

EXHIBIT

1

Declaration of Dr. Michael Barber
Tenn. State Conf. of the NAACP, et al. v. Hargett, et al., Case
No. 3:26-cv-00638 (M.D. Tenn.)

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1 Scope and Summary

I have been asked by legal counsel for the Defendants to evaluate the 2026 Tennessee congressional map and respond to Plaintiffs' experts Dr. Moon Duchin, Dr. Baodong Liu, and Mr. Anthony Fairfax.¹

I am a professor of political science at Brigham Young University and director of the Center for the Study of Elections and Democracy in Provo, Utah. I received my PhD in political science from Princeton University in 2014 with emphases in American politics and quantitative methods/statistical analyses. In my position as a professor of political science, I have conducted research on a variety of election- and voting-related topics in American politics and public opinion. Much of this research has been published in my discipline's top peer-reviewed journals. I have published more than 20 peer-reviewed articles.

I have worked as an expert witness in a number of redistricting cases in which I have been asked to analyze and evaluate various political and geographic-related data and maps, including in New York, Ohio, Pennsylvania, Louisiana, Alabama, North Carolina, and Georgia. I also served as the court-appointed Mapping Special Master in Michigan to draw remedial districts for the Michigan House of Representatives. I have previously provided expert reports in several other cases related to voting rights, redistricting, and other election-related issues for groups representing both Republican and Democratic interests. Cases in which I have testified at trial or by deposition are listed in my CV, which is attached to the end of this report.

The analysis and opinions I provide below are consistent with my education, training in statistical analysis, and knowledge of the relevant academic literature. These skills are well-suited for this type of analysis in political science and quantitative analysis more generally. My conclusions stated herein are based upon my review of the information available to me at this time and sources have been cited throughout. I am being compensated at a rate of \$400.00 per hour. My compensation does not depend in any way on the outcome of the case or on the opinions or testimony that I provide. My opinions expressed herein are my own and do not represent the opinions of Brigham Young University or the Center for the Study of Elections and Democracy. I reserve the right to

¹I have also submitted an expert declaration for preliminary injunction proceedings in *Sherman v. Hargett*, 3:26-cv-616 (M.D. Tenn.). I offer some of the same analysis here as in *Sherman*, which raises the same constitutional claim and overlapping expert opinions for plaintiffs.

update and revise this report as new information becomes available.

I have reviewed the declarations of Dr. Moon Duchin, Dr. Baodong Liu, and Mr. Anthony Fairfax concerning the 2026 Tennessee congressional redistricting plan. I have also reviewed Dr. Duchin's and Dr. Liu's replication materials, including their code, the Tennessee voting-tabulation-district (VTD) map file, and the saved files containing Dr. Duchin's simulated plans.

I reach three principal conclusions. First, Plaintiffs' experts identify racial and electoral consequences of the 2026 Plan, especially in Memphis and Shelby County, but those consequences are also what one would expect from a statewide partisan plan designed to convert an eight-Republican-district map into a nine-Republican-district map. Second, Dr. Duchin's simulations do not provide valid comparison maps because they do not reproduce the enacted map's partisan structure. Third, Dr. Liu's and Mr. Fairfax's declarations describe racial polarization, district demographics, county splits, and compactness scores, but they do not test whether those facts are explained by the State's partisan objective. Plaintiffs' experts have not accounted for non-racial partisan objectives and thus cannot conclude that race, rather than politics, explains the 2026 Plan.

Those conclusions follow from a common empirical problem. Plaintiffs' experts treat racial consequences as evidence of racial purpose without first separating race from party. That separation is necessary here because Black voters in Tennessee strongly support Democratic candidates, White voters strongly support Republican candidates, and the 2026 Plan creates nine Republican-leaning districts. Evidence that the plan divides Shelby County's Black population, reduces Democratic electoral opportunity, or performs worse on compactness does not show whether those choices reflect race after accounting for a partisan objective.

Dr. Duchin's comparisons fail to use alternative plans that satisfy the nonracial objectives attributed to the legislature. *Alexander* and *Callais* require the comparison to account for the State's legitimate nonracial goals, including partisan advantage. A partisan comparison must account for both whether a district nominally favors one party and the partisan margin created by the enacted map, because the margin determines whether the simulated plan achieves the same nonracial objective or only a weaker version of it. *Callais* states this point directly: if the State's goals include "a target partisan distribution of voters" or "a specific margin of victory," a plaintiff's alternative maps must achieve those goals "just as well."² Detailed below, not a single simulation

²*Louisiana v. Callais*, No. 24-109, slip op. at 25 (U.S. Apr. 29, 2026).

in Dr. Duchin's report does "just as well" as the 2026 Plan's partisan composition.

2 Political Geography, Partisanship, and Race

Before evaluating the 2026 congressional plan, it is important to describe the basic political geography of Tennessee. The location of population, the geographic concentration of voters, and the relationship between population density and partisan voting patterns all shape the range of possible districting plans.

Figure 1 shows the population density of Tennessee counties. The state's population is not evenly distributed. A large share of Tennessee's population is concentrated in and around its major urban counties, especially Davidson County, which contains Nashville, and Shelby County, which contains Memphis. Collectively, Davidson and Shelby Counties contain 1,645,628 people, which is approximately 24 percent of Tennessee's 2020 Census population.

Figure 2 shows the same counties by their average Democratic two-party vote share across six recent statewide elections. The elections included in this index are the 2024 presidential and U.S. Senate elections, the 2020 presidential and U.S. Senate elections, and the 2018 U.S. Senate and gubernatorial elections. I calculate the Democratic two-party vote share as the Democratic candidate's votes divided by the total votes cast for the Democratic and Republican candidates. Using a six-race index is more reliable than using a single race (e.g., Dr. Duchin's use of the 2024 presidential election alone) because it captures and aggregates election-specific factors that may idiosyncratically increase or decrease a party's vote share, and therefore provides a more stable and reliable measure of a district's typical partisan performance. Using statewide election results to estimate a district's future political performance is a standard way of measuring the partisan tendencies of a district.³

The geographic pattern is clear. Most Tennessee counties are Republican-leaning, while the state's Democratic voters are concentrated disproportionately in a small number of urban counties. Davidson and Shelby Counties are the two most prominent examples. They are among the state's

³Election indices are also superior to alternative measures, such as the number of registered voters of a particular party in a district. This is because many states do not record voters' partisan registration in their voter files, there are many voters who may register as independents but vote along partisan lines, and many voters who are registered with one party but vote for candidates of different parties. Together, these issues mean that political scientists typically prefer actual votes over registration statistics because election results capture actual behavior and political preferences.

largest population centers, and they are also two of the most Democratic counties in the state.

This political geography is important for evaluating the 2026 Plan. A mapmaker seeking to draw a congressional plan with nine Republican-leaning districts would have to address the fact that Democratic voters are heavily concentrated in Davidson and Shelby Counties. Because those Democratic voters are geographically concentrated, they can either be kept together in one or more Democratic-leaning districts or divided across multiple districts and joined with more Republican voters elsewhere in the state.

Table 1: Population and Political Geography of Davidson and Shelby Counties

County	Major City	2020 Population	Share of State Population	BVAP	% Democratic
Davidson	Nashville	715,884	10.4%	24.1%	65.8%
Shelby	Memphis	929,744	13.5%	51.4%	63.5%

Figure 1

Population Density of Tennessee
County-level

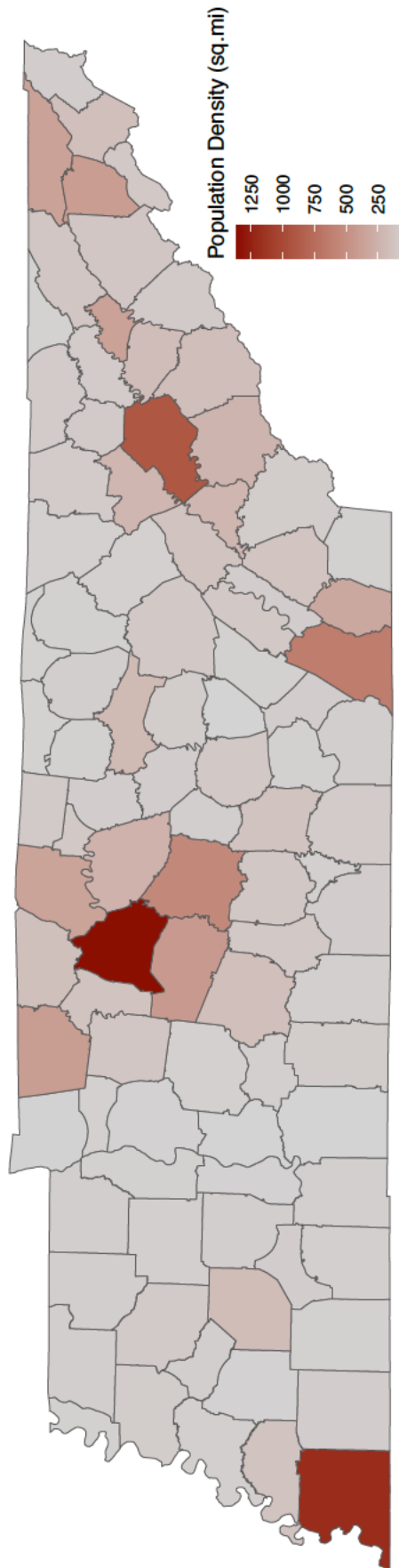
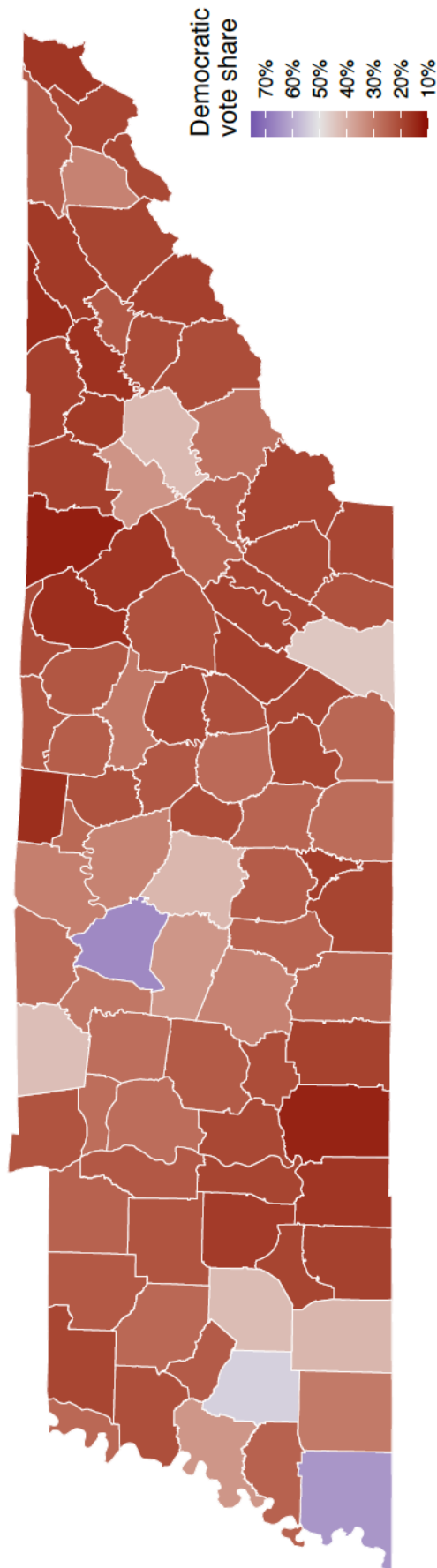


Figure 2

Political Geography of Tennessee

County-level average Democratic two-party vote share across recent statewide elections



3 2026 Congressional Map

Using the six-election index described above, all nine districts in the 2026 Plan are Republican-leaning. The least-Republican district under that index is District 9, at about 57% Republican. Using Dr. Duchin's 2024 presidential metric, all nine districts are also Republican-leaning, and the least-Republican district is 60.2% Trump. The two metrics differ in construction, but they point to the same central feature of the enacted map. The 2026 Plan converts the prior plan's eight-Republican-district structure into a nine-Republican-district structure.

Figure 3 shows a map of the 2026 congressional districts, shaded by their partisan lean. Each of the nine districts is shaded red, indicating that it is Republican leaning. Using the six election index described above, the most Republican district is District 1 (77.6% Republican) in the eastern side of the state and the least Republican district is District 9 in the bottom of the state (57.0% Republican).

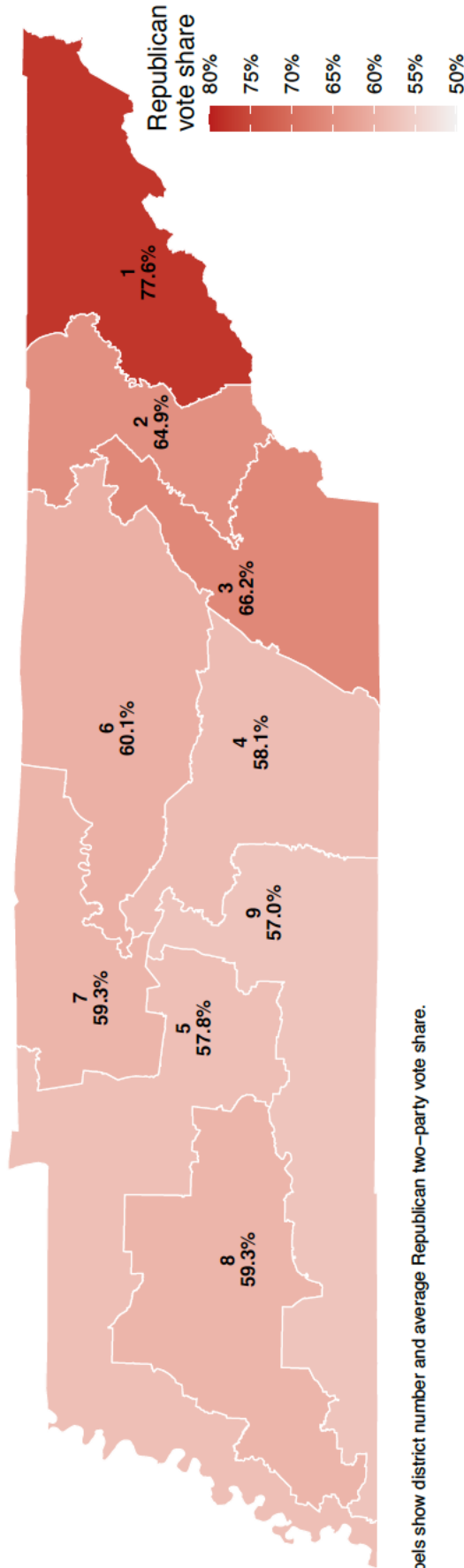
Figure 4 shows partisan lean of each district in the 2026 Plan compared to the partisan lean of the districts in the 2022 map. The largest difference is that under the 2022 map, District 9 was heavily Democratic, with a Republican lean of approximately 27%. In the 2026 map, District 9 is now Republican leaning, with a Republican partisan lean of approximately 57% to 60%, depending on which races are used to measure partisan advantage, described above.

Note that Figure 2 showed that Davidson and Shelby counties are both strongly Democratic leaning. The Enacted Map takes those strongly Democratic areas and creates nine Republican-leaning districts by dividing the Democratic voters of these two counties and joining them with Republican voters in the more suburban and rural counties of the state. In both cases both counties are divided across three districts, splitting Democrats across the three districts. Figure 5 shows the way in which each of these two Democratic-leaning counties are divided and the partisan lean of the precincts in each county. There are groups of blue, Democratic precincts assigned to each of the three districts that span both Shelby and Davidson counties. The division of each county in this way is consistent with an effort to create nine Republican-leaning districts by dividing the state's two largest concentrations of Democratic voters and combining portions of those counties with more Republican areas.

Figure 3

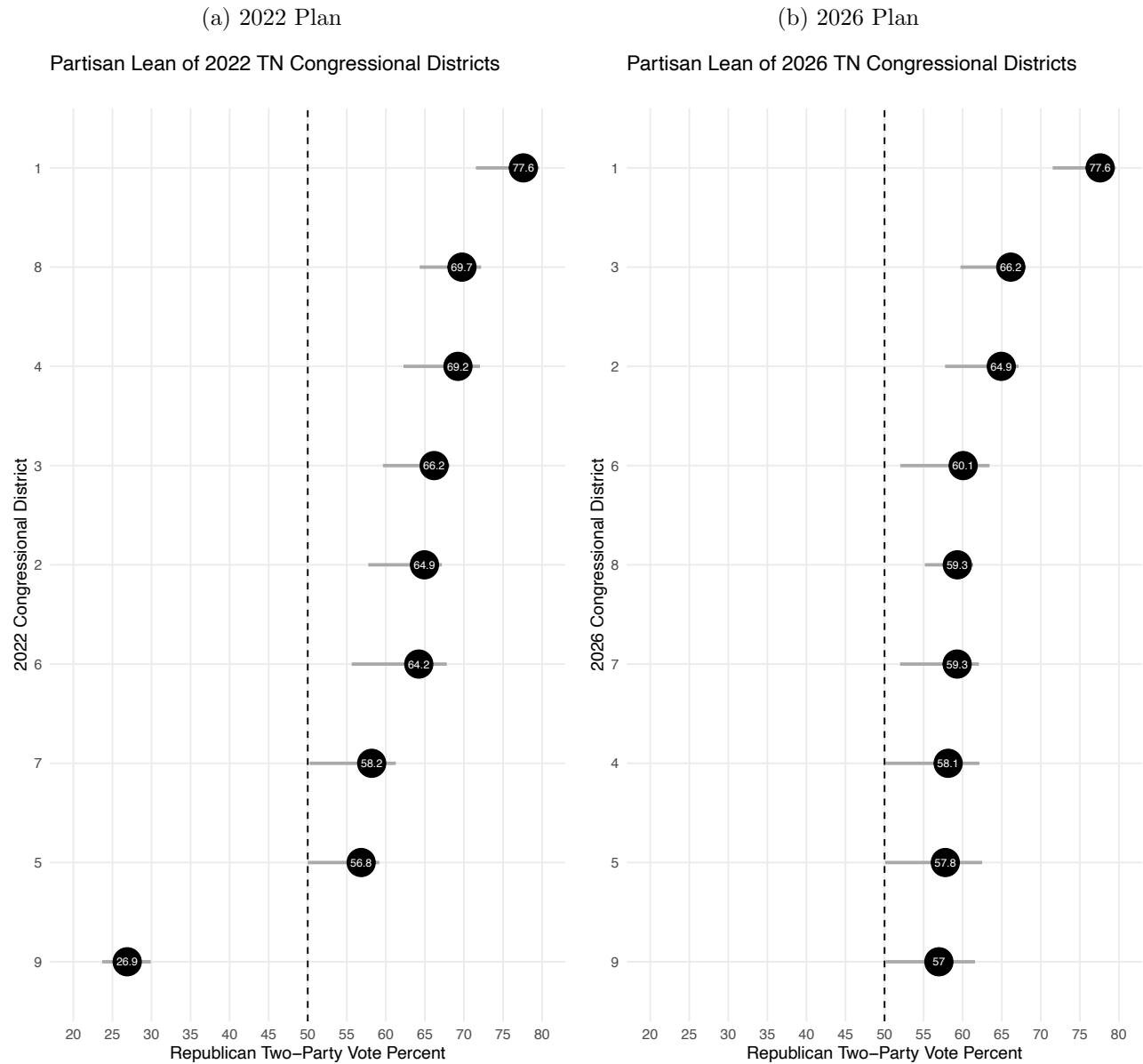
Partisan Lean of 2026 Tennessee Congressional Districts

Average Republican two-party vote share across six recent statewide elections



District labels show district number and average Republican two-party vote share.

Figure 4: Partisan Lean of 2022 and 2026 Congressional Plans

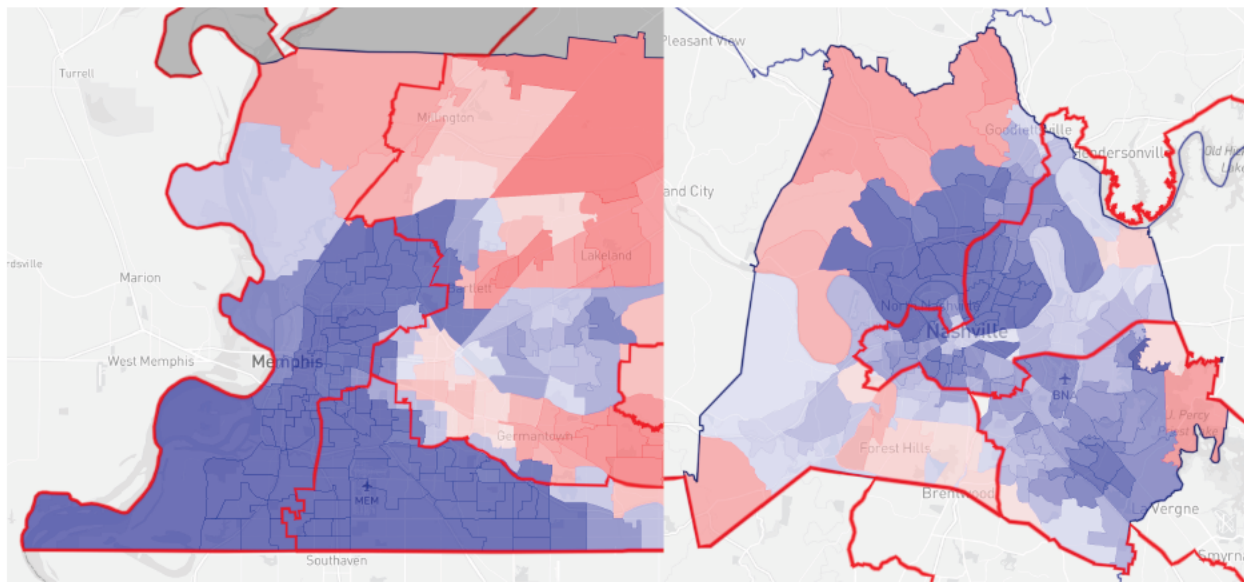


Points show average Republican vote shares across six recent statewide elections. Grey horizontal lines show range of outcomes.

Figure 5: County Splits in 2026 Plan

(a) Shelby County

(b) Davidson County



District boundaries are shown in red lines. Precincts are shaded by partisan lean, blue indicates Democratic-leaning precincts and red indicates Republican-leaning precincts.

This comparison is instructive because Davidson County does not have a majority-Black population. This parallel treatment is consistent with a partisan explanation for the plan's structure. Each is a large Democratic county, each is divided across three congressional districts, and each is joined with more Republican areas outside the county. The map divides Democratic voters where they are most geographically concentrated, regardless of whether those Democratic voters are located in a majority-Black county or not.

In Shelby County and Memphis, the division of Black voting-age population is also a division of Democratic votes. Table 2 reports how the Shelby County and Memphis portions of Districts 5, 8, and 9 contribute BVAP, total population, and Democratic votes to the enacted districts. The Democratic vote rows use the 2024 presidential election for this comparison. Memphis's Democratic votes are distributed across Districts 5, 8, and 9 at 36.2%, 32.4%, and 31.4%, respectively. Shelby County's Democratic votes are distributed across the same three districts at 25.6%, 43.1%, and 31.4%, respectively. These figures are consistent with the broader structure of the 2026 Plan: Democratic voters in Shelby County and Memphis are divided across three Republican-leaning districts. This distinction is particularly important in light of the Supreme Court's decisions in *Alexander v. South Carolina State Conference of the NAACP* and *Louisiana v. Callais*. My understanding of those decisions is that they direct experts to disentangle race from politics where race and party are closely correlated.

Plaintiffs and their experts place substantial weight on the racial composition of Shelby County and Memphis, as well as on estimates of racially polarized voting. I do not dispute that race and party are strongly related in Tennessee's election returns. In precinct-level data, the correlation between BVAP percentage and Democratic two-party vote share across recent statewide elections is approximately 0.82. Precincts with low BVAP percentages generally vote heavily Republican, and precincts with high BVAP percentages generally vote heavily Democratic. Appendix Figure 12 reports this precinct-level relationship.

That strong relationship means that a plan designed to reduce Democratic electoral performance will affect Black voters, especially in Shelby County, where Black voters constitute a large share of Democratic voters. An expert analysis therefore must show that racial composition explains the adopted configuration after accounting for the partisan goal. Descriptive evidence about racial composition, racial polarization, compactness, or subdivision splits does not by itself answer that

Table 2: Shelby County and Memphis Contributions by District

	District 5	District 8	District 9
<i>BVAP</i>			
% of Shelby County's BVAP	33.1%	26.7%	40.3%
BVAP of Shelby County portion of district	70.4%	29.0%	72.9%
Shelby County contribution to district total BVAP	73.8%	62.0%	79.6%
% of Memphis' BVAP	39.7%	20.5%	39.8%
BVAP of Memphis portion of district	71.7%	35.4%	80.2%
Memphis contribution to district total BVAP	71.6%	38.8%	63.8%
<i>Total Population</i>			
% of Shelby County's total population	23.8%	47.3%	28.9%
% of Memphis' total population	33.5%	35.1%	31.4%
Shelby County contribution to district total population	28.8%	57.3%	35.0%
Memphis contribution to district total population	27.6%	28.9%	25.9%
<i>Democratic Votes</i>			
% of Shelby County's Democratic votes	25.6%	43.1%	31.4%
% Democratic of Shelby County portion of district	84.2%	48.4%	79.2%
Shelby County contribution to district total Democratic votes	43.5%	68.9%	50.7%
% of Memphis' Democratic votes	36.2%	32.4%	31.4%
% Democratic of Memphis portion of district	86.9%	60.0%	88.7%
Memphis contribution to district total Democratic votes	42.3%	35.6%	34.9%

question.

4 Dr. Duchin's Simulation Evidence

Dr. Duchin's simulations are the only expert evidence that attempts to compare the enacted map to alternative maps. Her declaration presents three kinds of simulated plans. The first is a party- and race-blind ensemble, which she uses to show how often a mapmaking algorithm creates a majority-BVAP district without being told to target race or party. The second is a partisan-targeted ensemble, which she describes as an effort to produce districts near 60% Trump in the 2024 presidential election. The third is a race-targeted ensemble, in which the algorithm is instructed to split Shelby County Black voting-age population across three districts. She then compares the racial and partisan features of those simulated plans to the enacted map and concludes that racial targets are needed to approximate the enacted plan.

The results of Dr. Duchin's report do not support that conclusion. The party- and race-blind simulations usually create a majority-BVAP district and almost always create at least one Democratic-leaning district. Those simulations do not attempt to approximate the State's political

goal. The partisan-targeted simulations fall short of the enacted map’s district-level partisan margins. The race-targeted simulations come closer to the enacted map’s BVAP distribution because the algorithm is instructed to target that specific racial distribution.

Table 3 reports how Dr. Duchin’s simulated plans perform on the racial and partisan measures central to this response. For each simulation type, her replication materials provide three separate chains of 10 million plans, for 30 million maps in total. The rows labeled “after $\geq 50\%$ filter” keep only the plans that pass the “winnow” used in Dr. Duchin’s report: every district in the plan must give Trump at least 50% of the two-party 2024 presidential vote—the partisan metric Dr. Duchin chose. That filter is far below the enacted map’s partisan benchmark. The least-Republican district in the enacted map is 60.2% Trump, so Dr. Duchin’s 50% filter is 10.2 percentage points below the 2026 Map’s partisan floor. The top two rows report the party- and race-blind simulations. The remaining rows report the partisan-targeted and race-targeted simulations before and after Dr. Duchin’s filter is applied.

Table 3: Summary of Dr. Duchin’s Simulated Plans

Simulation type	Plans	Majority-BVAP plan	Any district Trump $\leq 50\%$	All districts Trump $\geq 50\%$	All districts Trump $\geq 55\%$	All districts Trump $\geq 60\%$
Party- and race-blind	30,000,000	90.8%	99.9%	0.1%	0.0%	0.0%
County-aware party- and race-blind	30,000,000	88.9%	99.9%	0.1%	0.0%	0.0%
Partisan-targeted	30,000,000	9.8%	36.5%	63.5%	11.0%	0.0%
Partisan-targeted, after $\geq 50\%$ filter	19,048,519 of 30,000,000	0.0%	0.0%	100.0%	17.4%	0.0%
Race-targeted	30,000,000	9.4%	82.4%	17.6%	1.1%	0.0%
Race-targeted, after $\geq 50\%$ filter	5,292,541 of 30,000,000	0.0%	0.0%	100.0%	6.2%	0.0%

The filter itself shows how far the simulations are from the partisan objective of the 2026 Plan. In the partisan-targeted simulations, 36.5% of plans are discarded before all nine districts favor Trump. In the race-targeted simulations, 82.4% are discarded. Among the plans that remain after that lower 50% filter, only 17.4% of the partisan-targeted plans and 6.2% of the race-targeted plans have all nine districts at least 55% Trump. None has all nine districts at least 60% Trump.

The last column shows the problem in the simplest terms. The enacted map places the least-Republican district at 60.2% Trump in the 2024 presidential election.⁴ A simulation that reproduces the enacted map’s partisan floor should therefore, at a minimum, produce plans in which all nine districts exceed 60% Trump. Had Dr. Duchin filtered to the enacted map’s lower-end margin, no maps would remain.

Those results undercut the central claims Dr. Duchin draws from the simulations. She writes

⁴For ease of comparison, I use the enacted-map partisan values used in Dr. Duchin’s figures and take them as accurate for purposes of this response.

that the race-targeted and partisan-targeted methods are “roughly equal in their resemblance of the partisanship in the 2026 Plan” and are “equally effective at driving up the Republican advantage to levels similar to the 2026 Plan.” She also writes that she “could not find a way” to approximate the 2026 Plan without race targets, that “Only the use of racial targets” came close to matching the plan’s “features,” and that the Shelby County split is “not necessary to match the partisanship” of the enacted map.⁵ Table 3 shows that those statements are unsupported. After *Callais*, comparison maps must achieve the State’s objectives, including partisan advantage, “at least as well as the State’s map.”⁶ Her own simulation output fails that requirement because it does not produce any targeted plan with all nine districts at the enacted map’s lower-end partisan margin. The racial comparisons therefore cannot show racial intent under a standard that requires valid alternatives to satisfy the State’s nonracial partisan objective “just as well”.

It is perplexing that in running the algorithm, Dr. Duchin did not produce maps that were truly comparable to the 2026 map on partisanship so that she could then investigate the racial composition to those comparable alternative maps. The failure to match the enacted map may sound like a narrow defect because some simulations miss by only one district. Either one district remains Democratic-leaning, or the least-Republican district is nominally Trump-leaning but weaker than the enacted map’s least-Republican district. That one-district shortfall goes to the center of this entire redistricting exercise. The 2022 congressional plan had eight Republican-leaning districts and one Democratic district. The 2026 redrawing changed that last district so that all nine districts are Republican-leaning. The ninth Republican-leaning district is the central partisan feature that distinguishes the 2026 Plan from the prior map.

4.1 The Party- and Race-Blind Simulations Fail the Partisan Comparison

Dr. Duchin describes the party- and race-blind run as requiring every district to be connected, keeping district populations nearly equal, preferring compact districts, and using no race or party target. Leaving party out provides a benchmark for what we would expect to see if millions of people were asked to produce a map from a relatively blank slate that followed some of the basic traditional redistricting criteria, without considering partisanship or race. However, *Callais* states

⁵Duchin Declaration at 5.

⁶*Louisiana v. Callais*, No. 24-109, slip op. at 25 (U.S. Apr. 29, 2026).

that comparison plans are valid alternatives when they are drawn to meet all the State's legitimate districting objectives, including partisanship. Once the party- and race-blind simulated maps are evaluated for partisanship, it becomes immediately apparent that they do not meet that standard. In the party- and race-blind simulation shown in Dr. Duchin's Figure 3, 88.9% of maps contain a majority-BVAP district. The same plans also contain at least one Democratic-leaning district 99.9% of the time under the 2024 presidential vote. Only 0.1% have all nine districts favoring Trump, and none have all nine districts above 55% Trump, like the 2026 Plan.

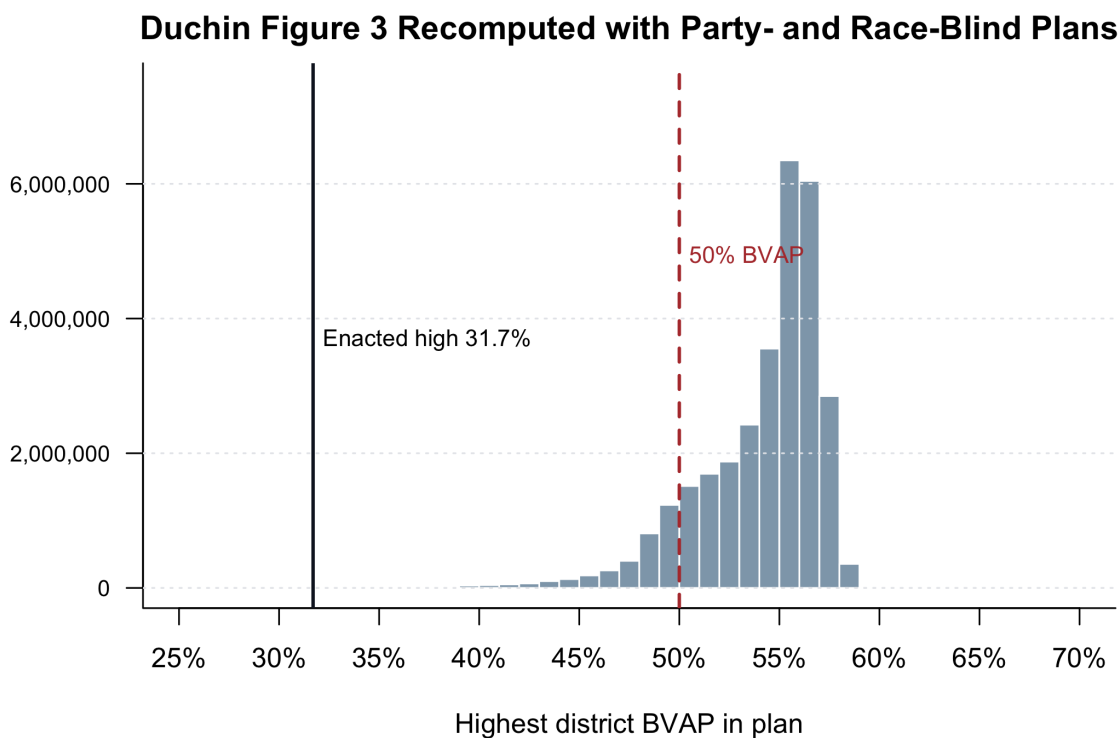


Figure 6: Replication of Dr. Duchin's Figure 3 using all party- and race-blind simulation plans. The maps reproduce her reported result that about 88.9% of plans include a majority-BVAP district.

Figure 7 shows why the party- and race-blind plans fail the partisan comparison. The letters A through I denote ranks within each map. For each plan, the nine districts are ordered from lowest to highest Trump 2024 share. The box for A is the least-Republican district in each simulated plan, the box for B is the second-least-Republican district, and so on. Within each lettered column, the box contains the middle half of the simulated values: the lower edge is the 25th percentile, the upper edge is the 75th percentile, and the line through the box is the median. The whiskers span the 1st through 99th percentiles. The black dots are the corresponding ordered districts in the

enacted map.

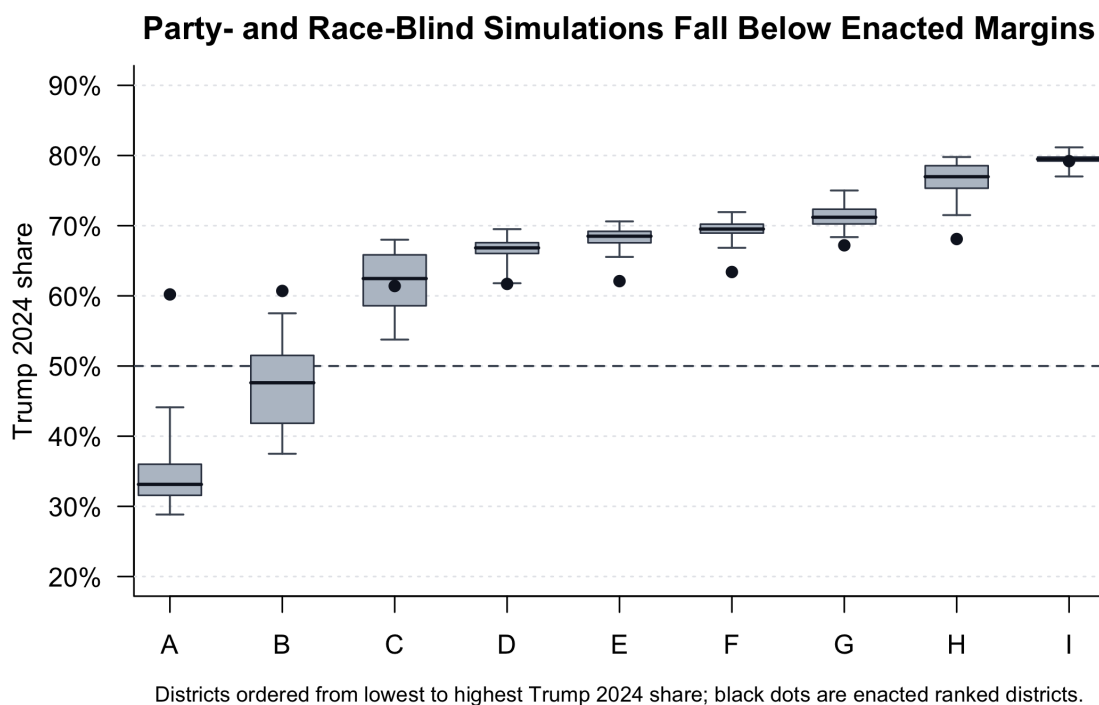


Figure 7: Trump 2024 two-party vote share in all party- and race-blind simulation plans. Districts are ordered from least to most Republican within each plan. The black dots show the enacted map's ordered district values.

The party- and race-blind plans fail the partisan comparison before any racial comparison is reached. In the least-Republican ranked district, the median is about 33.1% Trump, and the 99th percentile is only about 44.1% Trump. The enacted map's least-Republican district is 60.2% Trump. The next ranked district also falls well short. The median is about 47.6% Trump, and the enacted map's second-least-Republican district is 60.7% Trump. Figure 8 shows the same point more directly. Nearly every delivered party- and race-blind plan contains one or two Democratic-leaning districts.

The party- and race-blind simulations therefore fail as valid alternative maps under the test Plaintiffs must satisfy. They show what tends to happen when race and party are excluded from the program's target. The legislature's asserted nonracial objective was to create nine Republican-leaning districts at the enacted margins. This set of simulations fails to match the enacted map's partisan performance. Thus, the racial comparisons drawn from the party- and race-blind simulations have no useful value on racial intent.

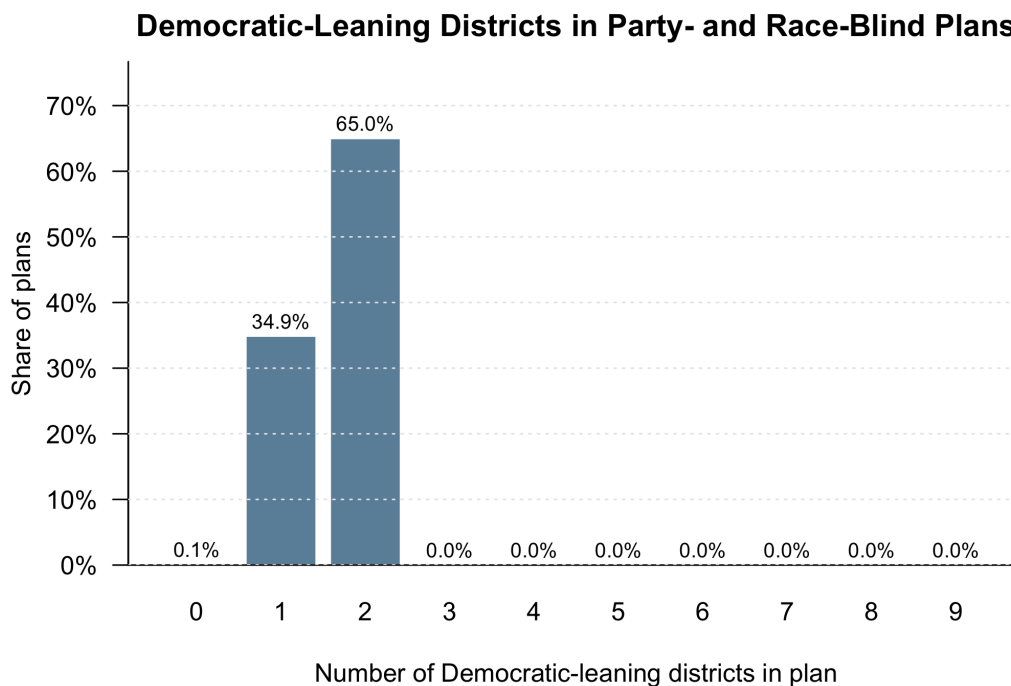


Figure 8: Number of Democratic-leaning districts in all party- and race-blind simulation plans, using Trump 2024 two-party vote share below 50% as the threshold.

4.2 The Partisan-Targeted Simulations Fall Short of the Enacted Partisan Margins

Dr. Duchin next reports a partisan-targeted ensemble. The algorithm was directed toward maps in which every district was at least 60% Trump in the 2024 presidential vote, a target close to the enacted map's least-Republican district at 60.2% Trump. But that description of the ex ante target should not be confused with the ex post outcomes of Dr. Duchin's simulations analysis. The resulting simulations fall well below that target. Across the partisan-targeted plans, 63.5% have all nine districts with at least 50% Trump support. Only 11.0% have all nine districts with at least 55% Trump support, and zero plans have all nine districts with at least 60% Trump. Before any racial comparison is made, the partisan-targeted ensemble fails to produce a set of alternatives with the enacted map's lower-end Republican margins.

Dr. Duchin winnows these simulations to only include those where all nine districts exceed 50% Trump 2024 support. I show the partisan distribution of these filtered simulations in Figure 9. The figure orders districts from lowest to highest Trump share, and the black dots show the enacted map's ordered values. In my view, this distribution does not match the State's partisan objective.

The lower-ranked districts show the shortfall most clearly.

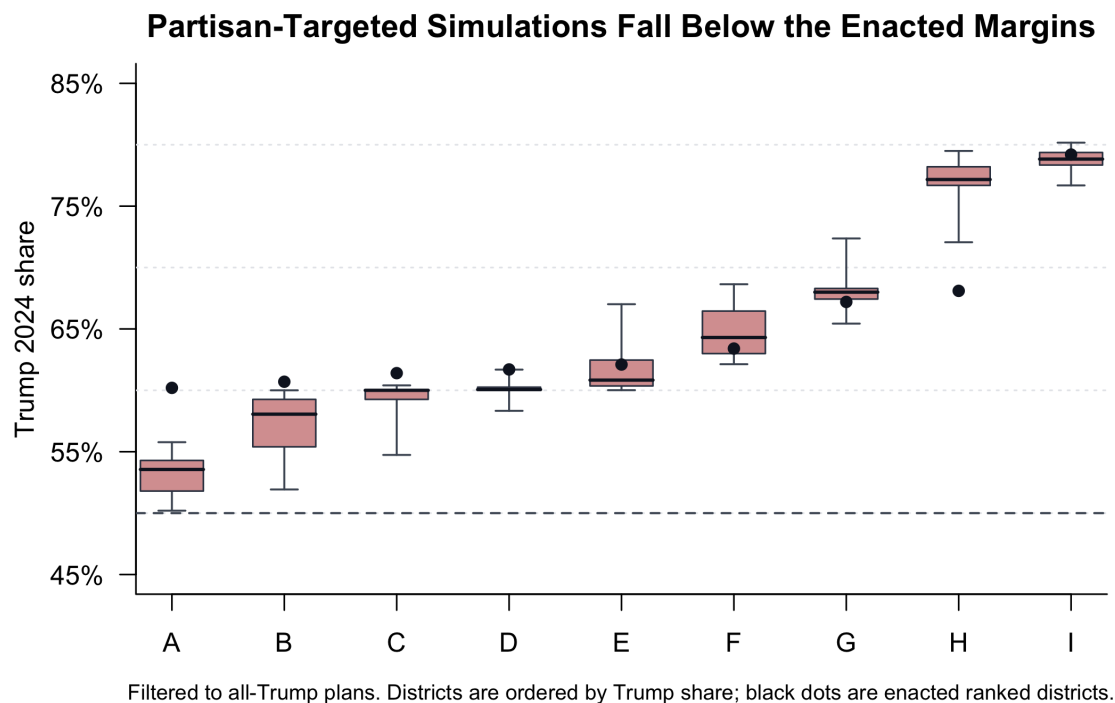


Figure 9: Partisan-targeted simulations from Dr. Duchin, limited to maps in which the least-Republican district is at least 50% Trump in 2024.

The enacted map is more Republican than the simulations in the least-Republican districts. For ranked district A, the least-Republican district in each all-Trump plan, the median value in the partisan-targeted simulations is 53.6% Trump. Ninety-nine percent of the simulated values are at or below 55.8%. The enacted map's corresponding district is 60.2%. The enacted map's value is therefore about 6.6 percentage points above the median simulated value and about 4.4 points above the level that almost all simulated plans fall below. For ranked district B, the median simulated value is 58.1%, and the enacted map's value is 60.7%. For ranked district C, the median simulated value is 60.0%, and the enacted map's value is 61.4%.

Figure 10 separates those three lower-ranked districts into histograms. This avoids the compression created by a nine-district boxplot. The black vertical line is the enacted map's value. The red bracket shows the range containing the middle 99% of the simulations. Under the ordering convention used in Figure 9, ranks A, B, and C correspond to enacted Districts 8, 9, and 7, respectively. The letters are rank labels.

Duchin Partisan-Targeted Simulations: Three Least-Republican Ranked Districts

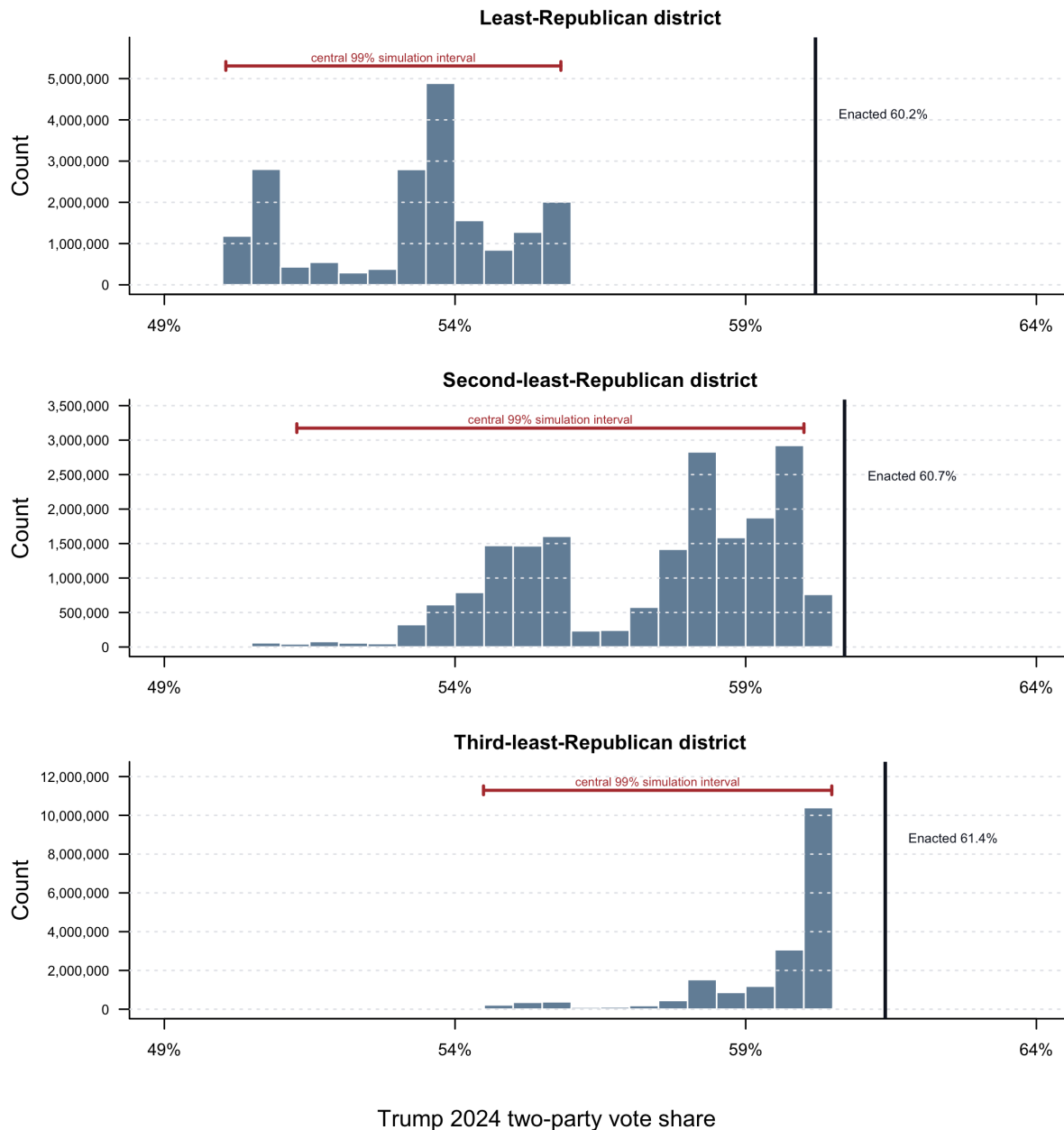


Figure 10: Separate histograms for the three least-Republican ranked districts in the partisan-targeted simulations. The filter keeps plans whose least-Republican district is at least 50% Trump, including districts well below the stated 60% target. The black line marks the enacted map's corresponding ranked district.

A nine-district plan with a district barely above 50% Trump does not accomplish the same partisan goal as the enacted map, where the least-Republican district is 60.2% Trump. A district at 55% or 56% Trump in 2024 falls short of that floor. If the State sought nine Republican districts with the cushion shown in the enacted map, comparison maps must have that same cushion. Dr. Duchin's partisan-targeted simulations do not.

The failure to achieve the 2026 Plan's partisan advantage would have been even more stark had Dr. Duchin used more than a single election. Recent statewide election returns, like the six races included in my analysis above, show why Dr. Duchin's 50% all-Trump filter is too weak. Table 4 starts with the winnowed partisan-targeted plans that contain no Democratic-leaning districts under the 2024 presidential vote, then asks how often those same plans generate a Democratic-leaning district when district partisanship is measured with other statewide elections. The 2026 Map GOP floor column reports the lowest Republican two-party vote share among the nine 2026 districts for each election metric. For each row, I calculate Republican two-party share from the district-level enacted-map returns.⁷ The final column reports the share of simulated plans with at least one Democratic-leaning district under the listed election metric. The table uses all partisan-targeted plans that pass Dr. Duchin's 2024 all-50%-Trump filter.

Table 4: Democratic-Leaning Districts Under Alternative Statewide Election Metrics

Election metric	Statewide GOP	2026 Map GOP floor	Sim. plans with Dem district
2024 President	65.1%	60.2%	0.0%
2024 U.S. Senate	65.1%	61.2%	0.2%
2020 U.S. Senate	63.9%	57.4%	10.9%
2020 President	61.8%	55.3%	76.5%
2018 Governor	60.7%	54.3%	54.2%
2018 U.S. Senate	55.5%	50.1%	100.0%

Because the table starts from simulated plans with no Democratic-leaning district under the 2024 presidential vote, the last column of the first row is zero by construction. The district-level enacted returns show the cushion built into the enacted map: its Republican floor is 61.2% under the 2024 U.S. Senate election, 57.4% under the 2020 U.S. Senate election, 55.3% under the 2020 presidential election, 54.3% under the 2018 gubernatorial election, and 50.1% under the 2018 U.S. Senate election.

⁷Republican two-party share equals Republican vote share divided by the sum of Republican and Democratic vote shares in the district-level returns for the enacted map.

The simulated plans classified as all-Trump under 2024 presidential returns are much less durable under the same election metrics. Among these partisan-targeted plans, 10.9% generate a Democratic-leaning district under the 2020 U.S. Senate election, 76.5% generate one under the 2020 presidential election, 54.2% generate one under the 2018 gubernatorial election, and every plan generates one under the 2018 U.S. Senate election. The 2018 U.S. Senate row makes the point most clearly. The statewide Republican two-party share was 55.5% in that race, almost ten points lower than the 65.1% Republican share in the 2024 presidential race.

Using the 2018 U.S. Senate election, the enacted map gives the Republican candidate a two-party edge in every district. The narrowest district is District 5, where the Republican candidate received 50.07% of the two-party vote share. By contrast, every filtered partisan-targeted simulation has at least one district in which the Republican two-party share falls below 50% under that same election. The enacted map keeps all nine districts on the Republican side even in a Democratic-favorable statewide election. Dr. Duchin's 2024 all-Trump filter misses that partisan cushion. A plan can pass that filter and still generate a Democratic-leaning district under recent statewide elections, which were closer contests than the 2024 presidential election.

Because the simulated plans are outside the enacted map's partisan range, any racial differences between them and the enacted map cannot identify racial intent. A plan that falls short of the enacted map's Republican margins can also have a different racial profile simply because it has not achieved the same partisan goal. Those racial differences provide no basis for concluding that the enacted map used racial targets, especially in a state where race and party are strongly correlated.

4.3 The Race-Targeted Simulations Build in the Racial Result Yet Still Fall Short of the Enacted Partisan Margins

Dr. Duchin's race-targeted simulations change what the program is told to look for. Her script tells the program to place Shelby County Black voting-age population in three districts at roughly one-third each. In practical terms, the algorithm is instructed to spread Shelby County Black voting-age population across three districts. The simulation therefore uses racial targets directly.

That design does not support the conclusion Dr. Duchin draws. First, it deliberately engineers a race-based districting exercise. The resulting plans are racial gerrymanders by construction in the ordinary empirical sense that race is used as a districting target. Second, the race-targeted

simulation is aimed at a racial composition similar to what is found in the enacted map. It is therefore unsurprising that the race-targeted output fits the enacted map's racial distribution more closely than the other two sets of simulations. The program was directly instructed to pursue a closely related racial pattern. But emulating the 2026 Plan's resulting racial demographics does not rule out that politics, rather than racial motivations, caused those resulting demographics.

Figure 11 shows both consequences of the race-targeted runs after the all-50%-Trump filter is applied. In the upper panel, districts are ordered by BVAP, so the relevant ranks for the race-targeting claim appear on the right side of the figure: districts G, H, and I are the three highest-BVAP districts in each plan. Those boxes are close to the enacted map's high-BVAP districts because the algorithm was explicitly told to split Shelby County BVAP across three districts in a similar way to the enacted map. In the lower panel, the same filtered race-targeted plans are ordered by Trump 2024 share. The relevant partisan ranks then appear on the left side of the figure: districts A, B, and C, the three least-Republican districts in each plan. The lower panel shows that the race-targeted plans also fall below the enacted map's lower-end partisan margins.

Dr. Duchin writes that “simply seeking to split up the Black population” is “equally effective at driving up the Republican advantage to levels similar to the 2026 Plan.”⁸ The race-targeted simulations refute that statement. Her figures are drawn only after discarding plans with any district below 50% Trump in 2024. That first step removes 82.4% of the simulations to begin with. Moreover, that filtering choice lowers the standard from the stated 60% target to a bare Republican advantage. In the race-targeted simulations, only 17.6% of plans have all nine districts at least 50% Trump, only 1.1% have all nine districts at least 55% Trump, and none have all nine districts at least 60% Trump, like the enacted map.

After limiting the plans to those in which all nine districts favor Trump, the least-Republican district in the race-targeted simulation has a median value of 52.3% Trump, and 99% of the simulated values are at or below 56.4%. The enacted map's least-Republican district is 60.2% Trump. Deliberately splitting up the Black population of Shelby County, as these simulations were instructed, does not drive up the Republican advantage to levels similar to the 2026 Plan. A set of plans that intentionally uses race and still fails to reproduce the enacted map's partisan margins has no power to show that race explains the enacted map.

⁸Duchin Declaration at 5.

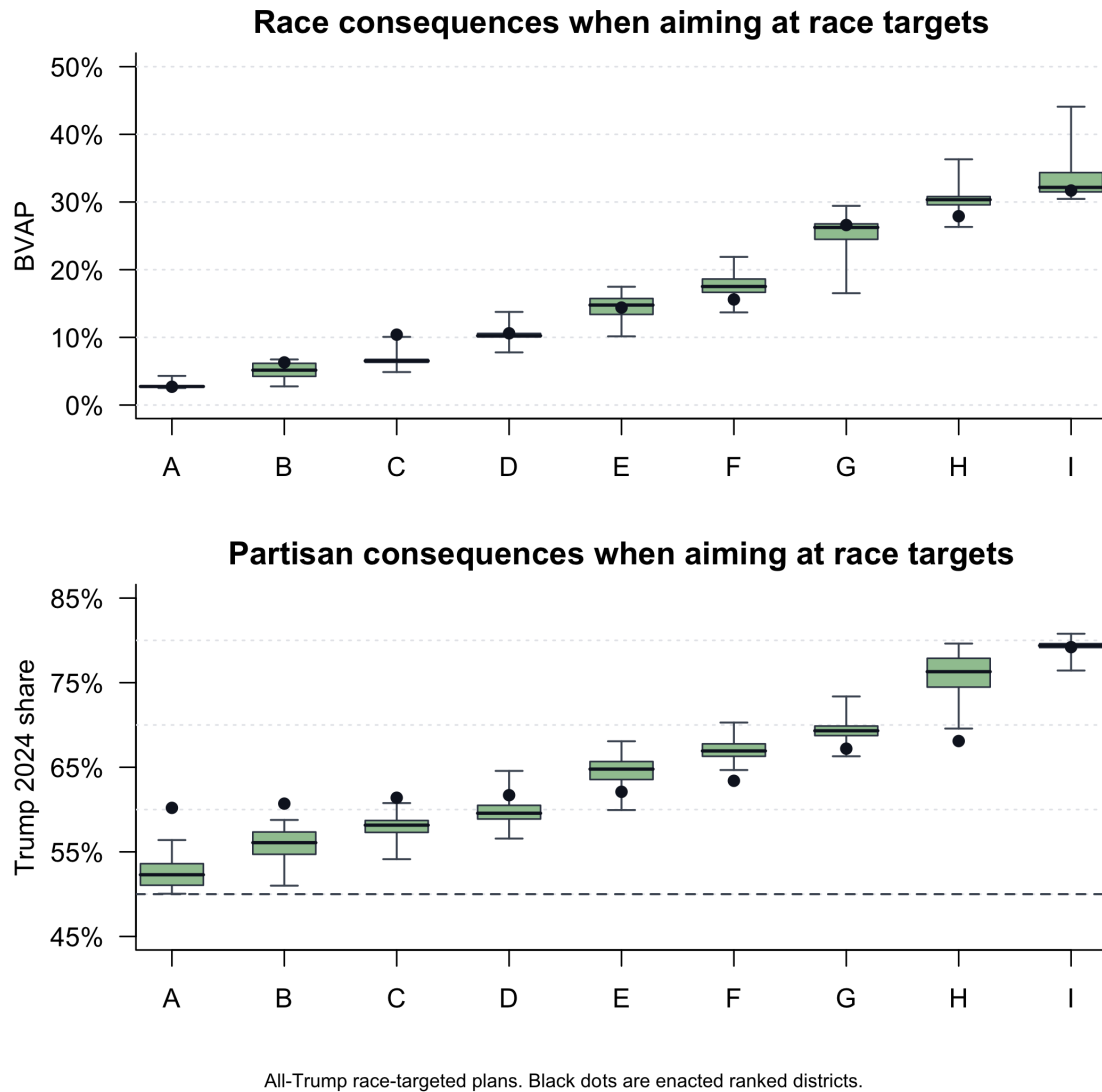


Figure 11: Race and partisan consequences in Dr. Duchin's race-targeted simulations, limited to maps in which the least-Republican district is at least 50% Trump in 2024. The upper panel orders districts from lowest to highest BVAP. The lower panel orders districts from lowest to highest Trump 2024 share.

The fact that a race-targeted plan can be made to match the racial distribution of the enacted map says nothing about whether the enacted map used race to draw its lines. That is the circularity in Dr. Duchin's approach. She gives the algorithm a racial target resembling the enacted map, observes that the algorithm produces plans resembling that racial target, and then treats the resemblance as evidence against the enacted map. The resemblance follows from the instruction given to the algorithm. A researcher could repeat the same exercise for any enacted plan by defining that plan's racial distribution as the target, running simulations that pursue it, and then describing the resulting racial match as evidence of racial purpose.

The same flaw carries into Dr. Duchin's conclusion. She says she "could not find a way" to approximate the 2026 Plan without race targets, that "Only the use of racial targets" came close to matching the plan's "features," and that the Shelby split is "not necessary to match the partisanship."⁹ The simulations leave those claims unsupported. The race-targeted simulations fail the partisan objective. After the 50% filter, their least-Republican districts remain far below the enacted map's, and none of the delivered race-targeted plans has all nine districts at least 60% Trump. If "features" includes the enacted map's partisan margins, the race-targeted simulations miss that feature. If "features" means the racial distribution alone, the claim is circular because the algorithm was told to target that racial distribution.

Dr. Duchin also never shows that the Shelby split is unnecessary to match partisanship. The relevant comparison would require alternative plans that match the enacted map's partisan margins and vary the racial treatment of Shelby County. Her simulations provide no such comparison.

5 Dr. Liu's Racially Polarized Voting Analysis

Dr. Liu was asked to express opinions on whether racially polarized voting exists in Tennessee and whether the 2026 Plan allows Black voters to elect candidates of their choice.¹⁰ He estimates racially polarized voting with ecological inference in two statewide general elections: the 2020 U.S. Senate race between Marquita Bradshaw and Bill Hagerty and the 2024 presidential race between Kamala Harris and Donald Trump.¹¹ He reports high Black support for Bradshaw and Harris,

⁹Duchin Declaration at 5.

¹⁰Liu Declaration at 3.

¹¹Liu Declaration at 3-5.

low White support for those candidates, and defeat of the Democratic nominee in every enacted congressional district under both elections.

Those estimates show racial polarization in statewide general elections. I do not dispute that descriptive finding. They do less to show intent because Dr. Liu's analysis uses elections in which the Black-preferred candidate is also the Democratic nominee. In that setting, estimated Black support for the Black-preferred candidate is also estimated Black support for the Democratic candidate, and estimated White opposition to the Black-preferred candidate is also estimated White support for the Republican candidate. The analysis therefore measures both racial polarization and partisan polarization simultaneously.

A further limitation of Dr. Liu's election selection is that it excludes primary elections. Primary elections would provide a useful additional test because candidates compete under the same party label. In a Democratic primary, for example, differences in candidate support cannot be reduced as easily to the choice between a Democratic nominee and a Republican nominee. That kind of evidence would be more informative for the question *Callais* requires experts to address: whether the observed racial pattern remains after accounting for party.¹² Dr. Liu relies only on general elections in which race and party move together, so his analysis never tests whether the estimated racial polarization is distinct from partisan voting.

Dr. Liu's performance conclusion is therefore explained by the partisan structure of the enacted map. The 2026 Plan creates nine Republican-leaning districts, and Black voters in Tennessee overwhelmingly support Democratic candidates in the statewide general elections he studies. The Black-preferred Democratic candidate therefore loses in each enacted district. This establishes that the 2026 Plan reduces Democratic electoral opportunity in Shelby County and Memphis. It does not establish that the enacted lines were drawn because of racial composition after accounting for the partisan objective of creating nine Republican-leaning districts.

The election selection reinforces the limitation. Both elections analyzed by Dr. Liu feature Black Democratic candidates running against Republican opponents. They are poorly suited to separating race from party in an intent inquiry where the enacted map's most obvious feature is partisan. All nine districts favor Republican candidates. Dr. Liu does not compare maps that achieve the same partisan performance with different racial distributions. He does not analyze

¹² *Louisiana v. Callais*

whether the same loss of Democratic electoral opportunity could be produced by a race-blind effort to divide Democratic voters in Davidson and Shelby Counties. He also does not address the parallel treatment of Davidson County, a Democratic concentration that is not majority-Black and is also divided across three Republican-leaning districts.

Dr. Liu concludes that the loss of Black electoral opportunity is the direct consequence of cracking Black population concentrations across district lines.¹³ His evidence supports a narrower conclusion. In a plan with nine Republican-leaning districts, Democratic candidates preferred by both Black and White voters who prefer Democrats lose statewide general-election performance tests. The additional step from electoral consequence to racial motive requires an analysis that accounts for partisan preferences. His declaration does not supply that analysis.

6 Mr. Fairfax's Demographic and Mapping Analysis

Mr. Fairfax compares the 2022 and 2026 congressional plans and concludes that race was a motivating factor in the construction of the 2026 Plan.¹⁴ His report documents several descriptive changes. The 2026 Plan divides Shelby County and Memphis across Districts 5, 8, and 9. It moves large numbers of Black residents and Black voting-age residents out of the former District 9. It creates three Shelby County districts with districtwide BVAP shares in the range of roughly 27% to 31%. It also performs worse than the 2022 Plan on compactness and several subdivision-split measures.

However, his Tennessee analysis is also silent on party. In the sections setting out his opinions about the 2026 Plan, Mr. Fairfax does not discuss partisan performance, party voting, or partisanship as a possible explanation for the map's treatment of Shelby County, Memphis, or Davidson County. In fact, the only appearances of "party" or "partisan" in his filing are a footnote describing the Redistricting Data Hub as non-partisan and resume material describing work in other cases.

The facts contained in Mr. Fairfax's report describe the consequences of the 2026 Plan without isolating the reason for those consequences. The 2022 Plan had eight Republican-leaning districts and one heavily Democratic district centered in the Memphis area. The 2026 Plan has nine Republican-leaning districts. A simple comparison between the two maps conflates racial conse-

¹³Liu Declaration at 5.

¹⁴Fairfax Declaration paras. 15, 39–91.

quences with the change in partisan design. A map designed to divide Democratic voters in Shelby County would be expected to produce the same features Mr. Fairfax identifies: a three-way division of Memphis, a three-way division of Shelby County, lower compactness, additional subdivision splits, and the movement of highly Democratic precincts into several Republican-leaning districts.

Mr. Fairfax's two-district arithmetic illustrates the same point. He reasons that, if the 2022 Plan's Districts 8 and 9 were reconfigured within their same combined area, at least one district would retain a high Black population or BVAP share.¹⁵ That observation reflects the population contained in the prior two-district western Tennessee footprint. It also shows why preserving that footprint would preserve a large Democratic concentration. The enacted map changes the footprint by bringing three districts into western Tennessee and Shelby County and connecting those Shelby County portions to more Republican areas. Mr. Fairfax's two-district calculation does not test whether the enacted configuration is explained by the partisan objective of replacing an eight-Republican-district map with a nine-Republican-district map.

Mr. Fairfax also discusses Davidson County, noting that Davidson and Shelby are the only two counties divided across three districts and that both counties have large Black populations.¹⁶ That framing again omits the partisan dimension. Davidson County is one of the state's largest Democratic concentrations, and it is not majority-Black. The fact that the 2026 Plan divides Davidson County and Shelby County in similar ways is consistent with a statewide partisan strategy aimed at dividing the two largest Democratic concentrations in Tennessee. The relevant comparison is therefore political.

The same limitation applies to the compactness and subdivision-split analysis. Mr. Fairfax shows that the 2026 Plan performs worse than the 2022 Plan on several traditional districting criteria.¹⁷ A plan that divides the state's largest Democratic concentrations and joins them to more Republican territory will often perform worse on compactness and subdivision splits than a plan that leaves one of those Democratic concentrations largely intact. A compactness or subdivision-split analysis can show racial intent only if it compares the enacted map to alternative maps that achieve the same partisan objective. Mr. Fairfax provides no such comparison.

His visual analysis of Shelby County VTDs is also incomplete for this case. The maps show

¹⁵Fairfax Declaration paras. 41–46.

¹⁶Fairfax Declaration paras. 50–53.

¹⁷Fairfax Declaration Tables 12-13.

that the district lines divide high-BVAP areas in Memphis and Shelby County.¹⁸ They do not show whether the same lines divide Democratic voters, even though high-BVAP precincts in Shelby County are heavily Democratic. A partisan overlay or a comparison to partisan-equivalent maps is necessary before moving from visual racial pattern to racial motive.

Mr. Fairfax's declaration describes how the 2026 Plan changes Shelby County, Memphis, and the former District 9. It leaves the Supreme Court's race-party question unanswered because it provides no analysis showing that racial composition explains the enacted map after accounting for the State's partisan objective.

7 Conclusion

The expert declarations identify consequences of the 2026 Plan, especially in Memphis and Shelby County. Those consequences are the expected consequences of a statewide partisan plan designed to convert an eight-Republican-district map into a nine-Republican-district map. Dr. Duchin's simulations do not supply valid alternative maps because they fail to match the enacted map's partisan margins. Dr. Liu's racially polarized voting analysis confirms that Black voters strongly support Democratic candidates in statewide general elections, which also confirms the strong relationship between race and party. Mr. Fairfax's mapping analysis documents the division of Shelby County, Memphis, and Davidson County. It leaves untested whether those choices are explained by a partisan objective. The declarations show that the 2026 Plan has large racial and electoral consequences. They do not show that race explains the enacted lines after accounting for partisanship and electoral considerations.

¹⁸Fairfax Declaration Figure 6.

A Six-Election Index and Race-Party Relationship

The six-election index used in Section 2 pools Democratic and Republican votes across the statewide elections listed in Table 5. For each district or precinct, the Democratic share equals the total Democratic votes in those six elections divided by the total votes cast for the Democratic and Republican candidates in those elections. The Republican share is calculated the same way.

Table 5: Statewide Elections Included in the Six-Election Index

Election	Democratic share	Republican share
2018 U.S. Senate	44.5%	55.5%
2018 Governor	39.3%	60.7%
2020 President	38.2%	61.8%
2020 U.S. Senate	36.1%	63.9%
2024 President	34.9%	65.1%
2024 U.S. Senate	34.9%	65.1%

Table 6 reports the enacted district values produced by that index. All nine enacted districts are Republican-leaning under the pooled six-election measure. District 9 is the least-Republican district, with a Republican share of 57.0%.

Table 6: Six-Election Republican Index in the Enacted Map

District	Six-election GOP share	Lowest GOP share	Highest GOP share
9	57.0%	50.2%	61.6%
5	57.8%	50.1%	62.5%
4	58.1%	50.1%	62.1%
7	59.3%	52.0%	62.1%
8	59.3%	55.2%	61.4%
6	60.1%	52.0%	63.4%
2	64.9%	57.7%	67.2%
3	66.2%	59.7%	68.1%
1	77.6%	71.5%	79.6%

Figure 12 plots precinct BVAP against the same six-election Democratic vote share. The Pearson correlation is 0.82. The plot shows why descriptive racial and partisan patterns are difficult to separate in Tennessee precinct data.

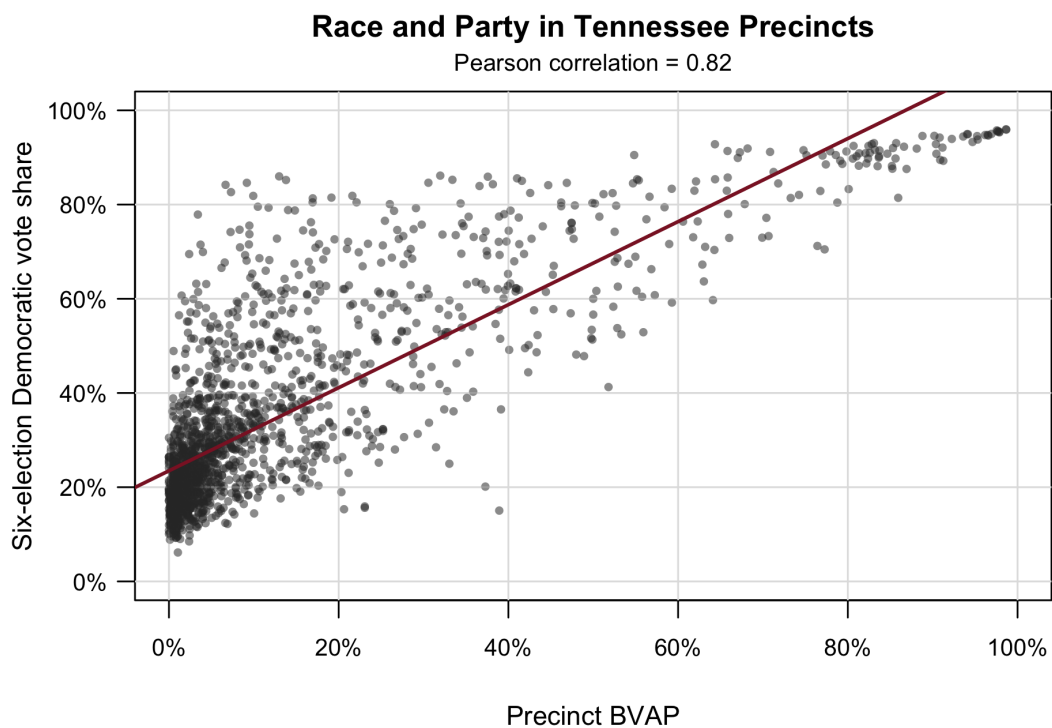


Figure 12: Precinct BVAP and six-election Democratic vote share. Each point is a precinct with nonzero voting-age population and at least one two-party vote across the six statewide elections.

I reserve the right to modify, update, or supplement my opinions in light of additional facts, testimony and/or materials that may become available. Pursuant to 28 U.S.C. § 1746, the above is true and correct to the best of my knowledge.

A handwritten signature in black ink, appearing to read "Michael Barber", is written above a horizontal line.

Michael Barber

June 24, 2026

Michael Jay Barber

CONTACT INFORMATION

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ACADEMIC APPOINTMENTS

Brigham Young University, Provo, UT

August 2025 - present Professor, Department of Political Science
August 2020 - July 2025 Associate Professor, Department of Political Science
2014 - July 2020 Assistant Professor, Department of Political Science

Jan 2023 - present Director, Center for the Study of Elections and Democracy
2014 - Jan 2023 Faculty Scholar, Center for the Study of Elections and Democracy

EDUCATION

Princeton University Department of Politics, Princeton, NJ

Ph.D., Politics, July 2014

- Advisors: Brandice Canes-Wrone, Nolan McCarty, and Kosuke Imai
- Dissertation: "Buying Representation: the Incentives, Ideology, and Influence of Campaign Contributions on American Politics"
- 2015 Carl Albert Award for Best Dissertation, Legislative Studies Section, American Political Science Association (APSA)

M.A., Politics, December 2011

Brigham Young University, Provo, UT

B.A., International Relations - Political Economy Focus, April, 2008

- *Cum Laude*

RESEARCH INTERESTS

American politics, congressional polarization, political ideology, campaign finance, survey research

PUBLICATIONS

30. **"Unaggrandizing the Partisan Gerrymander"**
with Sean Trende and Andrew Taylor, forthcoming, *Election Law Journal*
29. **"Donations and Dollars: Characterizing the Policy Views of Donors and the Affluent"**
with Brandice Canes-Wrone, Greg Huber, and Josh Clinton, forthcoming, *Journal of Politics*
28. **"Illiberalism among American State Legislative Candidates"**
with Hans Hassell and Michael Miller, *Nature Humanities and Social Science Communications*

27. **“Which Republican Constituencies Support Restrictive Abortion Laws? Comparisons among donors, wealthy, and mass publics**, with Brandice Canes-Wrone, Joshua Clinton, and Greg Huber Forthcoming at *Public Opinion Quarterly*
26. **“The Crucial Role of Race in 21st Century U.S. Political Realignment**, with Jeremy Pope, *Public Opinion Quarterly* (2024): 1-10.
25. **“Misclassification and Bias in Predictions of Individual Ethnicity from Administrative Records”**, with Lisa Argyle, *American Political Science Review* (2023): 1-9.
24. **“Partisanship and Trolleyology”**, with Ryan Davis
Research & Politics
23. **“Does Issue Importance Attenuate Partisan Cue-Taking”**, with Jeremy Pope, *Political Science Research and Methods* (2024): 1-9.
22. **“A Revolution of Rights in American Founding Documents”**, with Scott Abramson and Jeremy Pope
Journal of Political Institutions and Political Economy
21. **“Groups, Behaviors, and Issues as Cues of Partisan Attachments in the Public”**, with Jeremy Pope
American Politics Research
20. **“Ideological Disagreement and Pre-emption in Municipal Policymaking”**, with Adam Dynes, *American Journal of Political Science*, no. 1 (2023): 119-136.
19. **“400 million voting records show profound racial and geographic disparities in voter turnout in the United States”**, with John Holbein
PloS One, 2022, Vol. 17, no. 6: e0268134
18. **“Comparing Campaign Finance and Vote Based Measures of Ideology”**
Journal of Politics, 2022. Vol. 84, no. 1 (2022): 613-619.
17. **“The Participatory and Partisan Impacts of Mandatory Vote-by-Mail”**, with John Holbein
Science Advances, 2020. Vol. 6, no. 35, DOI: 10.1126/sciadv.abc7685
16. **“Issue Politicization and Interest Group Campaign Contribution Strategies”**, with Mandi Eatough
Journal of Politics, 2020. Vol. 82: No. 3, pp. 1008-1025
15. **“Campaign Contributions and Donors’ Policy Agreement with Presidential Candidates”**, with Brandice Canes-Wrone and Sharece Thrower
Presidential Studies Quarterly, 2019, 49 (4) 770–797
14. **“Conservatism in the Era of Trump”**, with Jeremy Pope
Perspectives on Politics, 2019, 17 (3) 719–736
13. **“Legislative Constraints on Executive Unilateralism in Separation of Powers Systems”**, with Alex Bolton and Sharece Thrower
Legislative Studies Quarterly, 2019, 44 (3) 515–548
Awarded the Jewell-Loewenberg Award for best article in the area of subnational politics published in *Legislative Studies Quarterly* in 2019
12. **“Electoral Competitiveness and Legislative Productivity”**, with Soren Schmidt
American Politics Research, 2019, 47 (4) 683–708
11. **“Does Party Trump Ideology? Disentangling Party and Ideology in America”**, with Jeremy Pope
American Political Science Review, 2019, 113 (1) 38–54
10. **“The Evolution of National Constitutions”**, with Scott Abramson
Quarterly Journal of Political Science, 2019, 14 (1) 89–114

9. **“Who is Ideological? Measuring Ideological Responses to Policy Questions in the American Public”**, with Jeremy Pope
The Forum: A Journal of Applied Research in Contemporary Politics, 2018, 16 (1) 97–122
8. **“Status Quo Bias in Ballot Wording”**, with David Gordon, Ryan Hill, and Joe Price
The Journal of Experimental Political Science, 2017, 4 (2) 151–160.
7. **“Ideologically Sophisticated Donors: Which Candidates Do Individual Contributors Finance?”**, with Brandice Canes-Wrone and Sharece Thrower
American Journal of Political Science, 2017, 61 (2) 271–288.
6. **“Gender Inequalities in Campaign Finance: A Regression Discontinuity Design”**, with Daniel Butler and Jessica Preece
Quarterly Journal of Political Science, 2016, Vol. 11, No. 2: 219–248.
5. **“Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate”**
Public Opinion Quarterly, 2016, 80: 225–249.
4. **“Donation Motivations: Testing Theories of Access and Ideology”**
Political Research Quarterly, 2016, 69 (1) 148–160.
3. **“Ideological Donors, Contribution Limits, and the Polarization of State Legislatures”**
Journal of Politics, 2016, 78 (1) 296–310.
2. **“Online Polls and Registration Based Sampling: A New Method for Pre-Election Polling”** with Quin Monson, Kelly Patterson and Chris Mann.
Political Analysis 2014, 22 (3) 321–335.
1. **“Causes and Consequences of Political Polarization”** In *Negotiating Agreement in Politics*. Jane Mansbridge and Cathie Jo Martin, eds., Washington, DC: American Political Science Association: 19–53. with Nolan McCarty. 2013.
 - Reprinted in *Solutions to Political Polarization in America*, Cambridge University Press. Nate Persily, eds. 2015
 - Reprinted in *Political Negotiation: A Handbook*, Brookings Institution Press. Jane Mansbridge and Cathie Jo Martin, eds. 2015

AVAILABLE
WORKING
PAPERS/ONGOING
PROJECTS

“Donations and Dollars: Characterizing the Policy Views of Donors and the Affluent”

with Brandice Canes-Wrone, Gregory Huber, and Joshua Clinton (Revise and Resubmit at *Journal of Politics*)

“Preferences for Representational Styles in the American Public”

with Ryan Davis and Adam Dynes (*under review*)

“Illiberalism among American State Legislative Candidates”

with Hans Hassell and Michael Miller (*under review*)

INVITED
PRESENTATIONS

“Are Mormons Breaking Up with Republicanism? The Unique Political Behavior of Mormons in the 2016 Presidential Election”

- Ivy League LDS Student Association Conference - Princeton University, November 2018, Princeton, NJ

“Issue Politicization and Access-Oriented Giving: A Theory of PAC Contribution Behavior”

- Vanderbilt University, May 2017, Nashville, TN

“Lost in Issue Space? Measuring Levels of Ideology in the American Public”

- Yale University, April 2016, New Haven, CT

“The Incentives, Ideology, and Influence of Campaign Donors in American Politics”

- University of Oklahoma, April 2016, Norman, OK

“Lost in Issue Space? Measuring Levels of Ideology in the American Public”

- University of Wisconsin - Madison, February 2016, Madison, WI

“Polarization and Campaign Contributors: Motivations, Ideology, and Policy”

- Hewlett Foundation Conference on Lobbying and Campaign Finance, October 2014, Palo Alto, CA

“Ideological Donors, Contribution Limits, and the Polarization of State Legislatures”

- Bipartisan Policy Center Meeting on Party Polarization and Campaign Finance, September 2014, Washington, DC

“Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate”

- Yale Center for the Study of American Politics Conference, May 2014, New Haven, CT

CONFERENCE PRESENTATIONS

Money in Politics APSA Pre-Conference:

- Founder (2020) and organizing committee (2020, 2021, 2022, 2023)

Washington D.C. Political Economy Conference (PECO):

- 2017 discussant

American Political Science Association (APSA) Annual Meeting:

- 2014 participant and discussant, 2015 participant, 2016 participant, 2017 participant, 2018 participant

Midwest Political Science Association (MPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2018 participant

Southern Political Science Association (SPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2017 participant

TEACHING EXPERIENCE

Poli 301: Data Visualization

- Summer 2022, Fall 2022, Winter 2023, Winter 2024

Poli 315: Congress and the Legislative Process

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017, Fall 2018, Spring 2019, Fall 2022

Poli 328: Quantitative Analysis

- Winter 2017, Fall 2017, Fall 2019, Winter 2020, Fall 2020, Winter 2021, Fall 2023

Poli 410: Undergraduate Research Seminar in American Politics

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017, Fall 2018, Winter 2024

AWARDS AND
GRANTS

2024 BYU Early Career Scholarship Award

2021 BYU FHSS Research Grant, \$6,500

2020 BYU FHSS Young Scholar Award

2019 BYU Mentored Environment Grant (MEG), Ideology in America Project, \$35,000

2017 BYU Political Science Teacher of the Year Award

2017 BYU Mentored Environment Grant (MEG), Funding American Democracy Project, \$20,000

2016 BYU Political Science Department, Political Ideology and President Trump (with Jeremy Pope), \$7,500

2016 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Hayden Galloway, Jennica Peterson, Rebecca Shuel

2015 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Michael-Sean Covey, Hayden Galloway, Sean Stephenson

2015 BYU Student Experiential Learning Grant, American Founding Comparative Constitutions Project (with Jeremy Pope), \$9,000

2015 BYU FHSS Research Grant, \$5,000

2014 BYU Political Science Department, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$3,000

2014 BYU FHSS Award, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$3,000

2014 BYU Center for the Study of Elections and Democracy, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), \$2,000

2012 Princeton Center for the Study of Democratic Politics Dissertation Improvement Grant, \$5,000

2011 Princeton Mamdouha S. Bobst Center for Peace and Justice Dissertation Research Grant,

\$5,000

2011 Princeton Political Economy Research Grant, \$1,500

OTHER SCHOLARLY ACTIVITIES Expert Witness in Nancy Carola Jacobson, et al., Plaintiffs, vs. Laurel M. Lee, et al., Defendants. Case No. 4:18-cv-00262 MW-CAS (U.S. District Court for the Northern District of Florida)

Expert Witness in Common Cause, et al., Plaintiffs, vs. Lewis, et al., Defendants. Case No. 18-CVS-14001 (Wake County, North Carolina)

Expert Witness in Kelvin Jones, et al., Plaintiffs, v. Ron DeSantis, et al., Defendants, Consolidated Case No. 4:19-cv-300 (U.S. District Court for the Northern District of Florida)

Expert Witness in Community Success Initiative, et al., Plaintiffs, v. Timothy K. Moore, et al., Defendants, Case No. 19-cv-15941 (Wake County, North Carolina)

Expert Witness in Richard Rose et al., Plaintiffs, v. Brad Raffensperger, Defendant, Civil Action No. 1:20-cv-02921-SDG (U.S. District Court for the Northern District of Georgia)

Expert Witness in Georgia Coalition for the People's Agenda, Inc., et. al., Plaintiffs, v. Brad Raffensperger, Defendant. Civil Action No. 1:18-cv-04727-ELR (U.S. District Court for the Northern District of Georgia)

Expert Witness in Alabama, et al., Plaintiffs, v. United States Department of Commerce; Gina Raimondo, et al., Defendants. Case No. CASE No. 3:21-cv-00211-RAH-ECM-KCN (U.S. District Court for the Middle District of Alabama Eastern Division)

Expert Witness in League of Women Voters of Ohio, et al., Relators, v. Ohio Redistricting Commission, et al., Respondents. Case No. 2021-1193 (Supreme Court of Ohio)

Expert Witness in Regina Adams, et al., Relators, v. Governor Mike DeWine, et al., Respondents. Case No. 2021-1428 (Supreme Court of Ohio)

Expert Witness in Rebecca Harper, et al., Plaintiffs, v. Representative Destin Hall, et al., Defendants (Consolidated Case). Case No. 21 CVS 500085 (Wake County, North Carolina)

Expert Witness in Carter, et al., Petitioners, v. Degraffenreid et al., Respondents (Consolidated Case). Case No. 464 M.D. 2021 (Commonwealth Court of Pennsylvania)

Expert Witness in Harkenrider, et al., Petitioners, v. Hochel et al., Respondents. Case No. E2022-0116CV (State of New York Supreme Court: County of Steuben)

Expert Witness in Our City Action Buffalo, Inc., et al., v. Common Council of the City of Buffalo (State of New York Supreme Court: County of Erie)

Expert Witness in Citizens Project, et al., v. City of Colorado Springs, et al. Case No. 22-cv-1365-CNS-MDB (U.S. District Court for the District of Colorado)

Expert report filed in League of Women Voters of Ohio v. Ohio Redistricting Comm., 172 Ohio St.3d 597, 2023-Ohio-4271 (Supreme Court of Ohio)

Expert Witness in Dr. Dorothy Nairne, et al., Plaintiffs, v. R. Yle Ardoin, Defendant, Case No. 3:22-cv-00178 (U.S. District Court for the Middle District of Louisiana)

Court Appointed Mapping Special Master in Donald Agee, et al., Plaintiffs, v. Jocelyn Benson, in her official capacity as the Secretary of State of Michigan, et al., Defendants., No. 1:22-cv-272 Three-Judge Court (U.S. District Court for the Western District of Michigan)

Expert report filed in remedial phase in Alpha Phi Alpha, et al., Plaintiffs, v. Brad Raf-fensperger, in his official capacity as the Secretary of State of Georgia, et al., Defendants., Case No. 1:21-cv-5337 (U.S. District Court for the Northern District of Georgia)

Expert Witness in McClure, et al. and Addoh-Kondi, et al., Plaintiffs, v. Jefferson County Commission, et al., Defendant, Case No. Case No.: 2:23-cv-00503-MHH (U.S. District Court for the Northern District of Alabama)

Expert Witness in Williams, et al. and North Carolina NAACP v. Berger, in his official capacity as President Pro Tempore of the North Carolina Senate, et al. Case Nos: 1:23-CV-1057, 1:23-CV-1104 (U.S. District Court for the Middle District of North Carolina)

Expert Witness in League of Women Voters of Utah, et al., v. Utah State Legislature, et al., Civil Action No. 220901712 (Third Judicial District Court in and for Salt Lake County, Utah)

ADDITIONAL
TRAINING

EITM 2012 at Princeton University - Participant and Graduate Student Coordinator

COMPUTER
SKILLS

Statistical Programs: R, Stata, SPSS, parallel computing

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