

## Virginia

Between 2010 and 2020, Virginia's population increased by 7.9%.<sup>28</sup> The population increase occurred primarily in the suburbs of Washington, D.C. The state became more diverse overall, with a 5.1% decline in the share of the white population relative to the rest of the state, a 2.2% increase in the share of the Black population, a 1.6% increase in the share of the Asian American population, and a 10.5% increase in the share of the Hispanic or Latino population.

Redistricting in Virginia is a hotly debated and frequently litigated process. In 2020, voters approved an amendment to the state's constitution creating a bipartisan redistricting commission tasked with drawing congressional lines. The Commission consists of eight members of Virginia's General Assembly and eight citizens of the Commonwealth. The state constitution dictates that if the Commission fails to draw districts or enact the districts or the General Assembly fails to enact the districts by a set deadline, then the task of drawing districts goes to the Supreme Court.<sup>29</sup>

This redistricting cycle, the Commission failed to come to an agreement on a plan for either Congress or the state legislature any of the set deadlines, which passed in early November.<sup>30</sup> The biggest stumbling block for the Commission was the question of how to use race in the redistricting process.<sup>31</sup> Democrats on the Commission argued that the Commission should create opportunity districts where non-white voters make up half or less than half of the electorate. Republicans argued in favor of drawing a district where African American voters are in the majority, to satisfy the state's obligations under the Voting Rights Act.<sup>32</sup>

This tension was the subject of litigation in Virginia in the past in *Page v. Virginia State Board of Elections*.<sup>33</sup> In that case, a district court struck down a Republican-passed plan for a *Shaw v. Reno* violation, holding that the state legislature's use of race as the predominant factor in drawing a plan violated the Equal Protection Clause of the 14<sup>th</sup> Amendment.<sup>34</sup> The Virginia legislature had increased the population of a Black majority district from 53.1% to 56.3%, arguing that this was necessary to comply with the Voting Rights Act. The court found that this district unconstitutionally packed Black voters into a non-contiguous, non-compact district and redrew the plan to create what is now the existing plan.

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<sup>28</sup> *Virginia Adds More Than 600,000 People Since 2010*, UNITED STATES CENSUS BUREAU (Aug. 25, 2021) <https://www.census.gov/library/stories/state-by-state/louisiana-population-change-between-census-decade.html>.

<sup>29</sup> VA. CONST. art. II, §b.

<sup>30</sup> *Virginia Commission Fails to Meet Congressional Deadline*, DEMOCRACY DOCKET (Nov. 9, 2021) <https://www.democracymarket.com/alerts/virginia-commission-fails-to-meet-congressional-deadline/>.

<sup>31</sup> Margaret Barthel, *Contentious Redistricting Process Down to the Wire in Virginia*, DCIST (Oct. 15, 2021) <https://dcist.com/story/21/10/15/virginia-redistricting-commission-partisan-stalemate/>.

<sup>32</sup> As I will discuss in a later section, it is unlikely that the Voting Rights Act requires the creation of a majority-African American district in Virginia given the broader political landscape.

<sup>33</sup> *Page v. Virginia State Bd. of Elections*, No. 3:13cv678, 2015 WL 3604029, at \*19 (E.D. Va. 2015).

<sup>34</sup> *Id.*

The 2020-2021 redistricting cycle in Virginia has now come to a close. After the bipartisan commission failed to come to an agreement, the Virginia Supreme Court appointed two Special Masters, Sean Trende for the Republicans and Bernard Grofman for the Democrats, to draw congressional and state legislative districts. On December 8<sup>th</sup>, 2021, the Supreme Court released the memos and draft maps that they had submitted.<sup>35</sup> The Supreme Court approved these maps on December 28, 2021.<sup>36</sup>

I drew three maps for Virginia—one least change plan (Plan VA), one Good Government plan (Plan VB), and one plan that maximizes minority representation by creating a coalition district<sup>37</sup> and an African American majority district (Plan VC). As I will discuss, Plan VB is an improvement relative to the existing and least change plans in terms of compactness, respect for communities of interest, and minority representation. By examining the similarities between Plan VC and the plan struck down in *Page*, I demonstrate that creating a majority-African American district in Virginia is likely not necessary to comply with the Voting Rights Act.

## Plan VA

Virginia experienced population growth in the suburbs of Northern Virginia and a decline in population in the Southwestern regions of the state.<sup>38</sup> This meant that I had to shrink districts in the North and expand districts in the South in order to accommodate population changes.

Before this latest cycle of redistricting, Virginia's plan was heavily gerrymandered to crack the Northern Virginia suburbs. The Northern Virginia suburbs were connected in long, non-compact districts with more rural, conservative parts of the state. In drawing a least change map, I endeavored to undo some of that gerrymandering while adhering to county lines.

Plan VA, my least change plan, significantly increases the average compactness score of the districts under the commonly used Reock measure, from .31 under the existing plan to .34. It does not change the partisan layout of the state or create any new majority-minority districts. It also only splits one additional county compared to the existing plan. It eliminates a county split in Henry county but creates new splits in Lynchburg City and Surry counties.

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<sup>35</sup> *Maps and Special Master Documents*, SUP. CT. OF VA., [https://www.vacourts.gov/courts/scv/districting/maps\\_special\\_masters.pdf](https://www.vacourts.gov/courts/scv/districting/maps_special_masters.pdf) (last accessed Jan. 16, 2022).

<sup>36</sup> FINAL ORDER ESTABLISHING VOTING DISTRICTS FOR THE SENATE OF VIRGINIA, THE HOUSE OF DELEGATES OF VIRGINIA, AND VIRGINIA'S REPRESENTATIVES TO THE UNITED STATES HOUSE OF REPRESENTATIVES, SUPREME COURT OF VIRGINIA (Dec. 28, 2021), [https://www.vacourts.gov/courts/scv/districting/redistricting\\_final.pdf](https://www.vacourts.gov/courts/scv/districting/redistricting_final.pdf).

<sup>37</sup> A coalition district is one where members of a minority group are not a majority of the relevant voting population but have the opportunity to elect a candidate of their choice with the help of another minority group. 29 C.J.S. § 99 (2021).

<sup>38</sup> *A Decade of Population Change*, VIRGINIA PUBLIC ACCESS PROJECT (Aug. 13, 2021) <https://www.vpap.org/visuals/visual/population-change/>.

The biggest changes I made under Plan VA involved shifting counties from one district to another. For example, I added Tidewater counties, Northumberland and Lancaster, that had previously been part of District 1 to District 2.

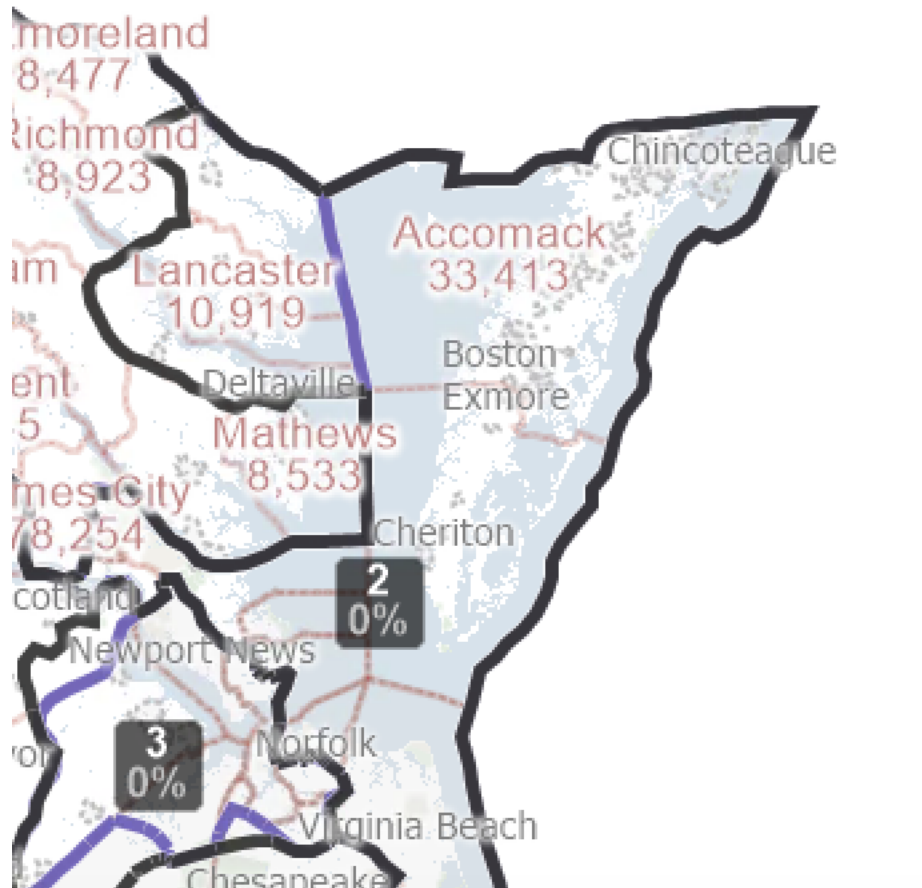


Figure 17 This is an image of the changes to Districts 2 and 3 in Plan VA.

I shifted the lines of District 3 to include more of Suffolk City and all of Franklin County, keeping Franklin County lines intact. I was unable to avoid creating a new county split in Surry county to adhere with federal equal population requirements.

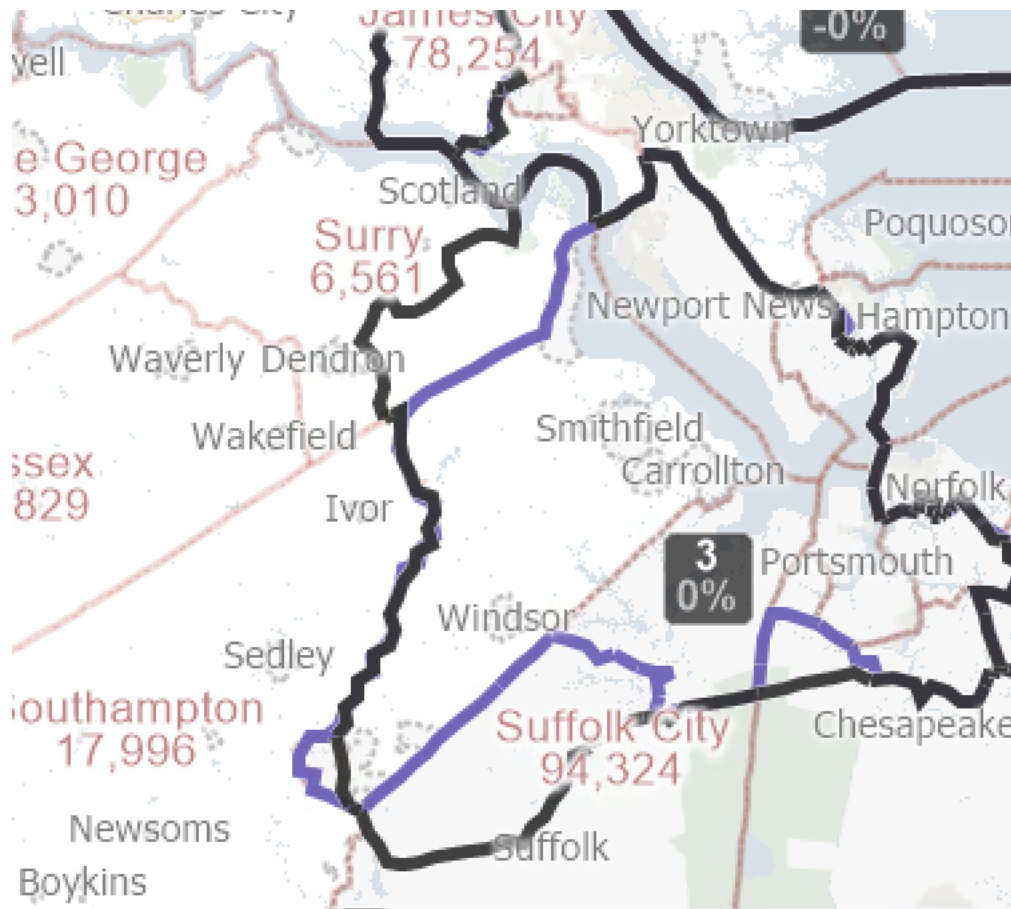


Figure 18 depicts the county splits surrounding District 3

I also made changes in the rural, western portion of the state that were significant from a land mass point of view but necessary to account for the sharp declines in population that these regions experienced. The primary change that I made to District 9 is that it now includes a significant portion of Roanoke, the largest city in southwestern Virginia. I also added Franklin county to District 9. I added Amherst, Allegheny, and Bedford counties to District 6 to adjust for the loss of population in Roanoke.

I found that the only way to equalize the population between districts was to split Roanoke county and include part of the city of Roanoke in District 9. I also added Bedford county to District 6. I couldn't avoid splitting Lynchburg county to equalize the population between District 5 and District 6.

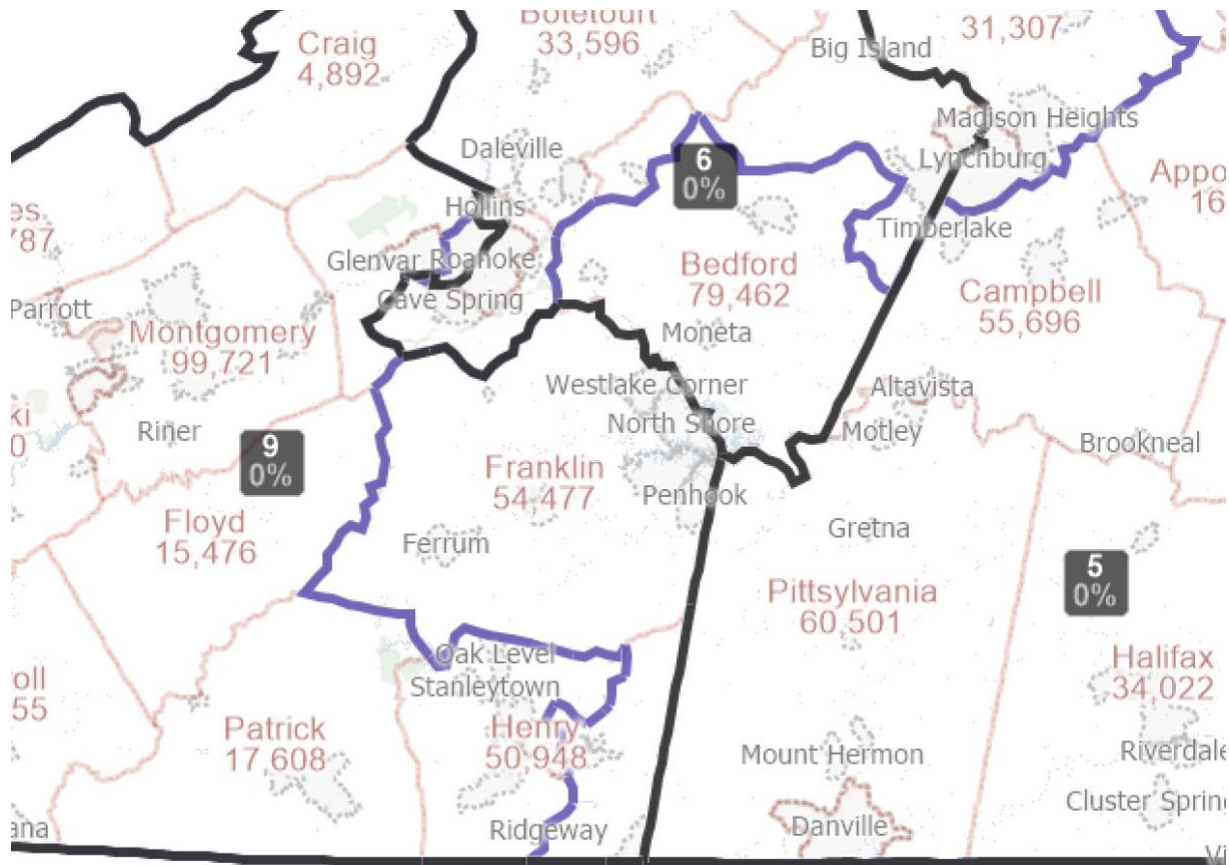


Figure 19 This is a photo of the changes made to Districts 5, 6, and 9 in Southwestern Virginia in Plan VA

To account for population growth in Arlington, Alexandria, and Fairfax counties, I made slight changes to the voting districts in West Falls Church, shifting the district lines in Northern Virginia to the west. I also moved VTDs from District 11 into District 10 in Herndon, Hutchison, McNair, and Floris.

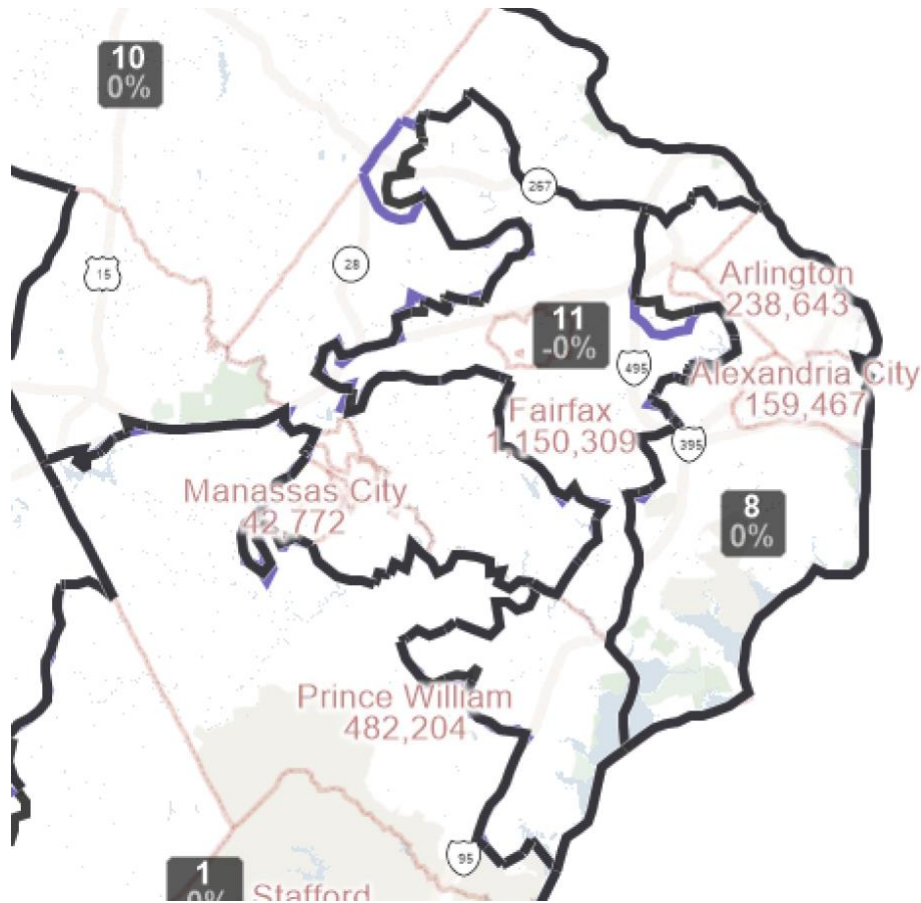


Figure 20 This shows a close up of the changes I made to districts in Northern Virginia

District 3's share of the population declined relative to the rest of the state, so I needed to add VTDs to District 3 by pulling VTDs from Surry, Sussex, Southampton, and Suffolk City counties.



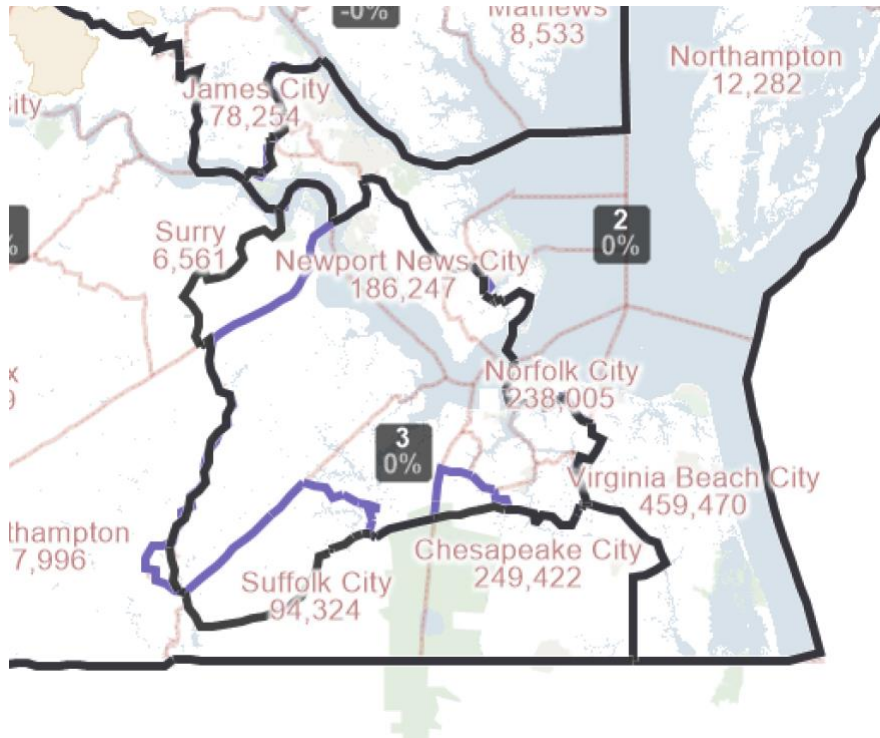


Figure 21 This is a closeup of the changes to the least change map VA in the Seven Cities region

In the Richmond area, I moved VTDs in the Richmond suburbs of Glen Allen into District 1 from District 7 and moved the city of Dumbarton from District 7 into District 4.

## Plan VB

Plan VB is a Good Government plan that prioritizes enhancing minority representation, making districts more compact, and enhancing partisan fairness. This plan creates more compact, regularly shaped districts that undo the gerrymandering in Northern Virginia. Under the previous plan, disparate communities in the far north of the state were combined in a single district with communities that border North Carolina. Plan VB significantly increases the average compactness scores of the overall plan according to the most popular measures. For example, it increases the Reock compactness score from .31 under the existing plan to .40. It increases the average Polsby-Popper score from .19 to .23. It also enhances minority representation by creating an additional district where members of minority communities are the majority of the CVAP.

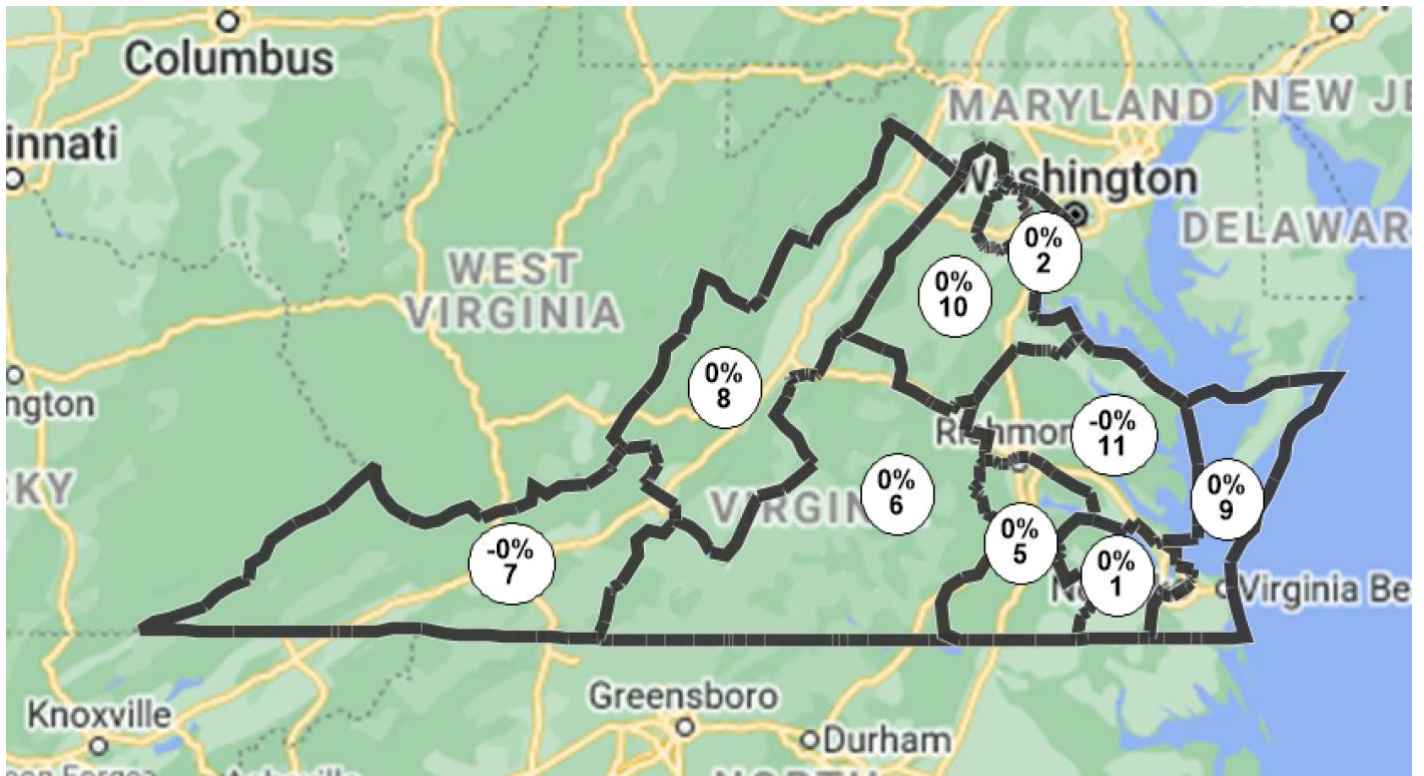


Figure 22 This is an image of the Good Government plan VB.



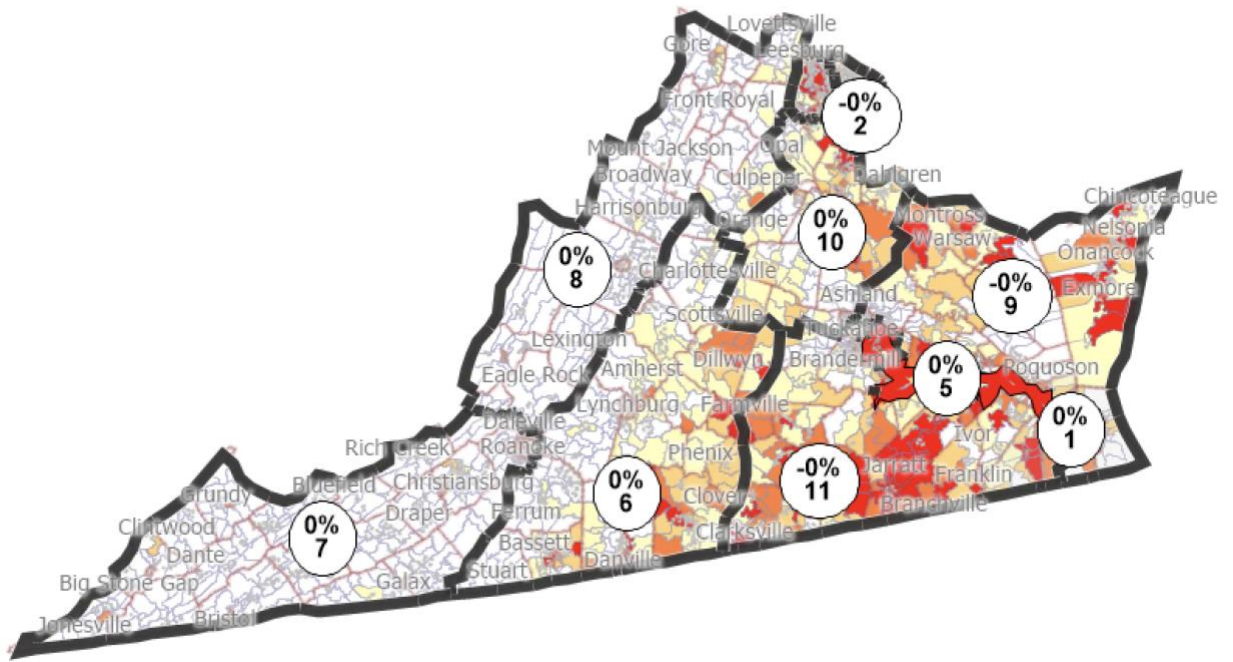


Figure 23 An image of Plan VB with a racial heat map, showing the location of majority-minority communities.

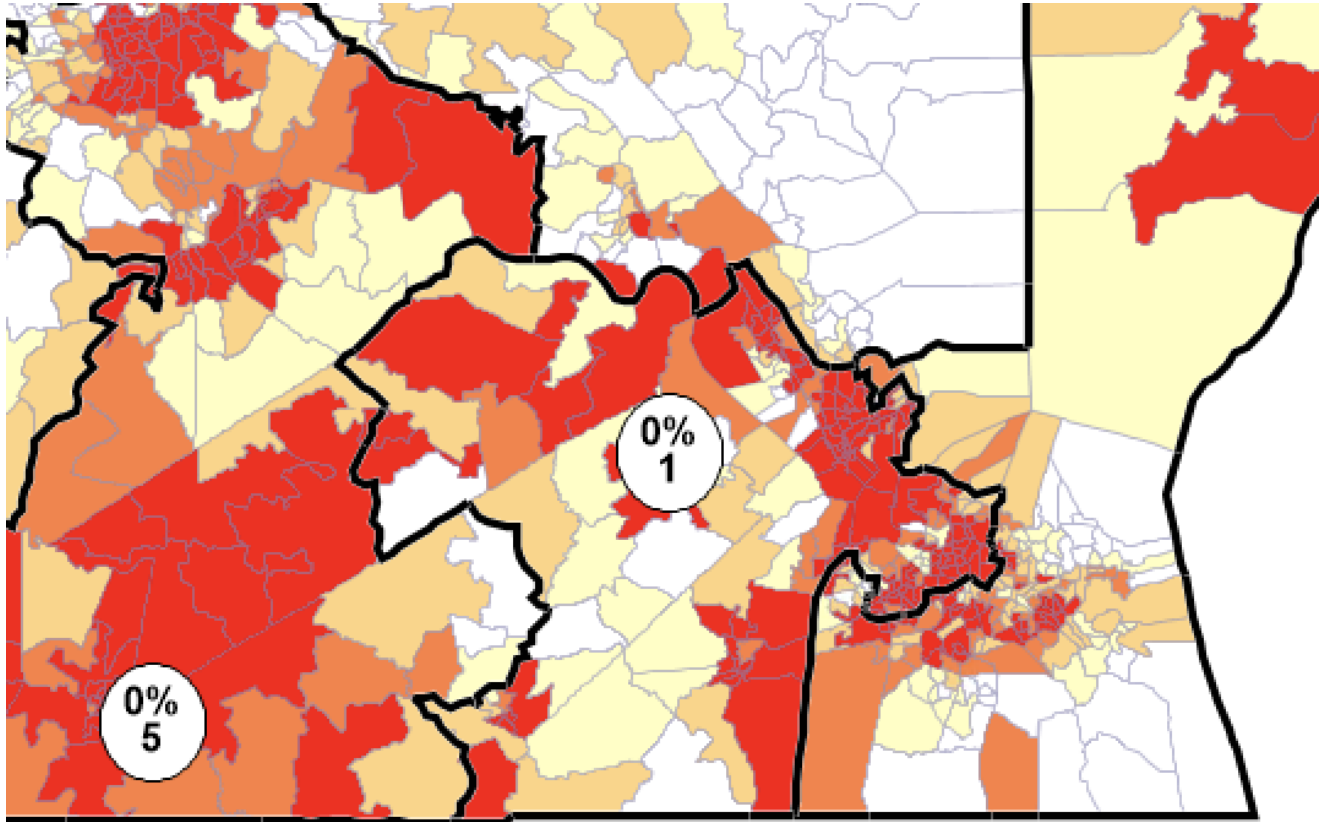


Figure 24 This is one of two new majority minority districts created in the VB plan

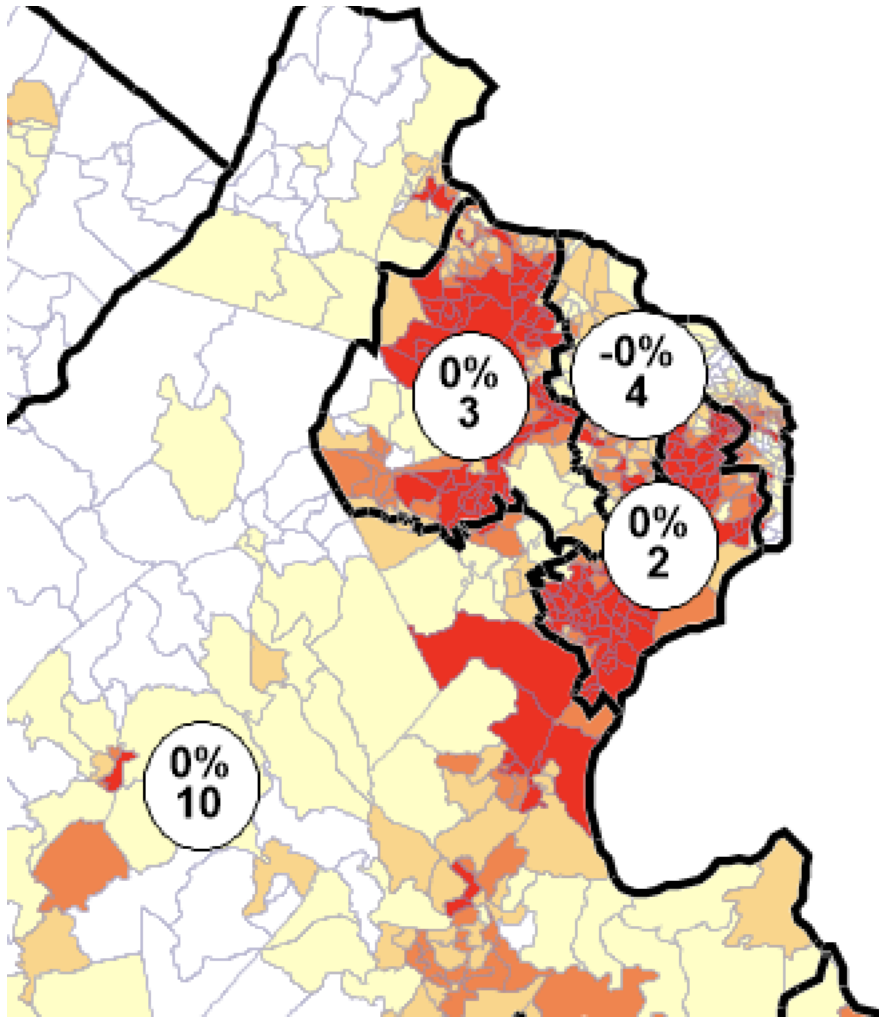


Figure 25 This is the second image of a new majority-minority district created in Northern Virginia

### **Plan VC**

Plan VC prioritizes the same principles as the least change (VA) and Good Government plans (VB), but splits more counties. It also creates districts that are less compact on average than districts in VB. My goal in drawing Plan VC was to draw districts that maximize the political influence of African Americans in Virginia by creating a district (District VC5) where African Americans are the majority of the CVAP. I did this in order to explore Virginia's obligations under the Voting Rights Act. But as I discuss, it is likely unnecessary to draw a district in Virginia where African Americans are the majority of the CVAP given recent voting

patterns in Virginia. It may also be illegal to do so given a recent court decision striking down a similar plan as an unconstitutional racial gerrymander.

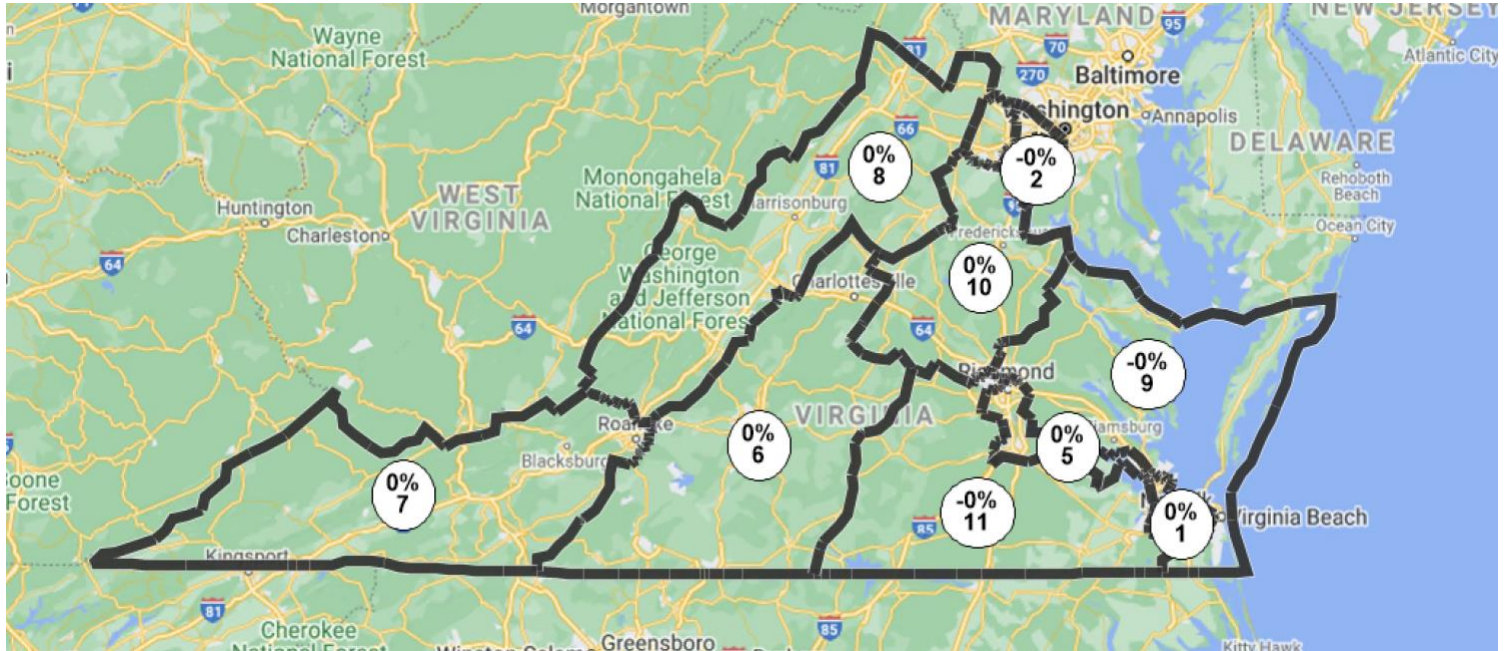


Figure 26 This is an image of the maximum minority representation plan, which creates an African American majority CVAP district.

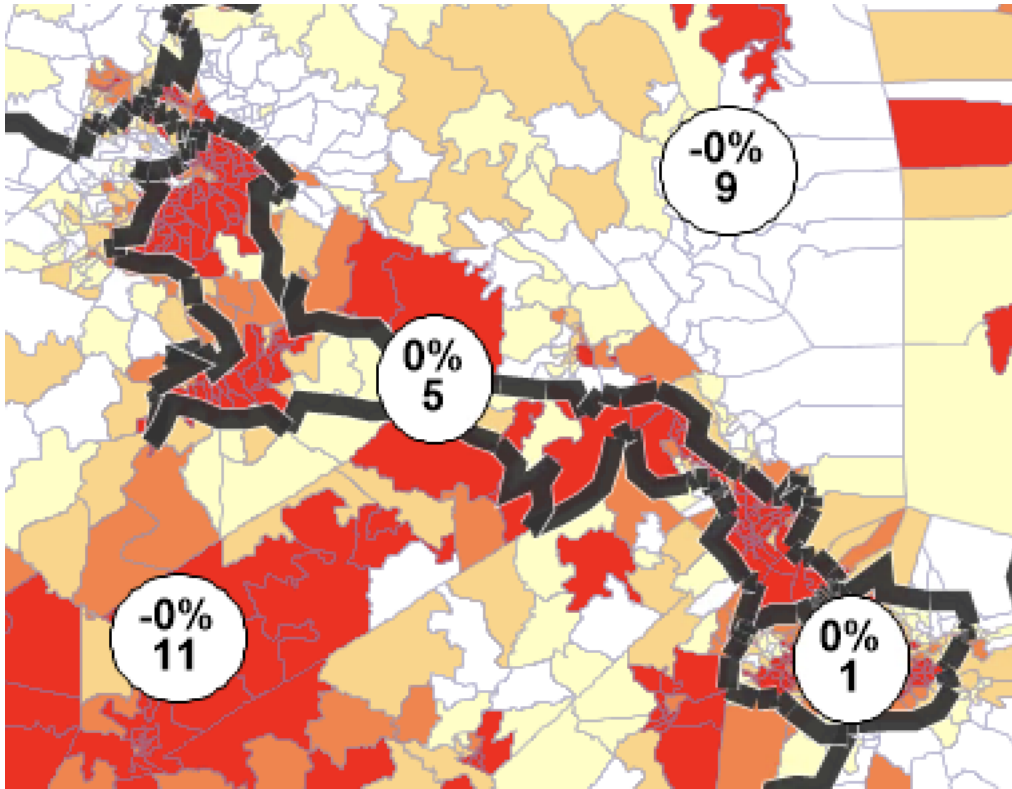


Figure 27 This is an image of District VC5, which creates an African American majority in roughly the equivalent area of the existing District 3.



This district also creates a second majority-minority district in the Northern Virginia region.

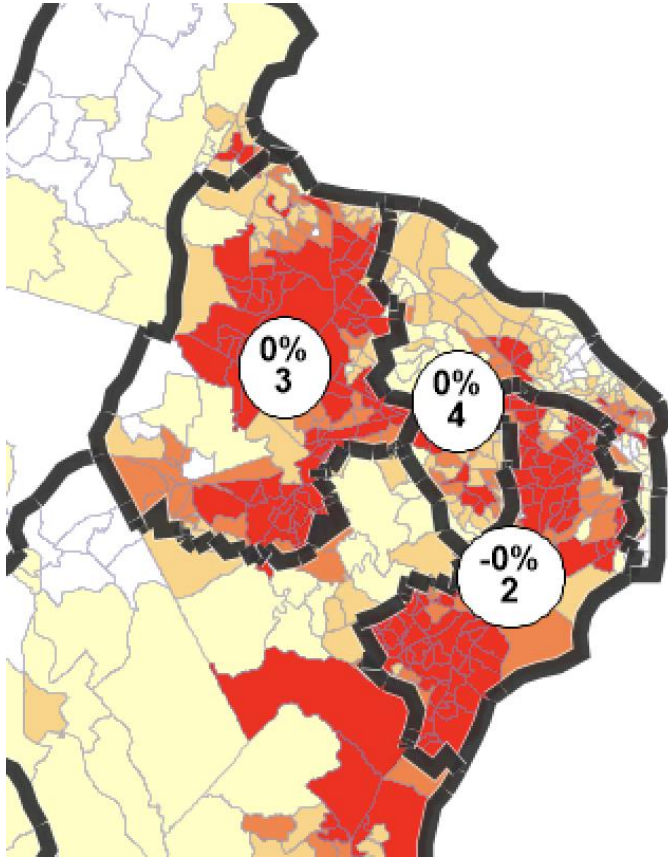


Figure 28 This shows a closeup of the Northern Virginia region, and the second majority-minority district in the max minority representation plan.

## **Legal Compliance**

### **Federal Requirements**

#### **One Person-One Vote**

The U.S. Constitution commands that congressional districts be drawn with populations “as nearly as is practicable” to equality.<sup>39</sup> All the districts in all three plans are compliant with One Person-One Vote. The population of Virginia, according to the 2020 census, is 8,631,393. Virginia did not lose or gain any districts and will continue to have 11. Therefore, the ideal value of each district is 784,672. All three plans have deviations of no greater than 1 person.

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<sup>39</sup> Karcher v. Daggett, 462 U.S. 725, 730 (1983).



*Shaw v. Reno*

Under *Shaw v. Reno*, a plan that cannot be understood as anything other than a plan designed to separate voters on the basis of race violates the Equal Protection Clause of the 14<sup>th</sup> Amendment.<sup>40</sup> Under *Shaw*, plans that use race as the predominant factor in drawing district lines trigger strict scrutiny. The Supreme Court has assumed, without deciding, that compliance with the VRA is a compelling governmental interest sufficient to withstand strict scrutiny.<sup>41</sup>

Two out of three plans, VA and VB, comply with *Shaw*. These plans score better or the same on measures of compactness as the existing plans, preserve communities of interest, and reflect respect for political subdivisions. A *Shaw* claim against the VB plan would likely focus on the majority-minority district in Northern Virginia, District VB4. A plaintiff challenging the plan would likely argue that this district was not necessary to comply with the Voting Rights Act and that a more compact and regularly shaped district could have been drawn instead. However, District VB4 has significantly higher compactness scores than the equivalent district in the existing plan, District 11. The existing District 11 has compactness scores of .23 (Reock), 3.04 (Schwartzberg), and .09 (Polsby-Popper). VB4 has compactness scores of .30 (Reock), 2.95 (Schwartzberg), and .10 (Polsby-Popper). It also better preserves communities of interest in the Northern Virginia suburbs by uniting minority communities in Western Alexandria, Franconia, and Springfield into one district and uniting the majority-white, high income neighborhoods in Arlington and Alexandria with the less diverse suburbs in Reston, Vienna, and Burke suburbs.

There is a strong basis for a *Shaw* claim against Plan VC, the plan that creates an African American majority district. Given recent voting patterns in Virginia, a court would likely find that drawing an African American majority district is unnecessary and therefore not a compelling interest to justify the use of race as the predominant factor in drawing congressional district VC5, where Black voters make up 51.9% of the CVAP.

This vulnerability to a *Shaw* claim stems from the fact that this plan has very low compactness scores and shares a number of similarities with the one struck down in *Page*. The congressional district at issue in *Page*, District 3, connected parts of Richmond, parts of Petersburg, and parts of Newport News. The district was not contiguous by land but was legally contiguous (at the time) because all parts of the district were connected to the James River. The court in *Page* considered the fact that district was contiguous only by water to be “circumstantial” evidence that race was the predominant factor motivating the creation of the third district.<sup>42</sup>

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<sup>40</sup> *Shaw v. Reno*, 509 U.S. 630, 649 (U.S. 1993).

<sup>41</sup> *See Shaw v. Hunt*, 517 U.S. 899, 916 (1996).

<sup>42</sup> Districts that are only contiguous by water were banned by an amendment to the state code enacted in 2020. VA. CODE ANN. § 24.2-304.04.

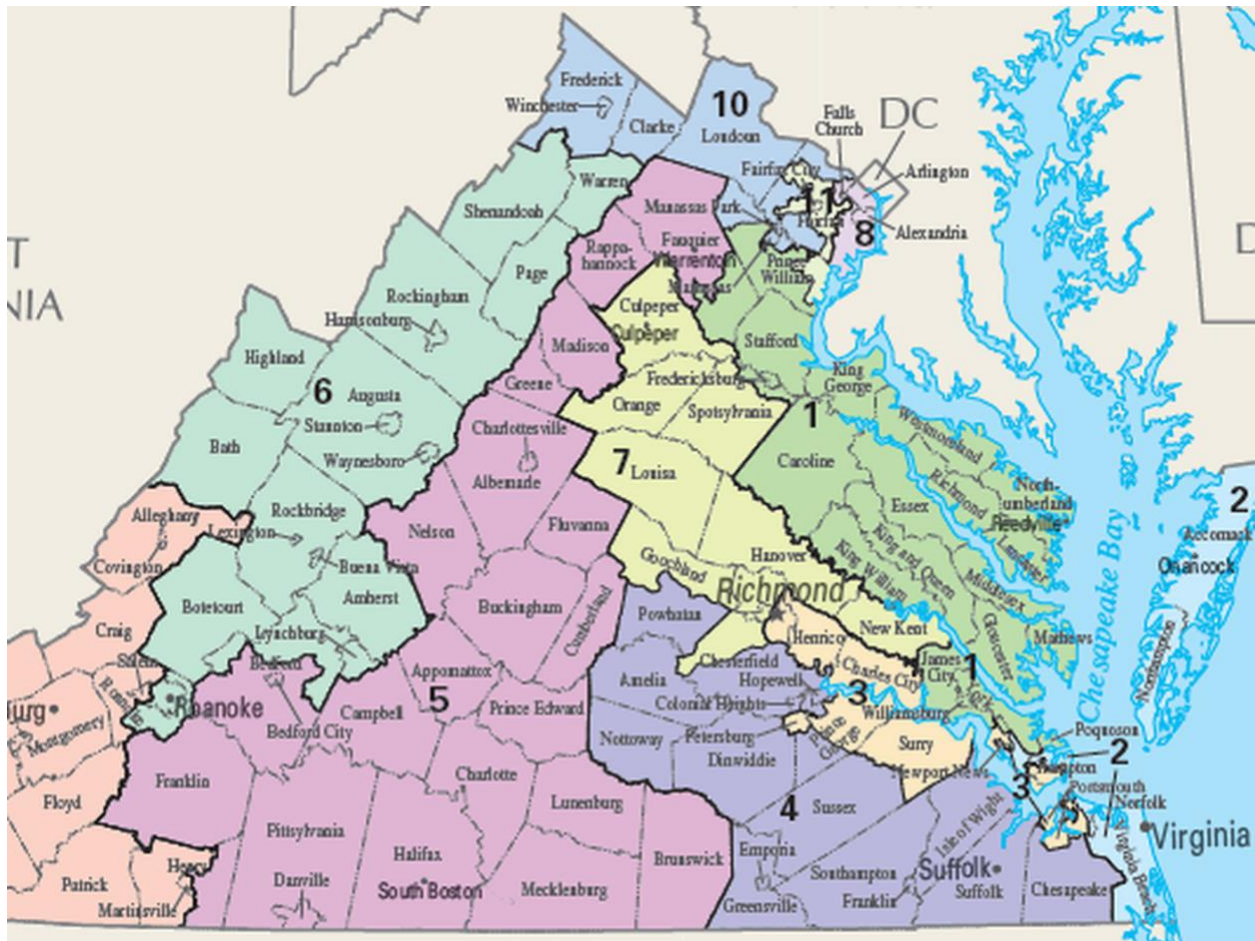


Figure 29 This is an image of the unconstitutional plan struck down in *Page*. Source: Expert Report of Dr. Michael McDonald in *Page v. Va. State Bd. of Elections*.

Similarly, plan VC contains a district that is only contiguous by water, as shown in the image below.

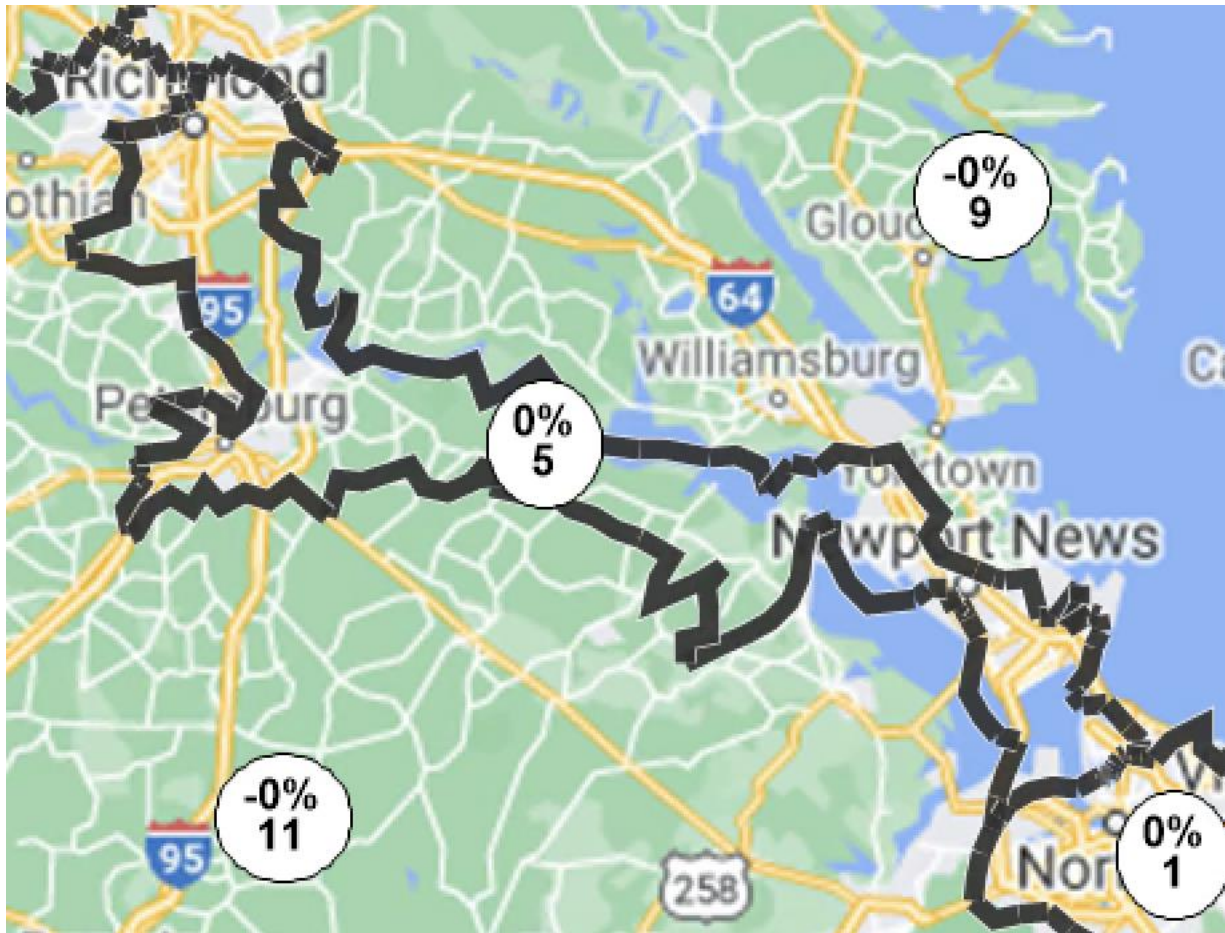


Figure 30 This is an image from Virginia good government plan VC, which contains a district that is contiguous by water connecting Surry County and Newport News.

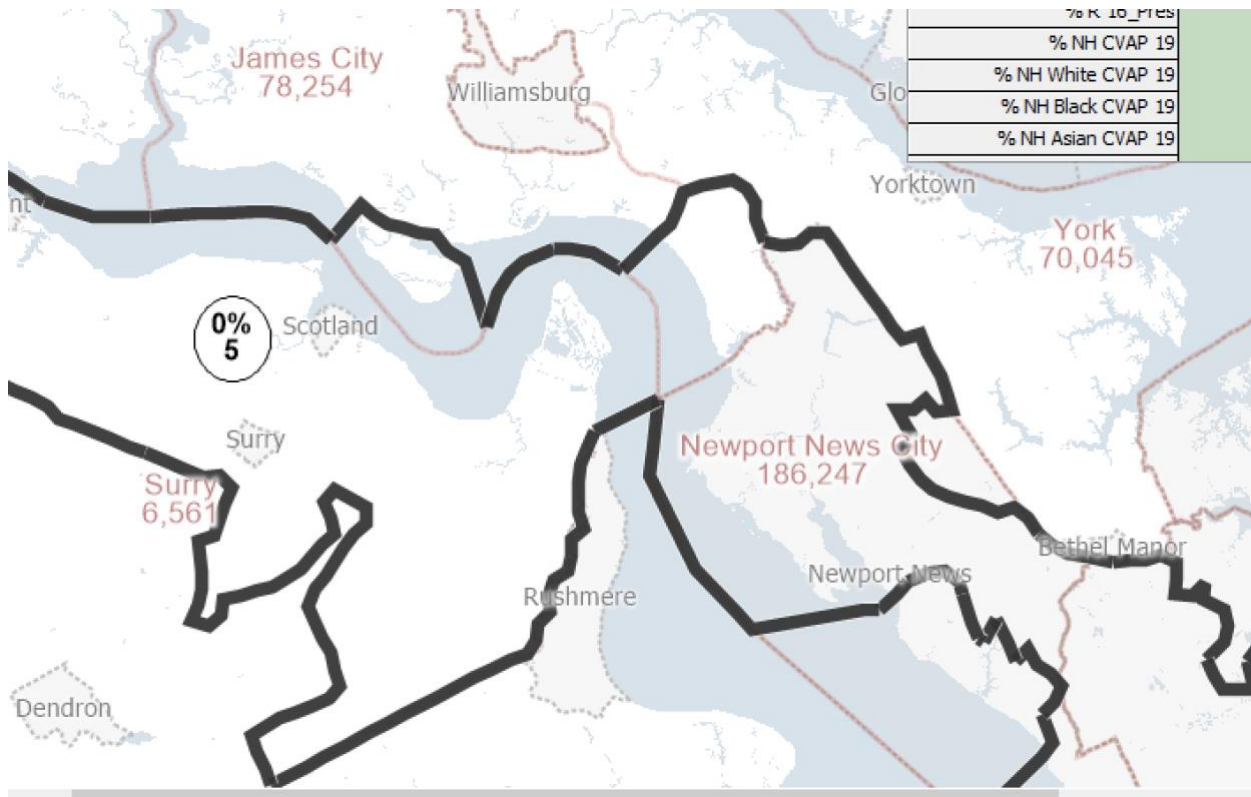


Figure 31 Here is a closeup of district VC5, which contains an area that is only contiguous by water.



A number of factors distinguish Plan VC from the one struck down in *Page*. First, the population of Black voters in the new fifth district of Plan VC is much lower than it was in the unconstitutional third district. Plan VC's Black CVAP population is 51.9% (BVAP 50.15%), well below the 56.3% BVAP included in the unconstitutional third district.<sup>43</sup> Second, the unconstitutional third district contained multiple discontinuities along the James River. Plan VC contains only one discontinuity between Surrey and Newport News.

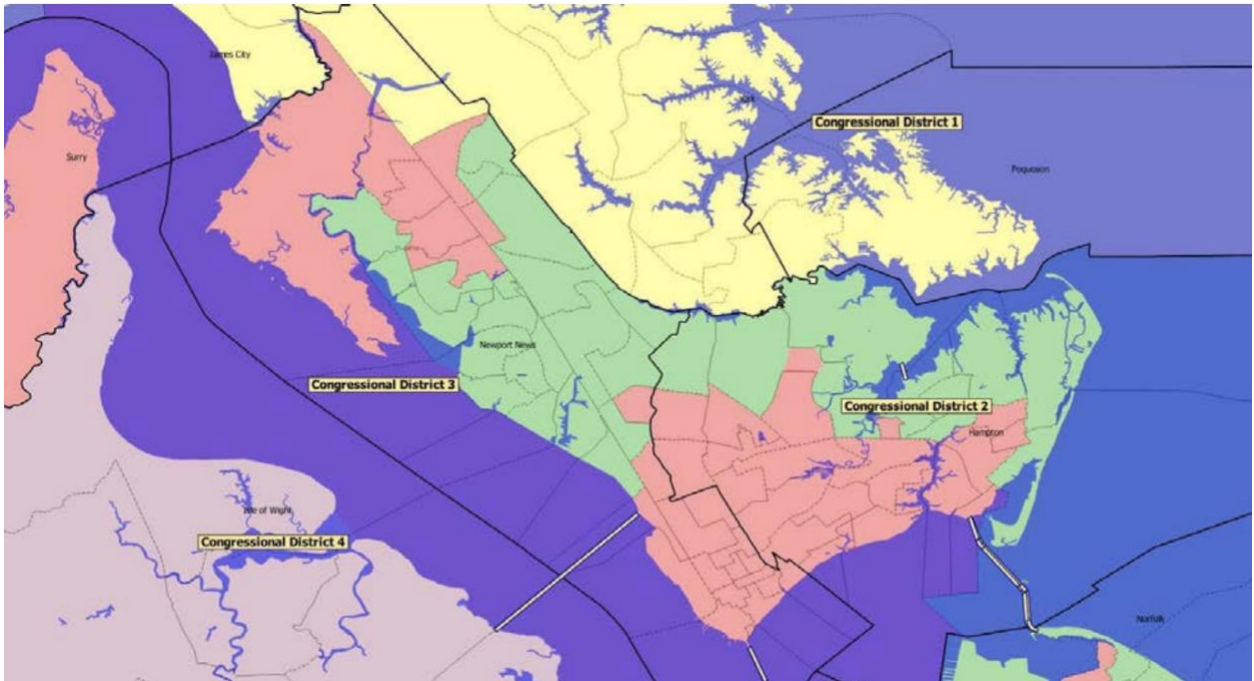


Figure 32 This is a closer look at the multiple points of discontinuity separating Newport News and Hampton, which were united into one district in the plan struck down in *Page*. Source: Expert Report of Dr. Michael McDonald in *Page v. Va. State Bd. of Elections*.

<sup>43</sup>Analysis by Dr. Michael McDonald of Plaintiffs' Proposed Alternative Congressional Plan at 8, *Page v. Va. State Bd. of Elections*, 2015 WL 3604029, No. 3:13-cv-00678-REP-LO-AKD (E. D. Va. June 5, 2015), ECF No. 85-11.

On the other hand, the low compactness scores of proposed District VC5 suggest a *Shaw* violation. VC5 scores very low on the most commonly used measures of compactness, including Reock, Polsby-Popper, and Schwartzberg. VC5 has a Reock score of .14, a Polsby-Popper score of .05, and a Schwartzberg score of 4.02. By comparison, the unconstitutional third district had a Reock score of .19, a Polsby-Popper score of .08, and a Schwartzberg test score of 3.07—all higher scores than VB5.<sup>44</sup>

Compactness scores: <i>Page</i> District 3 v. VC5			
Plan	Reock	Polsby-Popper	Schwartzberg
Unconstitutional third district	.19	.08	3.07
VC5	.14	.05	4.02

A final consideration is the fact that Representative Bobby Scott, the current representative of Virginia’s third district has consistently won re-election by wide margins even though Virginia’s third district was redrawn to no longer include an African American majority. Scott has represented Virginia’s third congressional district since 1992, when the Department of Justice directed the Virginia state legislature to draw a majority-Black district following the results of the 1990 census. He was the first African American congressman since Reconstruction. In 2016, after the decision in *Page*, Scott defeated the Republican Marty Williams 66%-33%. Although his district was no longer majority-black, he was still able to win resoundingly. This suggests that there may not be a need to draw a majority-Black district in order to ensure that African Americans in Virginia have an opportunity to elect their candidate of choice.

### The Voting Rights Act

A court will order the creation of a minority-opportunity district if members of a minority group are (1) sufficiently large and compact to constitute the majority of the CVAP in a district (2) the minority group is politically cohesive (3) the white majority votes sufficiently as a block to defeat the minority group’s preferred candidate<sup>45</sup> and (4) a totality of the circumstances analysis reveals that the factors detailed in the report that the Senate Judiciary Committee submitted to accompany the 1982 amendments to the Voting Rights Act are present.<sup>46</sup> In the mid-90s, Virginia was ordered to create a Section 2 district (what is now District 3). Given changes in voting patterns and the demographic makeup of Virginia over the years, it seems unlikely that a court would order that result again.<sup>47</sup>

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<sup>44</sup> *Id.* at 7.

<sup>45</sup> *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986).

<sup>46</sup> *Id.* at 46.

<sup>47</sup> In fact, court-drawn maps following the decision in *Page* unpacked African American voters from what was previously a majority-African American district.



Virginia is a very diverse state. Members of minority groups, overall, make up 32.1% of the CVAP. African Americans constitute 19.88% of the VAP after the 2020 census, and 20.01% of the CVAP. Hispanics make up 9.11% of the VAP, but only 5.4% of the CVAP. Asian Americans make up 8.23% of the VAP but only 5.5% of the CVAP.<sup>48</sup> A rough proportionality measure like the one employed in *Johnson v. De Grandy*<sup>49</sup> would suggest that voters of color should be able to elect their candidates of choice in between three and four of the state's eleven districts.

Overall, voting in Virginia does not appear to be so racially polarized that members of minority groups cannot elect their candidates of choice. Minority voters in Virginia heavily favor Democrats. According to exit polls taken after the 2020 elections, 89% of African Americans voted for Joe Biden over Donald Trump. 61% of Hispanic voters voted for Joe Biden over Donald Trump, and 60% of Asian voters voted for Joe Biden over Donald Trump. White voters do not have a clear candidate of choice, however. In the 2020 elections, 53% of white voters voted for Donald Trump, while 45% of white voters voted for Joe Biden.<sup>50</sup>

The current plan contains only one district where members of minority groups are a majority of the CVAP and contains no districts where African Americans are the majority of the CVAP. Virginia's current congressional delegation is made up of seven Democrats and four Republicans. Minority voters' candidates of choice are therefore overrepresented in Virginia's congressional delegation relative to minority voters' share of the population. During the most recent elections in 2020, white and non-white voters were not so racially polarized in Virginia as to prevent non-white voters from electing their preferred representatives.

Plan VA, the least change map, only has one district where minorities are in the majority of the CVAP (it has three districts where minorities are the majority of the VAP). A Section 2 plaintiff might target Plan VA, arguing that either an African American majority district must be created or a coalition district must be created to satisfy the VRA. However, a PlanScore analysis<sup>51</sup> of this plan indicates that Democrats are likely to win the majority of votes in five out of 11 districts. While this plan has a stronger pro-Republican bias than my Good Government plan, with 2.6% pro-Republican bias, it still ensures representation for minority groups that is

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<sup>48</sup> This data comes from data loaded in Maptitude.

<sup>49</sup> In *Johnson v. De Grandy*, the Supreme Court held that no voting rights act violation could be found in a plan where minority members formed effective voting majorities in a number of districts that was roughly proportional to the minority voters' respective shares of the population. See *Johnson v. De Grandy*, 512 U.S. 997, 1000 (1994). While proportionality is not dispositive of a claim under § 2, it is a rule of thumb that can be helpful in assessing whether a plan complies with the VRA. See *id.*

<sup>50</sup> *Virginia Exit Polls: How Different Groups Voted*, THE NEW YORK TIMES, <https://www.nytimes.com/interactive/2020/11/03/us/elections/exit-polls-virginia.html> (last accessed Jan. 16, 2022).

<sup>51</sup> PlanScore analyses for all of my Virginia plans can be found on the Virginia plans pages at [www.DrawCongress.org](http://www.DrawCongress.org).

appropriate relative to their proportion in the population. A Section 2 claim against Plan VA plan is not very strong.

Lacking evidence to satisfy the third *Gingles* prong, it appears that Section 2 does not mandate the creation of additional majority-minority districts.

### **State Requirements**

Article II §§ 6 to 6-A of the Virginia State Constitution contains a number of directives to the state redistricting commission related to congressional maps.<sup>52</sup> It requires that districts be compact and contiguous. It also requires that every electoral district be drawn “as nearly as is practicable” to population equality. The state constitution mandates that all plans comply with federal voting rights law, including the Equal Protection Clause of the Fourteenth Amendment and the Voting Rights Act of 1956, as amended, and with judicial decisions interpreting these laws. It also states that “Districts shall provide, where practicable, opportunities for racial and ethnic communities to elect candidates of their choice.”

In 2021, Virginia became the first state in the South to pass its own Voting Rights Act to require local election officials to go through state-level preclearance before making changes like consolidating or closing polling places, changing district boundaries, creating at-large seats, or taking actions that might affect the ability of non-English speakers to vote.<sup>53</sup> The new law creates strong protections for racial and language minorities and authorizes the Virginia attorney general to bring civil actions when there is reasonable cause to believe that a violation of election law has occurred.

The state code of Virginia now makes it illegal for any district to be drawn in a way that “results in a denial or abridgement of the rights of any racial or language minority group to participate in the political process and to elect representatives of their choice.”<sup>54</sup> The law requires courts to conduct a totality of the circumstances analysis to determine whether members of a language or racial minority group have been cracked across multiple districts or packed into one district to dilute their voting power. Courts are directed to look at the electoral success of members of minority groups to determine whether a group’s voting power has been diluted. The code does not, however, establish that members of minority groups are entitled to be elected in numbers equal to their proportion in the population.

The Virginia code also requires that map drawers take communities of interest into account and defines communities of interest as neighborhoods or “any geographically defined group of people” who share “social, cultural, and economic

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<sup>52</sup> VA. CONST. ART. II §§ 6-6-A.

<sup>53</sup> Graham Moomaw, *Virginia set to become the first southern state with its own voting rights act. Here’s what it does*, VIRGINIA MERCURY (Mar. 12, 2021)

<https://www.virginiamercury.com/2021/03/12/virginia-is-set-to-become-the-first-southern-state-with-its-own-voting-rights-act-heres-what-it-does/>.

<sup>54</sup> VA. CODE ANN. § 24.2-304.04(3).

interests.”<sup>55</sup> The code also prohibits districts that are only contiguous by water running downstream or upriver and prohibits maps that unduly favor one political party. The new law requires mapdrawers to use the total population reported by the census as the basis for drawing districts. It also prohibits prison gerrymandering, meaning that the place where an individual is incarcerated cannot be used as their residence for purposes of drawing districts.<sup>56</sup>

Plan VC raises the greatest number of issues under state law. First, a plaintiff may argue that the packing of minority voters into District VC5 impermissibly violates *Shaw* and violates state voting protections against packing minority voters into a single district to dilute their voting power. Second, District VC5 may also not be compliant with the state’s contiguity requirement.

By contrast, Good Government Plan VB complies with the state contiguity requirement because it includes the bridges that connect Hampton with Smithfield and Carrolton.

The other plans comply with state requirements because, as I will discuss in the next sections, they improve on the average compactness of the existing plan, reflect respect for communities of interest, minority representation, and political subdivision lines.

In the subsequent section, I will discuss each of the state requirements.

### Compactness

Clause 7 of the Virginia Code’s redistricting statute states that “Districts shall be composed of compact territory and shall be drawn employing one or more standard numerical measures of individual and average district compactness, both statewide and district by district.”<sup>57</sup>

Good Government Plan VB complies with this requirement because it substantially improves upon the compactness scores of the existing plan. VB is more compact according to two out of three measures of compactness than even the plan that Virginia Supreme Court adopted in 2021.

According to the Reock compactness measure, Plan VB is the most compact of any of the plans, with an average Reock compactness score of .40. The 2021 adopted plan is the next most compact, with an average score of .38. Plan VC is the third most compact, with an average Reock score of .37. Plan VA is the next most compact, with an average Reock score of .34. The existing plan is the least compact, with an average of .31

According to the Schwartzberg compactness measure, Plan VB is the most compact, with an average Schwartzberg score of 1.98. The adopted plan is the next most compact, with a Schwartzberg score of 2.01. Plan VA is the third most compact, with an average score of 2.12. The existing plan is the fourth most

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<sup>55</sup> VA. CODE ANN. §24.2-304.04(5).

<sup>56</sup>VA. CODE ANN. §§ 24.2-304.04(1) –24.2-304.04(9).

<sup>57</sup> VA. CODE. ANN. §24.2-304.4(7).

compact, with an average score of 2.13. Finally, Plan VC is the least compact with an average Schwartzberg score of 2.19.

Under the Polsby-Popper measure, the 2021 adopted plan is the most compact, with an average score of .25. Plan VB is the next most compact, with an average score of .23. Plan VC is the third most compact, with an average score of .20. The existing plan and Plan VA are tied for fourth and fifth place, with an average Polsby-Popper score of .19.

I have summarized these results in the table below.

Average compactness scores									
Plan	Min Reock	Avg. Reock	Max Reock	Min. Schwartzberg	Schwartzberg	Max Schwartzberg	Min PP	Polsby-Popper	Max PP
VA	.22	.34	.55	1.70	2.12	3.09	.09	.19	.27
VB	.22	.40	.58	1.43	1.98	2.95	.10	.23	.38
VC	.14	.37	.59	1.71	2.19	4.02	.05	.20	.30
Existing	.20	.31	.43	1.75	2.13	3.04	.09	.19	.26
2021 Adopted	.21	.38	.53	1.46	2.01	2.31	.19	.25	.36

### Political subdivision splits

Of the plans I have proposed, the Plan VA splits the fewest counties (15). It splits only one more county than the existing plan (14). Plan VB splits 23 counties and splits 40 voting districts. Plan VC splits 34 counties and splits 53 voting districts. Plans VB and VC split more political subdivisions than the enacted/least change plans and the adopted plan in part because they create majority-minority districts in the Northern Virginia region, resulting in county splits in Arlington, Alexandria, Prince William, Manassas, and Loudon counties. In my efforts to create compact districts in the Richmond and Seven Cities regions, I also could not avoid splitting Henrico, Chesterfield, Dinwiddie, Southampton and Suffolk counties. Plan VC splits the even more counties than Plan VB in part because it creates a strangely-shaped non-compact district in the Hampton Roads region.

Political subdivision splits		
Plan	County splits	Voting District
VA	15	64
VB	23	40
VC	34	99
Existing	14	32
2021 adopted plan	10	41

### Communities of interest

As of the recent amendments to the Virginia state code, it is now illegal to fail to take communities of interest into consideration when drafting plans for Congress.<sup>58</sup> Under the state code, a community of interest is a neighborhood or geographically defined group of people living in an area who share similar social, cultural, and economic interests.<sup>59</sup> The U.S. Supreme Court has never issued a formal definition of a community of interest, but has listed “shared broadcast and print media, public transport infrastructure, and institutions such as schools and churches” as part of its definition.<sup>60</sup>

The Weldon Cooper Center at the University of Virginia has divided Virginia into eight geographic regions: Central, West Central, Southside, Hampton Roads, Eastern, Southwest, Northern, and the Valley.<sup>61</sup>

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<sup>58</sup> VA. CODE ANN. §24.2-304.04(5).

<sup>59</sup> *Id.*

<sup>60</sup> *Bush v. Vera*, 517 U.S. 952, 964(1996).

<sup>61</sup> *Virginia’s Regions*, THE WELDON COOPER CTR. FOR PUB. SERV., [https://demographics.coopercenter.org/sites/demographics/files/RegionalProfiles\\_28July2014\\_0.pdf](https://demographics.coopercenter.org/sites/demographics/files/RegionalProfiles_28July2014_0.pdf) (last accessed Jan. 15, 2022).

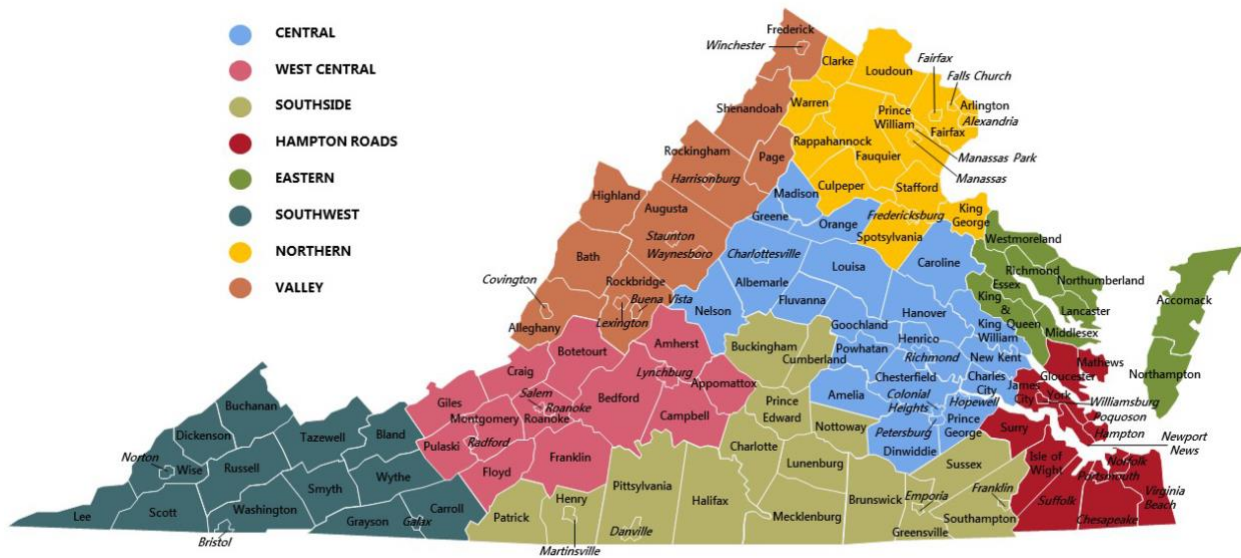


Figure 33 Source: <https://demographics.coopercenter.org/virginia-regions>

Overall, Plan VB largely tracks these regions. District VC7 comprises the Southwest cultural region. District VC8 unites West Central and the Shenandoah Valley. These rural counties are predominantly white, are older on average, and generally have lower income levels and educational attainment than the rest of the state.



Western portion of the state

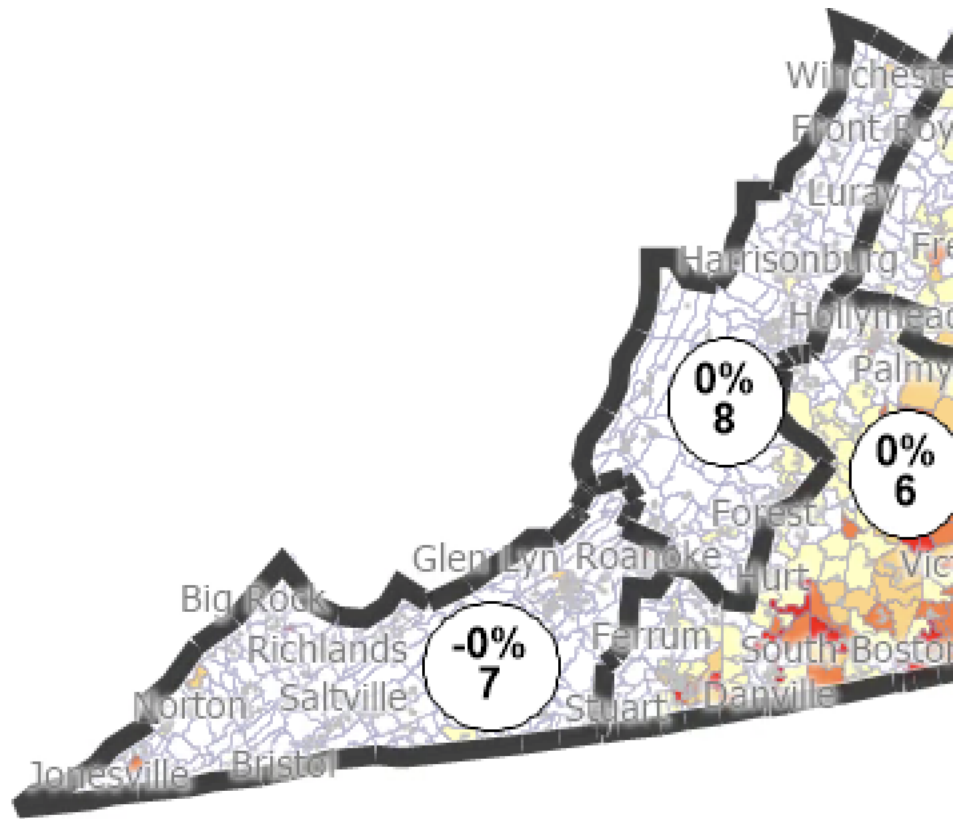


Figure 34A screenshot of districts VB7 and VB8, which keep the cultural regions in the Western part of the state intact.

This is similar to the least change plan and the existing map, which also keeps these communities of interest intact in Districts 6 and 9.

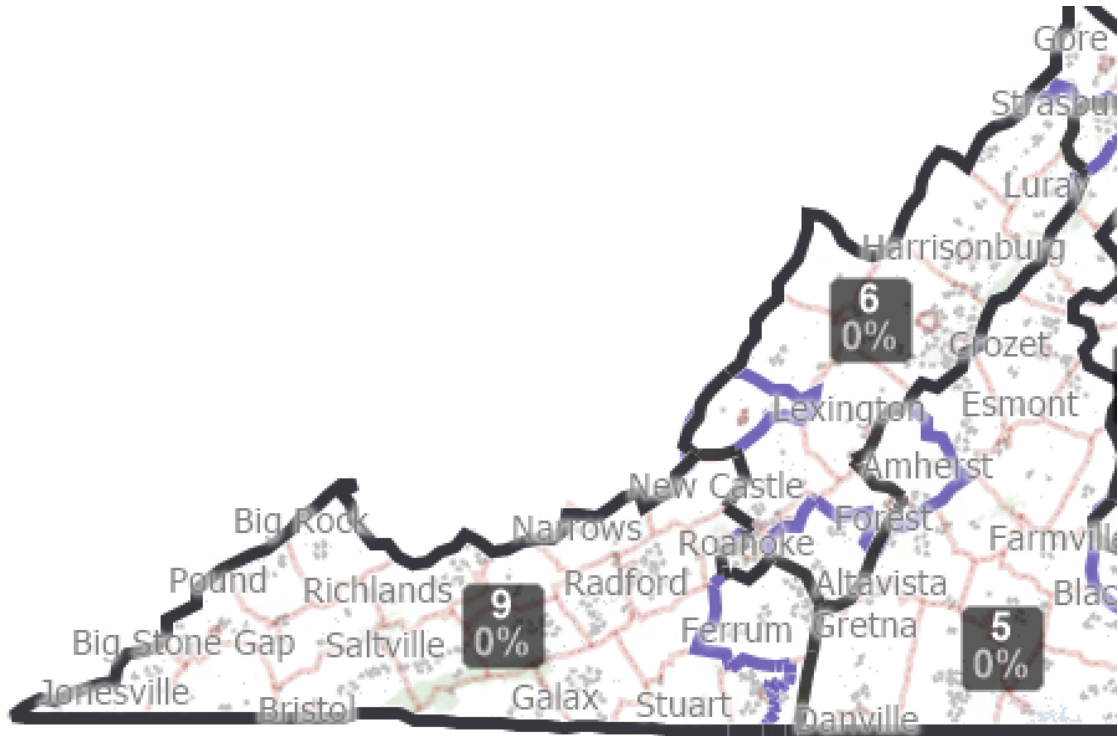


Figure 35 This is a screenshot of the equivalent districts in the least change plan, with previous district boundaries in purple.

### Northern Virginia region

The Northern Virginia region contains twelve counties, Arlington, Clarke, Culpeper, Fairfax, Fauquier, King George, Loudon, Prince William, Rappahannock, Spotsylvania, Stafford, and Warren, and 6 major cities, including Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park. According to the 2020 Census, Northern Virginia comprises 37.04% of Virginia’s total population,

making it the most populous area in Virginia.<sup>62</sup> The Northern Virginia region is the highest income region of Virginia, with many of the highest income counties in the nation. Northern Virginia is also the most diverse region of the state, with a population that, as of the 2020 census, is 52% white VAP 13.72% Black, 16.47% Asian, and 15.96% Hispanic.<sup>63</sup>

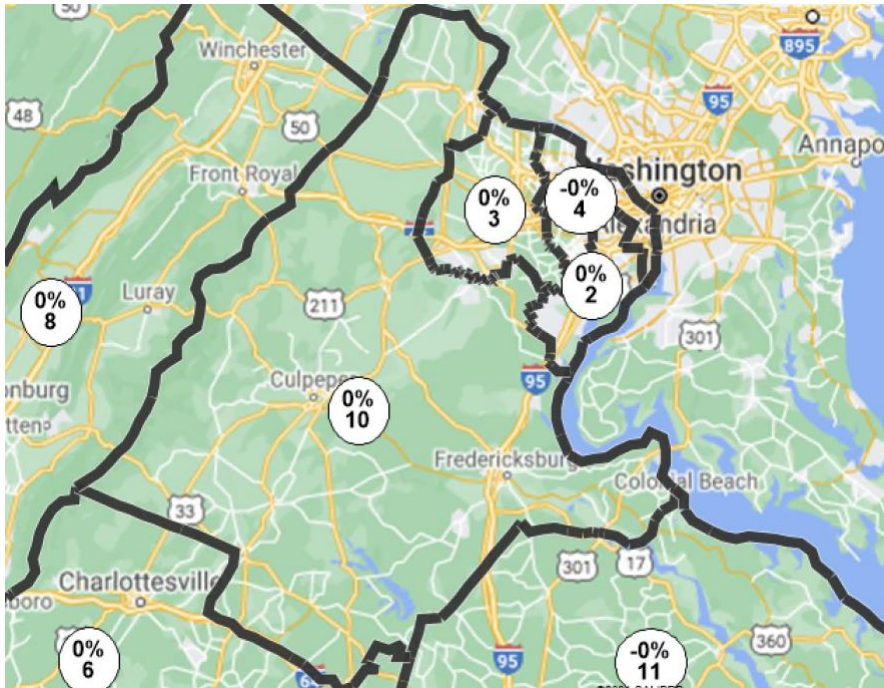


Figure 36 Image of the Northern Virginia region in Plan VB.

My Good Government plan splits this region into five districts: Districts VB2, VB3, VB4, VB10, and VB8. District VB10 joins counties technically considered Northern Virginia, Loudon, Faurquier, Spotsylvania, and Stafford, with counties considered part of Central Virginia, Madison, Greene, Orange, Louisa.

This is an improvement over the least change/existing plan, which divides the Northern Virginia region into seven districts.

<sup>62</sup> *Virginia Adds More than 600,000 People Since 2010*, UNITED STATES CENSUS BUREAU (August 25, 2021) <https://www.census.gov/library/stories/state-by-state/virginia-population-change-between-census-decade.html>.

<sup>63</sup> This data was provided by Caliper in Maptitude.

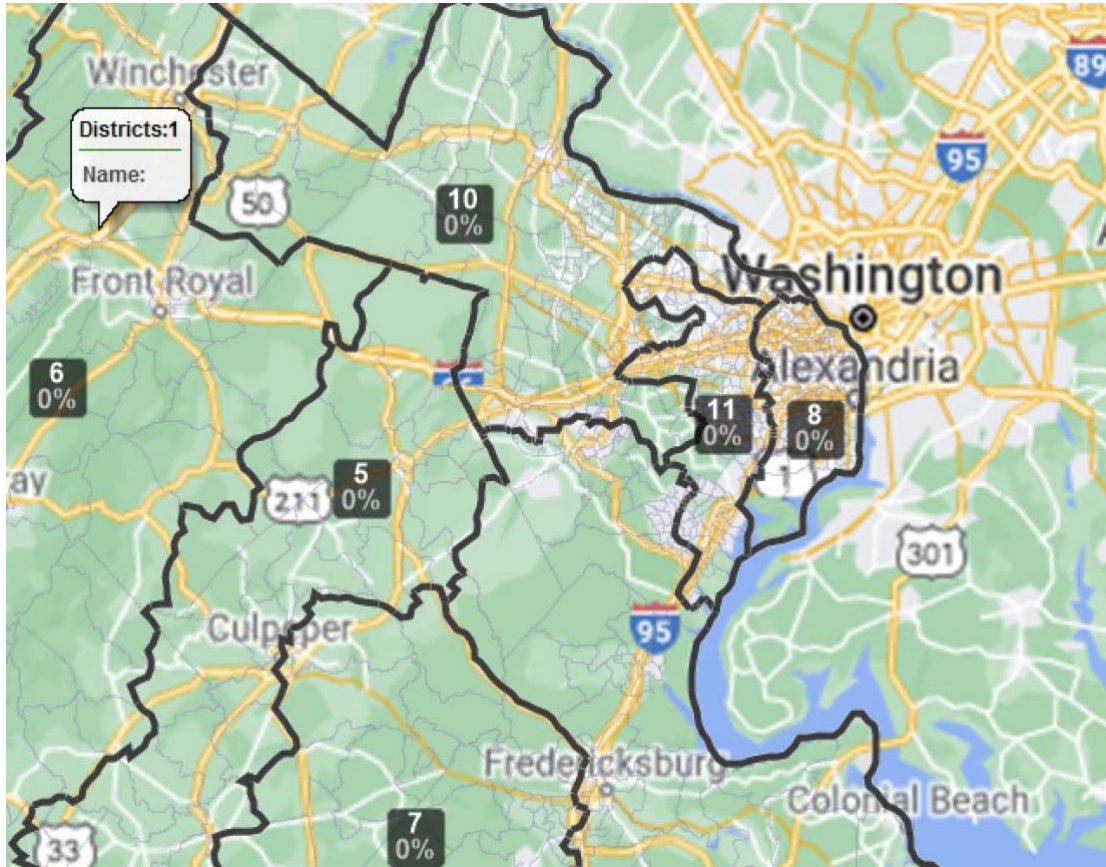


Figure 37 Above is a screenshot from my least change plan, Plan VA, which divides the Northern Virginia counties into seven districts: Districts 8, 11, 10, 6, 5, 7 and 1.



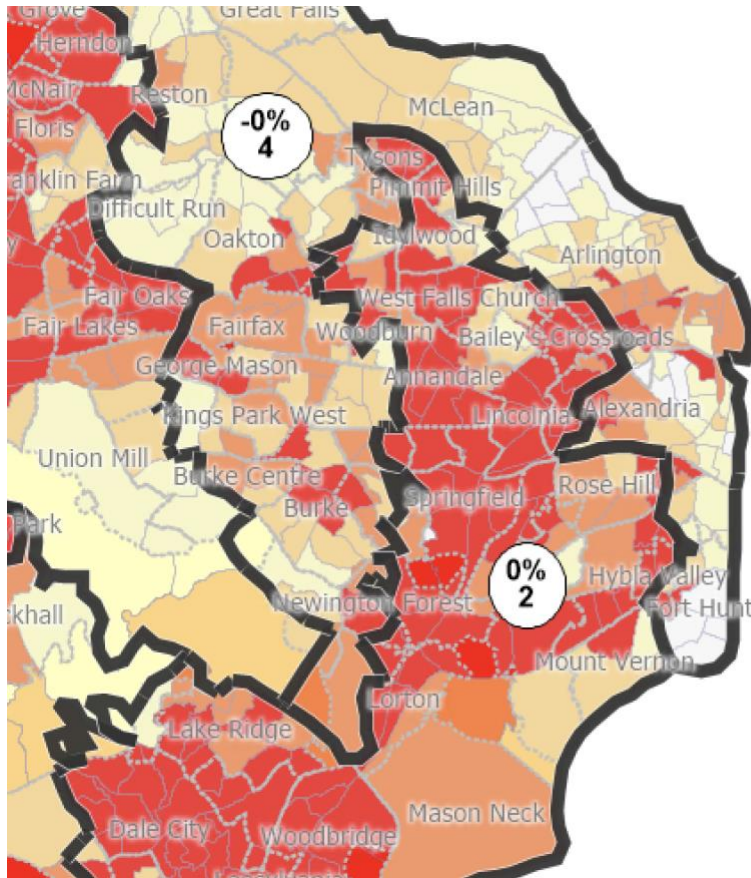


Figure 38 This is an image of districts VB2, VB3, and VB4, in Good Government Plan VB, with a heat map showing the distribution of non-white voters, with areas where non-white voters are in the majority (>50% VAP) colored in dark red.

By dividing the Northern Virginia region into fewer districts, Plan VB produces districts that are more compact from both a geographical and a cultural standpoint. In Fairfax, Alexandria, and Arlington counties, I created District VB2 to unite minority communities and maximize their political influence over the Virginia congressional delegation. The majority-white suburbs are joined together in District VB4.

This is an improvement over the existing plan and the least change map, where voters in majority-minority communities in North Springfield, Springfield, and Franconia are divided almost down the middle into two districts, Districts 8 and 11.

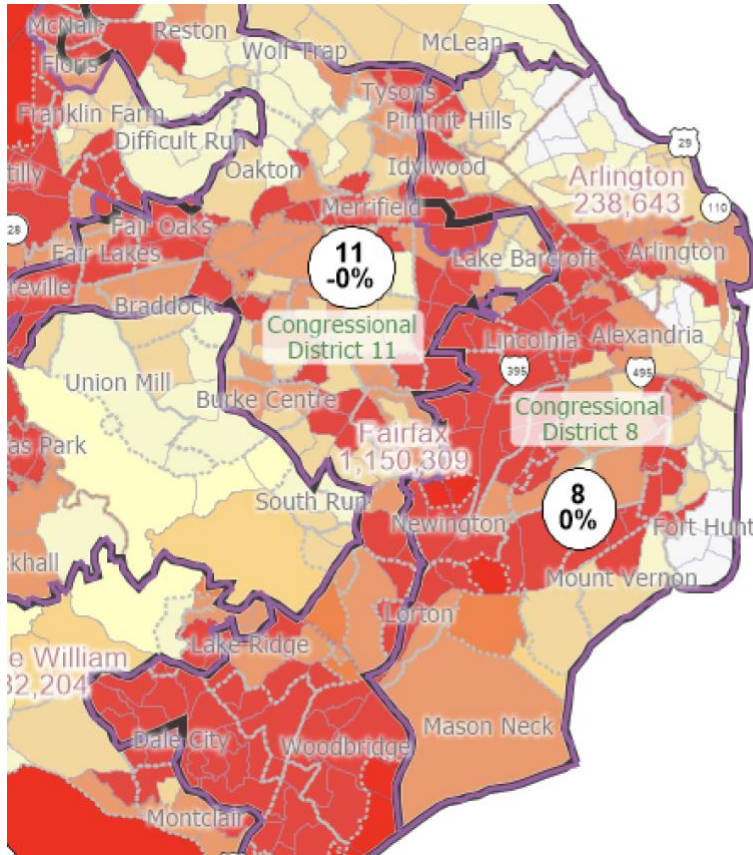


Figure 39 This is an image from Plan VA, showing split communities of interest in the Northern Virginia region.

### Hampton Region

Another place where my Good Government plan VB improves upon the existing plan is in the Hampton Roads region, which is named for the large waterway at the mouth of the James River. This region is home to ports, shipyards, and military facilities, in addition to Colonial Williamsburg.<sup>64</sup> It is sometimes referred to as the “Seven Cities,” a reference to the cities of Newport News, Hampton, Norfolk, Virginia Beach, Portsmouth, Chesapeake, and Suffolk. It is also referred to as the “757,” a reference to the region’s area code. It has large African American populations in Newport News, Norfolk, Virginia Beach, Portsmouth, Hampton, and Suffolk.

<sup>64</sup> THE WELDON COOPER CTR. FOR PUB. SERV., *supra* note 60.



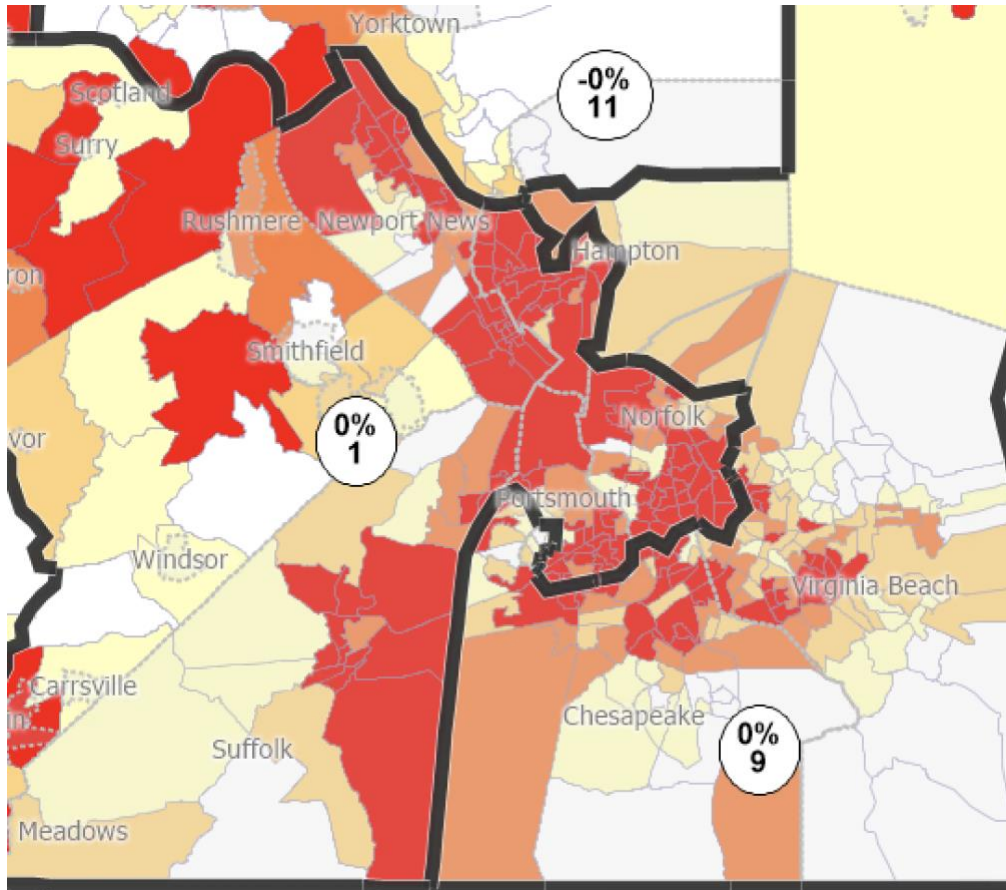


Figure 40 This is an image from Good Government Plan VB, which divides the Hampton region into just two districts instead of three, keeping Suffolk in the same district as Norfolk, Hampton, and Portsmouth and keeping Chesapeake in the same district as Virginia Beach.

In the existing and least change maps, this area makes up District 3, the former VRA district currently represented by Bobby Scott. The existing/least change plan, shown above, carves up the Hampton Roads area into three districts: District 4, District 3, and District 2.

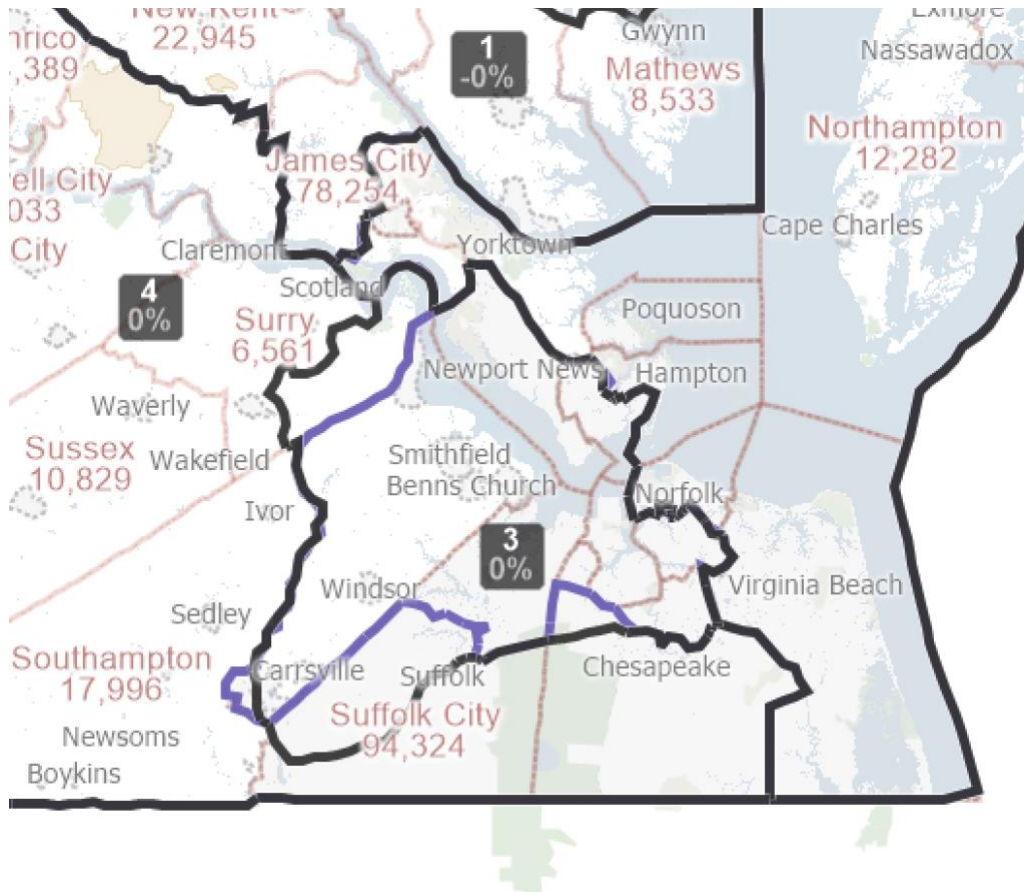


Figure 41 This is an image of the Hampton Roads Region in Plan VA.

My Good Government Plan VB divides these cities into just two districts, with most of Newport News, Hampton, Norfolk, Portsmouth, and Suffolk in District VB1, and Virginia Beach and Chesapeake in District VB9.

In the maximum African American representation plan, Plan VC, I needed to carve up the Seven Cities across four districts: VC11, VC9, VC5, and VC1.

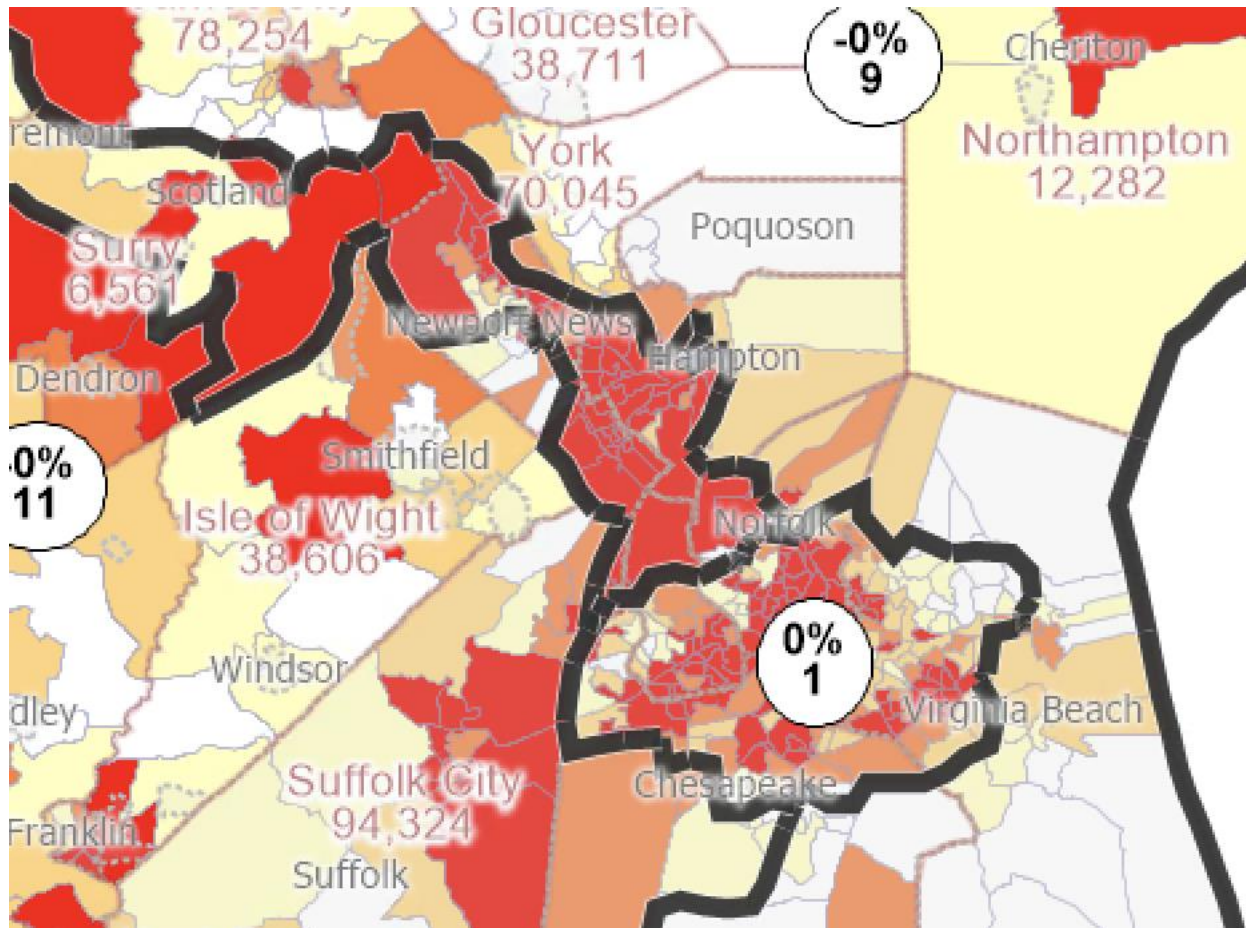


Figure 42 This is an image from the maximum African American majority plan VC, depicting District VC5, which encompasses majority-minority communities (in red) in Newport News, Hampton, Norfolk, and Chesapeake and Virginia Beach.

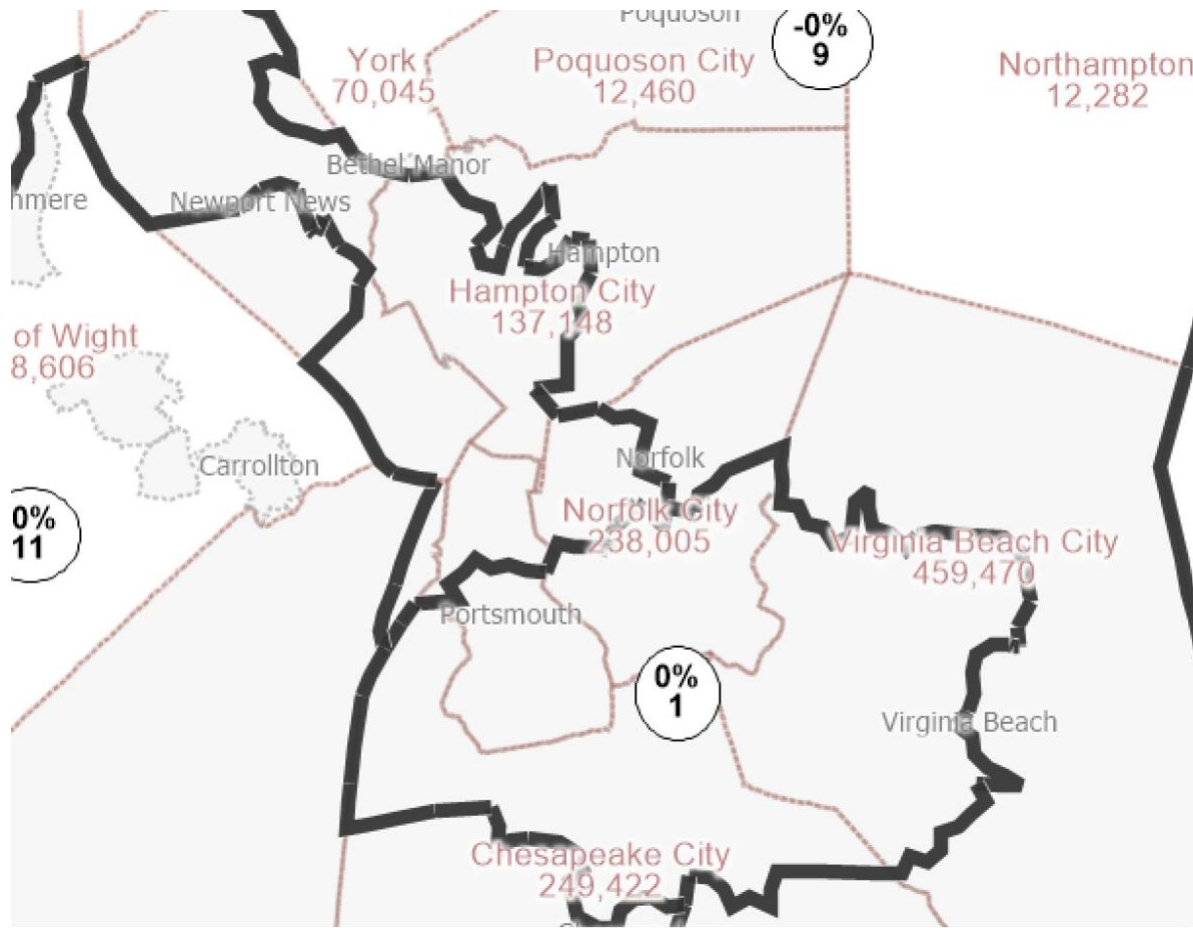


Figure 43 Above is an image of the Hampton region in Plan VC with the voting layer removed to provide a closer image of the split cities.

This is not an ideal way to carve up the Hampton region. It results in districts that split major cities along racial lines and splinters the Hampton region into four congressional districts. As a consequence, it may not meet the state's requirement that communities of interest be taken into account.

### Richmond Region

The Richmond region is a fast-growing, diverse area home to the state's capital. Richmond is a majority-minority city, with a white VAP of 45.49%. The Richmond area also encompasses Petersburg, a city where 75% of the VAP is African American. The suburbs of Richmond in Chesterfield and Goochland counties have more sizable white populations with higher median incomes. The existing/least change plan divides the Richmond area into three districts and unite minority communities in Richmond city with those in Petersburg.





Figure 44 This is an image of the Richmond area in Plan VA.

Similarly, Plan VB splits Greater Richmond into three districts, largely tracking the same lines as the existing plan.

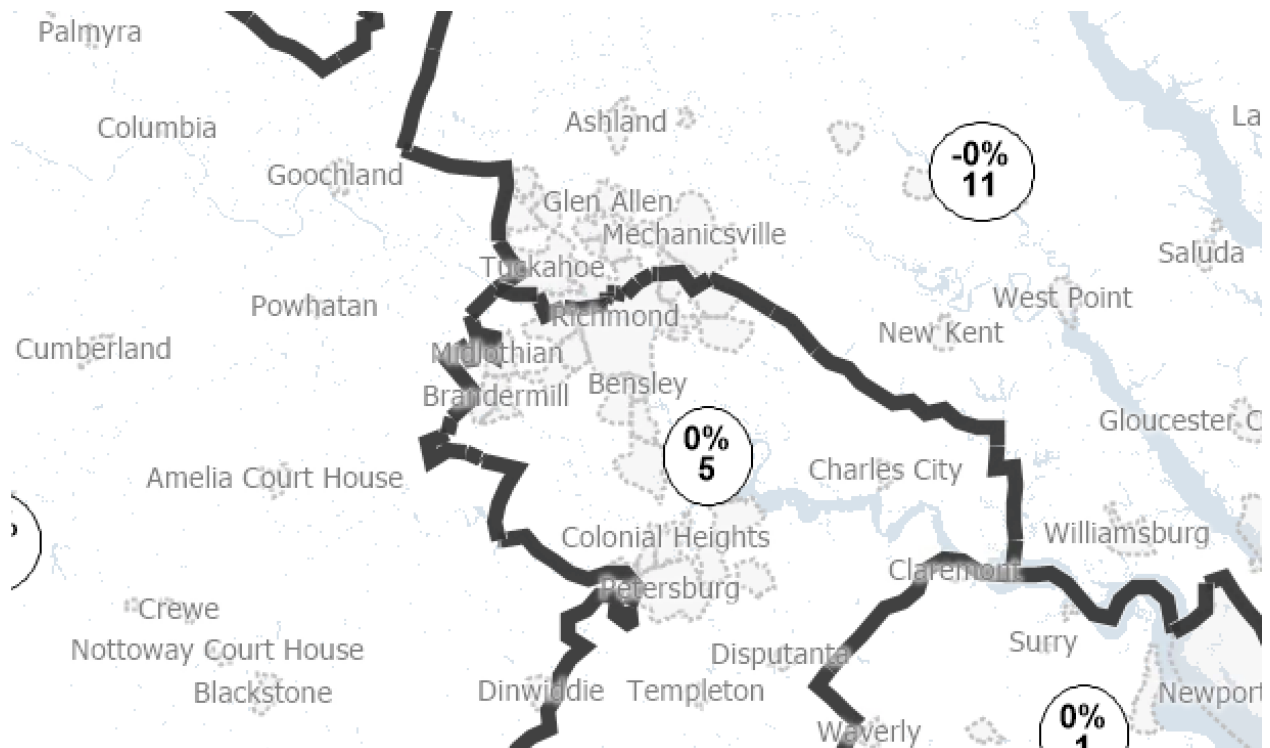


Figure 45 This is an image of the political subdivision splits in the Richmond region in Plan VB.

Figure 46 This is a close-up screenshot of the Richmond area in Plan VB.

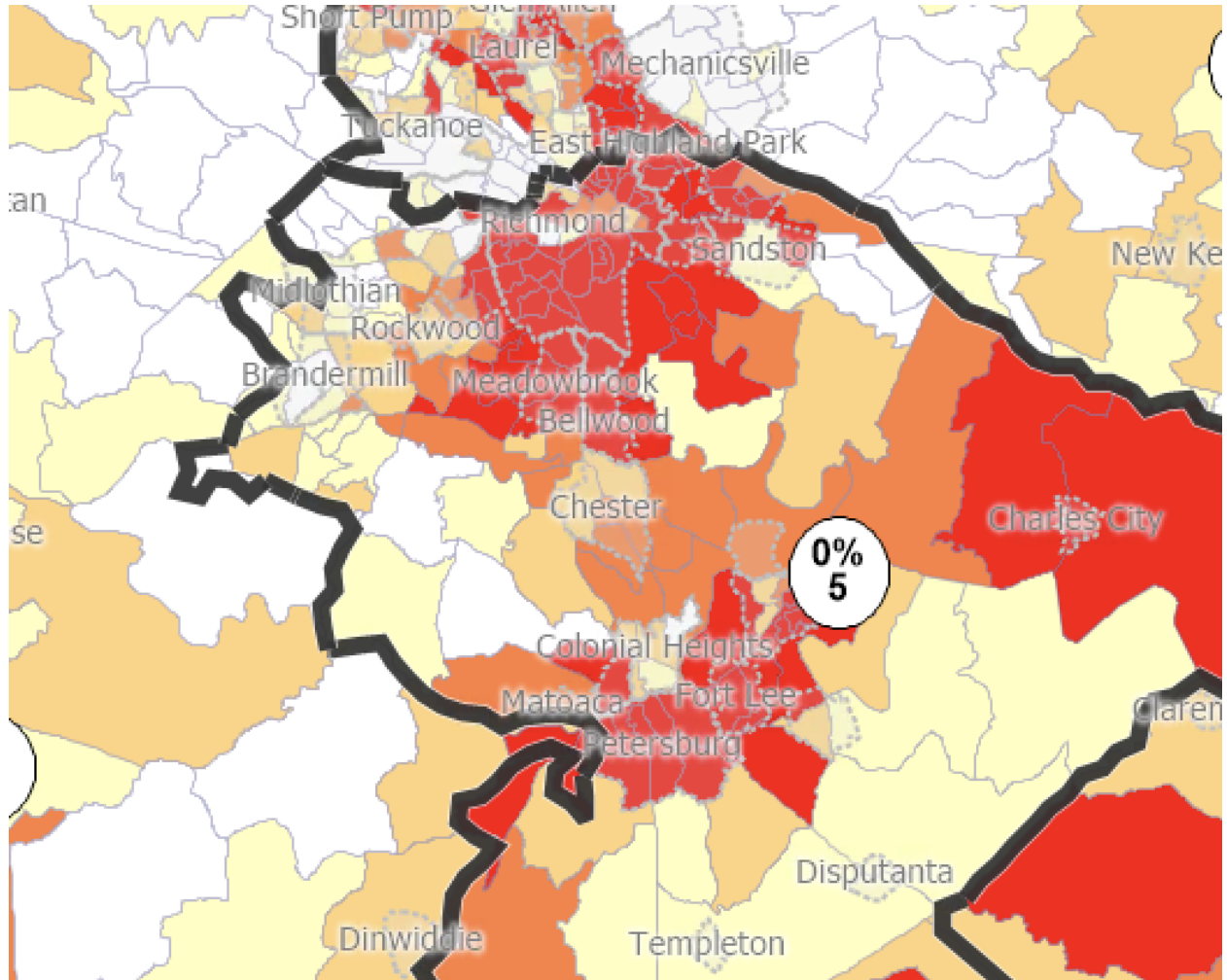


Figure 47 This is an image of Richmond in Plan VB with a racial heatmap showing the locations of majority-minority VTDs in red.



Plan VC divides the Richmond area and suburbs to a greater extent than either of the other proposed plans. Overall, Plan VB is the most effective in respecting communities of interest.

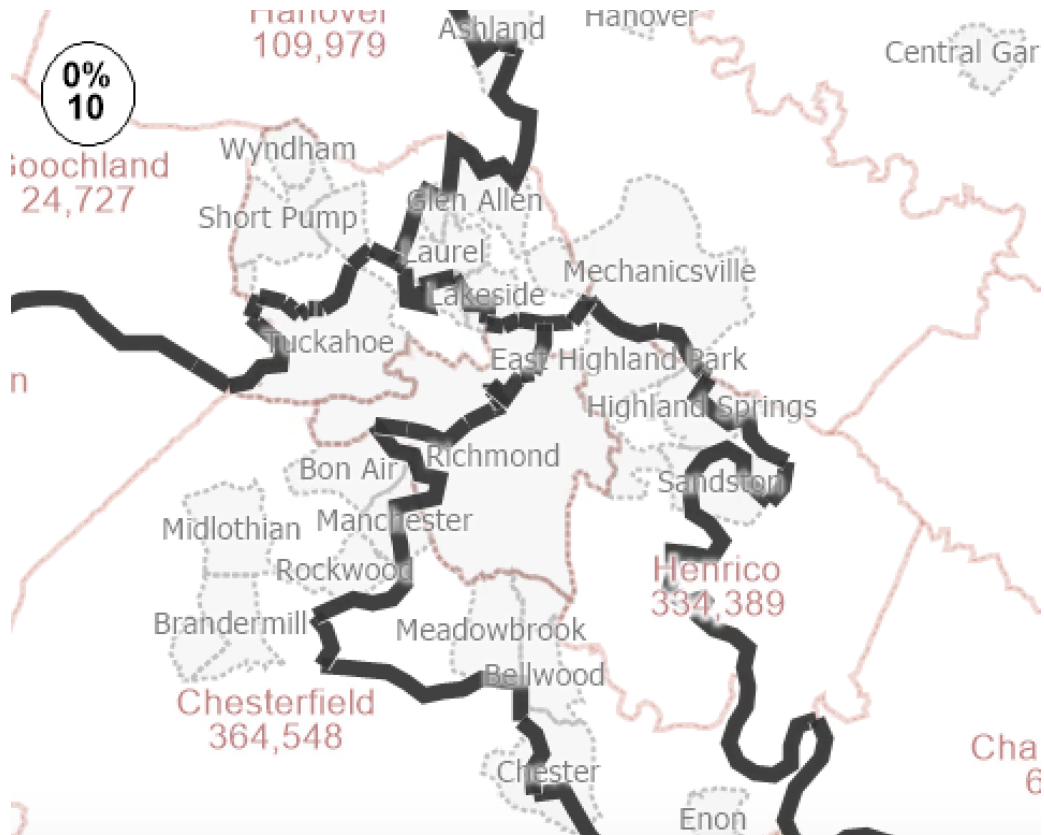


Figure 48 This is an image of the divisions in the Richmond area under Plan VC.

### Partisan Considerations

According to PlanScore, all three of my proposed plans, plus the existing plan, have a similar partisan breakdown. The plan that the Virginia Supreme Court recently adopted changes the partisan breakdown slightly, creating an additional lean Democrat district. Of the five plans, VC has the greatest partisan bias in favor of Republicans.

Partisan Considerations					
Plan	Safe Democratic Districts	Lean Democratic Districts	Lean Republican Districts	Safe Republican Districts	Partisan Bias
VA	5	0	3	3	.4% R
VB	5	0	3	3	.4% R
VC	5	0	3	3	3.4% R
Existing Plan	5	0	3	3	.6% R
2021 Adopted Plan	4	1	2	4	.8% R

**Comparison to the plan adopted by the Virginia Supreme Court**

In this section, I will compare my Good Government plan (VB) to the plan drafted by two Special Masters and approved by the Virginia Supreme Court. I downloaded this plan from the Virginia Supreme Court’s website<sup>65</sup> and loaded it into Maptitude.

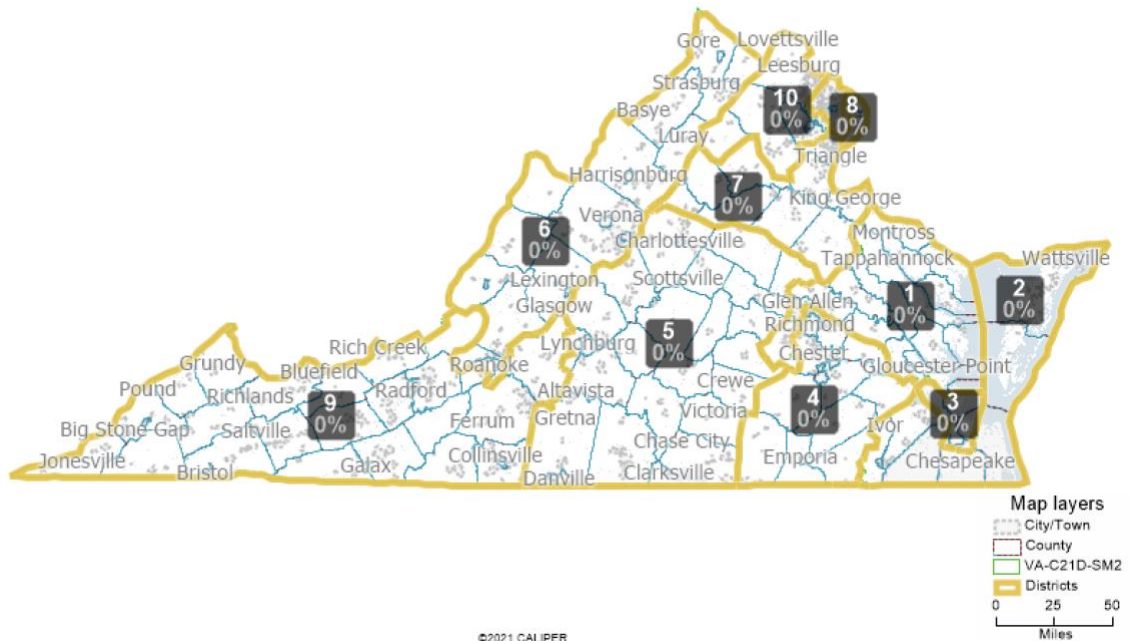
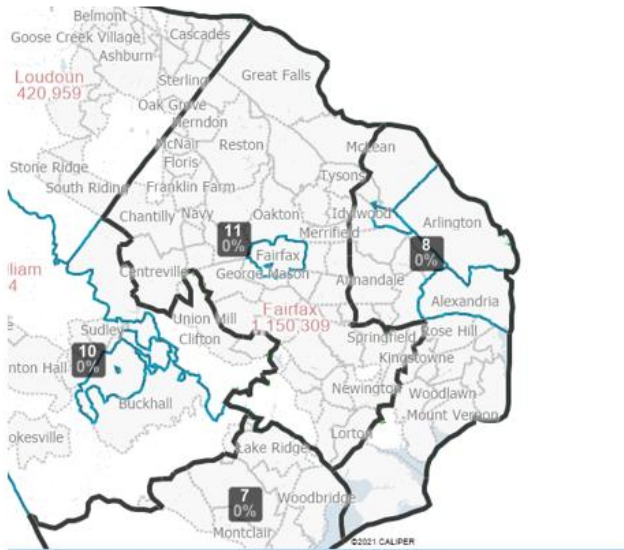


Figure 49 Above is an image from Maptitude of the adopted Virginia congressional plan.

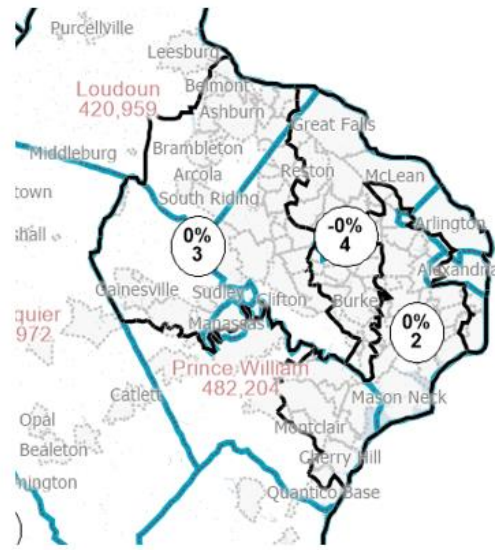
<sup>65</sup> The Supreme Court has made this data available at: <https://vacourts.app.box.com/s/2t0xgsmshemsveou2jx55h6tl38ml8jx?page=1>.

Like two out of three of my plans, the adopted plan contains no districts where the CVAP is more than 50% Black. The adopted plan contains two majority-minority coalition districts. By contrast, Plan VB contains four majority minority districts and zero opportunity districts.

The Special Masters' plan only splits sixteen counties, whereas mine splits twenty-three. My plan splits more counties because I chose to create an additional majority-minority district in Northern Virginia to maximize minority representation, splitting up Arlington, Alexandria, Loudon, and Fairfax county lines in the process.



The special masters' plan keeps Northern Virginia counties intact



My plan splits four counties in Northern Virginia to create a majority-minority district

In their report, the Special Masters discussed the fact that it is possible to draw a reasonably compact majority-minority district in Northern Virginia, as I have done in Plans VB and VC. They opted not to do so because it was not possible to draw a district where a single minority group was sufficiently large to elect its candidate of choice. They did not see the value of a coalition district because they

saw no evidence of that minority groups routinely form political coalitions and share interests.<sup>66</sup>

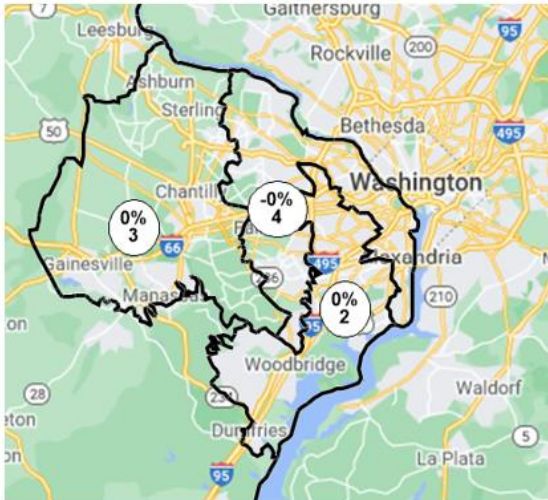
According to PlanScore, the Special Masters’ plan creates four safe Democratic districts, one Democratic leaning district, two Republican leaning districts, and four safe Republican district. My Plan VB creates five safe Democratic districts, three safe Republican districts, and three Republican leaning districts. A more detailed political analysis comparing the two plans is beyond the scope of this paper, but these reports suggest that the Commission’s plan and my plan have a similar partisan breakdown.

Partisan Considerations: Adopted VA Plan vs. Plan VB					
Plan	Safe Democratic Districts	Lean Democratic Districts	Lean Republican Districts	Safe Republican Districts	Bias
VB	5	0	3	3	.4% R
2021 Adopted Plan	4	1	2	4	.8% R

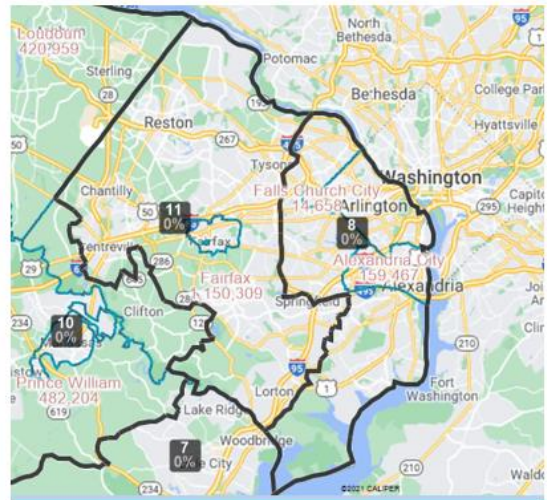
There are a few key differences between Plan VB and the Special Masters’ plan. First, in Northern Virginia, my plan creates a horseshoe shaped district that connects predominantly white communities along the border of DC in Arlington and Alexandria with the suburbs in Fairfax county, and separates these from majority-minority communities west of Alexandria in order to maximize minority representation in District 2. The Special Masters’ plan divides the DC suburbs into two districts with a line that goes through Springfield.

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<sup>66</sup> Memo to the Chief Justice and Justices of the Supreme Court of Virginia from Bernard Grofman Ph.D. and Sean Trende at 12 (Dec. 7, 2021) (available at: [https://www.vacourts.gov/courts/scv/districting/memorandum\\_re\\_va\\_redistricting\\_2021.pdf](https://www.vacourts.gov/courts/scv/districting/memorandum_re_va_redistricting_2021.pdf)).



My plan divides Northern Virginia into three districts

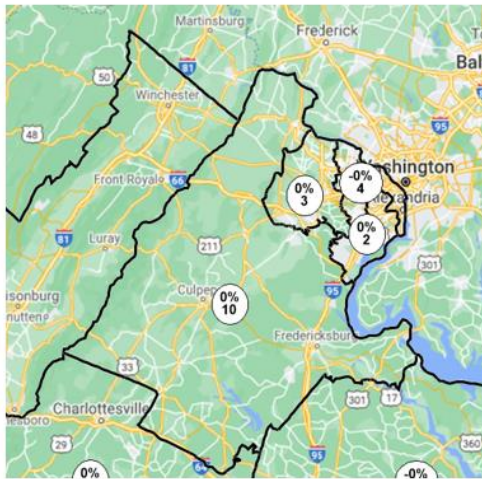


The Special Masters' Plan divides Northern Virginia into two districts

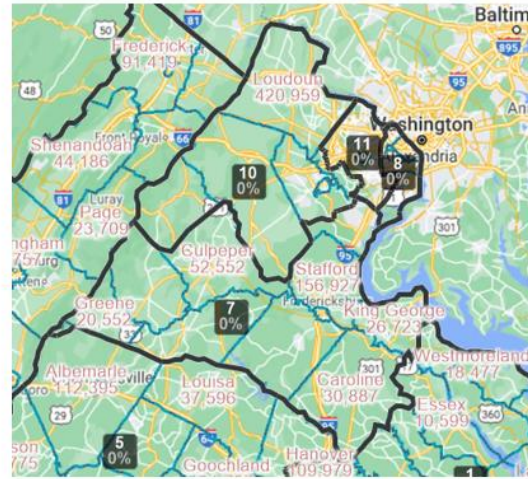
Another key difference is that the Special Masters' plan divides the rural counties in North-Central Virginia into two districts, with Loudon and Fauquier county in one district (the Special Masters' District 10), and Greene, Culpepper, Stafford, King George, and Caroline into a separate district (Special Masters' District 7). My plan creates a district that tracks the border dividing Loudon and Fauquier counties from Clarke and Warren counties (VB10), and connects Loudon, the northernmost county in the state, with the North-Central counties of Greene, Louisa, and



Spotsylvania.



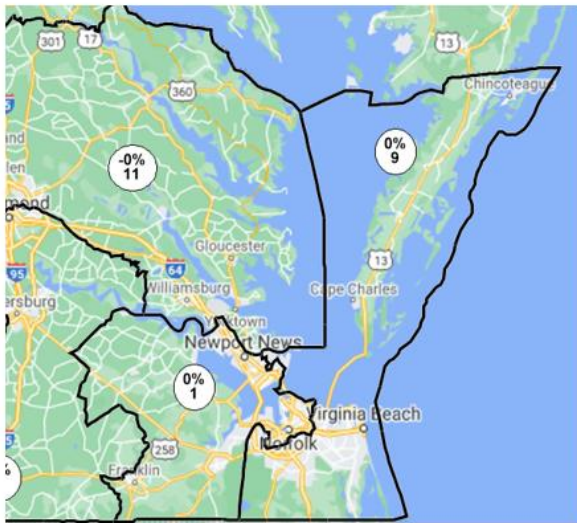
My plan connects Loudon and Fauquier county with Greene, Louisa, and Spotsylvania counties



The Special Masters' Plan separates Loudon and Fauquier from Greene, Louisa, and Spotsylvania.

The Special Masters' plan and my plan for the Hampton and Tidewater regions are roughly similar. Both plans create a district uniting Norfolk and Virginia Beach with the Eastern shore. One key difference is that in my plan, District VB1 extends to the Southern boundary of the state, keeping Suffolk in the same district as Newport News, Hampton, and Norfolk. The Special Masters' plan combines Virginia Beach with Suffolk, Franklin, Windsor, and Smithfield,



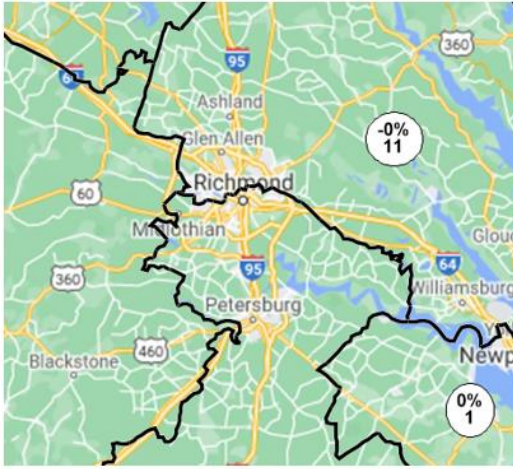


My plan creates a district, VB1, that includes Hampton, Newport News, and Suffolk



The Special Masters' Plan creates a district that contains the Eastern shore and the rural counties south of Norfolk that border North Carolina

Finally, my plan diverges from the Special Masters' plan in the Richmond area. My plan divides the Richmond area into three districts with reasonably high Reock compactness scores (VB11 is .51, VB5 is .54, VB6 is .44). The Special Masters' plan creates one somewhat strangely shaped district with a Reock compactness score of .45 that stretches from the Tidewater region in the east to the northern Richmond suburbs and swoops down towards Midlothian.



My plan divides the Richmond area into 3 districts



The Special Masters' Plan also divides the Richmond area into 3 districts, creating one district that swoops towards the South to capture voters in Midlothian

## Conclusion

In this paper, I have explored the different challenges and tradeoffs facing the state legislature in Virginia. We have already seen that the redistricting commission was unable to reach a bipartisan compromise and that the task of drawing an acceptable plan was left to the state supreme court. Overall, my plans are successful in striking an appropriate balance among the competing factors that mapdrawers must consider. In drawing multiple plans that increase the political influence of minorities in Virginia, I have explored the legal tension between the Equal Protection Clause of the U.S. Constitution and the Voting Rights Act. My conclusion is an additional majority minority district is not required by the Voting Rights Act, but the creation of an additional majority-minority district in Virginia would be valuable to reflect the growing diversity in the state. My Good Government plan compares favorably to the bipartisan plan produced by Democratic and Republican mapdrawers on the redistricting commission and improves upon the existing plan with respect to traditional redistricting principles like compactness and respect for communities of interest. My hope is that these maps can serve as a guide to help the public learn about the redistricting process.