,575	4.26%	245,676	42.62%	280,133	48.59%
7	731,203	-1	0.00%	580,628	79.41%	31,676	5.46%	415,421	71.55%	103,200	17.77%

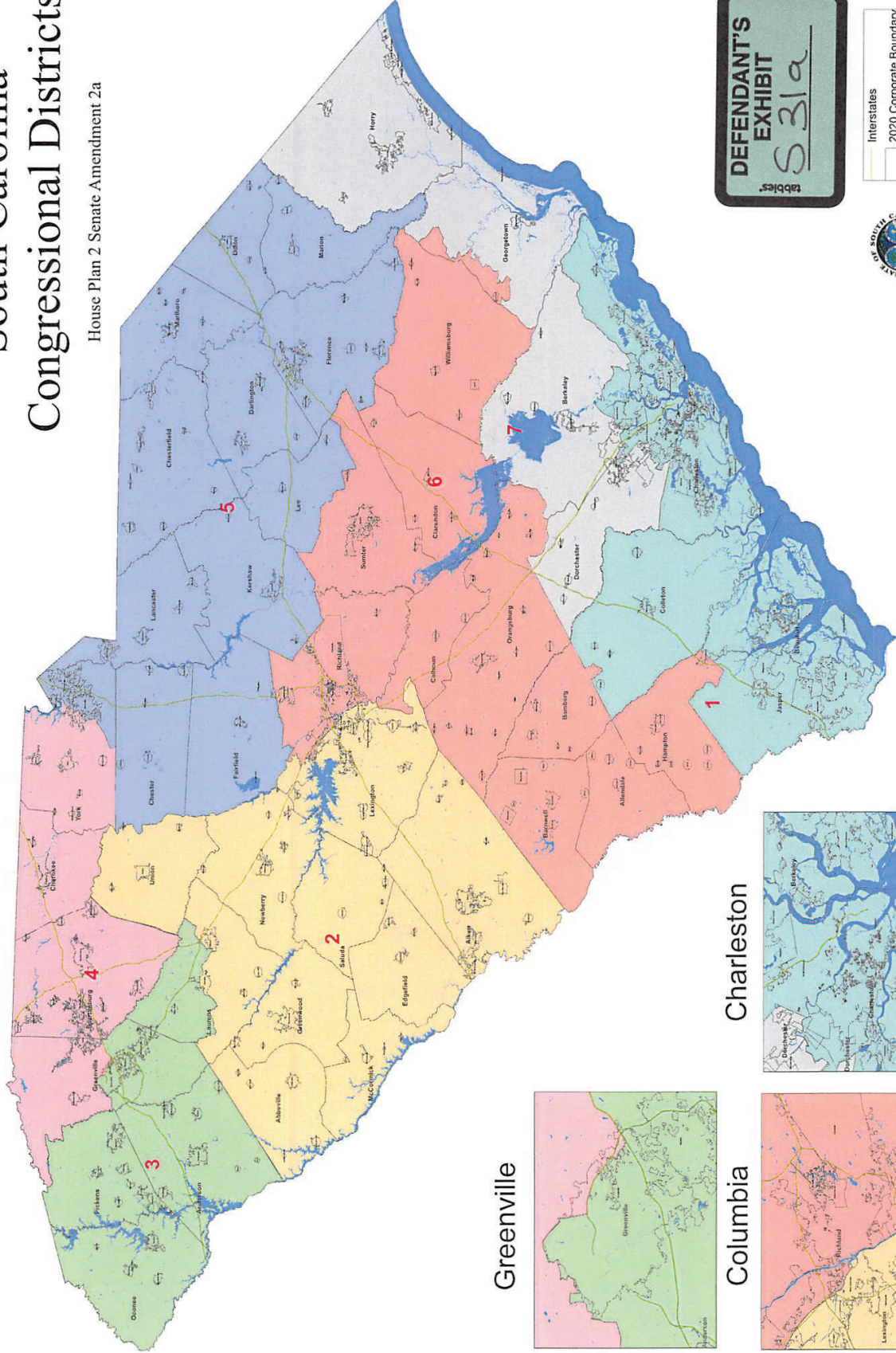
Total: 5,118,425

Ideal District: 731,204

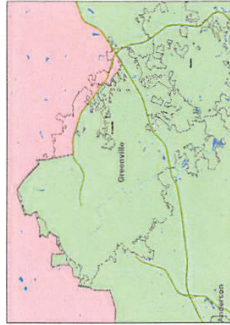


South Carolina Congressional Districts

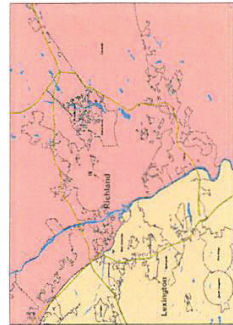
House Plan 2 Senate Amendment 2a



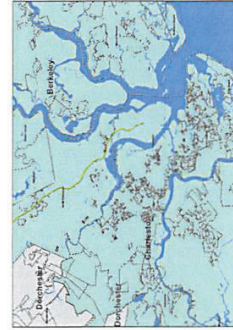
Greenville



Columbia



Charleston



- Interstate
- 2020 Corporate Boundary
- County Boundary
- Water Area

Appendix 22

House Plan 2 Senate Amendment 2a Plan Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH DOJ_Blk	% NH DOJ_Blk	VAP	% VAP	HVAP	%HVAP	NH_WVAP	%NH_WVAP	NH_DOL_BVAP	% NH_DOL_BVAP	NH_DOL_BVAP	% NH_DOL_BVAP
1	731,204	0	0.00%	67,259	9.20%	467,840	63.98%	159,130	21.76%	585,295	80.05%	44,995	7.69%	392,334	67.03%	120,380	20.57%	120,380	20.57%
2	731,203	-1	0.00%	49,030	6.71%	483,727	66.16%	163,776	22.40%	570,188	77.98%	31,299	5.49%	393,041	68.93%	120,796	21.19%	120,796	21.19%
3	731,204	0	0.00%	50,746	6.94%	523,130	71.54%	119,196	16.30%	572,766	78.33%	33,286	5.81%	424,007	74.03%	87,150	15.22%	87,150	15.22%
4	731,203	-1	0.00%	66,600	9.11%	502,094	68.67%	122,297	16.73%	564,527	77.21%	43,119	7.64%	403,325	71.44%	88,816	15.73%	88,816	15.73%
5	731,203	-1	0.00%	34,325	4.69%	409,760	56.04%	250,181	34.22%	564,596	77.21%	22,180	3.93%	330,197	58.48%	186,568	33.04%	186,568	33.04%
6	731,204	0	0.00%	35,456	4.85%	293,622	40.16%	367,566	50.27%	576,464	78.84%	24,566	4.26%	245,649	42.61%	280,145	48.60%	280,145	48.60%
7	731,204	0	0.00%	49,422	6.76%	498,379	68.16%	141,741	19.38%	580,624	79.41%	31,679	5.46%	415,422	71.55%	103,197	17.77%	103,197	17.77%



User:
 Plan Name: House Plan 2 Senate Amendment 2a
 Plan Type:

Population Summary

Friday, January 14, 2022

3:11 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Whit]	NH_DOJ_Bik	NH_Whit [% NH_Whit]	NH_DOJ_Bik	[% NH_DOJ_Bik]
1	731,204	0	0.00%	67,259	9.2%	467,840	63.98%	159,130	21.76%
2	731,203	-1	0.00%	49,030	6.71%	483,727	66.15%	163,776	22.4%
3	731,204	0	0.00%	50,746	6.94%	523,130	71.54%	119,196	16.3%
4	731,203	-1	0.00%	66,600	9.11%	502,094	68.67%	122,297	16.73%
5	731,203	-1	0.00%	34,325	4.69%	409,760	56.04%	250,181	34.21%
6	731,204	0	0.00%	35,456	4.85%	293,622	40.16%	367,566	50.27%
7	731,204	0	0.00%	49,422	6.76%	498,379	68.16%	141,741	19.38%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: House Plan 2 Senate Amendment 2a
 Plan Type:

Population Summary

Friday, January 14, 2022

3:11 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 1
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Whit]	[% NH18+_Whit]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,204	0	585,295	80.05%	44,995	7.69%	392,334	67.03%	120,380	20.57%
2	731,203	-1	570,188	77.98%	31,299	5.49%	393,041	68.93%	120,796	21.19%
3	731,204	0	572,766	78.33%	33,286	5.81%	424,007	74.03%	87,150	15.22%
4	731,203	-1	564,527	77.21%	43,119	7.64%	403,325	71.44%	88,816	15.73%
5	731,203	-1	564,596	77.21%	22,180	3.93%	330,197	58.48%	186,568	33.04%
6	731,204	0	576,464	78.84%	24,566	4.26%	245,649	42.61%	280,145	48.6%
7	731,204	0	580,624	79.41%	31,679	5.46%	415,422	71.55%	103,197	17.77%

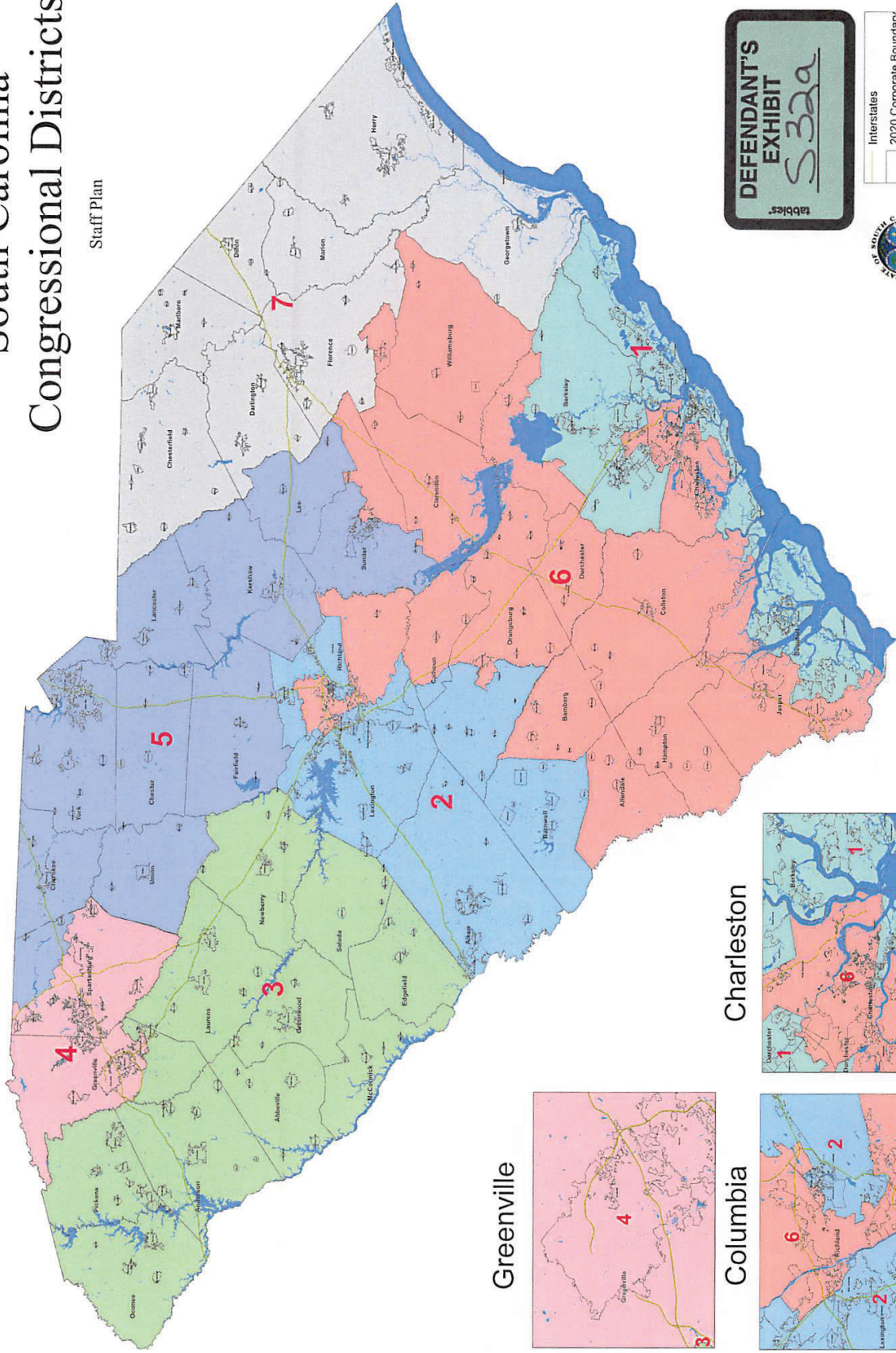
Total: 5,118,425

Ideal District: 731,204



South Carolina Congressional Districts

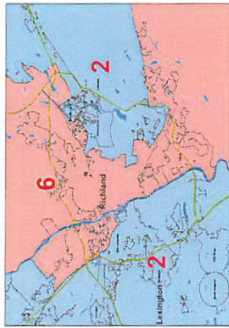
Staff Plan



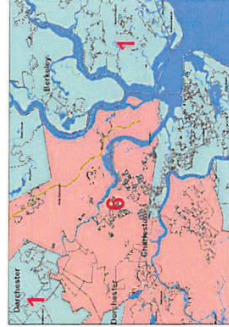
Greenville



Columbia



Charleston



tabbles®
DEFENDANT'S EXHIBIT
 S32a

Interstates
 2020 Corporate Boundary
 County Boundary
 Water Area

Appendix 26

S.C. Senate Staff Subcommittee Plan

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_Doj_Blk	% NH_Doj_Blk	VAP	% VAP	HVAP	% HVAP	NH_WVAP	%NH_WVAP	NH_Doj_BVAP	% NH_Doj_BVAP
1	731,204	0	0.00%	61,939	8.47%	500,141	68.40%	125,711	17.19%	569,702	77.91%	40,339	7.08%	407,201	71.48%	91,180	16.00%
2	731,203	-1	0.00%	50,512	6.91%	454,736	62.19%	183,910	25.15%	564,160	77.16%	32,955	5.84%	367,374	65.12%	133,341	23.64%
3	731,204	0	0.00%	42,512	5.81%	524,457	71.73%	132,875	18.17%	577,297	78.95%	27,422	4.75%	427,484	74.05%	98,848	17.12%
4	731,204	0	0.00%	77,653	10.62%	468,620	64.09%	142,090	19.43%	565,412	77.33%	50,888	9.00%	379,099	67.05%	104,145	18.42%
5	731,204	0	0.00%	39,825	5.45%	468,920	64.13%	182,332	24.94%	562,685	76.95%	25,482	4.53%	374,151	66.49%	135,206	24.03%
6	731,203	-1	0.00%	44,193	6.04%	294,759	40.31%	360,765	49.34%	586,464	80.21%	30,376	5.18%	253,449	43.22%	278,096	47.42%
7	731,203	-1	0.00%	36,204	4.95%	466,919	63.86%	196,204	26.83%	588,740	80.52%	23,662	4.02%	395,217	67.13%	146,236	24.84%

S.C. Senate Judiciary Committee



User:
 Plan Name: Staff Subcommittee Plan
 Plan Type:

Population Summary

Tuesday, November 23, 2021

11:58 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Whit]	NH_Doj_Blk	NH_Doj_Blk [%]
1	731,204	0	0.00%	61,939	8.47%	500,141	68.4%
2	731,203	-1	0.00%	50,512	6.91%	454,736	62.19%
3	731,204	0	0.00%	42,512	5.81%	524,457	71.73%
4	731,204	0	0.00%	77,653	10.62%	468,620	64.09%
5	731,204	0	0.00%	39,825	5.45%	468,920	64.13%
6	731,203	-1	0.00%	44,193	6.04%	294,759	40.31%
7	731,203	-1	0.00%	36,204	4.95%	466,919	63.86%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: Staff Subcommittee Plan
 Plan Type:

Population Summary

Tuesday, November 23, 2021

11:58 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_BlK]	[% NH18+_DOJ_BlK]
1	731,204	0	569,702	77.91%	40,339	7.08%	407,201	71.48%	91,180	16%
2	731,203	-1	564,160	77.16%	32,955	5.84%	367,374	65.12%	133,341	23.64%
3	731,204	0	577,297	78.95%	27,422	4.75%	427,484	74.05%	98,848	17.12%
4	731,204	0	565,412	77.33%	50,888	9%	379,099	67.05%	104,145	18.42%
5	731,204	0	562,685	76.95%	25,482	4.53%	374,151	66.49%	135,206	24.03%
6	731,203	-1	586,464	80.21%	30,376	5.18%	253,449	43.22%	278,096	47.42%
7	731,203	-1	588,740	80.52%	23,662	4.02%	395,217	67.13%	146,236	24.84%

Total: 5,118,425

Ideal District: 731,204



User:
 Plan Name: ContHouseStaffPlan3
 Plan Type:

Population Summary

Friday, December 10, 2021

12:43 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Range: 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Whit [% NH_Whit]	NH_DOJ_Black	NH_DOJ_Black [% NH_DOJ_Black]
1	731,204	0	0.00%	47,750	6.53%	480,766	65.75%
2	731,203	-1	0.00%	63,280	8.65%	479,199	65.54%
3	731,204	0	0.00%	43,159	5.9%	522,302	71.43%
4	731,204	0	0.00%	76,946	10.52%	470,985	64.41%
5	731,203	-1	0.00%	42,798	5.85%	486,355	66.51%
6	731,203	-1	0.00%	42,689	5.84%	271,921	37.19%
7	731,204	0	0.00%	36,216	4.95%	467,024	63.87%

Total: 5,118,425
Ideal District: 731,204



Appendix 30

User:
 Plan Name: ConHouseStaffPlan3
 Plan Type:

Population Summary

Friday, December 10, 2021

12:44 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blkl]	[% NH18+_DOJ_Blkl]
1	731,204	0	569,665	77.91%	31,205	5.48%	389,590	68.39%	115,484	20.27%
2	731,203	-1	575,037	78.64%	41,222	7.17%	395,556	68.79%	112,219	19.52%
3	731,204	0	577,348	78.96%	27,806	4.82%	426,033	73.79%	99,960	17.31%
4	731,204	0	565,430	77.33%	50,474	8.93%	380,735	67.34%	103,010	18.22%
5	731,203	-1	561,129	76.74%	27,789	4.95%	386,623	68.9%	117,826	21%
6	731,203	-1	577,103	78.93%	28,958	5.02%	230,139	39.88%	292,390	50.67%
7	731,204	0	588,748	80.52%	23,670	4.02%	395,299	67.14%	146,163	24.83%

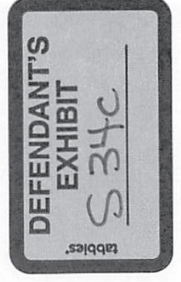
Total: 5,118,425

Ideal District: 731,204



Appendix 31

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOL_Blk	% NH_DOL_Blk	VAP	% VAP	HVAP	% HVAP	NH_WVAP	% NH_WVAP	NH_DOL_BVAP	% NH_DOL_BVAP
1	731,203	-1	0%	58,103	7.95%	374,724	51.25%	257,726	35.25%	562,919	76.99%	37,708	6.70%	304,098	54.02%	191,527	34.02%
2	731,203	-1	0%	50,085	6.85%	489,931	67.00%	154,483	21.09%	573,132	78.38%	32,329	5.64%	399,830	69.76%	113,931	19.88%
3	731,204	0	0%	46,023	6.29%	526,163	71.96%	121,953	16.68%	571,410	78.15%	30,010	5.25%	425,016	74.38%	88,955	15.57%
4	731,204	0	0%	69,746	9.54%	493,048	67.43%	128,743	17.61%	566,795	77.52%	45,429	8.02%	398,055	70.23%	94,172	16.61%
5	731,203	-1	0%	40,221	5.50%	466,751	63.83%	183,626	25.11%	567,439	77.60%	25,799	4.55%	378,256	66.66%	135,140	23.82%
6	731,205	1	0%	33,431	4.57%	276,541	37.82%	389,191	53.23%	573,426	78.42%	22,759	3.97%	230,669	40.23%	295,992	51.62%
7	731,203	-1	0%	55,229	7.55%	551,394	75.41%	88,465	12.10%	599,339	81.97%	37,090	6.19%	468,051	78.09%	67,335	11.23%



User:
 Plan Name: NAACP_Congressional_1
 Plan Type: NAACP_Congressional_1

Population Summary

Friday, October 29, 2021
 11:18 AM

Summary Statistics:
 Population Range: 731,203 to 731,205
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 2
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.71
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.73

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Whit [% NH_Whit]	NH_DOJ_Black	NH_DOJ_Black [% NH_DOJ_Black]
1	731,203	-1	0.00%	58,103	7.95%	374,724	51.25%
2	731,203	-1	0.00%	50,085	6.85%	489,931	67%
3	731,204	0	0.00%	46,023	6.29%	526,163	71.96%
4	731,204	0	0.00%	69,746	9.54%	493,048	67.43%
5	731,203	-1	0.00%	40,221	5.5%	466,751	63.83%
6	731,205	1	0.00%	33,431	4.57%	276,541	37.82%
7	731,203	-1	0.00%	55,229	7.55%	551,394	75.41%
Total:	5,118,425						
Ideal District:	731,204						



User: NAACP_Congressional_1
 Plan Name: NAACP_Congressional_1
 Plan Type: NAACP_Congressional_1

Population Summary

Friday, October 29, 2021
 11:19 AM

Summary Statistics:

Population Range: 731,203 to 731,205
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 2
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.71
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.73

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_BlK]	[% NH18+_DOJ_BlK]
1	731,203	-1	562,919	76.99%	37,708	6.7%	304,098	54.02%	191,527	34.02%
2	731,203	-1	573,132	78.38%	32,329	5.64%	399,830	69.76%	113,931	19.88%
3	731,204	0	571,410	78.15%	30,010	5.25%	425,016	74.38%	88,955	15.57%
4	731,204	0	566,795	77.52%	45,429	8.02%	398,055	70.23%	94,172	16.61%
5	731,203	-1	567,439	77.6%	25,799	4.55%	378,256	66.66%	135,140	23.82%
6	731,205	1	573,426	78.42%	22,759	3.97%	230,669	40.23%	295,992	51.62%
7	731,203	-1	599,339	81.97%	37,090	6.19%	468,051	78.09%	67,335	11.23%

Total: 5,118,425

Ideal District: 731,204

Appendix 33

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOJ_Bik	% NH_DOJ_Bik	VAP	% VAP	HVAP	% HVAP	VAP	% VAP	NH_WVAP	%NH_WVAP	NH_DOJ_BVAP	% NH_DOJ_BVAP
1	731,205	1	0.00%	57,615	7.88%	452,572	61.89%	178,711	24.44%	574,926	78.63%	38,529	6.70%	371,406	64.60%	133,744	23.26%		
2	731,201	-3	0.00%	60,057	8.21%	479,156	65.53%	152,696	20.88%	570,260	77.99%	38,660	6.78%	392,178	68.77%	111,346	19.53%		
3	731,203	-1	0.00%	42,695	5.84%	521,234	71.28%	135,907	18.59%	578,927	79.17%	27,402	4.73%	426,435	73.66%	101,323	17.50%		
4	731,205	1	0.00%	76,974	10.53%	473,372	64.74%	138,284	18.91%	562,354	76.91%	50,365	8.96%	380,527	67.67%	100,631	17.89%		
5	731,204	0	0.00%	43,441	5.94%	496,511	67.90%	150,070	20.52%	561,732	76.82%	27,830	4.95%	395,334	70.38%	110,027	19.59%		
6	731,204	0	0.00%	35,835	4.90%	288,548	39.46%	372,291	50.91%	577,441	78.97%	24,667	4.27%	242,628	42.02%	283,932	49.17%		
7	731,203	-1	0.00%	36,221	4.95%	467,159	63.89%	195,928	26.80%	588,820	80.53%	23,671	4.02%	395,467	67.16%	146,049	24.80%		



User:
 Plan Name: NAACP_Congressional_2
 Plan Type: NAACP_Congressional_2

Population Summary

Friday, October 29, 2021
 8:53 AM

Summary Statistics:
 Population Range: 731,201 to 731,205
 Ratio Range: 0.00
 Absolute Range: -3 to 1
 Absolute Overall Range: 4
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.00
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.29

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Whit [% NH_Whit]	NH_DoJ_Blk	NH_DoJ_Blk [% NH_DoJ_Blk]
1	731,205	1	0.00%	57,615	7.88%	452,572	178,711	24.44%
2	731,201	-3	0.00%	60,057	8.21%	479,156	152,696	20.88%
3	731,203	-1	0.00%	42,695	5.84%	521,234	135,907	18.59%
4	731,205	1	0.00%	76,974	10.53%	473,372	138,284	18.91%
5	731,204	0	0.00%	43,441	5.94%	496,511	150,070	20.52%
6	731,204	0	0.00%	35,835	4.9%	288,548	372,291	50.91%
7	731,203	-1	0.00%	36,221	4.95%	467,159	195,928	26.8%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: NAACP_Congressional_2
 Plan Type: NAACP_Congressional_2

Population Summary

Friday, October 29, 2021

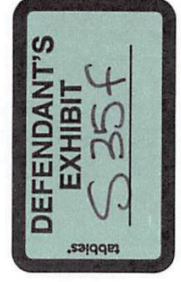
8:54 AM

Summary Statistics:

Population Range: 731,201 to 731,205
 Ratio Range: 0.00
 Absolute Range: -3 to 1
 Absolute Overall Range: 4
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.00
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.29

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Whit]	[% NH18+_Whit]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,205	1	574,926	78.63%	38,529	6.7%	371,406	64.6%	133,744	23.26%
2	731,201	-3	570,260	77.99%	38,660	6.78%	392,178	68.77%	111,346	19.53%
3	731,203	-1	578,927	79.17%	27,402	4.73%	426,435	73.66%	101,323	17.5%
4	731,205	1	562,354	76.91%	50,365	8.96%	380,527	67.67%	100,631	17.89%
5	731,204	0	561,732	76.82%	27,830	4.95%	395,334	70.38%	110,027	19.59%
6	731,204	0	577,441	78.97%	24,667	4.27%	242,628	42.02%	283,932	49.17%
7	731,203	-1	588,820	80.53%	23,671	4.02%	395,467	67.16%	146,049	24.8%

Total: 5,118,425
Ideal District: 731,204



User:
Plan Name: Palmetto Plan
Plan Type:

Population Summary

Friday, November 19, 2021

9:55 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Range: 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,203	-1	574,243	78.53%	39,252	6.84%	408,822	71.19%	98,086	17.08%
2	731,204	0	566,363	77.46%	32,599	5.76%	374,690	66.16%	129,102	22.79%
3	731,203	-1	575,724	78.74%	29,566	5.14%	423,681	73.59%	98,493	17.11%
4	731,204	0	566,025	77.41%	48,027	8.48%	386,947	68.36%	99,420	17.56%
5	731,204	0	563,819	77.11%	26,194	4.65%	372,865	66.13%	137,908	24.46%
6	731,203	-1	579,540	79.26%	31,815	5.49%	241,630	41.69%	277,926	47.96%
7	731,204	0	588,746	80.52%	23,671	4.02%	395,340	67.15%	146,117	24.82%

Total: 5,118,425

Ideal District: 731,204



User:
 Plan Name: Palmetto Plan
 Plan Type:

Population Summary

Friday, November 19, 2021

9:55 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Whit [% NH_Whit]	NH_DOJ_Black	NH_DOJ_Black [%]
1	731,203	-1	0.00%	60,161	8.23%	499,901	131,933	18.04%
2	731,204	0	0.00%	49,974	6.83%	463,275	176,686	24.16%
3	731,203	-1	0.00%	45,816	6.27%	520,461	132,897	18.18%
4	731,204	0	0.00%	73,183	10.01%	479,176	135,545	18.54%
5	731,204	0	0.00%	41,080	5.62%	465,801	185,676	25.39%
6	731,203	-1	0.00%	46,409	6.35%	282,857	365,123	49.93%
7	731,204	0	0.00%	36,215	4.95%	467,081	196,027	26.81%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: Wren Plan
 Plan Type:

Population Summary

Friday, November 19, 2021

9:51 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Wht]	NH_DOJ_Blk	NH_DOJ_Blk [%]
1	731,203	-1	0.00%	60,161	8.23%	499,901	131,933	18.04%
2	731,204	0	0.00%	46,121	6.31%	464,122	181,981	24.89%
3	731,203	-1	0.00%	45,816	6.27%	520,461	132,897	18.18%
4	731,204	0	0.00%	73,183	10.01%	479,176	135,545	18.54%
5	731,204	0	0.00%	41,080	5.62%	465,801	185,676	25.39%
6	731,203	-1	0.00%	50,262	6.87%	282,010	359,828	49.21%
7	731,204	0	0.00%	36,215	4.95%	467,081	196,027	26.81%

Total: 5,118,425
 Ideal District: 731,204



User:
 Plan Name: Wren Plan
 Plan Type:

Population Summary

Friday, November 19, 2021

9:52 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blkl]	[% NH18+_DOJ_Blkl]
1	731,203	-1	574,243	78.53%	39,252	6.84%	408,822	71.19%	98,086	17.08%
2	731,204	0	567,223	77.57%	30,220	5.35%	374,858	66.09%	134,001	23.62%
3	731,203	-1	575,724	78.74%	29,566	5.14%	423,681	73.59%	98,493	17.11%
4	731,204	0	566,025	77.41%	48,027	8.48%	386,947	68.36%	99,420	17.56%
5	731,204	0	563,819	77.11%	26,194	4.65%	372,865	66.13%	137,908	24.46%
6	731,203	-1	578,680	79.14%	34,194	5.91%	241,462	41.73%	273,027	47.18%
7	731,204	0	588,746	80.52%	23,671	4.02%	395,340	67.15%	146,117	24.82%

Total: 5,118,425

Ideal District: 731,204



User:
 Plan Name: Richland Charleston Whole
 Plan Type:

Population Summary

Monday, January 10, 2022

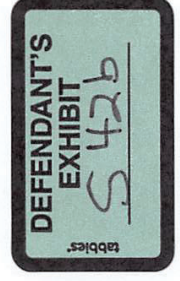
7:34 AM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Range: 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Whit [% NH_Whit]	NH_DOJ_Black	NH_DOJ_Black [% NH_DOJ_Black]
1	731,203	-1	0.00%	55,346	7.57%	464,028	168,018	22.98%
2	731,204	0	0.00%	63,284	8.65%	479,363	152,521	20.86%
3	731,204	0	0.00%	42,512	5.81%	524,457	132,875	18.17%
4	731,204	0	0.00%	77,653	10.62%	468,620	142,090	19.43%
5	731,204	0	0.00%	40,310	5.51%	470,234	180,827	24.73%
6	731,203	-1	0.00%	38,169	5.22%	307,588	347,979	47.59%
7	731,203	-1	0.00%	35,564	4.86%	464,262	199,577	27.29%

Total: 5,118,425
Ideal District: 731,204



User: Sabb Charleston Strong
 Plan Name: Sabb Charleston Strong
 Plan Type:

Population Summary

Monday, January 10, 2022

1:08 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 1
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Whit]	NH_DOJ_Blk	NH_DOJ_Blk	[% NH_DOJ_Blk]
1	731,203	-1	0.00%	52,616	7.2%	500,550	139,614	19.09%
2	731,204	0	0.00%	50,254	6.87%	453,000	186,167	25.46%
3	731,204	0	0.00%	42,692	5.84%	523,281	134,004	18.33%
4	731,203	-1	0.00%	77,860	10.65%	467,098	142,802	19.53%
5	731,204	0	0.00%	39,512	5.4%	473,679	178,287	24.38%
6	731,203	-1	0.00%	53,700	7.34%	294,083	346,755	47.42%
7	731,204	0	0.00%	36,204	4.95%	466,861	196,258	26.84%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: Sabb Charleston Strong
 Plan Type:

Population Summary

Monday, January 10, 2022

1:08 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Whit]	[% NH18+_Whit]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,203	-1	580,650	79.41%	34,954	6.02%	413,630	71.24%	104,304	17.96%
2	731,204	0	564,448	77.19%	32,827	5.82%	365,974	64.84%	135,382	23.98%
3	731,204	0	577,972	79.04%	27,582	4.77%	427,210	73.92%	99,670	17.24%
4	731,203	-1	564,396	77.19%	51,011	9.04%	377,127	66.82%	104,637	18.54%
5	731,204	0	562,985	76.99%	25,233	4.48%	377,998	67.14%	132,173	23.48%
6	731,203	-1	575,262	78.67%	35,852	6.23%	246,864	42.91%	264,609	46%
7	731,204	0	588,747	80.52%	23,665	4.02%	395,172	67.12%	146,277	24.85%

Total: 5,118,425

Ideal District: 731,204



User:
 Plan Name: Sabb Least Change Plan
 Plan Type:

Population Summary

Monday, January 10, 2022

1:43 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 1
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Devn.	[Hispanic Origin]	[% Hispanic Origin]	NH_Wht [% NH_Whit]	NH_DOJ_Blk	[% NH_DOJ_Blk]
1	731,203	-1	0.00%	52,616	7.2%	500,550	68.46%
2	731,204	0	0.00%	50,254	6.87%	453,000	61.95%
3	731,204	0	0.00%	42,692	5.84%	523,281	71.56%
4	731,203	-1	0.00%	77,860	10.65%	467,098	63.88%
5	731,204	0	0.00%	39,512	5.4%	473,679	64.78%
6	731,203	-1	0.00%	53,700	7.34%	294,083	40.22%
7	731,204	0	0.00%	36,204	4.95%	466,861	63.85%

Total: 5,118,425
Ideal District: 731,204



Appendix 44

Sabb Least Change Plan Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOJ_Blk	% NH_DOJ_Blk	VAP	% VAP	HVAP	% HVAP	NH_WVAP	%NH_WVAP	NH_DOJ_BVAP	% NH_DOJ_BVAP
1	731,203	-1	0.00%	52,616	7.20%	500,550	68.46%	139,614	19.09%	580,650	79.41%	34,954	6.02%	413,630	71.24%	104,304	17.96%
2	731,204	0	0.00%	50,254	6.87%	453,000	61.95%	186,167	25.46%	564,448	77.19%	32,827	5.82%	365,974	64.84%	135,382	23.98%
3	731,204	0	0.00%	42,692	5.84%	523,281	71.56%	134,004	18.33%	577,972	79.04%	27,582	4.77%	427,210	73.92%	99,670	17.24%
4	731,203	-1	0.00%	77,860	10.65%	467,098	63.88%	142,802	19.53%	564,396	77.19%	51,011	9.04%	377,127	66.82%	104,637	18.54%
5	731,204	0	0.00%	39,512	5.40%	473,679	64.78%	178,287	24.38%	562,985	76.99%	25,233	4.48%	377,998	67.14%	132,173	23.48%
6	731,203	-1	0.00%	53,700	7.34%	294,083	40.22%	346,755	47.42%	575,262	78.67%	35,852	6.23%	246,864	42.91%	264,609	46.00%
7	731,204	0	0.00%	36,204	4.95%	466,861	63.85%	196,258	26.84%	588,747	80.52%	23,665	4.02%	395,172	67.12%	146,277	24.85%



Appendix 45

Sabb Charleston Beaufort Whole Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_DOJ_Bik	% NH_DOJ_Bik	VAP	% VAP	HVAP	% HVAP	NH_WVAP	% NH_WVAP	NH_DOJ_BVAP	% NH_DOJ_BVAP
1	731,203	-1	0.00%	65,044	8.90%	473,065	64.70%	154,344	21.11%	583,712	79.83%	43,651	7.48%	395,249	67.71%	115,990	19.87%
2	731,204	0	0.00%	50,405	6.89%	455,098	62.24%	183,763	25.13%	563,919	77.12%	32,861	5.83%	367,453	65.16%	133,219	23.62%
3	731,204	0	0.00%	42,692	5.84%	523,281	71.56%	134,004	18.33%	577,972	79.04%	27,582	4.77%	427,210	73.92%	99,670	17.24%
4	731,203	-1	0.00%	77,860	10.65%	467,098	63.88%	142,802	19.53%	564,396	77.19%	51,011	9.04%	377,127	66.82%	104,637	18.54%
5	731,204	0	0.00%	39,512	5.40%	473,679	64.78%	178,287	24.38%	562,985	76.99%	25,233	4.48%	377,998	67.14%	132,173	23.48%
6	731,203	-1	0.00%	41,121	5.62%	319,470	43.69%	334,429	45.74%	572,729	78.33%	27,121	4.74%	263,766	46.05%	255,086	44.54%
7	731,204	0	0.00%	36,204	4.95%	466,861	63.85%	196,258	26.84%	588,747	80.52%	23,665	4.02%	395,172	67.12%	146,277	24.85%



User: Charleston Beaufort Whole
 Plan Name: Charleston Beaufort Whole
 Plan Type:

Population Summary

Monday, January 10, 2022

7:12 PM

Summary Statistics:

Population Range: 731,203 to 731,204
 Ratio Range: 0.00
 Absolute Range: -1 to 1
 Absolute Overall Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 0.43
 Relative Mean Deviation: 0.00%
 Standard Deviation: 0.49

District	Population	Population Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Whit]	[% NH18+_Whit]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,203	-1	0.00%	583,712	79.83%	43,651	7.48%	395,249	67.71%	115,990	19.87%
2	731,204	0	0.00%	563,919	77.12%	32,861	5.83%	367,453	65.16%	133,219	23.62%
3	731,204	0	0.00%	577,972	79.04%	27,582	4.77%	427,210	73.92%	99,670	17.24%
4	731,203	-1	0.00%	564,396	77.19%	51,011	9.04%	377,127	66.82%	104,637	18.54%
5	731,204	0	0.00%	562,985	76.99%	25,233	4.48%	377,998	67.14%	132,173	23.48%
6	731,203	-1	0.00%	572,729	78.33%	27,121	4.74%	263,766	46.05%	255,086	44.54%
7	731,204	0	0.00%	588,747	80.52%	23,665	4.02%	395,172	67.12%	146,277	24.85%

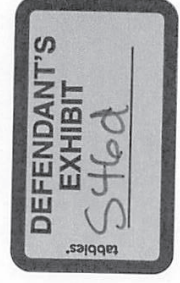
Total: 5,118,425
Ideal District: 731,204



Appendix 47

MBM Plan Stats

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_Dol_Blk	% NH_Dol_Blk	VAP	% VAP	HVAP	% HVAP	NH_WWAP	% NH_WWAP	NH_Dol_BVAP	% NH_Dol_BVAP
1	731205	1	0.00%	67,258	9.20%	467,845	63.98%	159,131	21.76%	585,290	80.04%	44,998	7.69%	392,333	67.03%	120,379	20.57%
2	731204	0	0.00%	49,071	6.71%	482,965	66.05%	164,513	22.50%	570,189	77.98%	31,326	5.49%	392,422	68.82%	121,406	21.29%
3	731203	-1	0.00%	50,606	6.92%	523,816	71.64%	118,621	16.22%	572,754	78.33%	33,194	5.80%	424,564	74.13%	86,659	15.13%
4	731201	-3	0.00%	66,678	9.12%	502,238	68.69%	122,075	16.70%	564,580	77.21%	43,166	7.65%	403,463	71.46%	88,677	15.71%
5	731204	0	0.00%	34,335	4.70%	409,663	56.03%	250,265	34.23%	564,534	77.21%	22,189	3.93%	330,096	58.47%	186,598	33.05%
6	731205	1	0.00%	35,466	4.85%	293,654	40.16%	367,540	50.27%	576,485	78.84%	24,575	4.26%	245,676	42.62%	280,133	48.59%
7	731203	-1	0.00%	49,424	6.76%	498,371	68.16%	141,742	19.38%	580,628	79.41%	31,676	5.46%	415,421	71.55%	103,200	17.77%



User:
 Plan Name: MBM Plan
 Plan Type:

Population Summary

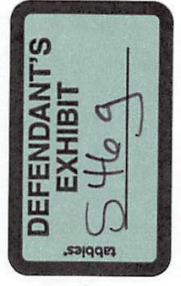
Friday, January 7, 2022 3:39 PM

Summary Statistics:

Population Range: 731,201 to 731,205
 Ratio Range: 0.00
 Absolute Range: -3 to 1
 Absolute Overall Range: 4
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.00
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.29

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,205	1	585,290	80.04%	44,998	7.69%	392,333	67.03%	120,379	20.57%
2	731,204	0	570,189	77.98%	31,326	5.49%	392,422	68.82%	121,406	21.29%
3	731,203	-1	572,754	78.33%	33,194	5.8%	424,564	74.13%	86,659	15.13%
4	731,201	-3	564,580	77.21%	43,166	7.65%	403,463	71.46%	88,677	15.71%
5	731,204	0	564,534	77.21%	22,189	3.93%	330,096	58.47%	186,598	33.05%
6	731,205	1	576,485	78.84%	24,575	4.26%	245,676	42.62%	280,133	48.59%
7	731,203	-1	580,628	79.41%	31,676	5.46%	415,421	71.55%	103,200	17.77%

Total: 5,118,425
Ideal District: 731,204



User: Amendment 3 - Harpootlian - Oppermann
 Plan Name: LWV
 Plan Type:

Population Summary

Wednesday, January 19, 2022

8:09 PM

Summary Statistics:

Population Range: 731,202 to 731,207
 Ratio Range: 0.00
 Absolute Range: -2 to 3
 Absolute Overall Range: 5
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.57
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.76

District	Population	Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Wht]	NH_Doj_Blk	NH_Doj_Blk [%]
1	731,202	-2	0.00%	55,898	7.64%	458,431	62.7%
2	731,207	3	0.00%	63,997	8.75%	482,335	65.96%
3	731,204	0	0.00%	42,972	5.88%	526,619	72.02%
4	731,203	-1	0.00%	77,141	10.55%	470,074	64.29%
5	731,205	1	0.00%	38,776	5.3%	472,636	64.64%
6	731,202	-2	0.00%	35,303	4.83%	299,859	41.01%
7	731,202	-2	0.00%	38,751	5.3%	468,598	64.09%

Total: 5,118,425
Ideal District: 731,204



User: Amendment 3 - Harpoitian - Oppermann
 Plan Name: LWV
 Plan Type:

Population Summary

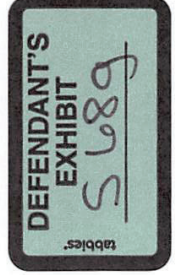
Wednesday, January 19, 2022 8:09 PM

Summary Statistics:

Population Range: 731,202 to 731,207
 Ratio Range: 0.00
 Absolute Range: -2 to 3
 Absolute Overall Range: 5
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.57
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.76

District	Population	Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,202	-2	572,602	78.31%	36,831	6.45%	374,493	65.4%	129,243	22.57%
2	731,207	3	575,525	78.71%	41,825	7.27%	397,995	69.15%	109,634	19.05%
3	731,204	0	577,563	78.99%	27,621	4.78%	429,883	74.43%	96,307	16.67%
4	731,203	-1	563,703	77.09%	50,495	8.96%	378,743	67.19%	102,987	18.27%
5	731,205	1	563,371	77.05%	24,725	4.39%	377,829	67.07%	134,244	23.83%
6	731,202	-2	576,192	78.8%	24,361	4.23%	250,396	43.46%	274,565	47.65%
7	731,202	-2	585,504	80.07%	25,166	4.3%	394,636	67.4%	140,072	23.92%

Total: 5,118,425
Ideal District: 731,204



Appendix 51

District	Population	Deviation	% Deviation	Hispanic	% Hispanic	NH White	% NH White	NH_Doi_Blk	% NH_Doi_Blk	VAP	% VAP	HVAP	%HVAP	NH_WVAP	%NH_WVAP	NH_Doi_BVAP	% NH_Doi_BVAP
1	731,202	-2	0.00%	55,898	7.64%	458,431	62.70%	173,324	23.70%	572,602	78.31%	36,931	6.45%	374,493	65.40%	129,243	22.57%
2	731,207	3	0.00%	63,997	8.75%	482,335	65.96%	148,890	20.36%	575,525	78.71%	41,925	7.27%	397,995	69.15%	109,634	19.05%
3	731,204	0	0.00%	42,142	5.76%	528,937	72.34%	128,753	17.61%	578,242	79.08%	27,012	4.67%	432,300	74.76%	95,225	16.47%
4	731,204	0	0.00%	77,968	10.66%	467,743	63.97%	142,077	19.43%	563,046	77.00%	51,105	9.08%	376,347	66.84%	104,078	18.48%
5	731,203	-1	0.00%	38,779	5.30%	472,659	64.64%	181,440	24.81%	563,319	77.04%	24,723	4.39%	377,811	67.07%	134,196	23.82%
6	731,202	-2	0.00%	35,303	4.83%	299,859	41.01%	360,393	49.29%	576,192	78.80%	24,361	4.23%	250,396	43.46%	274,565	47.65%
7	731,203	-1	0.00%	38,751	5.30%	468,588	64.08%	189,010	25.85%	585,534	80.08%	25,167	4.30%	394,633	67.40%	140,111	23.93%



User:
 Plan Name: LWVSC_Congressional_1
 Plan Type: LWVSC_Congressional_1

Population Summary

Friday, October 29, 2021

1:15 PM

Summary Statistics:

Population Range: 731,202 to 731,207
 Ratio Range: 0.00
 Absolute Range: -2 to 3
 Absolute Overall Range: 5
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.29
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.59

District	Population	Devn.	% Devn.	[Hispanic Origin]	[Hispanic Origin]	NH_Wht [% NH_Whit]	NH_DOJ_Bik	NH_DOJ_Bik [% NH_DOJ_Bik]
1	731,202	-2	0.00%	55,898	7.64%	458,431	173,324	23.7%
2	731,207	3	0.00%	63,997	8.75%	482,335	148,890	20.36%
3	731,204	0	0.00%	42,142	5.76%	528,937	128,753	17.61%
4	731,204	0	0.00%	77,968	10.66%	467,743	142,077	19.43%
5	731,203	-1	0.00%	38,779	5.3%	472,659	181,440	24.81%
6	731,202	-2	0.00%	35,303	4.83%	299,859	360,393	49.29%
7	731,203	-1	0.00%	38,751	5.3%	468,588	189,010	25.85%

Total: 5,118,425
Ideal District: 731,204



User:
 Plan Name: LWVSC_Congressional_1
 Plan Type: LWVSC_Congressional_1

Population Summary

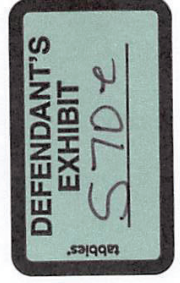
Friday, October 29, 2021

1:16 PM

Summary Statistics:

Population Range: 731,202 to 731,207
 Ratio Range: 0.00
 Absolute Range: -2 to 3
 Absolute Overall Range: 5
 Relative Range: 0.00% to 0.00%
 Relative Overall Range: 0.00%
 Absolute Mean Deviation: 1.29
 Relative Mean Deviation: 0.00%
 Standard Deviation: 1.59

District	Population	Devn.	% Devn.	[18+_Pop]	[% 18+_Pop]	[H18+_Pop]	[% H18+_Pop]	[NH18+_Wht]	[% NH18+_Wht]	[NH18+_DOJ_Blk]	[% NH18+_DOJ_Blk]
1	731,202	-2	0.00%	572,602	78.31%	36,931	6.45%	374,493	65.4%	129,243	22.57%
2	731,207	3	0.00%	575,525	78.71%	41,825	7.27%	397,995	69.15%	109,634	19.05%
3	731,204	0	0.00%	578,242	79.08%	27,012	4.67%	432,300	74.76%	95,225	16.47%
4	731,204	0	0.00%	563,046	77%	51,105	9.08%	376,347	66.84%	104,078	18.48%
5	731,203	-1	0.00%	563,319	77.04%	24,723	4.39%	377,811	67.07%	134,196	23.82%
6	731,202	-2	0.00%	576,192	78.8%	24,361	4.23%	250,396	43.46%	274,565	47.65%
7	731,203	-1	0.00%	585,534	80.08%	25,167	4.3%	394,633	67.4%	140,111	23.93%
Total:	5,118,425										
Ideal District:	731,204										



345a

Appendix 54

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

[[STAMP]
Defendants'
Exhibit

S 75

Case No. 3-21-cv-03302-JMC-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, *et al.*,

Plaintiffs,

v.

HENRY D. MCMASTER, *et al.*,

Defendants.

Expert Report of Sean P. Trende

April 18, 2022

I. Qualifications

Professional Experience:

I serve as Senior Elections Analyst for RealClearPolitics. I joined RealClearPolitics in January of 2009 after practicing law for eight years. I assumed a fulltime position with RealClearPolitics in March of 2010. RealClearPolitics is a company of around 50 employees, with its main offices in Washington D.C. It produces one of the most heavily trafficked political websites in the world, which serves as a one-stop shop for political analysis from all sides of the political spectrum and is recognized as a pioneer in the field of poll aggregation. It produces original content, including both data analysis and traditional reporting. It is routinely cited by the most influential voices in politics, including David Brooks of *The New York Times*, Brit Hume of Fox News, Michael Barone of The Almanac of American Politics, Paul Gigot of The Wall Street Journal, and Peter Beinart of The Atlantic.

My main responsibilities with RealClearPolitics consist of tracking, analyzing, and writing about elections. I collaborate in rating the competitiveness of Presidential, Senate, House, and gubernatorial races. As a part of carrying out these responsibilities, I have studied and written extensively about demographic trends in the country, exit poll data at the state and federal level, public opinion polling, and voter turnout and voting behavior. In particular, understanding the way that districts are drawn and how geography and demographics interact is crucial to predicting United States House of Representatives races, so much of my time is dedicated to that task.

Publications and Speaking Engagements:

I am currently a Visiting Scholar at the American Enterprise Institute, where my publications focus on the demographic and coalitional aspects of American Politics. I am also the author of *The Lost Majority: Why the Future of Government is up For Grabs and Who Will Take It*. In this book, I explore realignment theory. It argues that realignments are a poor concept that should be abandoned. As part of this analysis, I conducted a thorough analysis of demographic and political trends beginning in the 1920s and continuing through the modern times, noting the fluidity and fragility of the coalitions built by the major political parties and their candidates.

I also co-authored the 2014 Almanac of American Politics. The Almanac is considered the foundational text for understanding congressional districts and the representatives of those districts, as well as the dynamics in play behind the elections. PBS's Judy Woodruff described the book as "the oxygen of the political world," while NBC's Chuck Todd noted that "Real political junkies get two Almanacs: one for the home and one for the office." My focus was researching the history of and writing descriptions for many of the newly-drawn districts, including tracing the history of how and why they were drawn the way that they were drawn. I was assigned South Carolina as one of my states. I have also authored a chapter in Larry Sabato's post-election compendium after every election dating back to 2012.

I have spoken on these subjects before audiences from across the political spectrum, including at the Heritage Foundation, the American Enterprise Institute, the CATO Institute, the Bipartisan Policy Center, and the Brookings Institution. In 2012, I was

invited to Brussels to speak about American elections to the European External Action Service, which is the European Union's diplomatic corps. I was selected by the United States Embassy in Sweden to discuss the 2016 elections to a series of audiences there and was selected by the United States Embassy in Spain to fulfill a similar mission in 2018. I was invited to present by the United States Embassy in Italy, but was unable to do so because of my teaching schedule.

Education:

I am currently enrolled as a doctoral candidate in political science at The Ohio State University. I have completed all my coursework and have passed comprehensive examinations in both methods and American Politics. In pursuit of this degree, I have also earned a Master's Degree in Applied Statistics. My coursework for my Ph.D. and M.A.S. included, among other things, classes on G.I.S. systems, spatial statistics, issues in contemporary redistricting, machine learning, non-parametric hypothesis tests and probability theory.

In the winter of 2018, I taught American Politics and the Mass Media at Ohio Wesleyan University. I taught Introduction to American Politics at The Ohio State University for three semesters from Fall of 2018 to Fall of 2019, and again in Fall of 2021. In the Springs of 2020 and 2021, I taught Political Participation and Voting Behavior at The Ohio State University. This course spent several weeks covering all facets of redistricting: How maps are drawn, debates over what constitutes a fair map, measures of redistricting quality, and similar topics. I am teaching this course this semester as well.

Prior Engagements as an Expert:

In 2021, I served as one of two special masters appointed by the Supreme Court of Virginia to redraw the districts that will elect the Commonwealth's representatives to the House of Delegates, state Senate, and U.S. Congress in the following decade. The Supreme Court of Virginia accepted those maps, which were praised by observers from across the political spectrum. "New Voting Maps, and a New Day, for Virginia," *The Washington Post* (Jan. 2, 2022), available at <https://www.washingtonpost.com/opinions/2022/01/02/virginia-redistricting-voting-maps-gerrymander/>; Henry Olsen, "Maryland Shows How to do Redistricting Wrong. Virginia Shows How to Do it Right," *The Washington Post* (Dec. 9, 2021), available at <https://www.washingtonpost.com/opinions/2021/12/09/maryland-virginia-redistricting/>; Richard Pildes, "Has VA Created a New Model for a Reasonably Non-Partisan Redistricting Process," *Election Law Blog* (Dec. 9, 2021), available at <https://electionlawblog.org/?p=126216>.

In 2019, I was appointed as the court's expert by the Supreme Court of Belize. In that case I was asked to identify international standards of democracy as they relate to malapportionment claims, to determine whether Belize's electoral divisions (similar to our congressional districts) conformed with those standards, and to draw alternative maps that would remedy any existing malapportionment.

I served as a Voting Rights Act expert to counsel for the Arizona Independent Redistricting Commission in 2021 and 2022.

I previously authored an expert report in *Dickson v. Rucho*, No. 1:19-cv-01689 (N.C. Super Ct., Wake County), which involved North Carolina's 2012

General Assembly and Senate maps. Although I was not called to testify, it is my understanding that my expert report was accepted without objection.

I also authored an expert report in *Covington v. North Carolina*, Case 5 No. 1: 15-CV- 00399 (M.D.N.C.), which involved almost identical challenges in a different forum. Due to what I understand to be a procedural quirk, where my largely identical report from Dickson had been inadvertently accepted by the plaintiffs into the record when they incorporated parts of the Dickson record into the case, I was not called to testify.

I authored two expert reports in *NAACP v. McCrory*, No. 1:13CV658 (M.D.N.C.), which involved challenges to multiple changes to North Carolina's voter laws. I was admitted as an expert witness and testified at trial. My testimony discussed the "effect" prong of the Voting Rights Act claim. I did not examine the issues relating to intent.

I authored reports in *NAACP v. Husted*, No. 2:14-cv-404 (S.D. Ohio), and *Ohio Democratic Party v. Mated*, Case 15-cv-01802 (S.D. Ohio), which dealt with challenges to various Ohio voting laws. I was admitted and testified at trial in the latter case (the former case settled). The judge in the latter case ultimately refused to consider one opinion, where I used an internet map-drawing tool to show precinct locations in the state. Though no challenge to the accuracy of the data was raised, the judge believed I should have done more work to check that the data behind the application was accurate.

I served as a consulting expert in *Lee v. Virginia Board of Elections*, No. 3:15-cv-357 (E.D. Va. 2016), a voter identification case. Although I would not normally disclose consulting expert work, I was asked

by defense counsel to sit in the courtroom during the case and review testimony. I would therefore consider my work de facto disclosed.

I filed an expert report in *Mecinas v. Hobbs*, No. CV-19-05547-PHX-DJH (D. Ariz. 2020). That case involved a challenge to Arizona's ballot order statute. Although the judge ultimately did not rule on a motion *in limine* in rendering her decision, I was allowed to testify at the hearing.

I authored two expert reports in *Feldman v. Arizona*, No. CV-16-1065-PHX-DLR (D. Ariz.). Plaintiffs in that case challenged an Arizona law prohibiting the collection of voted ballots by third parties that were not family members or caregivers and the practice of most of the state's counties to require voters to vote in their assigned precinct. My reports and testimony were admitted. Part of my trial testimony was struck in that case for reasons unrelated to the merits of the opinion; counsel for the state elicited it while I was on the witness stand and it was struck after Plaintiffs were not able to provide a rebuttal to the new evidence.

I authored an expert report in *Pascua Yaqui Tribe v. Rodriguez*, No. 4:20-CV-00432-TUC- JAS (D. Ariz.), which involved early voting. My expert report and testimony were admitted at trial.

I authored expert reports in *A. Philip Randolph Institute v. Smith*, No. 1 :18-cv-00357-TSB (S.D. Ohio), *Whitford v. Nichol*, No. 15-cv-421-bbc (W.D. Wisc.), and *Common Cause v. Rucho*, NO. 1:16-CV-1026-WO-JEP (M.D.N.C.), which were efficiency gap-based redistricting cases filed in Ohio, Wisconsin, and North Carolina.

I have only been excluded as an expert once, in *Fair Fight v. Raffensperger*. The judge concluded that I lacked sufficient credentials to testify as an expert in election administration.

I authored an expert report in the cases of *Ohio Organizing Collaborative, et al v. Ohio Redistricting Commission, et al* (No. 2021-1210); *League of Women Voters of Ohio, et al v. Ohio Redistricting Commission, et al* (No. 2021-1192); *Bria Bennett, et al v. Ohio Redistricting Commission, et al* (No. 2021-1198). That case was decided on the written record.

I authored two expert reports in the consolidated cases of *NCLCV v. Hall* and *Harper v. Hall* (21 CVS 15426; 21 CVS 500085), two political/racial gerrymandering cases. My reports and testimony were admitted.

I authored two expert reports in the consolidated cases of *Montana Democratic Party v. Jacobson*, DV-56-2021-451 (Mont. Dist. Ct.). These cases involve the elimination of same-day registration, use of student identification to vote, and the restriction of ballot collection.

I authored an expert report on behalf of amicus curiae in the consolidated cases of *Carter v. Chapman* (No. 464 M.D. 2021) and *Gressman v. Chapman* (No. 465 M.D. 2021), which were redistricting cases before the Supreme Court of Pennsylvania.

I filed an expert report in *Harkenrider v. Hochul*, (No. E2022-0116CV), which is a partisan gerrymandering challenge to New York's enacted Congressional and state Senate maps. My reports and testimony were admitted.

I filed an expert report in *Szeliga v. Lamone*, Case No. C-02-CV-21-001816 (Md. Cir. Ct.) and *In the*

Matter of 2022 Legislative Redistricting of the State, Misc. No. 25 (Md. Ct. App.), political gerrymandering cases in Maryland. My reports and testimony were admitted.

I filed an expert report in *Graham v. Adams*, (No. 22-CI-00047) (Ky. Cir. Ct.), a political gerrymandering case. I was admitted as an expert and allowed to testify as trial.

I filed an expert report in *NAACP v. McMaster*, (No. 3:21-cv-03302-JMC-T,11-1-RMG), which is a racial gerrymandering challenge to South Carolina's enacted state House maps.

II. Scope of Engagement

I have been retained by Jones Day on behalf of their clients, defendants in the above matter, to evaluate South Carolina's Congressional Districts, enacted by the South Carolina General Assembly and signed by their governor, Henry McMaster [hereinafter "Enacted Plan" or "Enacted Map"]. This map replaces the previous map, in effect from 2012 to 2020 [hereinafter "Benchmark Plan"]. I have been retained and am being compensated at a rate of \$400.00 per hour to provide my expert analysis of the various factors that were employed in the enacted plan.

III. Summary of Opinions

Based on the work performed as addressed in the following sections of the report, I hold to the following opinions to a reasonable degree of professional certainty:

- The Enacted Map is contiguous and complies with equal-population requirements.

- The Enacted Map generally reflects only modest changes from the Benchmark Plan, which this Court upheld against racial gerrymandering and other challenges in *Backus*.
- The Enacted Map retains high percentages of the cores of all of the Benchmark Districts. Those percentages range from 82.84% in District 1 to 99.96% in District 7, and five districts retain more than 94% of their cores.
- The Enacted Map reduces the number of split counties from 12 in the Benchmark Plan to 10 in the Enacted Plan.
- The Enacted Map significantly reduces the number of voting tabulation district splits from 65 in the Benchmark Plan to 13 in the Enacted Plan. In other words, the Enacted Plan repairs 52 precincts that were split in the Benchmark Plan.
- The Enacted Plan's districts compare favorably to the Benchmark Plan's Districts on four common compactness measures.
- The Enacted Plan's changes to the district line between Districts 2 and 6 are largely explained by the repairing of precincts that were split in the Benchmark Plan.
- The Enacted Plan's changes to the district line between Districts 5 and 6 are largely explained by the repairing of precincts that were split in the Benchmark Plan.
- The Enacted Plan's changes to the district line between Districts 1 and 6 follow natural geographic boundaries and make two counties,

Berkeley County and Beaufort County, whole, while adding a portion of Jasper County to District 1.

- The Enacted Plan's changes to the district line between Districts 1 and 6 have a minimal effect on District 1's racial composition but increase its Republican vote share by nearly three net percentage points on the two-party 2020 presidential election results.

IV. Data Relied Upon and Construction of Datasets

For purposes of this report, I reviewed and/or relied upon the following materials:

- The 2021 Senate Redistricting Guidelines (Sept. 17, 2021);
- The 2021 House Guidelines and Criteria for Congressional and Legislative Redistricting (Sept. 17, 2021);
- This Court's opinion in *Backus v. South Carolina*, 857 F. Supp. 2d 553 (2002);
- This Court's opinion in *Colleton County Council v. McConnell*, 201 F.Supp.2d 618 (2012);
- Block assignment files for the previous congressional district lines and current district lines, available at <https://redistricting.scsenate.gov/planproposal.html>;
- Shapefiles for South Carolina census blocks, precincts, and counties downloaded from the Redistricting Data Hub, available at <https://redistrictingdatahub.org/>;

- Shapefiles for historic congressional districts, maintained by at <https://cdmaps.polisci.ucla.edu/>
- Public hearings transcripts, available at <https://redistricting.scsenate.gov/meetinginfo.html>.
- Other documents referenced in this report.

Obviously calculating racial categories is crucial for the analysis called for by this sort of lawsuit, particularly of Black voters in South Carolina. Unfortunately, this is a more complicated endeavor than it may seem at first blush. The census allows individuals to select multiple races, and different sources will use different combinations of identity to define a person's race. In addition, people of all races may identify as Hispanic. For purposes of this report, I define "Black" and "BVAP" using the same non-Hispanic Black categorization utilized by the South Carolina General Assembly to draw the Enacted Plan.

Because election data are made available at the precinct level, most of the district-wide election data is accurate. When precincts are split, however, it is necessary to estimate how many votes a candidate earned from each portion of the precinct. This is accomplished by taking the precinct-wide votes for each candidate and assigning them to census blocks. Rather than simply dividing by the number of blocks, analysts usually weight each precinct by some number. Here, votes are assigned proportionally to the voting age population in each block. Separate sums for each portion of the precinct are then calculated by adding up the blocks in each precinct segment. Different approaches and weighting mechanisms can produce marginally different results.

All shapefiles are projected using the WGS 84 projection.

V. Analysis of South Carolina's Congressional Districts

Overview

This Court has identified multiple legitimate goals that the South Carolina legislature may pursue when redistricting, including (1) recognizing communities of interest; (2) preserving district cores; (3) respecting county and municipal boundaries, as well as geographical boundaries; (4) keeping incumbents' residences in their districts. In addition, both the House and the Senate add the following factors: (1) compliance with federal law and United States Constitution, with particular attention to the Voting Rights Act of 1965 and equal protection clause of the 14th Amendment; (2) equal population; (3) contiguity; and (4) compactness. The House guidelines further specify that county, municipal, and precinct boundaries may be relevant when considering communities of interest; the Senate guidelines make minimizing the number of splits at those three levels separate criteria. This Court concluded in *Colleton County* that preserving cores of districts is generally the cleanest expression of the General Assembly's intent to group persons into communities of interest. This report otherwise does not deal with communities of interest directly.

Contiguity and Equal Population

At the end of the 2010s, the Benchmark Plan had become malapportioned. It had not, however, become uniformly so. As we can see in Table 1, most of the districts deviated from their ideal population of

731,204 residents by less than 5%. The two exceptions were District 1, which had 87,689 extra residents and was overpopulated by 11.99%, and District 6, which had lost population, was underpopulated by 11.59% and needed to gain 84,741 residents.

District Number	Population	Deviation
1	818,893	87,689
2	721,829	-9,375
3	706,785	-24,419
4	760,233	29,029
5	736,286	5,082
6	646,463	-84,741
7	727,936	-3,268

In response to this, and the fact that the map easily elected Republicans to Congress in five of the seven districts, the Republican-controlled General Assembly passed the Enacted Map, which Gov. Henry McMaster, also a Republican, signed into law on January 26, 2022. The resulting plan is contiguous and minimizes population deviations consistent with traditional principles and the U.S. Constitution

 Table 2: S.C. District Populations, Enacted Plan

District Number	Population	Deviation
1	731,203	-1
2	731,203	-1
3	731,204	0
4	731,204	0
5	731,204	0
6	731,204	0
7	731,203	-1

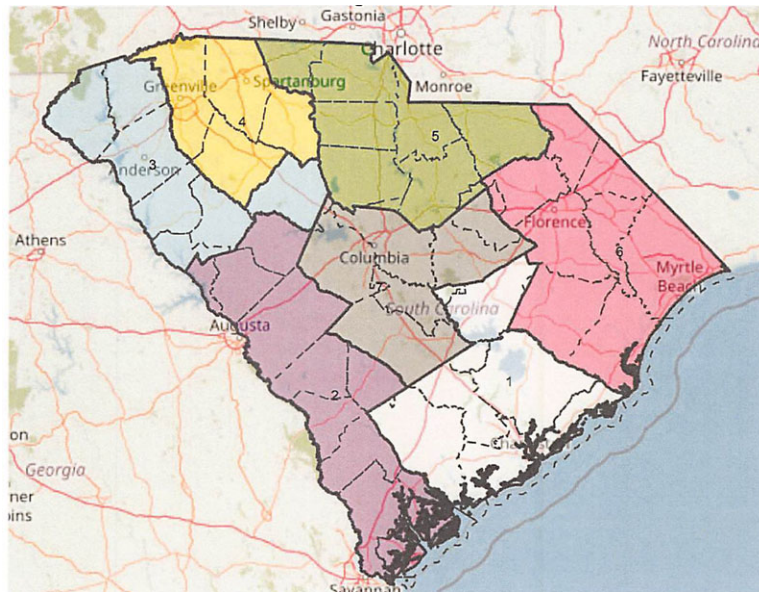
Respecting County, Municipal,
and Precinct Boundaries

The map generally respects administrative boundaries to a substantially greater extent than the preceding map. The previous map split 12 counties, while also traversing 65 voting districts. The Enacted Plan reduces the number of split counties to 10. Six of those splits occur on the boundaries between Districts two through seven, which is only one more split than the realistic minimum number of county splits between six districts. District 1 and District 6 split four counties between them, for reasons described below. The Enacted Plan also reduces the number of split precincts to 13, from 65. *Compare House Plan 2 Senate Amendment 1 Political Subdivision Splits Between Districts(2).pdf* ([scsenate.gov](https://www.scsenate.gov)), *with* *Benchmark Congressional Political Subdivision Splits Between Districts.pdf* ([scsenate.gov](https://www.scsenate.gov)).

Preservation of District Cores

Despite significant changes to population, and the addition/subtraction of districts, South Carolina's district cores have remained surprisingly consistent over the past century. Going back to the early 1900s, the 1st District was anchored in Charleston, the 2nd District was anchored in Beaufort and the counties along the Georgia border. The 3rd District was anchored in Anderson, the 4th District combined Greenville and Spartanburg, the 5th District was anchored in then-rural northern South Carolina, the 6th in Myrtle Beach and the Pee Dee region, and the 7th in Columbia. There was, of course, a political balance struck, as three of the state's districts were anchored north of the Fall Line, three south of the Fall Line, and one in the Capitol, which is on the Fall Line.

South Carolina Congressional Lines, 1902-1930

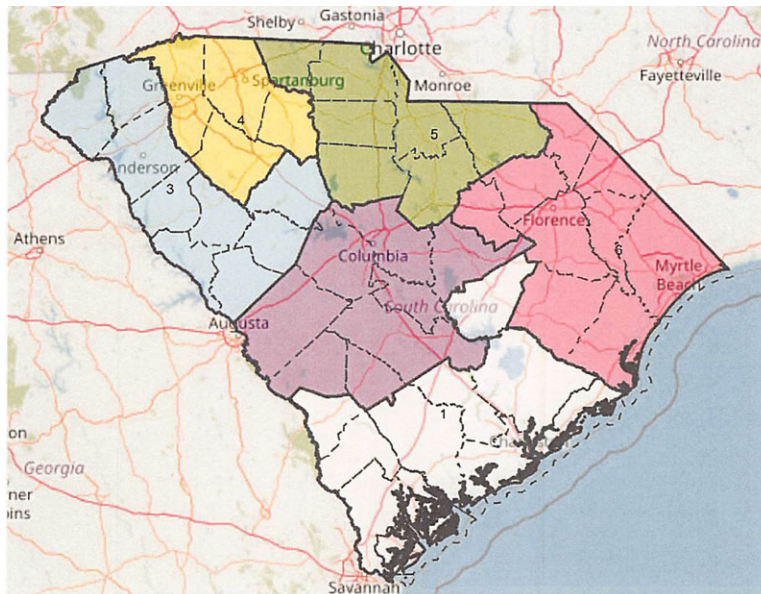


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In 1932, South Carolina lost a district. The Second and Seventh Districts were combined, creating a district based in Charleston stretching to the Georgia border.

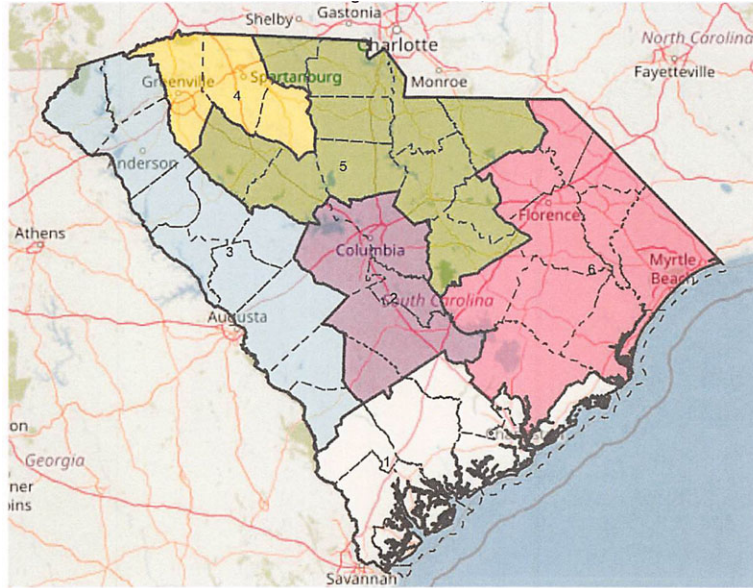
South Carolina Congressional Lines, 1932-1966



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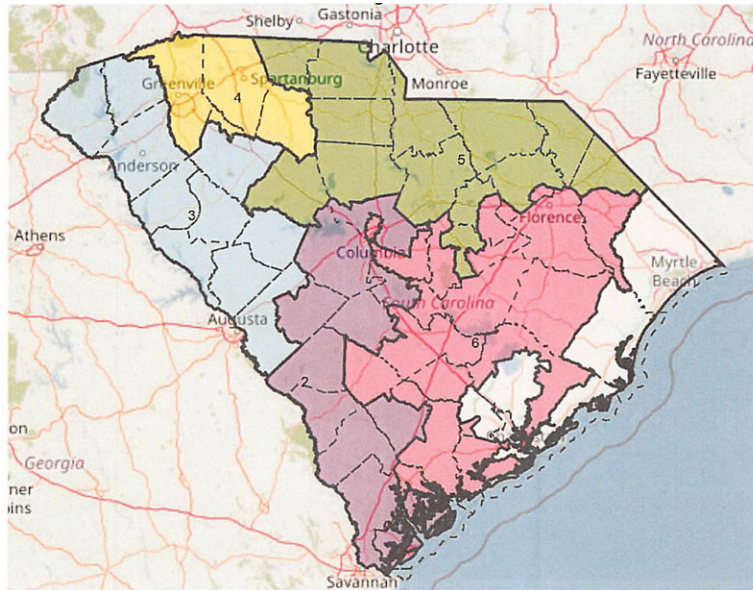
This basic arrangement of districts would endure for 60 years, even after *Baker v. Carr* and its progeny required equipopulous districts. The 1982 map would look very much recognizable to a map-drawer who had been involved in drawing lines earlier in the century.

South Carolina Congressional Lines, 1982-1990



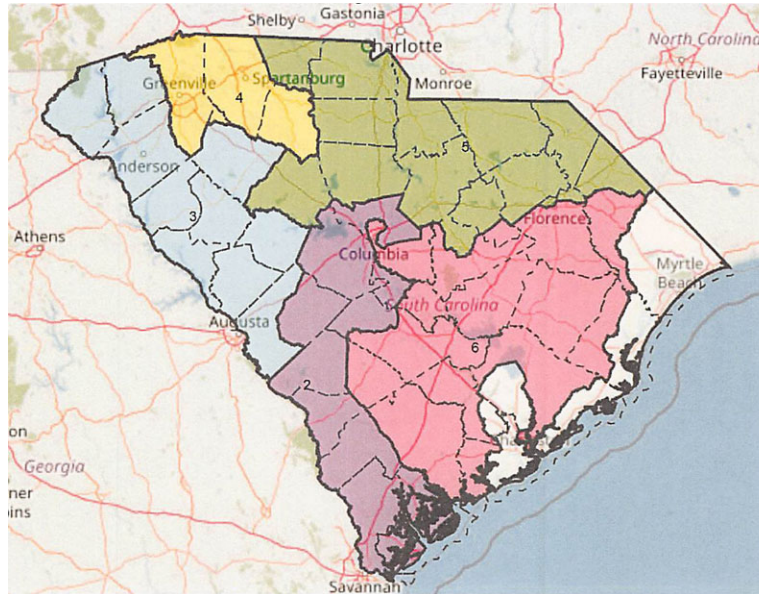
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In 1992, South Carolina reorganized the Lowcountry districts, in part to create an ability-to-elect district. It succeeded in this regard, as the 6th District elected Rep. Jim Clyburn, the first African-American member of Congress from South Carolina since 1897. Even then, there was much continuity in the maps. The Upstate districts as well as the Fifth District remained mostly unchanged. The First was still anchored in Charleston, although it was reoriented along the coast toward Horry County. The Second District was given its now-distinctive “hook” shape, and extended along the Georgia border. It was ultimately struck down as a racial gerrymander; the lines were slightly modified in 1994 and remained in place for the remainder of the decade.

South Carolina Congressional Lines, 1992

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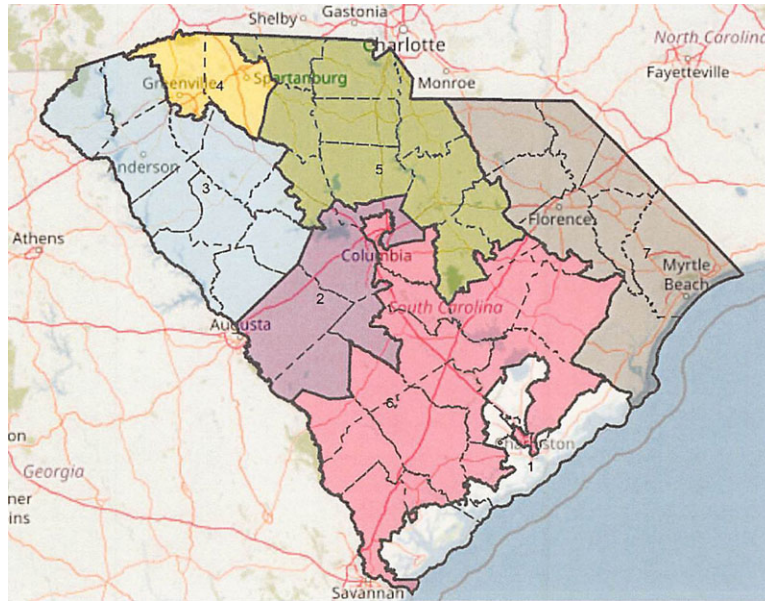
In 2002, the Republican-controlled General Assembly and Democratic governor deadlocked over a plan, leaving it to this Court to draw the lines for the Congressional districts. While the court-drawn map smoothed out the lines, it retained largely the same map that had been in place.

South Carolina Congressional Lines, 2002-2010

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For the redistricting held in the wake of the 2010 census, Republicans controlled the legislature as well as the governorship. Population growth also led to the state gaining a seat in congressional redistricting. The General Assembly ultimately opted to create a District in the Pee Dee region and Myrtle Beach, effectively recreating the old 6th Congressional District.

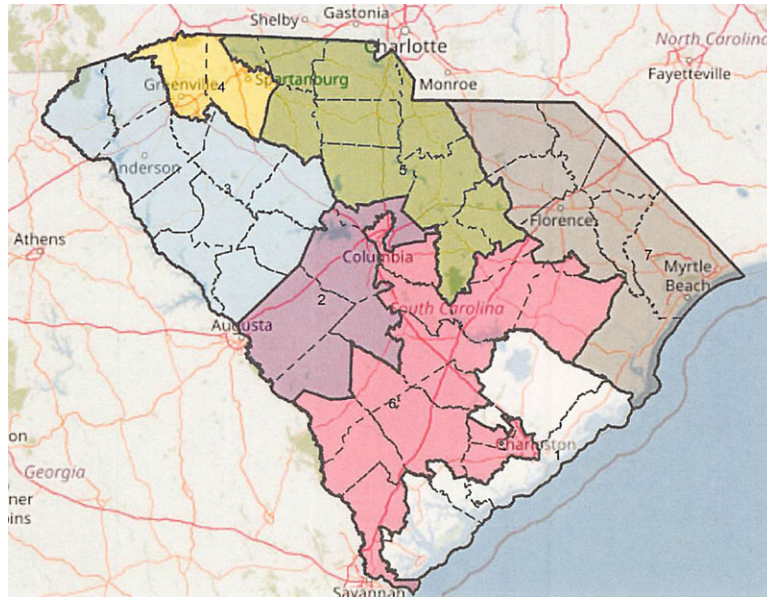
South Carolina Congressional Lines, Benchmark Plan



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For the most part, the Enacted Plan makes only minor changes to the Benchmark Plan. All seven districts retain roughly their same “footprint,” or cores. The boundaries between District 1 and District 6 see the most changes. This is unsurprising, given that these districts were required to lose and gain a large number of residents, respectively; these changes are explored in more detail below. The Second District remains based in Columbia. The Third District is based around Anderson, while the Fourth connects Greenville and Spartanburg. The Fifth District’s population is centered around York County, which is increasingly comprised of suburbs or Charlotte, while the Seventh is anchored in Myrtle Beach and the Pee Dee region.

South Carolina Congressional Lines, Enacted Plan



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Table 2 gives the “core retention” statistics for the state’s congressional districts. Core retention – which both this Court’s decisions and the redistricting guidelines promulgated by the General Assembly identified as a legitimate consideration -- is the percentage of a district’s residents who are kept in a district from one redrawing to the next.

Table 3: Core Population Retention, S.C. Districts

District Number	% Retained
	82.84%
2	98.01%
3	98.02%
4	94.34%
5	94.38%
6	87.55%
7	99.96%

Five of the state's seven districts have very high core retention rates, retaining over 94% of their populations from the Benchmark Plan, with District 7 retaining almost 100% of its core. Even the 1st and 6th districts retain a large share of their populations, with the Sixth approaching 90% retention and the 1st retaining over 80% of its core.

Table 4 gives a different perspective on these numbers. It shows the number of residents who are moved between districts. The left column represents districts that gave residents to other districts; these recipients are represented in columns. This table is best read in rows.

Table 4: Population Movement by District,
2012-2022 Lines

From	To						
	1	2	3	4	5	6	7
1	–	–	–	–	–	140,489	–
2	–	–	–	–	–	14,397	–
3	–	–	–	14,001	–	–	–
4	–	–	7,111	–	35,919	–	–
5	–	–	31,309	–	–	10,038	–
6	52,779	23,771	–	–	346	–	3,553
7	–	–	–	–	–	286	–

The largest two transfers of residents come from the boundary between District 1 and District 6. The former sheds 140,489 residents to the latter, while District 6 loses 52,799 residents to the former. District 2 sheds 14,397 residents to District 6, while gaining 23,771 residents back from that district. The rest of the changes are marginal; the Third gives 14,001 residents to the Fourth District, while gaining back 7,111 residents from the Fourth and 31,309 residents from the Fifth District. In addition to the changes described above, the Fourth District donates 35,919 residents to the Fifth District. The Fifth District donates 10,038 residents to the Sixth, while receiving 345 residents back from it. The Seventh donates 286 residents to the Sixth and receives 3,553 residents back.

Compactness

There are many proposed ways to measure to the idea of “compactness,” and each captures a different aspect of the concept. Reock scores, for example, ask how well the district fills a circle drawn to bound the district; as a district becomes more circular and less elongated, its Reock score improves. The Convex Hull Score ask a similar question, but uses a polygon – a figure with straight sides and angles – to bound the District instead of a circle. The Polsby-Popper score takes a different approach and asks whether a district would fill a circle with the same perimeter/circumference as the district; this punishes districts with inlets and appendages. The Inverse Schwartzberg score has a similar motivation; it is calculated by taking the ratio of the perimeter of the district to the circumference of a circle with the same area as the district.

There are, again, dozens of proposed metrics. I utilize the four above because they give a look at different aspects of compactness for the district. Regardless, the compactness of the Enacted Plan is similar to that of the Benchmark Plan and of other plans since the creation of the current Sixth District in 1992.

Consider first Reock Scores. We cannot directly compare districts dating back to the 1982 redistricting, because of the differing number of districts. We can, however, compare districts in the Enacted Plan to those in the Benchmark Plan.

Table 5: Compactness Scores, Benchmark, and Enacted Plans

District Number	Reock		Polysby-Popper		I. Schwartzberg		Convex Hull	
	Benchmark	Enacted	Benchmark	Enacted	Benchmark	Enacted	Benchmark	Enacted
1	0.196	0.290	0.101	0.148	0.318	0.385	0.588	0.705
2	0.470	0.443	0.168	0.164	0.410	0.405	0.727	0.721
3	0.446	0.432	0.329	0.345	0.573	0.587	0.858	0.849
4	0.378	0.359	0.254	0.234	0.504	0.484	0.797	0.774
5	0.331	0.295	0.213	0.229	0.461	0.479	0.756	0.780
6	0.426	0.365	0.080	0.075	0.283	0.274	0.656	0.577
7	0.343	0.346	0.301	0.299	0.548	0.547	0.789	0.796

For all of these metrics, higher numbers represent more compact districts. As you can see, for the most part, these districts have roughly the same scores across metrics. The 1st District is made somewhat more compact using the Reock and Convex Hull Scores, and the 6th somewhat less compact, but overall, the numbers are comparable. Using the perimeter-based metrics, the districts all have similar compactness scores.

As Table 6 shows, the average compactness scores for the plan are comparable to those we saw in the previous plan and are almost as compact as the scores in the pre-1992 redistricting map.

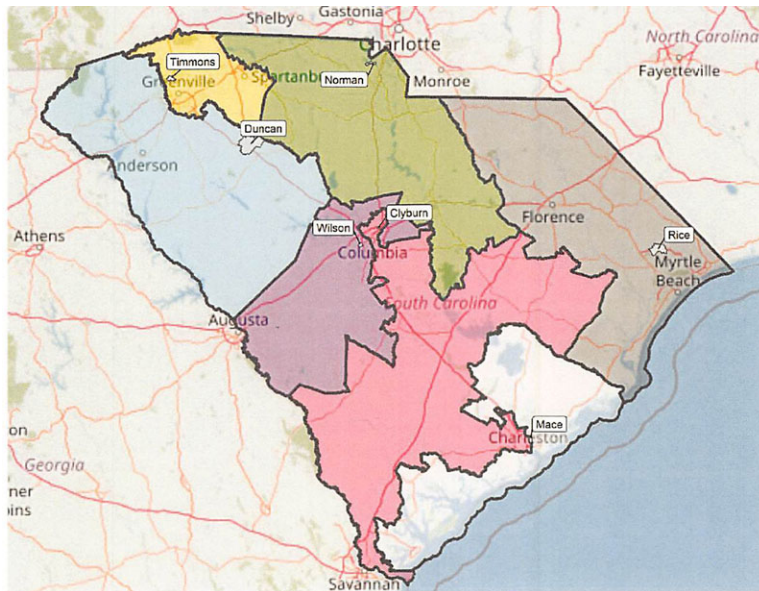
Table 6: Average Compactness Scores,
1982 – 2022 S.C. Districts

Year	Reock	Polsby-Popper	I. Schwartzberg	Convex Hull
1982	0.382	0.233	0.454	0.737
1992	0.318	0.125	0.318	0.664
2002	0.319	0.161	0.366	0.676
2012	0.370	0.207	0.443	0.739
2022	0.361	0.214	0.452	0.743

Incumbent Protection

As the following map demonstrates, the Enacted Plan ensures that representatives are not placed in the same districts. Note that the precise precincts in which Representatives Mace and Rice live have not been provided, so their locations are approximated from public information about their residences.

**South Carolina Congressional Lines,
Enacted Plan, Incumbents Precincts Labeled
Location of Reps. Rice and Mace are Approximate**



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Racial Demographics and Politics

We will examine more closely changes in the individual districts below, but at a global level, the recent redistricting results in minimal changes to the Black Voting Age Populations (BVAPs) of the districts.

Table 7: BVAP Share, Old and New S.C. Districts

District	BVAP, Old	BVAP, New	Difference
1	16.6%	16.7%	0.2%
2	23.1%	24.5%	1.4%
3	16.9%	17.1%	0.2%
4	17.8%	18.4%	0.7%
5	25.1%	24.0%	-1.0%
6	51.4%	45.9%	-5.5%
7	24.8%	24.8%	0.0%

Districts 1, 3, 4, and 7 see almost no changes in their racial demographics. Districts 2 and 5 see modest changes to their racial compositions, while the Black Voting Age population of District 6 is reduced by 5.6 percentage points as part of increasing the total population in that district to the level of population equality.

The political composition of these districts is likewise mostly unchanged, with two exceptions. Table 8 shows the results of the 2020 Biden-Trump election, with third parties excluded.

Table 8: Biden 2-Party Vote Share,
Old and New S.C. Districts

District	Biden Percent, Old	Biden Percent, New	Difference
1	47.0%	45.6%	-1.4%
2	44.2%	44.6%	0.4%
3	31.0%	31.0%	0.0%
4	39.6%	40.6%	1.0%
5	41.6%	40.8%	-0.8%
6	67.8%	66.3%	-1.6%
7	40.6%	40.6%	-0.0%

Most of the districts see their Democratic vote shares remain stable, which is unsurprising given the high degree of core retention overall. The First District sees President Biden's vote share drop from 47% to 45.6%, while the Sixth sees his share drop from 67.8% to 66.3% -- the latter is still comfortably Democratic. The change in the First District is more politically consequential, as described below.

Table 9 shows how voters were moved between districts, broken down by partisanship. Again, most of the changes are fairly marginal. Between Districts 6 and District 1, the latter shed 10,808 Biden voters to the former, mostly in the Charleston area, while picking up a net of 3,242 Biden votes back from the Sixth, mostly in Berkeley County.

Table 9: Net Movement of Biden Voters by District,
2012-2022 Lines

From	To						
	1	2	3	4	5	6	7
1	–	–	–	–	–	10,808	–
2	–	–	–	–	–	2,755	–
3	–	–	–	698	–	–	–
4	–	–	–945	–	–8,220	–	–
5	–	–	–3,211	–	–	212	–
6	3,242	5,485	–	–	89	–	–498
7	–	–	–	–	–	–18	–

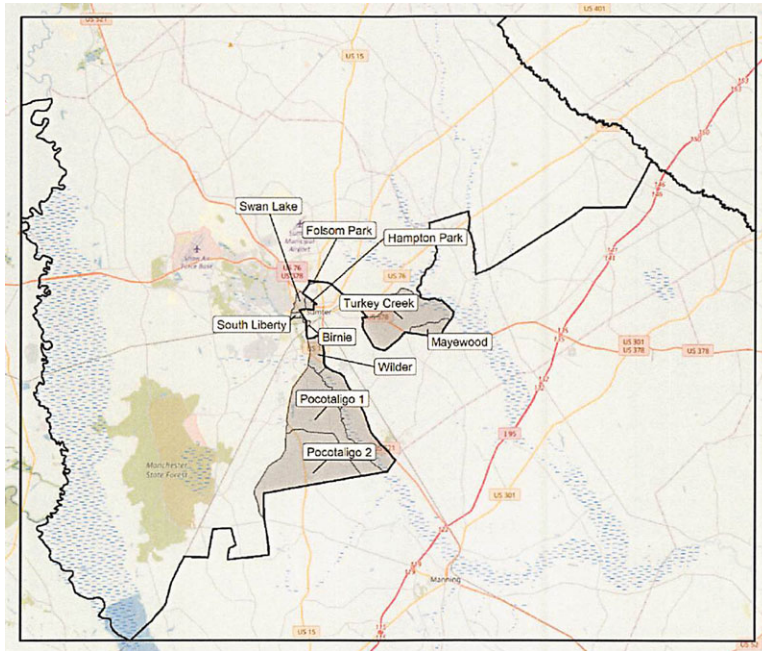
Specific Changes to South Carolina's
Congressional Districts

The District 5 – District 6 Boundary: Sumter County

We first look at the changes made to the boundary between District 5 and District 6 in Sumter County. Sumter County has a population of 105,556 according to the last census, 81,402 of whom were of voting age. Of those residents of voting age, 46.3% are non-Hispanic White, while 45.7% are Black.

The Enacted Map moves a total of 10,384 residents. The shifts are depicted below:

Sumter Area, Moved Precincts Shaded
Black Line = Old District Lines



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Most of these residents live in precincts that were split by the Benchmark Plan and are made whole by the Enacted Plan. The changes also tend to smooth the boundary between the districts. The pair of shaded precincts to the east of Sumter reflect the Mayewood and Turkey Creek precincts. Portions of these precincts also lie to the west of the old District 6, adjacent to the Pocotaligo 1 District. These portions are joined into a single District in the Enacted Plan. The map also adds Wilder, Pocotaligo 1 and Pocotaligo 2 as whole precincts to the Sixth District, smoothing the boundaries between the two districts. The 7,299 residents added to the Sixth District here are 51.8% non-Hispanic White and 41.3% Black.

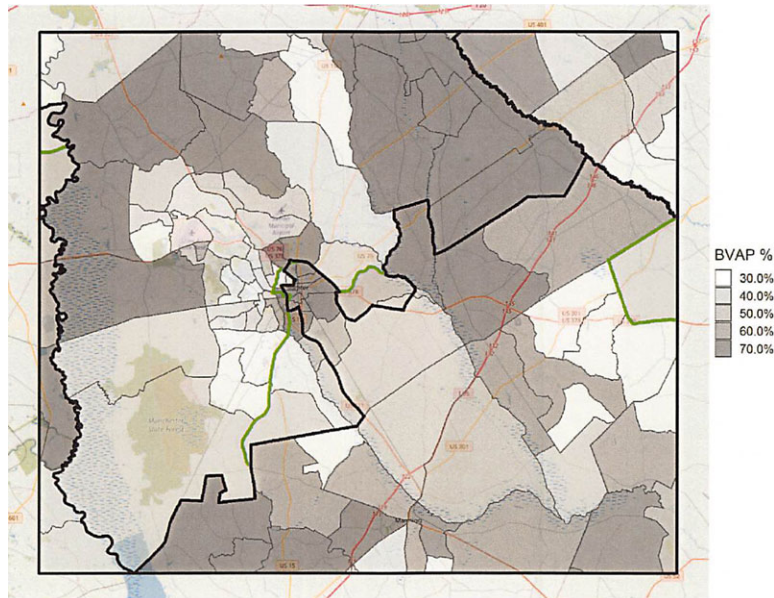
In the city of Sumter itself, the map drawers made the South Liberty and Hampton Park precincts whole within the Sixth District, and added the Swan Lake precinct, which smooths the boundary between the Fifth and Sixth. A portion of the Birnie Precinct, which is already split in the Benchmark Plan, is also added to the Sixth. Overall, 2,739 residents, of whom 2,221 are of voting age, are added to the Sixth District. Of these, 62.3% are non-Hispanic White, and 30.7% are Black.

The map also moves a small sliver of the Folsom Park precinct to the Fifth District, making that precinct whole, and some census blocks in the Birnie Precinct to the Fifth. This totals 346 residents, of whom 235 are of voting age. They are 93.6% Black and 5.1% non-Hispanic White.

The following map shows the old and new district boundaries in Sumter County, superimposed over the precincts in Sumter County. These precincts are shaded by the BVAP shares in each precinct.

378a

Sumter Area, Precincts Colored By BVAP
Green Line = New District Lines,
Black = Old District Lines



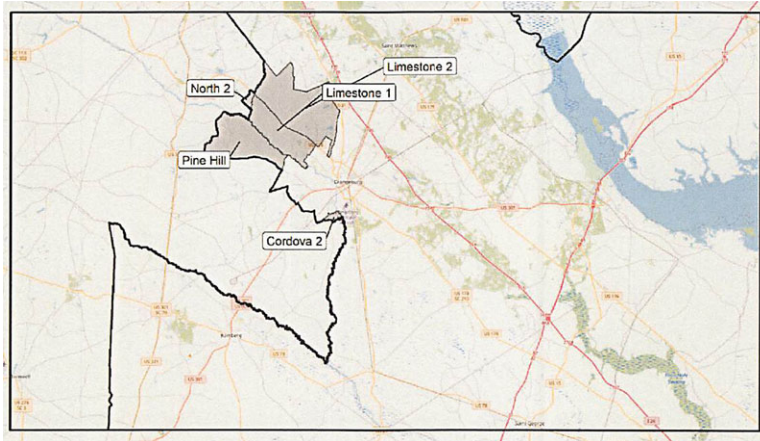
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**The District 2–District 6 Boundary:
Orangeburg County**

The Enacted Plan also makes changes to the boundary between District 2 and District 6 in Orangeburg. Orangeburg County had 84,223 residents in the 2020 census count. Of these, 66,567 are of voting age. The Voting Age Population is 59.9% Black and 34.9% non-Hispanic White.

The changes to the boundary in Orangeburg are illustrated in the following map:

Orangeburg Area, Moved Precincts Shaded
 Black Line = Old District Lines



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In total, five precincts, or portions of precincts, are changed. South of Orangeburg, a small portion of Cordova 2 precinct is moved to the Second District, making that precinct whole. Northwest of Orangeburg, a portion of North 2 precinct and a portion of Pine Hill precinct are also assigned to the Second, making those precincts whole. Finally, Limestone 1 and 2, the only precincts in the area not also contained at least partially within the Orangeburg city boundaries, are also assigned to the Second District.

Overall, 5,973 residents are moved, of whom 4,522 are of voting age. These voting-age residents are 60.9% Black and 31.9% non-Hispanic White. The old and new boundaries between the two districts are reflected in the following map, while the precincts are shaded by their BVAP.

Orangeburg Area, Precincts Colored By BVAP
 Green Line = New District Lines,
 Black= Old District Lines



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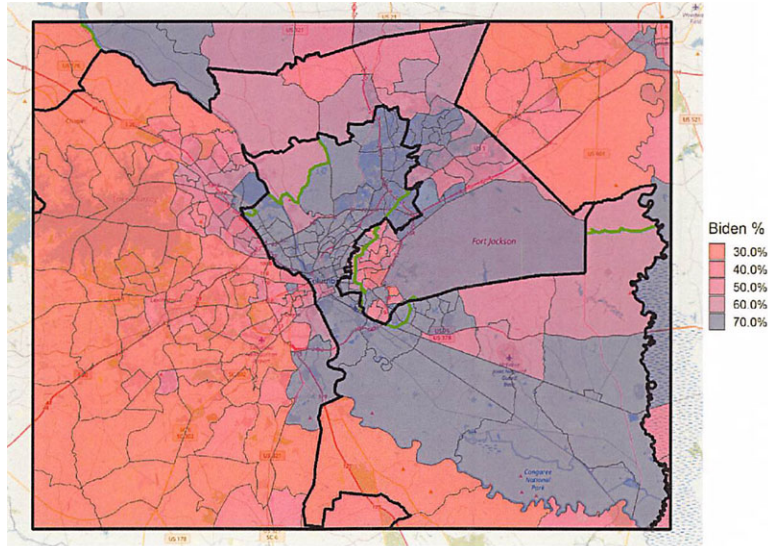
The District 2–District 6 Boundary: Richland County

The map also changes the boundary between District 2 and District 6 in Richland County. Richland County includes the capital city of Columbia. It has 416,417 residents, of whom 327,481 are of voting age. 44.4% of these residents of voting age are Black, while 44.3% are non-Hispanic White.

The boundary between the two districts gives a distinctive “hook” shape to the Second District. The following map demonstrates the reason for retaining this hook shape. It superimposes the lines from the Benchmark Plan and Enacted Plan over the precincts in the county, shaded by two-party presidential vote share. The Second District wraps around to take Fort Jackson into District 2, which is represented by Joe Wilson, a member of the House Armed Services Committee.

381a

**Richland Area, Precincts Colored
By Biden/Trump Vote Share**
Green Line = New District Lines,
Black = Old District Lines

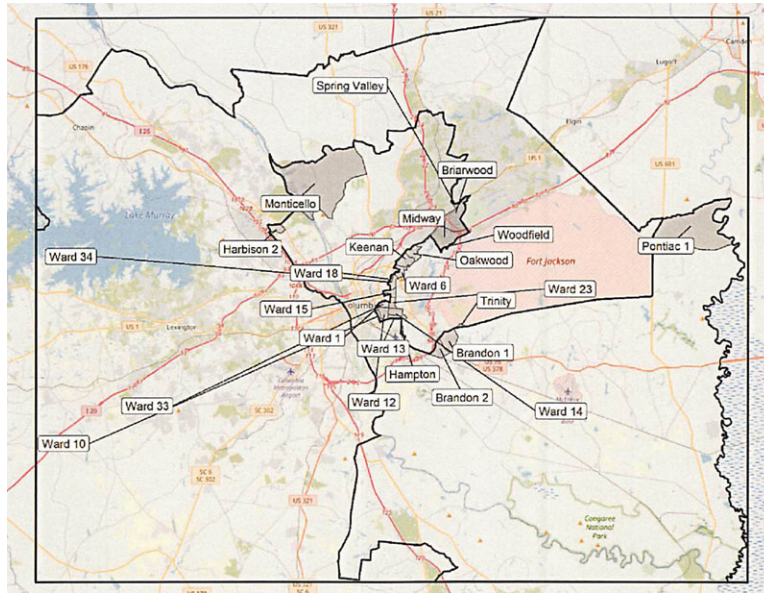


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The changes to the lines here mostly make precincts whole, or add Democratic-leaning voters to the Sixth District, which needed to gain population. They are shaded in the following map:

382a

Richland Area, Moved Precincts Shaded
Black Line = Old District Lines



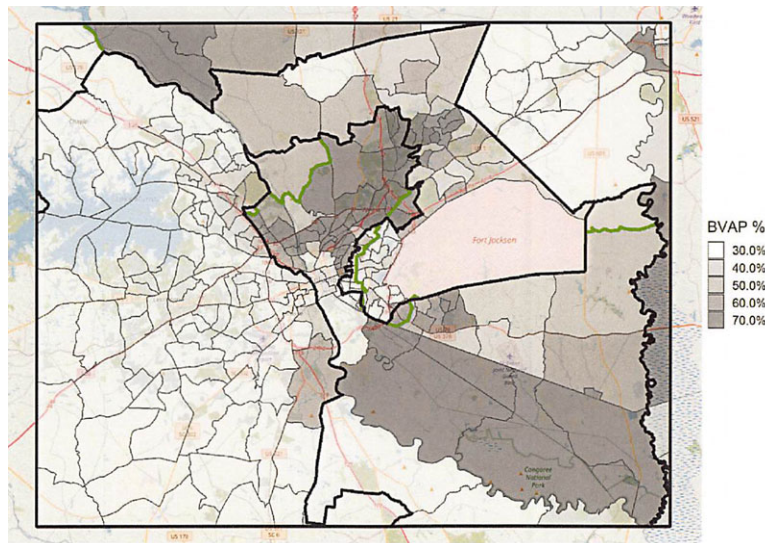
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To the east of Fort Jackson, a portion of the Pontiac 1 precinct is moved from the Sixth District to the Second, making that precinct whole. To the south of Ft. Jackson, parts of Brandon 1 and 2 precincts are moved to the Second, making those precincts whole. To the north of Ft. Jackson, a portion of Briarwood precinct is added to the Second District, making it whole; Midway precinct is added to the Second, making the boundary between the two a smooth line. A portion of Spring Valley precinct is also added to the district. On the northwest side of the city, portions of Harbison 2 precinct and Monticello are added to the Second, making those precincts whole. Overall, 17,798 people are moved from the Sixth to the Second here, of whom 13,585 are of

voting age. Of these, 60.9% are Black, and 24.1% are non-Hispanic White.

The map also shifts several precincts, or portions of precincts, located west of downtown Columbia from the Second to the Sixth District. Of these, nine shifts make precincts or wards whole. This shifts 14,397 residents, of whom 11,918 are of voting age. These residents are 79.2% non-Hispanic White, and 13% Black. However, they are also heavily Democratic, having cast an estimated 67% of their votes for Joe Biden. Included in these changes, some blocks are moved in the Hampton precinct, with 52 residents of Block 1004 moved to the Second District (55.6% of the VAP of this group are White), while 360 residents are moved to the Sixth District (65% of the VAP of this group are White). A map of the old and new lines superimposed over the precincts in Richland County, shaded by race, is provided below:

Richland Area, Precincts Colored By BVAP
 Green Line = New District Lines,
 Black= Old District Lines



© OpenStreetMap contributors

The District 1–District 6 boundary: Charleston Area

When the First District was drawn in 2012, it was not politically competitive. Republicans had held the seat since 1980. In the 2008 presidential election, the district voted for John McCain over Barack Obama by 13 points, and in 2012 it went for Mitt Romney by an 18-point margin. *See Barone, et al, The Almanac of American Politics, 2014 1485 (2013).* The Cook Political Report gave the district an 11-point Republican lean.

Over the course of the decade, however, the district became increasingly competitive. In 2016, Donald Trump's vote margin fell to 14 points, even as he improved upon Romney and McCain's national vote shares. *Cohen & Barnes, The Almanac of American Politics, 2018 1681 (2017).* In 2018, incumbent

Republican congressman Mark Sanford lost the Republican primary to Katie Arrington. Arrington, in turn lost the district to Democrat Joe Cunningham in the 2018 election by a 3,982-vote margin. In 2020, Cunningham lost the district to Republican Nancy Mace by a margin of 5,415 votes. At the same time, as shown in Table 5 above, Donald Trump carried the district by just six points, putting it in the range of competitive territory.

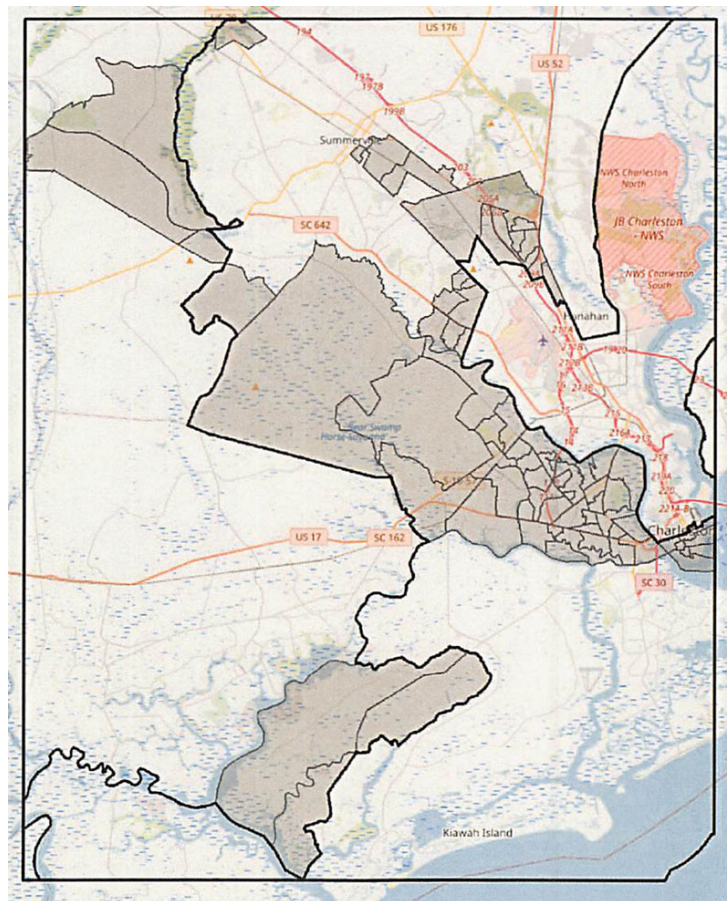
Population growth in the First required it to shed residents under the Enacted Plan. This shedding was done in a way that improves Republican prospects in the district. In particular, Table 8 above shows that the changes resulted in a 1.4% decrease in Joe Biden's vote percentage in District 1. That decrease corresponds to a 1.4% increase in Donald Trump's vote percentage (excluding third parties). Thus, all told these shifts result in a total change to the margin between the Democrat and Republican vote shares in District 1 of almost 3% in favor of Republicans, outstripping Joe Cunningham's margin over Arrington.

First, map drawers made Berkeley County whole, and placed it all within the First District. Berkeley County has 229,861 residents, of whom 173,949 are of voting age. Of these, 22.6% are Black, while 62.8% are non-Hispanic White. In 2020, this county voted for former President Trump by an 11-point margin. However, the residents of the shifted portions of Berkeley County are different politically than the rest of Berkeley County; they voted for President Joe Biden by roughly a 2,200-vote margin.

Second, map drawers made changes in Charleston and Dorchester counties. The peninsula on which Charleston sits is placed wholly within the Sixth

District under the Enacted Plan, as is the portion of Charleston County to the northwest of the city. To the west, the boundary is moved from the Ashley River to Wappoo Creek, adding the West Ashley area to the Sixth. Portions of Dorchester County close to the city are also added to the Sixth. The changes are illustrated in the following map:

Charleston Area, Moved Precincts Shaded
Black Line = Old District Lines



Third, map drawers made Beaufort County whole and added a small portion of Jasper County in District 1.

Changes to Districts 1 and 6 bring the district line into conformity with natural geographic boundaries. The Cooper River separates the Charleston Peninsula in District 6 from Daniel Island (which the Enacted Plan makes whole) in District 1. The Charleston Harbor separates the Charleston Peninsula from Mount Pleasant in District 1. The Stono River and Wappo Creek separate James Island and Johns Island in District 1 from St. Andrews in District 6. And the Wadmalaw River in Charleston County separates Wadmalaw Island in District 1 from St. Paul's in District 6.

All told, 140,489 residents are moved from the First to the Sixth, of whom 113,531 are of voting age. Of these voting-age residents, 63.9% are non-Hispanic White, while 23.4% are Black. This compares to an overall combined BV AP in Charleston and Dorchester Counties of 22.5%, so the net effect of these moves on the racial composition of these districts is minimal. But moving these residents reduces the Democratic performance in District 1 appreciably, as these residents voted for Joe Biden by an 18% margin. Another 5,309 voters are moved in from the 6th district to the 1st; these voters are 64% non-Hispanic White, and voted slightly for President Trump.

As noted above, when combined the population swaps between Districts 1 and 6 make the First District on net three points more Republican on the two-party vote share. Significantly, this exceeds former Representative Cunningham's vote share in the District in 2018. By reducing President Biden's

vote share to 45.6%, in a year in which he won 52% of the two-party vote nationally, the General Assembly likely moved the district out of competitive territory and into reliably Republican territory, at least in the short term.

VI. Conclusion

The Enacted Map generally reflects only modest changes from the map that was in effect from 2012-2020 and comports with traditional districting principles identified by this Court and the General Assembly. The Enacted Map retains high percentages of the cores of all of the Benchmark Districts, which the Court upheld against racial gerrymandering and other challenges in *Backus*. To the extent the Enacted Map changes district lines, most districts changed only marginally, and those changes either smooth out existing lines or make precincts whole. The one exception is the First District. The changes in the First do little to change the racial composition of that district, but make it meaningfully more Republican in light of its recent electoral history.

/s/ Sean P. Trende
Sean P. Trende

4/18/22

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Appendix 55

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, et al.,
Plaintiffs,

v.

THOMAS C. ALEXANDER, et al.,
Defendants.

VIDEOTAPED (Appearance via Video Conference)

DEPOSITION OF: PAULA BENSON

DATE: July 13, 2022

TIME: 10:04 a.m.

LOCATION: Robinson Gray

1310 Gadsden Street

Columbia, South Carolina

TAKEN BY: Counsel for the Plaintiffs

REPORTED BY: Mary K. Stepp, Court Reporter

(Appearance via Video Conference)

Transcript pages 154 to 155

both at the public hearings and from the members of the Senate representing those areas.

Q. So there was no way to ensure that Gingles 3 was met?

MR. TYSON: I'm going to object. Question has been asked and answered several times.

BY MR. CEPEDA:

Q. You can answer.

A. Respectfully, we felt very much that -- that in hearing where people were talking about that they felt their votes counted, in particular communities of interest, that -- that that very much indicated what would be the most effective way of having representation for the area.

Q. Just a second. Thank you. So, we just read -- or a few minutes ago we just read these two passages from the NCLS red book on complying with the voted -- Voting Rights Act and Fourteenth Amendment that you used to answer potential questions, didn't we?

A. Yes.

Q. And the second passage which you chose as an answer to potential question number 4 says, Race must be considered, does it not?

A. Yes.

Q. And it says, Race must be considered to comply with both the Fourteenth Amendment and the VRA, does it not?

A. Yes.

Q. It just says it can't be a predominant factor, right?

A. Yes.

Q. But it doesn't --

A. I -- yes.

Q. I'm sorry. I apologize. Please.

A. I believe I mentioned to you earlier, we did have the chart where we looked at districts that were minority versus majority districts and whether or not they had a 40 to 50 percent minority population or a 20 to 30 percent minority population. So it -- it certainly was considered in looking at it. And, again, I apologize. I interrupted you.

Q. No, no. That's all right. But it wasn't considered in the context of a racially polarization analysis, correct?

MR. TYSON: I'm going to object.

THE WITNESS: We did not -- we did not do that type of analysis.

BY MR. CEPEDA:

Q. Thank you

Transcript pages 204 to 206

did -- how did the staff use that data? What did it set out to do?

A. That -- that was one of the additional considerations in helping to define communities of interest to see -- in -- in addition to looking at counties as a whole, not putting precincts -- it was another factor to consider to -- to show where areas had similar interest and where people voted in similar manners.

Q. Did staff set out to make sure that CD 1 was more Republican leaning than it was in the benchmark plan?

A. I -- the first few words of that question, I'm sorry, I didn't hear. If you don't mind to -- to --

Q. Of course --

A. -- repeat. Uh-huh.

Q. My question was, did subcommittee staff set out to make sure that CD 1 was more Republican leaning than in the benchmark plan?

A. There -- there wasn't -- there was no effort to -- to do that. There -- they -- they looked at the benchmark plan. They -- they had a staff plan. They looked at the other proposals. And sought to have the best districts that would be most effective in representing the people in that area. And that met with the population requirements to be within one person in each of the districts, so that -- that they complied with population.

Q. So, to recap and to be clear, subcommittee staff did not set out to make sure that CD 1 was more Republican leaning than it was in the benchmark plan?

A. Not -- not that I'm aware of, no.

Q. What about -- which might be 6 in 1, half dozen of the other. Did staff set out to make sure that the map, as a whole, maintained 6 to 1 Republican advantage?

A. Staff looked at how each of the submissions had come in. And, again, taking a totality of the sectors and the guidelines, as well as looking at how the districts could be best configured for effective representation. And that was how a plan was arrived at. But, ultimately, when the plan was reported out of the subcommittee, it had to be agreed upon by the subcommittee members. There -- therefore, it -- it had

to have a legislative imprimatur. And so all of those were factors in coming up with the plan that got reported out of subcommittee to the full committee, and ultimately to the Senate floor.

Q. Of course. And I understand that point. My question was more -- goes more to whether it was staff objective to draft a map that preserved a 6 to 1 Republican advantage?

A. No.

Q. I just have a few more questions. These are about the House's process. Were -- in -- in December of last year, were you aware that the House's ad hoc committee was working on its first staff plan?

A. I -- I was not familiar with their process, no.

Q. Do you know when ad hoc committee in the House released its first Staff plan?

A. I -- I do not remember, off the top of my head, no.

Q. Did you review the House's staff plan?

A. Honestly, I -- I work with staff on the Senate plan. I don't really remember an analysis of the House plan.

Q. You -- when you say you don't remember an analysis of the House plan, do you recall if subcommittee staff reviewed the draft plan?

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Appendix 56

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-JMC-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, in his official capacity as
President of the Senate; LUKE A. RANKIN, in his
official capacity as Chairman of the Senate Judiciary
Committee; MURRELL SMITH, in his official
capacity as Speaker of the House of Representatives;
CHRIS MURPHY, in his official capacity as
Chairman of the House of Representatives Judiciary
Committee; WALLACE H. JORDAN, in his official
capacity as Chairman of the House of
Representatives Elections Law Subcommittee;
HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,

Defendants.

STENOGRAPHIC REMOTE
VIRTUAL DEPOSITION

BREEDEN JOHN

Tuesday, August 9, 2022

Transcript pages 143 to 145

A. Members of pretty much every member of the Senate that we discussed the First District with.

Q. What about the first -- for the maps that you drew did you consider partisan gain as a personal consideration?

A. No, that wasn't a personal consideration.

Q. I guess I should, just for the record purposes, for your position as a staff member, did you consider it as a criteria that -- when you were drawing maps?

MR. TRAYWICK: Object to the form.

A. Not as a criteria.

Q. As a consideration?

A. As a -- it was something that was -- had been communicated openly among members of the Senate that I guess it was a political decision among the majority party of the body, the Senate body. But I didn't -- we are not interested in changing the partisan makeup to make the district more Democratic than the benchmark.

Q. Was it disclosed to the senators for that partisan gain?

A. Repeat the question, please.

Q. You said it was known among senators, Republican senators?

A. It was discussed openly among Democrat and Republican senators.

Q. When you say openly, what do you mean?

A. Members of both parties discussed it in my presence.

Q. In your presence but what about public hearings?

A. If it's in the public record, then yes.

Q. Did Senator Rankin say his goal was to increase Republican advantage in CD 1?

MR. TRAYWICK: Object to the form of the question.

A. I don't ever recall him saying he wanted to increase it.

Q. Did you have any discussion about increasing a Republican advantage in any congressional district?

A. Not -- well, I don't recall any discussions with Senator Rankin where he said I will -- I want you all to increase Republican advantage in any district.

Q. What about Senator Rankin -- I'm sorry, Senator Campsen? My apologies.

A. Again, it's the partisanship of some of your. The partisanship of a district wasn't talked about in terms of increasing it as much as not decreasing Republican advantage in those conversations with Senator Campsen.

Q. So keeping it the same as

Transcript pages 279 to 280

for today.

THE WITNESS: Thank you.

MR. CUSICK: I have a few redirect questions.

BY MR. CUSICK:

Q. Mr. John, you recall Mr. Traywick's questions about Senator Rankin's request not to touch CD 7?

A. I do.

Q. Did you consider this a special request from Senator Rankin?

A. Not necessarily a special request. More of like a preference of his. He'd prefer the 7th District not to be messed with much because it didn't need to change in terms of population much.

Q. Was it preference giving equal weight to other members of the Senate?

A. Well, he was kind of, you know, he was kind of our boss and so if he wanted us to do something or didn't want us to do something we generally did or did not do it accordingly.

Q. Did you not feel comfortable taking requests from other senators in the hearing to those if they were not your boss?

A. Oh, no. We took requests under consideration across the board.

Q. Could you explain that to me again on why -- what weight you would have given Senator Rankin's request because he's your boss?

A. Well, it was ultimately up to him whether he wanted to move forward with a draft of a plan or not.

If he wasn't going to like any plan that drastically changed the 7th District, then there was no point in us making drastic changes to the 7th District.

Q. Do you recall Mr. Traywick's questions that you
Transcript pages 287 to 289

here and packed there and it just didn't make sense to me the way that the argument was just made out unfortunately at this point.

Q. Do you recall what the argument was?

A. Not the specifics of it.

Q. Do you recall what communities were alleged to have been cracked?

A. There were areas of Charleston, areas of Richland, areas of -- I believe there were areas of Sumter referenced, but District 6 was wasn't a challenged district so that didn't really make sense to me either. If there was an issue with Sumter but not with District 6, that didn't make sense.

Q. What is your understanding of the term "cracked" in the redistricting context?

A. That communities are split to -- communities of a certain race being divided among multiple districts to dilute their voting strength, their influence.

Q. Did you conduct any analysis to determine whether there were racial disparities in the counties that were split?

MR. TRAYWICK: Object to the form. Asked and answered multiple times in the deposition.

A. For Senator Campsen towards the -- in preparation for the floor debate or, you know, for the kind of final week of meetings he asked us to take a

closer look at -- well, I don't know if he asked us or we just started taking a closer look at who was actually being moved in the Charleston area and it was -- so we looked at those people politically and in terms of race.

Q. Sorry, I think the objection might have thrown you off. My question was did you conduct any analysis of the counties and whether there were disparities in terms of the counties that had the largest splits?

A. I believe I follow your question and no formal analysis. Splits, splits in terms of racial community makeup, community makeup racially, is that what you mean?

Q. Were counties with greater BVAP populations more likely to have splits?

A. I don't know.

Q. Would an analysis like that be helpful in determining other counties were cracked?

A. Not really because it's -- county is just kind of, I don't know, it can be inconsequential in terms of a congressional district. You know, some may have a large number of counties that are whole or portions of counties, some being some congressional districts. Other

400a

Appendix 57

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MGL-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, in his official capacity as
President of the Senate; LUKE A. RANKIN, in his
official capacity as Chairman of the Senate Judiciary
Committee; JAMES H. LUCAS, in his official
capacity as Speaker of the House of Representatives;
CHRIS MURPHY, in his official capacity as
Chairman of the House of Representatives Judiciary
Committee; WALLACE H. JORDAN, in his official
capacity as Chairman of the House of
Representatives Elections Law Subcommittee;
HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,

Defendants.

DEPOSITION OF: PATRICK DENNIS
(Via Videoconference)

DATE: Friday, September 9, 2022

TIME: 9:35 a.m.

LOCATION: Nexsen Pruet, LLC
1230 Main Street, Suite 700
Columbia, South Carolina

Transcript pages 173 to 174

tabulating total number of participants in those elections. Yet the voter file is something that's publicly available and people purchase it from the Elections Commission routinely.

BY MS. ADEN:

Q. And that means you would have had that voter registration file data available at what point in this process?

MR. MOORE: Objection as to form.

THE WITNESS: At the same time that we had the census data available.

BY MS. ADEN:

Q. So late summer, early --

A. Yes, ma'am. It was data that was made available in the Map Room to those that wanted to access it.

Q. So you personally did not use the voter registration file, but you are aware that other members of the House Redistricting team did.

A. I have not personally used the voter registration file at any point. I don't know that, specifically, anybody else did, but I imagine that they did.

Q. Did you personally use race data in the Congressional Map Room?

MR. MOORE: Objection as to form.

THE WITNESS: Was I aware of, while I was drawing, what the racial makeup of what I was drawing was? Yes.

BY MS. ADEN:

Q. Did you have data on communities of interest?

MR. MOORE: Objection as to form.

THE WITNESS: Again, another term of art. And I don't relish the idea of you and I going around again and again about what a word means, but all of the data could somehow potentially be data that indicates the existence of a community of interest. And when you look at these Criteria, the communities of interest are not necessarily only geographic. They are also economic. They are also social. They could potentially be racial. They could potentially be voting driven. So all of this data, to some degree or another, indicates the existence of a community of interest.

BY MS. ADEN:

Q. Is it your position, as the general counsel for the House, that racial identity can constitute a community of interest?

MR. MOORE: Objection as to form.

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Appendix 58

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, HENRY D. MCMASTER,
in his original capacity as Governor of South Carolina;
HARVEY PEELER, in his official capacity as President
of the Senate; LUKE A. RANKIN, in his official capacity
as Chairman of the Senate Judiciary Committee;
JAMES H. LUCAS, in his official capacity as Speaker of
the House of Representatives; CHRIS MURPHY, in his
official capacity as Chairman of the House of
Representatives Judiciary Committee; WALLACE H.
JORDAN, in his official capacity as Chairman of the
House of Representatives Elections Law Subcommittee;
HOWARD KNABB, in his official capacity as interim
Executive Director of the South Carolina State Election
Commission; JOHN WELLS, Chair, JOANNE DAY,
CLIFFORD J. EDLER, LINDA MCCALL, and SCOTT
MOSELEY, in their official capacities as members of
the South Carolina Election Commission,

Defendants.

DEPOSITION OF: ANDREW THEODORE FIFFICK
(Appearing via VTC)

DATE: July 21, 2022

TIME: 10:10 a.m.

Transcript page 41

Q. And did you observe Mr. Roberts looking at racial data as he was drawing proposed congressional maps?

A. As he was drawing, I don't recall that, but I do know he would have had access. He would have seen it. I mean, yeah. I mean, yeah. Sure. It's very possible.

Q. Do you know where that data came from? A. I don't. I think -- I guess it came from the census. I mean, I think Will and Breeden aggregated that stuff and then there may have been some -- I don't recall where that came from. I think it came from the Senate because I think that's all census information.

Q. And you mentioned some political data. What are you referring to?

A. The numbers for Trump and Biden in a given area.

Q. So just one election, the 2020 election?

A. Yeah. We didn't look back farther than that, I don't believe, because I think there was something about the way the absentee ballots were put together. So the prior stuff -- 2016 wasn't accurate so we didn't go any farther back than that

A. Yeah, sure.

Q. Are you aware of any instruction by any member of the legislature or anyone else that you and the team developing maps should be drawing six districts of the seven that lean Republican and one district of the seven that leans Democrat?

A. I don't recall anybody asking for that, but that doesn't mean we didn't have it. That wasn't something that I remember.

Q. Who would have been told to do that if it had been told?

A. It would have been articulated to, you know, one of us in the map room or all of it at the same time in the map room. And so much of our drafting was in realtime with the members, so it would have been -- the most common way for any of those instructions to occur would be in realtime in the map room, either Zooming with a member of the general assembly -- or a member of the Senate or with a member of the Senate in the office. I don't recall that happening. You're saying six Republican and one Democrat. I don't remember that being...

Q. In looking at the guidelines in front of you, do you see that as a criteria identified in

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**UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, et al.,
Plaintiffs,

v.

THOMAS C. ALEXANDER, et al.,
Defendants.

VIDEO TELECONFERENCE

DEPOSITION OF:
REPRESENTATIVE THOMAS HAUGER

DATE: June 28, 2022

TIME: 9:40 a.m.

LOCATION: Virtual - Zoom

TAKEN BY: Counsel for the Plaintiffs

REPORTED BY: Roxanne Easterwood, RPR

Transcript page 50

Q. When you drew maps with the software, what demographic data would show for proposed districts?

A. For proposed districts we would have number of housing units, the general population by ethnic breakdown, the voting age population by ethnic and racial breakdown as well.

Q. Any other data?

A. We did have an area, just basic geographical stuff in there, area, amount of water.

Q. Could you explain that a little more?

A. Just, like, the square area, the district that's drawn and the square area of the water bodies that take up the district. For example, District 1 down there on the coast is going to have a lot of water square miles in it, where District 4 up -- which is up in the Greenville area is not going to have as much water.

Q. Do you recall any discussions or guidance on how assessing and understanding bodies of water affected the drawings of districts?

A. I do not, other than bodies of water could be used for contiguity purposes.

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MBS-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, *et al.*,
Plaintiffs,

v.

HENRY D. MCMASTER, in his official capacity as
Governor of South Carolina; THOMAS C.
ALEXANDER, in his official capacity as President of
the Senate; LUKE A. RANKIN, in his official capacity
as Chairman of the Senate Judiciary Committee;
JAMES H. LUCAS, in his official capacity as Speaker
of the House of Representatives; CHRIS MURPHY,
in his official capacity as Chairman of the House of
Representatives Judiciary Committee; WALLACE H.
JORDAN, in his official capacity as Chairman of the
House of Representatives Elections Law Subcommittee;
HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,
Defendants.

DEPOSITION OF:
REPRESENTATIVE WM. WESTON J. NEWTON
(Via Videoconference)

DATE: Wednesday, June 22, 2022

TIME: 10:13 a.m.

Transcript pages 65 to 67

MR. TRIVEDI: Representative Newton, are you back?
Or can you hear me clearly?

MR. MOORE: Rhett, we can't hear y'all at all.

Mr. Ricard just texted me and said that they are off.
The Wi-Fi became unstable. So we should go off the
record. And I'm going to tell Mr. Ricard to try to
reboot it. It looks like that's what he is trying to do
now.

(Off-Record Discussion)

(Break In Proceedings)

BY MR. TRIVEDI:

Q. Okay. Representative Newton, I want to go back to
a couple questions about partisan gain, partially
because the answers were garbled. So they might be
slightly repetitive, but I just want a clean record. So
you said that you never considered partisan gain as a
goal of the Congressional redistricting process. Is that
more or less right?

A. That is correct.

MR. MOORE: Objection as to the form.

BY MR. TRIVEDI:

Q. And you never personally heard from anyone else involved with Congressional redistricting that that was one of their goals either. Correct?

MR. MOORE: Objection as to the form.

THE WITNESS: That is correct.

BY MR. TRIVEDI:

Q. Does that include legislators?

A. I can't recall having heard from other legislators as to partisan gain. And let me make sure I understand what you mean by gain. You're meaning that we would have -- that Republicans would end up with more of the Congressional districts represented by Republicans, or you mean percentage gains in any one or more of the seven districts.

Q. I think it could be any of those. What do you think partisan gain entails in the context of redistricting?

MR. MOORE: Objection as to the form.

THE WITNESS: I mean, it could mean the ultimate result of creating more Republican districts. It could result in any single district becoming more Republican than others. You know, I don't think that it was a criteria to be considered. There was certainly commentary that taking Beaufort out of CD1 could have an impact on what the population looked like in CD1.

BY MR. TRIVEDI:

Q. And what do you mean by that?

A. Well, quite frankly, the growth in the Coast, and ultimately in CD1 was disproportionate with white people than minorities. That's not the same as

partisan, but to the extent that some folks draw that distinction about that more of the white population moving in might be more inclined to vote Republican, they may have -- some may have made that point. I don't know that anybody considered it as a driving criteria in terms of what we were doing.

Q. Who made that point?

A. You mean of the disparity in the population growth?

Q. I mean that certain changes would have resulted in a higher percentage of potential Republicans, who made that --

A. I mean, I think I heard from some that when they objected to us moving out of CD1, that they said that moving -- taking Beaufort County out of CD1 would be a bad thing for the district. And certainly my local Republican Party claimed that they thought it would be a bad thing for the

Transcript pages 152 to 153

those hearings and jotted down notes for virtually every speaker at every one of the public hearings that we had. I'm a visual learner, and so I put that down. And I know that I referred to those at various points in time when I, myself, was making my -- collecting my thoughts about where I was and what I believed that the appropriate redistricting ought to look like.

Q. Okay. So you collected your thoughts after the hearing. Is that -- am I hearing you right?

A. Yeah. I mean, at some point, the hearing sort of underscored what I believed, that Beaufort ought to be in CD1. I mean, I was not out to keep North Charleston from being in CD1, but if that's what the numbers drove to protect CD6, I certainly wasn't

trying to intentionally peel away any area from CD6 to now put it in CD1.

Q. What do you mean by when you use the term the numbers drove?

A. Well, again, we talked about the BVAP numbers in CD6. The disproportionate growth in CD1 of Caucasians, and I was not out to try to peel off any votes out of CD6 intentionally to produce any result. I mean, my concern was, geographically, Beaufort needs to be here. But if moving North Charleston out of CD6 lowered the percentage of BVAP that was in CD6 that was needed to make sure that we underpinned CD6, that there wasn't going to be a claim that we intentionally diluted the population that elects Mr. Clyburn, that's what I mean.

Q. Did you have a conversation about whether putting North Charleston into CD6 would then dilute black voting power in CD1?

A. I did not.

Q. Okay. So after this hearing did you communicate with the staff between the end of that hearing which was December 16th and the release of the second House plan on December 22nd?

A. I'm sure I did.

Q. What did you say?

A. Beaufort needed to be in CD1.

Q. Okay. Did you say anything else about any other part of the state?

A. Not that I recall, no.

Q. Okay. Do you know whether other folks on the Ad Hoc Committee also communicated with the staff

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between the period of the December 16th hearing and
the December 22nd alternative plan?

A. I don't know that, no, sir. I would

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Appendix 61

**UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MGL-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, et al.,
Plaintiffs,

v.

THOMAS C. ALEXANDER, et al.,
Defendants.

10:17 a.m.

ZOOM DEPOSITION of
DALTON LAMAR OLDHAM, JUNIOR, a Non-Party
Witness, in the above-entitled action, held at the
above time, taken before Dawn Matera, a Shorthand
Reporter and Notary Public of the State of New York.

Transcript pages 79 to 89

he was in Georgia or not. But I've known him for a
while.

I certainly started working closely with him when
he went to work for the National Republican

Congressional Committee. But I've known him for a while at this point.

Q. How would you describe the current nature of your relationship with Mr. Kincaid?

A. We work -- I work with Mr. Kincaid a good bit. I mean Mr. Kincaid provides political data that is in my opinion the best political data that is currently available, at least for redistricting. And I frankly urge anybody I am working with to use his data because it is superior as it is. So I talk to Mr. Kincaid a great deal.

Q. Do you ever talk to Mr. Kincaid in a personal capacity or strictly business?

A. I talk to him in a personal capacity as well. We have a similar circle of friends.

Q. What, in your view, makes his political data the best political data available?

A. Because he is using a different method than has been generally used in the past to solve some of the data -- well, I'll call it the fuzziness in the data that you get from disaggregation and reaggregation of precinct data and from the migration of absentee votes. Those have become, the latter in particular, has become a massive problem with the accuracy of political data in the last decade. It has always been a problem, but never to the level that it has been in the last decade.

Q. And what has made it more of a problem in the last decade?

A. Growth and partisan slant in the election day data versus the absentee data, which is very difficult to deal with from a data accuracy standpoint. And

Mr. Kincaid's methods have solved a lot of those problems.

Q. How did his methods solve those problems?

A. Well, you would probably be better to ask Mr. Kincaid, but I'll give you the lawyer's understanding of it, okay, because I have been aware of the problem for a while and we've wanted a solution.

Mr. Kincaid has geocoded all of the voters in the United States. And by geocoding them, he has -- he's able to locate the litany-specific census block around the country. He then has collected the voter history on each of these voters.

In states where there is registration, he determines whether they are registered Republican, Democratic, or Independent. In states where there is not registration, he has collected their primary vote histories, whether they voted for Republican or Democrat primaries. How many elections they have voted in. From that material he has been able to give each voter a partisanship score.

And from that score, he can then allocate in the case of absentees, which is the big problem you have with absentees today, is that they have become -- in the past they were not nearly as partisan as they are. But today you will find that the absentee votes are far more Democrat than the election day votes.

And then the problem becomes how do you put the absentee votes in most places -- not all, some migrate back, but in most places the absentee votes are in a separate box. You then have to figure out to allocate those votes back to the individual precincts in a way that doesn't skew the results from the precincts.

Because he has a partisanship score and he can see from the voter file who voted absentee and who didn't, you can then carry that absentee vote back and assign it to voters based on their scores, which gives him a much better allocation of the absentee vote.

That solves a lot of the problems for 2020 data, for instance, which if you don't do something like that, that data is badly skewed and is almost worthless.

It also solves the problem of disaggregation, the problem of precincts not being stable through time. Because there is common misconception that the precinct in 2012 is the same as the precinct in 2014 as the precinct in 2016. And that's very often not the case.

When you have that problem, you have to do what's called disagging that precinct, which means allocating the vote totals for prior years down to block level. Taking the blocks and reagg'ing them into the new precinct that you're working with in, let's say, 2020 or 2022. And that creates a data error.

And because he has a more sophisticated way of allocating that data down from that precinct into those blocks, the disag portion of it, it makes this reag far more accurate and far better. In fact, what it means is when you're using block level data, his political data is as good or in some cases even better than the precinct level data, depending on how the precinct was reagg'd.

And that makes his data massively superior to anything we've ever had previously in redistricting. And anything that most of the competitors that I have seen, are producing in terms of products.

Q. That was very interesting. Could you help me understand a little bit what disaggregation and reaggregation are?

A. Well, I think I just explained it, but I will try again. Okay.

When you have -- let's say we have a precinct from 2010. Okay? Just to take an example. And it has geographic boundaries that are whatever they are. And you have some election results from 2010, okay. Then you get to 2012, let's say the precinct doesn't have the same boundaries in 2012 that it had in 2010. That happens a lot, a lot more than most people realize. If you're going to take the 2010 results and actually do a comparison or do any type of analysis for 2012, you have to do what's called a disaggregation on the 2010 precinct, which means you need to take the results from the 2010, the actually election results from the 2010 precinct, and then you need to break them down into the census block levels. So you take a number of those votes and you put them in each census block. And there are lots of ways to do this, but all of them have an accuracy problem. And his is far more accurate than anybody else's.

And you haven't been able to do it before because you didn't have the geocode available, which comes from the 911 file. And you didn't have the ability, without geocoding, you couldn't do the analysis on each individual voter. So what you're able to do now is you can take those votes put them into the block based on the exactly number of voters that you know are in those blocks and who voted and who didn't vote, and you can pull them down.

So let's say you got a precinct that voted 60 percent Republican and 40 percent Democratic. And you're

looking at a block individual in that precinct. And you know that everybody in that block voted Republican by their prior primary history. They all have been voting, regularly Republican primary. You're not going to pull the Democratic votes out of that precinct total. You're only going to pull Republican votes out and you're going to assign those to those voters.

Let's say you have another block all made up of Democrats. You're going to do the same thing in reverse and then you will do the others in proportion. And what it does is it gives you a much more accurate picture block by block in that precinct of how those votes actually occurred.

Then if you're going back and reconstructing it for the 2012 precinct, you're constructing it from those disagg'd blocks. And as a result of that you're leaving behind and going into the adjoining precincts, really the appropriate votes, you know how those votes reag'd into the new precinct and you know which ones slid into adjoining precincts with a great deal of specificity. More than you ever had before.

And this happens throughout the decades. And helps -- that means when you get to say 2020, 2022, the numbers you're working with are much more accurate on the historical voting data. But it also has a tremendous effect on the absentee votes because the absentee votes work in a similar way. It's not quite the same way, because it's really migration, it's not disaggregation. But you take a big box, a counted box of absentee votes and you're now sliding individual votes out of that to the people who voted absentee and putting them exactly into their blocks. Did that help you?

Q. Yes, it was fascinating, honestly. Thank you for explaining it.

A. And it's, excuse the phrase, it's a quantum leap in the quality of data. I urge all of my clients to use it.

Q. About when did Mr. Kincaid develop this superior data based on geocoding?

A. Well, this was a project that he started a few years prior to this most recent redistricting cycle. So we didn't have this available until 2020. But it became, it became available in 2020. And I now consider it the gold standard of political data. There are possibilities for its improvement in the future because now that you have all of this geocoded, you can actually start using microdata, but that's a future concept. But it's dramatically better than anything that has been out there previously.

Q. So when you talked to Mr. Kincaid about this lawsuit, about when would that have taken place?

A. Well, as I certainly would have talked to him when it was initially filed, because I would have, you know, we would have both wanted to know what was going on in the thing.

But I'll note we haven't talked that much about it since then because we talk about the lawsuits that are filed everywhere in the country. And there are like 66 of them right now.

Q. Sure. And when you spoke to Mr. Kincaid about this lawsuit, by what

Transcript pages 130 to 132

Mr. Kincaid's map?

A. Yes. And that's what Clark disagg'd his numbers differently means. Because he told me who provided their data.

Q. So to be clear, the next message up in the change here looks like it was sent by you to Mr. Terreni at 6 p.m. on November 23rd, 2021. And it looks like you say, Clark disagg'd his numbers differently than us. Please call, I will explain.

Can you tell me what you meant by that?

A. Yeah. Clark, remember the conversation we had a moment ago about disagg/reagg?

Q. I do remember.

A. Clark Benson didn't use the same method Mr. Kincaid used. He used a less accurate method which relied on percent of BAP in the -- well, I am not going to say exactly what method Clark used because I am not absolutely certain. That would have been Clark Benson at Poly Data. And he used a different method of disagging his numbers. And I wanted Charlie to understand exactly what I just explained to you. And that's why I thought that their numbers were giving them a different result from what Adam's numbers showed.

Q. Can you tell me in more detail who Clark is? I know you said in a more general sense.

A. Clark Benson. He runs a company called Poly Data, which produces political data similar to Mr. Kincaid's data.

Q. But in your view, inferior to Mr. Kincaid's data?

A. I hate to say that since I know Mr. Benson personally. But, yeah, I think Mr. Kincaid's data is superior.

Q. So when you're sending this text message, am I understanding you correctly that Mr. Terreni had communicated to you that he, and perhaps other people on the Senate side, believed that their map

performed better than Mr. Kincaid's map and you wanted to explain that while they might think that, that thought was based on less accurate data than Mr. Kincaid had based his map on?

A. Correct.

Q. So you asked Mr. Terreni to call you. Did he call?

A. He did.

Q. And did you explain to him the difference between Mr. Kincaid's data and Clark's data?

A. I did.

Q. And how did he respond to that?

A. They pretty much were wedded to their data.

Q. And then a few hours later on 9:01 p.m. on the same day, November 23rd?

A. That's when Mr. Kincaid called me about the third map.

Q. So prior to you sending this text message, Mr. Kincaid called you

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**UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MGL-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, et al.,
Plaintiffs,
v.
THOMAS C. ALEXANDER, et al.,
Defendants.

DEPOSITION OF: SENATOR LUKE A. RANKIN
(APPEARING VIA VIRTUAL ZOOM)

DATE: August 2, 2022

TIME: 10:52 AM

LOCATION OF THE DEPONENT:
Rankin & Rankin Law Firm
201 Beaty Street
Conway, SC

TAKEN BY: Counsel for the Plaintiffs
REPORTED BY: TERRI L. BRUSSEAU
(APPEARING VIA VIRTUAL ZOOM).

Transcript pages 168 to 169

A. No, sir.

Q. You didn't -- you didn't want one of the goals of redistricting to be a six/one republican majority?

MR. GORE: Objection. Foundation.

THE WITNESS: I wanted a plan that would pass the Senate, subcommittee, full committee and be adopted by the body and signed by the Governor. That's what I wanted.

BY MR. TRIVEDI:

Q. Okay. So one of your goals -- I just have to ask again. One of your goals was not partisan gain for republican?

A. Politics is not -- this is not done in a vacuum and so politics is a consideration, but it's a matter of what votes are taken in the sub, the full and the forum.

Q. Okay. So when you say politics was a consideration, was shoring up a six/one republican majority a consideration?

A. Not for me, no.

Q. Was it for any other subcommittee member?

A. You'll have to ask them.

Q. Did you ever ask them?

A. Did not.

Q. If you had heard from one of them that shoring up a six/one republican majority was a goal, would you have told them to reconsider?

A. Don't know.

Q. Okay. Was it a goal of any of the staff members to create a map that shored up a six/one republican majority?

A. You'll have to ask them.

Q. Okay. Was it a goal of yours to make Congressional District 1 less competitive for Democrats?

A. No.

Q. Was it a goal of yours to make Congressional District 1 more reliably republican going forward?

A. No.

Q. And none of the things that I've just asked are contained in the guidelines, is that right?

A. Again, my prior answer of a six/one majority, I don't think you can find any of those attributes or descriptions in that document, no.

Q. Okay. And going back one moment to constituent consistency, I wish you all had used a

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Appendix 63

**UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-MGL-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, et al.,
Plaintiffs,

v.

THOMAS C. ALEXANDER, et al.,
Defendants.

September 15, 2022

4:08 p.m.

DEPOSITION of SENATOR SCOTT TALLEY, taken
by the Parties Present, pursuant to Subpoena, held
via Zoom Video Conferencing, before Abner D.
Berzon, a Registered Professional Reporter, Certified
Realtime Reporter and Notary Public of the State of
New York, via Zoom Video Conferencing.

Transcript page 31

doesn't die. Can we take just a quick break so I can get the cord for it?

MS. YAN: Sure. Please go ahead.

THE WITNESS: I'll do that real quick.

(Time noted: 4:42 p.m.)

(Brief recess.)

(Time noted: 4:44 p.m.)

THE WITNESS: Sorry about that.

MS. YAN: No problem.

Q. We were just talking about race and race data. Was race data available to you and other Subcommittee members?

A. I'm sure it was.

Q. Do you know what steps were taken to ensure that maps did not improperly consider race?

A. I do not know specifically.

Q. Was anyone responsible for assessing compliance for proposed maps?

A. I think that was the role of the legal team that was involved on the Senate Judiciary's behalf.

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Appendix 64

**UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH CAROLINA
COLUMBIA DIVISION**

Case No. 3-21-cv-03302-JMC-TJH-RMG

THE SOUTH CAROLINA STATE CONFERENCE
OF THE NAACP, and TAIWAN SCOTT, on behalf of
himself and all other similarly situated persons,

Plaintiffs,

v.

THOMAS C. ALEXANDER, in his official capacity as
President of the Senate; LUKE A. RANKIN, in his
official capacity as Chairman of the Senate Judiciary
Committee; MURRELL SMITH, in his official
capacity as Speaker of the House of Representatives;
CHRIS MURPHY, in his official capacity as
Chairman of the House of Representatives Judiciary
Committee; WALLACE H. JORDAN, in his official
capacity as Chairman of the House of
Representatives Elections Law Subcommittee;
HOWARD KNAPP, in his official capacity as interim
Executive Director of the South Carolina State
Election Commission; JOHN WELLS, Chair,
JOANNE DAY, CLIFFORD J. EDLER, LINDA
MCCALL, and SCOTT MOSELEY, in their
official capacities as members of the South Carolina
Election Commission,

Defendants.

STENOGRAPHIC REMOTE
VIRTUAL DEPOSITION

CHARLES TERRENI

Tuesday, August 16, 2022

Transcript pages 195 to 198

I'm not aware of any instruction in the guidelines that says don't consider race. Now, whatever individual members wanted to do could be that individual members said I'm just not going to look at race at all. I mean I think that would be a permissible policy decision on their part. I had no control over that.

Q. I want to understand a little bit more what you believe to be the consideration of race and I believe you recently testified a few moments ago that it's looking at the racial impact of lines on a particular protected community, is that fair to say?

A. Yeah, by impact I mean you change the composition of the district is the starting point.

Q. Is the --

A. Is a starting point.

Q. What else does consideration of race mean to you in redrawing lines?

A. As a practical matter we consider race in that we look at the racial impact of different permutations or different plans when we draw; in other words, it's a question. It is also a question, no. I said it could be a

question. What is the BVAP. Why is that? Because for one thing if it involves a minority-majority district people are going to raise questions about that. Did you pack it, did you crack it. Same questions you are raising now. So for us to just put blinders on and say I don't want to look at BVAP, I don't think is practical in redistricting in South Carolina. Does it mean that everything is guided by BVAP? No. It just means that, hey, if there's going to be a substantial change in this district, if there's going to be a substantial change in the BVAP of the district, there's substantial inquiries in the BVAP for the district that may raise some questions that we have to explore, either legal questions or practical questions. I may need to call Mr. Gore UP and say hey, would this district caused some legal concerns from the racial gerrymandering standpoint where because it's resulting in a different BVAP impact. It's just one of those things like county boundaries, precinct boundaries, whatever you should reconsider.

Q. Could keeping BVAP as at the relative same levels as the 2011 benchmark map also have a racial impact?

A. Could keeping BVAP -- I mean it's going to be what it is, right? I mean you either drop it, raise it or keep it the same. It's all an impact, right?

Q. So keeping BVAP at a similar level as the 2011 map could that be under certain actual scenarios dilution of minority voting strength?

A. Oh, I'm sorry. I didn't --

Q. I didn't say it great before so it wasn't -- I said it better I think the second time.

A. Could it be dilution to keep it in the benchmark plan under the 2011 -- I mean under 2020 census

numbers. In other words, you have a benchmark plan that was X in District 6, it's now Y in District 6, could that be dilution if you leave it at Y and you don't make some corresponding change. Could be.

Q. I think earlier you testified that at some point you readily Arlington Heights case but you are not super familiar with it,

Transcript pages 302 to 303

plan, it was reduced by three or four percentage points, if I remember correctly, it wasn't much. But whatever we did in the Sixth District staff plan was not enough to prompt that concern for us, especially given that many of the plan of the Senate districts from which we had received the input of African-American members were below 50 and we had not received any concern from a Section 2 perspective or really even from anyone else that they weren't going to perform -- I don't want to say a general wholesale. But no, we didn't have a concern about that in this context, in the context of -- we didn't have a concern about that with respect to 6 as it was in the staff plan.

I hope that answers your question. If not, please restate it.

Q. Is it your position that there was no need to be aware of the black voting age population in districts outside of CD 6 this cycle?

A. No. We were certainly aware of it as those reports would have produced it. We didn't see anything in the plans that we produced that caused us one concern or the other.

Our primary -- I think our primary concern would have been that if we did something that dramatically

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changed the racial composition, really reduced it in one of these remaining districts, we might have been accused of some sort of intentional racial drawing. That wasn't what we were doing. We were certainly sensitive to those concerns, and so we would have monitored the BVAP of different plans but -- so yeah, we would have looked at it for everybody.