

Expert Report of Anthony E. Fairfax
on the Development of an Illustrative Plan for
State Senate Districts for the State of Alabama in
Stone v. Allen, No. 2:21-cv-01531 (N.D. Ala.)
February 2, 2024

Table of Contents

I. Introduction 4

II. Qualifications 4

III. Software, Data, and Technical Process Utilized 6

IV. Summary of Opinions 7

V. Methodology 8

VI. Demographic Profile of Alabama..... 14

VII. Illustrative Plan..... 30

VIII. *Gingles* 1 Analysis..... 40

IX. Comparative Analysis with the Enacted Plan 47

X. Conclusions 49

XI. Appendices 50

Figures

Figure 1 – Illustrative Plan for Alabama’s State Senate Districts	31
Figure 2 – Illustrative Plan’s State Senate District 7 Zoom.....	34
Figure 3 – Illustrative Plan’s State Senate District 25 Zoom.....	37

Tables

Table 1 – Total Pop by Race/Ethnicity (2010 - 2020) for Alabama.....	15
Table 2 – VAP by Race/Ethnicity (2010 - 2020) for Alabama.....	16
Table 3 – CVAP by Major Race/Ethnicity (2022 1 Year ACS) for Alabama.....	17
Table 4 – Total Pop by Race/Ethnicity (2010 - 2020) for Madison County, Alabama	18
Table 5 – VAP by Race/Ethnicity (2010 - 2020) for Madison County, Alabama.....	19
Table 6 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Madison County, Alabama	19
Table 7 – Total Pop by Race/Ethnicity (2010 - 2020) for Morgan County, Alabama	20
Table 8 – VAP by Race/Ethnicity (2010 - 2020) for Morgan County, Alabama	21
Table 9 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Morgan County, Alabama	22
Table 10 – Total Pop by Race/Ethnicity (2010 - 2020) for Limestone County, Alabama	23
Table 11 – VAP by Race/Ethnicity (2010 - 2020) for Limestone County, Alabama.....	24
Table 12 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Limestone County, Alabama	24
Table 13 – Total Pop. by Race/Ethnicity (2010 - 2020) for Montgomery County, Alabama	25
Table 14 – VAP by Race/Ethnicity (2010 - 2020) for Montgomery County, Alabama.....	26
Table 15 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Montgomery County, Alabama	27
Table 16 – Total Pop by Race/Ethnicity (2010 - 2020) for Crenshaw County, Alabama	28
Table 17 – VAP by Race/Ethnicity (2010 - 2020) for Crenshaw County, Alabama.....	29
Table 18 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Crenshaw County, Alabama	29
Table 20 – Population Dev. for Illustrative Plan for AL Senate Districts	32
Table 21 – Illustrative Plan’s Senate District’s Race/Ethnicity%	43
Table 22 – Alabama Senate Districts’ Illustrative/Enacted Plan Compactness Measures	46
Table 23 – Illustrative Plan and Enacted Plans’ Criteria Comparison	48

I. Introduction

1. I have been retained by counsel representing the Plaintiffs in this lawsuit to analyze and determine whether it is possible to draw a reasonably configured Illustrative Plan that adheres to traditional redistricting criteria and satisfies the first precondition of *Thornburg v. Gingles*¹ for Alabama state senate districts, and if so, to produce such a plan.

II. Qualifications

2. I received a Bachelor of Science degree in Electrical Engineering (“BSEE”) from Virginia Tech in 1982 and a Master of Geospatial Information Science and Technology (“MGIST”) degree from North Carolina State University in 2016.
3. Currently, I am a demographic and mapping consultant and the CEO/Principal Consultant of CensusChannel LLC. As a consultant working on redistricting issues over the last thirty years, I have developed nearly one thousand redistricting plans during the last four decennial redistricting cycles. I have drawn redistricting plans for jurisdictions of all sizes, from statewide plans to plans for small municipalities. In the course of my career, I have also had the opportunity to draw and analyze many plans for jurisdictions within multiple states throughout the country. In addition, during that timeframe, I have provided consulting services for numerous non-profit and public-sector groups centering on redistricting plan development, analysis, and training.
4. In 2023, I was hired by plaintiffs in *Addoh-Kondi v. Jefferson County Commission*, No. 2:23-cv-00503 (N.D. Ala.). My involvement in that effort included an expert report and testimony.

¹ See *Thornburg v. Gingles*, 478 U.S. 30 (1986). *Gingles* requires plaintiffs to show that the minority group "is sufficiently large and geographically compact to constitute a majority in a single-member district." *Id.* at 50.

5. In 2021, I was hired by plaintiffs to develop an illustrative redistricting plan in *Arkansas State Conference NAACP v. Arkansas Board of Apportionment*, No. 4:21-cv-01239 (E.D. Ark.). My involvement in that effort included plan development, an expert report, a rebuttal report, and testimony.
6. Prior to this round of redistricting, I was hired by plaintiffs to develop illustrative redistricting plans, associated expert reports, depositions, and provide testimony in *Holloway v. City of Virginia Beach*, No. 2:18-cv-00069 (E.D. Va.).
7. Also, in 1999, I was hired by the city of Everett, Washington, to perform the duties of Districting Master. I was tasked with assisting the city's Redistricting Commission with developing its first districting plan. The city moved from a seven-member at-large voting system to a system with five single-member districts and two members elected at-large. As Districting Master, I shepherded the commission through the entire plan development process as they successfully developed the city's districting system.
8. In addition to the above-noted litigation in Arkansas, Louisiana, and Virginia, I have testified and provided depositions as a redistricting expert in Alabama, North Carolina and Texas. I provided testimony with a focus on demographic and mapping analysis in federal and state court cases. These included: *Covington v. North Carolina* (North Carolina), *NC NAACP v. State of North Carolina* (North Carolina), *Wright v. North Carolina* (North Carolina), *Alabama State Legislative Caucus v. Alabama* (Alabama), *Perez v. Perry* (Texas), and *Perez v. Abbott* (Texas). Finally, I have been qualified as an expert in all of the cases that I have testified in.

9. My redistricting, geographic information system (“GIS”) experience, and detailed work as an expert are contained within my attached resume (See Appendix A). I am being compensated at a rate of \$180 per hour for my work on this case.

III. Software, Data, and Technical Process Utilized

10. The software I utilized for the development of the Illustrative Plans was Maptitude for Redistricting (“Maptitude”) by Caliper Corporation. Maptitude is one of the leading redistricting software applications utilized by consultants, major nonprofit groups, and governmental entities.²
11. Several datasets were utilized through the development and analysis of the Illustrative Plans:
- a. The 2010 and 2020 census data for the total population were obtained from Caliper Corporation’s datasets for the state of Alabama.³ 2020 census data on landmark areas were also obtained from the Caliper datasets (used to delineate communities of interest areas such as military bases, colleges and universities, and Native American reservations).
 - b. Socioeconomic and Citizen Voting Age Population (CVAP) data for Alabama were downloaded from the Census Bureau’s website, including the 2022 1-Year and 2021 5-Year⁴ American Community Survey (ACS) state and county-wide data. To determine noncitizen populations, I downloaded 2022 5-Year ACS data at the county and census places levels (B05003 tables).
 - c. ESRI Shapefiles for the Alabama State Senate Enacted Plan was downloaded from the Redistricting Data Hub (RDH).⁵

² See <https://www.caliper.com/mtrnews/clients.htm> for Maptitude for Redistricting’s client list.

³ Caliper Corporation provides 2010 and 2020 Census Data (PL94-171 data) in a format readable for their software, Maptitude for Redistricting. The population data are identical to the data provided by the Census Bureau.

⁴ 2022 1-Year ACS CVAP data at county level did not contain Black CVAP estimates, thus, 2021 5-Year ACS CVAP data were reviewed for Madison and Montgomery counties.

⁵ The RDH obtained the shapefile from the Alabama Senate Reapportionment Office https://redistrictingdatahub.org/wp-content/uploads/2021/11/readme_al_sldu_2021.txt

- d. To evaluate district configurations, I downloaded the most recent race/ethnicity citizenship data from RDH.⁶ This included 2021 5-Year (ACS) Citizen Voting Age Population dataset at the census block group level for the state of Alabama.⁷
- e. In order to review the 2021 5-Year ACS data at various geographic levels for the Illustrative Plan, I utilized Maptitude's disaggregation/aggregation process. The disaggregation/aggregation process is an industry acceptable process when evaluating citizenship data or other data that is not provided at the census block or other levels.⁸ Once the disaggregation/aggregation process was completed, estimated CVAP data was available for review at the district level (as well as other Census levels).

IV. Summary of Opinions

12. A summary of my conclusions and opinions is:

- a. The State of Alabama has seen growth in the Black⁹ population from 2010 such that it stood at over a quarter of the State's total population in 2020 at 27.16%. Also, in 2020, the State's Not Hispanic White ("White") population decreased to 63.12% of the total population.
- b. It is possible to draw an Illustrative Plan that complies with traditional redistricting criteria and contains two additional majority-Black state senate districts for a total of ten (versus the current eight) and does so in the Montgomery and Huntsville regions.
- c. The Illustrative Plan is reasonably configured by all relevant measures. It adheres to the U.S. Constitution, Alabama Constitution, and the Federal Voting Rights Act, and complies with Equal Population [one-person-one-vote] requirements. The Illustrative Plan is reasonably configured based on well-established traditional redistricting criteria: 1) Contiguity, and 2) Compactness; and 3) Respect for Communities of Interest and Political Subdivisions; and 4) Minimizing the number of county splits and counties within each district.
- d. Alabama's Black voting age population and Black citizen voting age population, which are now both nearly 26% of the state's total population, is sufficiently large and

⁶ The RDH aggregates various Census and election result data into a central website and reformats the data into a readily available format for download.

⁷ See <https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html>

⁸ Disaggregation apportions a population to a lower geographic area from a higher geographic area using a percentage of a matching population field at both geographic levels. In this instance, voting age population was used as the weighted variable to apportion amounts to census blocks. Aggregation sums up the lower-level results to all other higher geographic levels that are to be used. Maptitude also includes a pure geographic disaggregation/aggregation process that was not utilized during this analysis.

⁹ The data reflects "Any Part" Black population which includes Black Latino persons, and other mixed-race persons that combined with Black.

geographically compact to draw at least the ten majority-Black state senate districts represented in the Illustrative Plan below.

V. Methodology

13. First, I reviewed the Alabama redistricting criteria for state legislative districts (see section below). I then gathered the relevant population and geographic datasets. These datasets were imported and processed using the Maptitude for Redistricting application.

14. Next, I analyzed the recent and past demographic and socioeconomic profiles of the state of Alabama. This analysis specifically included a review of the state's Black populations over the 2010 and 2020 decennial censuses. I analyzed the Black population by reviewing total population, voting age population (VAP), and Citizen Voting Age Population (CVAP) for the state.

15. I used the category of "Any Part" Black¹⁰ throughout parts of this report for Black Total and Voting Age Populations with the exception of CVAP. To determine majority Black district status, I used Not Hispanic Black VAP (BVAP) and CVAP (BCVAP) plus their respective Not Hispanic Black and White (combined race)¹¹ for all districts except for SD7. Because of the significant non-citizen population, for SD7 I used only BCVAP.¹²

¹⁰ The "Any Part" or "All Parts" Black includes surveyed persons who select Black Alone and Black and in combination with any race. Also, included within "Any Parts" Black are Hispanic Black persons as well.

¹¹ In *Georgia v. Ashcroft*, 539 U.S. 461, the Court found it acceptable to combine all persons who self-identified themselves in the 2000 Census survey as Black in determining majority minority districts. That includes Black in combination with other races to include both Hispanic and Not Hispanic Black persons. When reviewing the majority Black state senate district in Montgomery, I used Not Hispanic Any Part. However, Any Part Black could have been used and would have increased the Black population and percentage. <https://casetext.com/case/georgia-v-ashcroft-2>.

¹² The racial categories for the noncitizen tables in the appendices, used the single race, "Alone" category which includes Hispanic or Latino population.

16. Latino population throughout this report includes all races combined. The White race was reported using Not Hispanic “Alone” category.¹³ Some demographic tables by race include an “Other” field which is calculated by subtracting the White, Black, and Latino population from the relevant total population.¹⁴
17. I also reviewed socioeconomic data to observe various racial/ethnicity disparities and commonalities within the state at large, as well as within the Black community.¹⁵ This included data on income, poverty, education, health, and housing. This review allowed me to understand the common socioeconomic indicators pertaining to majority Black communities in Alabama. Maptitude was also utilized to draw the Illustrative Plan. I used census Voting Districts (“VTDs”) as the dominant building block for the plan.¹⁶ Finally, when developing the Illustrative Plans, I referenced and relied upon Alabama’s Reapportionment Committee’s (ARC) guidelines from May 2021 but prioritized equal population requirements, adherence to the U.S. Constitution, Alabama Constitution, and the Federal Voting Rights Act, and those criteria the Supreme Court has provided in determining whether a district is reasonably configured under *Gingles* 1: compactness, contiguity, preserving political subdivisions, and respecting communities of interest.

¹³ The Alone category includes only surveyed persons who selected one race (*e.g.* single race Black or single race White, etc.).

¹⁴ In the instances of calculating the Other field by subtracting the racial group of the Alone populations (that includes Hispanic or Latino population), the result will lower than the actual amount.

¹⁵ I obtained this data from analyzing census tracts.

¹⁶ For the most part, VTDs attempt to mimic voting precinct boundaries, however, VTDs always follow census block geography.

18. For reference, Alabama's guidelines include the following criteria:¹⁷

I. POPULATION

The total Alabama state population, and the population of defined subunits thereof, as reported by the 2020 Census, shall be the permissible database used for the development, evaluation, and analysis of proposed redistricting plans. It is the intention of this provision to exclude from use any census data, for the purpose of determining compliance with the one person, one vote requirement, other than that provided by the United States Census Bureau.

II. CRITERIA FOR REDISTRICTING

- a. Districts shall comply with the United States Constitution, including the requirement that they **equalize total population**.
- b. Congressional districts shall have minimal population deviation.
- c. Legislative and state board of education districts shall be drawn to achieve substantial equality of population among the districts and shall not exceed an **overall population deviation range of $\pm 5\%$** .
- d. A redistricting plan considered by the Reapportionment Committee shall comply with the one person, one vote principle of the Equal Protection Clause of the 14th Amendment of the United States Constitution.
- e. The Reapportionment Committee **shall not approve a redistricting plan that does not comply with these population requirements**.
- f. **Districts shall be drawn in compliance with the Voting Rights Act of 1965, as amended. A redistricting plan shall have neither the purpose nor the effect of diluting minority voting strength and shall comply with Section 2 of the Voting Rights Act and the United States Constitution.**
- g. No district will be drawn in a manner that subordinates race-neutral districting criteria to considerations of race, color, or membership in a language-minority group, except that race, color, or membership in a language-minority group may predominate over race-neutral districting criteria to comply with Section 2 of the Voting Rights Act, provided there is a strong basis in evidence in support of such a race-based choice. A strong basis

¹⁷ Only the criteria relevant to the development of state senate districts were used to develop the Illustrative Plans.

in evidence exists when there is good reason to believe that race must be used in order to satisfy the Voting Rights Act.

- h. Districts will be composed of **contiguous** and **reasonably compact** geography.
- i. The following requirements of the Alabama Constitution shall be complied with:
 - (i) Sovereignty resides in the people of Alabama, and all districts should be drawn to reflect the democratic will of all the people concerning how their governments should be restructured.
 - (ii) Districts shall be drawn on the basis of total population, except that voting age population may be considered, as necessary to comply with Section 2 of the Voting Rights Act or other federal or state law.
 - (iii) The number of Alabama **Senate districts is set by statute at 35** and, under the Alabama Constitution, may not exceed 35.
 - (iv) The number of Alabama Senate districts shall be not less than one-fourth or more than one-third of the number of House districts.
 - (v) The number of Alabama House districts is set by statute at 105 and, under the Alabama Constitution, may not exceed 106.
 - (vi) The number of Alabama House districts shall not be less than 67.
 - (vii) All districts will be **single-member districts**.
 - (viii) Every part of every district shall be **contiguous** with every other part of the district.
- j. The following redistricting policies are embedded in the political values, traditions, customs, and usages of the State of Alabama and shall be observed to the extent that they do not violate or subordinate the foregoing policies prescribed by the Constitution and laws of the United States and of the State of Alabama:
 - (i) **Contests between incumbents will be avoided** whenever possible.
 - (ii) **Contiguity by water is allowed**, but **point-to-point contiguity** and **long-lasso contiguity** is not.
 - (iii) Districts shall **respect communities of interest, neighborhoods, and political subdivisions to the extent practicable** and in compliance with paragraphs a through i. A community of interest is defined as an area with recognized similarities of interests, including but not limited to ethnic, racial, economic, tribal, social, geographic, or historical identities. The term communities of interest may, in certain circumstances, include political subdivisions such as counties, voting precincts, municipalities, tribal lands and reservations, or school districts. The discernment, weighing, and balancing of the varied factors that contribute to communities of interest is an intensely political process best carried out by elected representatives of the people.
 - (iv) The Legislature shall try to **minimize the number of counties in each district**.
 - (v) The Legislature shall try to **preserve the cores of existing districts**.
 - (vi) In establishing legislative districts, the Reapportionment Committee shall give due consideration to all the criteria herein. However, priority is to be given to the compelling State interests requiring equality of population among districts and

compliance with the Voting Rights Act of 1965, as amended, should the requirements of those criteria conflict with any other criteria.

- k. The criteria identified in paragraphs j(i)-(vi) are not listed in order of precedence, and in each instance where they conflict, the Legislature shall at its discretion determine which takes priority.

19. A summary and explanation of the criteria which I used to develop and evaluate the

Illustrative Plan are as follows:

- a. **Equal Population** – Several sentences within the ARC guidelines refer to equalizing the population of the districts. The “One person, One vote” principle of the Fourteenth Amendment’s Equal Protection Clause directs that state senate districts be equally populated. The courts have ruled that state senate districts should be held under a “substantial” equality standard.¹⁸ Although the courts have accepted an overall population deviation of up to 10% between the lowest and highest populated state legislative districts, the Alabama guidelines refine it further to +/-5% for each district, which is the principle I use here as well.¹⁹
- b. **Adherence to Section 2 of the Voting Rights Act and the United States Constitution** – Several sections of the ARC guidelines refer to Section 2 of the Voting Rights Act and U.S. Constitution. The guidelines direct the development of districts to be drawn in compliance with the Voting Rights Act and provisions of the U.S. Constitution. Included is a requirement that “no district shall be drawn in a manner that subordinates race-neutral districting criteria to considerations of race, color, or membership in a language-minority group, except that race, color, or membership in a language-minority group may predominate over race-neutral districting criteria to comply with Section 2 of the Voting Rights Act, provided there is a strong basis in evidence in support of such a race-based choice. A strong basis in evidence exists when there is good reason to believe that race must be used in order to satisfy the Voting Rights Act.” I ensured that the Illustrative Plan did not run afoul of these requirements by avoiding elevating the consideration of race over other factors while ensuring that the map did not create new majority-Black districts at the expense of existing majority-Black districts.
- c. **Contiguity** - The ARC guidelines include a requirement for contiguity. Contiguity ensures that no parts of a district are physically separated from the remainder of the

¹⁸ A series of Supreme Court cases helped define the equal population criteria, beginning with: *Baker v. Carr*, 369 U.S. 186 (1962); *Gray v. Sanders*, 372 U.S. 368 (1963); and *Wesberry v. Sanders*, 376 U.S. 1 (1964).

¹⁹ The overall deviation of 10% is calculated using the Ideal Population (calculated by dividing the jurisdiction total population by the number of districts). This ensures that the difference between the lowest populated districts and the highest populated districts do not deviate more than 10%.

district. Water is allowable to connect portions of districts however, no point contiguity²⁰ or lasso-contiguity is allowed.²¹

- d. **Compactness** - The ARC guidelines include the direction of having reasonably compact districts. Compactness refers to how irregularly shaped or dispersed a district is compared to an ideal compact area (usually a circle). The first *Gingles* precondition requires that majority minority districts are “geographically compact.”²² Geographic and “reasonable” compactness can be demonstrated by analyzing the majority minority districts using compactness measures.²³ Many compactness measures, such as the ones used in this report, are developed such that the resultant value exists between 0 and 1, whereby the closer the value is to 1, the more compact the district. The districts were analyzed using three of the most widely used compactness measures, Reock, Polsby-Popper, and Minimum Convex Hull.²⁴
- e. **Respect Communities of Interest (COI)** – The ARC guidelines describe communities of interest to be respected or kept wholly intact. Respect for or preservation of COIs aims to maintain a specific population group within a defined geographic area where the group shares one or more common interests (e.g., economic, social, cultural, ethnic interests, etc.).²⁵ The guidelines define a COI as “an area with recognized similarities of interests, including but not limited to ethnic, racial, economic, tribal, social, geographic, or historical identities. The term communities of interest may also, in certain circumstances, include political subdivisions such as counties, voting precincts, municipalities²⁶, tribal lands and reservations, or school districts.” Minimizing splits tends to ensure that these voters can collectively vote for the same representatives.
- f. **Minimize Political Subdivision Splits** - The ARC guidelines state that the Legislature shall also respect political subdivisions to the extent practicable. Included with the COI description, the guidelines states that the term communities of interest may, in certain circumstances, include political subdivisions such as counties, voting precincts, municipalities, tribal lands and reservations, or school districts.

²⁰ The Enacted Plan has a point contiguity for SD8 . Since the Illustrative Plan was designed to retain a sizable amount of the Enacted Plan, the plan contains the same point contiguity.

²¹ Point contiguity connects areas of a district at a single boundary point.

²² See *Thornburg v. Gingles*, 478 U.S. 30 (1986). The *Gingles* case requires plaintiffs to show that the minority group “is sufficiently numerous and geographically compact to form a majority in a single-member district.”

²³ Compactness measures many times quantify the geographic shape of the districts as compared to a designated perfectly compact shape, such as a circle.

²⁴ Maptitude for Redistricting documentation defines the compactness measures: 1) Reock - “...the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district.” 2) Polsby-Popper - “The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: $4\pi \text{Area}/(\text{Perimeter}^2)$.” 3) Convex Hull - “...computes only a ratio of the area of the district to the area of the convex hull of the district, without regard to population within the areas.” Convex Hull is routinely referred to as a “rubber-band” enclosure or polygon.

²⁵ <https://redistricting.ils.edu/redistricting-101/where-are-the-lines-drawn/#communities+of+interest>

²⁶ Census Designated Place (CDPs) are often viewed as COIs when evaluating plans. CDPs are created by the U.S. Census Bureau for statistical purposes but are commonly defined locally by the community and have no governmental body.

- g. **Minimize County Splits** - The ARC guidelines state that the Legislature shall “try to minimize the number of counties in each district,” hence, minimizing the number of total counties split between or among multiple districts. The ARC guidelines also state to “minimize the number of counties in each district” which also has the effect of minimizing the splits of counties.
- h. **Preserve District Cores** – ARC guidelines indicate that the Legislature shall “try to preserve the cores of existing districts.” Districts cores generally refer to areas that have existed in prior enacted plans, thus providing continuity for the voters.²⁷ I observed this to the extent possible but accorded it lower priority when it conflicted with the criteria above.
- i. **Incumbent Pairing** – The ARC guidelines direct the plan configuration to avoid contests between incumbents whenever possible. This refers to placing incumbents’ residences within the same district. I observed this to the extent possible but accorded it lower priority when it conflicted with the criteria above.

20. Finally, after drawing a full Illustrative Plan, I generated a final report from Maptitude summarizing the Plan’s performance on a set of traditional redistricting criteria and relevant conclusions. These reports and conclusions are discussed below.

VI. Demographic Profile of Alabama

Introduction

21. I reviewed the major race and ethnicity populations for the state of Alabama. In particular, I consulted the 2010 and 2020 decennial censuses and analyzed their respective total population and VAP increase or decrease. For CVAP data, I reviewed the most recent available year.²⁸ In addition, I examined demographic data for the counties associated with the Illustrative Plan’s additional majority Black districts: Crenshaw, Limestone, Madison, Montgomery, and Morgan counties.

²⁷ <https://www.ncsl.org/research/redistricting/redistricting-criteria.aspx>

²⁸ Since, at the county level, the 1 Year ACS CVAP Black population data were not available, I used the most recent 5-Year ACS CVAP data. In addition, 2022 5-Year CVAP racial data were not available in the Not Hispanic or Latino format.

A. Alabama – State Total Population:

22. According to the decennial censuses of 2010 and 2020, Alabama’s total population grew from 4,779,736 to 5,024,279 persons—an increase of 5.12%—between 2010 and 2020. (see Table 1).
23. From 2010 to 2020, the Black population of Alabama also increased. During that span, the Black population grew from 1,281,118 to 1,364,736 (from 26.80% of the state’s population to 27.16%). However, the White population decreased from 3,204,402 persons in 2010 to 3,171,351 persons in 2020 – a decrease of 33,051 persons from 67.04% to 63.12% (see Table 1).

Table 1 – Total Pop by Race/Ethnicity (2010 - 2020) for Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total Population	4,779,736	100.00%	5,024,279	100.00%	244,543	5.12%
Hispanic or Latino	185,602	3.88%	264,047	5.26%	78,445	1.37%
White	3,204,402	67.04%	3,171,351	63.12%	-33,051	-3.92%
Black or African American	1,281,118	26.80%	1,364,736	27.16%	83,618	0.36%
Other	118,178	2.47%	238,689	4.75%	120,511	2.28%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons. Other total population is a calculated amount and does not include Hispanic or Latino Blacks population.

*The increase in percentage of the total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

B. Alabama – State Voting Age Population (VAP)

24. According to the decennial censuses of 2010 and 2020, Alabama’s Voting Age Population (VAP) grew from 3,647,277 to 3,917,166 persons—an increase of 7.40% —between 2010 and 2020.

25. As with the total population, from 2010 to 2020, the Black VAP also increased. From 2010 to 2020, the Black population grew from 917,500 to 1,014,372 (from 25.16% to 25.90%). Although the White VAP increased slightly from 2,530,761 persons in 2010 to 2,564,544 persons in 2020 – an increase of 33,783 persons. However, White VAP decreased as a percentage of the total VAP from 69.39% to 65.47% (see Table 2).

Table 2 – VAP by Race/Ethnicity (2010 - 2020) for Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	3,647,277	100.00%	3,917,166	100.00%	269,889	7.40%
Hispanic or Latino VAP	118,336	3.24%	166,856	4.26%	48,520	1.02%
White VAP	2,530,761	69.39%	2,564,544	65.47%	33,783	-3.92%
Black or African American VAP	917,500	25.16%	1,014,372	25.90%	96,872	0.74%
Other VAP	86,429	2.37%	179,683	4.59%	93,254	2.22%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons. Other VAP is a calculated amount and does not include Hispanic or Latino Blacks population.

*The increase in VAP from 2010 to 2020

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

C. Alabama – State Citizen Voting Age Population (CVAP)

26. According to the 2022 ACS 1-Year data, the Citizen Voting Age Population for the state of Alabama is 3,862,490 (See Table 3). Reviewing the 2022 1-Year ACS data shows that BCVAP for the state of Alabama was 989,181 (25.6%). White CVAP was 2,615,344 (67.7%).

Table 3 – CVAP by Major Race/Ethnicity (2022 1 Year ACS) for Alabama

Race/Ethnicity	2022 1 Year ACS	
	#	%
Total CVAP	3,862,490	100.0%
Hispanic or Latino (CVAP)	98,557	2.6%
White (CVAP)	2,615,344	67.7%
Black or African American (CVAP)	989,181	25.6%
Other CVAP	159,408	4.13%

Note: Race populations are Not Hispanic or Latino Alone (Single Race) while Hispanic or Latino includes all races. The Other CVAP is a calculated amount subtracting the race/ethnicities from the total.

Source: U.S. Census Bureau 2022 Alabama 1 Year ACS, Table S2901

D. Madison County, Alabama – Population

27. According to the decennial censuses of 2010 and 2020, Madison County’s total population grew from 334,811 to 388,153 persons—an increase of 15.93%—between 2010 and 2020. (see Table 4).

28. From 2010 to 2020, the Black population in Madison County also increased. During that span, the Black population grew from 83,918 to 99,875 (from 25.06% to 25.73%). Although the White population increased in population from 221,445 persons in 2010 to 237,497 persons in 2020 – an increase of 16,052 persons—the White population as a percentage of the total county population decreased from 66.14% to 61.19% (see Table 4). The Latino total population increased significantly from 2010 to 2020, growing from 15,404 to 26,936 (increasing from 4.60% and 6.42%).

Table 4 – Total Pop by Race/Ethnicity (2010 - 2020) for Madison County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total Population	334,811	100.00%	388,153	100.00%	53,342	15.93%
Hispanic or Latino	15,404	4.60%	24,936	6.42%	9,532	1.82%
White	221,445	66.14%	237,497	61.19%	16,052	-4.95%
Black or African American	83,918	25.06%	99,875	25.73%	15,957	0.67%
Other	14,044	4.19%	25,845	6.66%	11,801	2.46%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

29. According to the decennial censuses of 2010 and 2020, Madison County’s Voting Age

Population (VAP) grew from 255,321 to 304,143 persons—an increase of 19.12% —between 2010 and 2020.

30. As with the total population, from 2010 to 2020, the Black VAP in Madison County also

increased. From 2010 to 2020, the Black population grew from 60,945 to 74,617 (from 23.87% to 24.53%). Like the total population, the White VAP increased from 173,916 persons in 2010 to 193,636 persons in 2020 – an increase of 19,720 persons—yet the White VAP percentage decreased from 68.12% to 63.67% (see Table 5). The Latino VAP population increased similarly as the Latino total population from 2010 to 2020, growing from 10,176 to 16,137 (increasing from 3.99% and 5.31%).

Table 5 – VAP by Race/Ethnicity (2010 - 2020) for Madison County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	255,321	100.00%	304,143	100.00%	48,822	19.12%
Hispanic or Latino VAP	10,176	3.99%	16,137	5.31%	5,961	1.32%
White VAP	173,916	68.12%	193,636	63.67%	19,720	-4.45%
Black or African American VAP	60,945	23.87%	74,617	24.53%	13,672	0.66%
Other VAP	10,284	4.03%	19,753	6.49%	9,469	2.47%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in VAP from 2010 to 2020

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

31. According to the 2021 5-Year ACS data Madison County, Alabama’s CVAP is 289,290 persons (see Table 6). The Black CVAP totaled 69,555 persons or 24.04% of the county’s CVAP population. The Latino CVAP included 8,470 persons or 2.93% of the county’s CVAP population while the White CVAP was 197,040 persons or 68.11%. The Latino CVAP shows a substantial drop in percentage from the 5.31% contained in the Latino VAP.

Table 6 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Madison County, Alabama

	2021 5-Yr ACS	
	#	%
Total CVAP	289,290	100.00%
Hispanic or Latino CVAP	8,470	2.93%
White CVAP	197,040	68.11%
Black or African American CVAP	69,555	24.04%
Other CVAP	14,225	4.92%

Note: White and Black CVAP are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino CVAP includes all races of individuals who identify as Hispanic or Latino.

Source: U.S. Census Bureau 2021 5-Year ACS County CVAP data

E. Morgan County, Alabama – Population

32. According to the decennial censuses of 2010 and 2020, Morgan County’s total population grew from 119,490 to 123,421 persons—an increase of 3.29% —between 2010 and 2020. (see Table 7).

33. From 2010 to 2020, the Black population in Morgan County also increased. During that span, the Black population grew from 15,012 to 17,197 (from 12.56% to 13.93%). The White population decreased in population from 92,585 persons in 2010 to 88,238 persons in 2020 – a decrease of 4,347 persons (77.48% to 71.49%). The Latino total population increased significantly from 2010 to 2020, growing from 9,156 to 12,377 (increasing from 7.66% and 10.03%).

Table 7 – Total Pop by Race/Ethnicity (2010 - 2020) for Morgan County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total Population	119,490	100.00%	123,421	100.00%	3,931	3.29%
Hispanic or Latino	9,156	7.66%	12,377	10.03%	3,221	2.37%
White	92,585	77.48%	88,238	71.49%	-4,347	-5.99%
Black or African American	15,012	12.56%	17,197	13.93%	2,185	1.37%
Other	2,737	2.29%	5,609	4.54%	2,872	2.25%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

34. According to the decennial censuses of 2010 and 2020, Morgan County’s Voting Age

Population (VAP) grew from 90,866 to 95,485 persons—an increase of 5.08% —between 2010 and 2020.

35. As with the total population, from 2010 to 2020, the Black VAP in Morgan County also increased (see Table 8). From 2010 to 2020, the Black population grew from 10,301 to 12,209 (from 11.34% to 12.79%). Like the total population, the White VAP decreased from 72,958 persons in 2010 to 71,523 persons in 2020 – a decrease of 1,435 persons (80.29% to 74.90%). The Latino VAP population increased similarly as the Latino total population from 2010 to 2020, growing from 5,591 to 7,447 (increasing from 6.15% and 7.80%).

Table 8 – VAP by Race/Ethnicity (2010 - 2020) for Morgan County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	90,866	100.00%	95,485	100.00%	4,619	5.08%
Hispanic or Latino VAP	5,591	6.15%	7,447	7.80%	1,856	1.65%
White VAP	72,958	80.29%	71,523	74.90%	-1,435	-5.39%
Black or African American VAP	10,301	11.34%	12,209	12.79%	1,908	1.45%
Other VAP	2,016	2.22%	4,306	4.51%	2,290	2.29%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in VAP from 2010 to 2020

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

36. According to the 2021 5-Year ACS data Morgan County, Alabama’s CVAP is 289,290 persons (see Table 9). The Black CVAP totaled 69,555 persons or 24.04% of the county’s CVAP population. The Latino CVAP included 8,470 persons and 2.93% while the White CVAP was 197,040 persons or 68.11%. The Latino CVAP shows a substantial drop in percentage from the 5.31% contained in the Latino VAP.

Table 9 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Morgan County, Alabama

	2021 5-Yr ACS	
	#	%
Total CVAP	90,520	100.00%
Hispanic or Latino CVAP	2,745	3.03%
White CVAP	73,540	81.24%
Black or African American CVAP	11,555	12.77%
Other CVAP	2,680	2.96%

Note: White and Black CVAP are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino CVAP includes all races of individuals who identify as Hispanic or Latino.

Source: U.S. Census Bureau 2021 5-Year ACS County CVAP data

F. Limestone County, Alabama – Population

37. According to the decennial censuses of 2010 and 2020, Limestone County’s total population grew significantly from 82,782 to 103,570 persons—an increase of 25.11%—between 2010 and 2020. (see Table 10).

38. From 2010 to 2020, the Black population in Limestone County also increased. During that span, the Black population grew from 10,995 to 14,937 (from 13.28% to 14.42%). Although the White population increased in population from 65,112 persons in 2010 to 75,692 persons in 2020 – an increase of 10,580 persons—the White population as a percentage of the total county population decreased from 78.65% to 73.08% (see Table 9). The Latino total population increased significantly from 2010 to 2020, growing from 4,591 to 7,248 (increasing from 5.55% and 7.00%).

Table 10 – Total Pop by Race/Ethnicity (2010 - 2020) for Limestone County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total Population	82,782	100.00%	103,570	100.00%	20,788	25.11%
Hispanic or Latino	4,591	5.55%	7,248	7.00%	2,657	1.45%
White	65,112	78.65%	75,692	73.08%	10,580	-5.57%
Black or African American	10,995	13.28%	14,937	14.42%	3,942	1.14%
Other	2,084	2.52%	5,693	5.50%	3,609	2.98%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

39. According to the decennial censuses of 2010 and 2020, Limestone County’s Voting Age

Population (VAP) grew from 62,923 to 79,718 persons—an increase of 26.69% —between 2010 and 2020. (see Table 11)

40. As with the total population, from 2010 to 2020, the Black VAP in Limestone County also increased. From 2010 to 2020, the Black population grew from 8,228 to 11,145 (from 13.08% to 13.98%). Like the total population, the White VAP increased from 50,505 persons in 2010 to 60,128 persons in 2020 – an increase of 9,623 persons—yet the White VAP percentage decreased from 80.26% to 75.43% (see Table 5). The Latino VAP population increased similarly as the Latino total population from 2010 to 2020, growing from 2,708 to 4,294 (increasing from 4.30% and 5.39%).

Table 11 – VAP by Race/Ethnicity (2010 - 2020) for Limestone County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	62,923	100.00%	79,718	100.00%	16,795	26.69%
Hispanic or Latino VAP	2,708	4.30%	4,294	5.39%	1,586	1.08%
White VAP	50,505	80.26%	60,128	75.43%	9,623	-4.84%
Black or African American VAP	8,228	13.08%	11,145	13.98%	2,917	0.90%
Other VAP	1,482	2.36%	4,151	5.21%	2,669	2.85%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in VAP from 2010 to 2020

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

41. According to the 2021 5-Year ACS data Limestone County, Alabama’s CVAP is 77,010 persons (see Table 12). The Black CVAP totaled 10,930 persons or 14.19% of the county’s CVAP population. The Latino CVAP included 2,655 persons and 3.45% while the White CVAP was 60,830 persons or 78.99%.

Table 12 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Limestone County, Alabama

	2021 5-Yr ACS	
	#	%
Total CVAP	77,010	100.00%
Hispanic or Latino CVAP	2,655	3.45%
White CVAP	60,830	78.99%
Black or African American CVAP	10,930	14.19%
Other CVAP	2,595	3.37%

Note: White and Black CVAP are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino CVAP includes all races of individuals who identify as Hispanic or Latino.

Source: U.S. Census Bureau 2021 5-Year ACS County CVAP data

G. Montgomery County, Alabama – Population:

42. According to the decennial censuses of 2010 and 2020, Montgomery County’s total population fell from 229,363 to 228,954 persons—a decrease of -0.18%—between 2010 and 2020. (see Table 13).

43. However, from 2010 to 2020, Montgomery County’s Black and Latino populations increased. During that span, the Latino population grew from 8,314 to 10,684 persons (from 3.62% to 4.67%) and the Black population²⁹ grew from 127,181 to 134,029 (from 55.45% to 58.54%). The White population decreased from 88,099 persons in 2010 to 73,354 persons in 2020 – a decrease of 14,745 persons, from 38.41% to 32.04% (see Table 7).

Table 13 – Total Pop. by Race/Ethnicity (2010 - 2020) for Montgomery County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total	229,363	100.00%	228,954	100.00%	-409	-0.18%
Hispanic or Latino	8,314	3.62%	10,684	4.67%	2,370	1.04%
White	88,099	38.41%	73,354	32.04%	-14,745	-6.37%
Black or African American	127,181	55.45%	134,029	58.54%	6,848	3.09%
Other	5,769	2.52%	10,887	4.76%	5,118	2.24%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

*The increase in total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

44. According to the decennial census of 2010 and 2020, Montgomery County’s VAP grew from 173,196 to 177,427 persons—an increase of 2.44% — between 2010 and 2020 (see Table 8).

²⁹ Any Part Black percentage.

45. As with the total population, from 2010 to 2020, the BVAP also increased in Montgomery County. From 2010 to 2020, the BVAP grew from 91,151 to 99,936 (from 52.63% to 56.33%). However, the White VAP decreased from 72,450 persons in 2010 to 62,431 persons in 2020 – a decrease of 10,019 persons—from 41.83% to 35.19%.

Table 14 – VAP by Race/Ethnicity (2010 - 2020) for Montgomery County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	173,196	100.00%	177,427	100.00%	4,231	2.44%
Hispanic or Latino VAP	5,491	3.17%	6,663	3.76%	1,172	0.58%
White VAP	72,450	41.83%	62,431	35.19%	-10,019	-6.64%
Black or African American VAP	91,151	52.63%	99,936	56.33%	8,785	3.70%
Other VAP	4,104	2.37%	8,397	4.73%	4,293	2.36%

Note: Black population refers to the “Any Part” Race. White population is Not Hispanic or Latino Alone.

*The increase in VAP from 2010 to 2020. Hispanic or Latino population includes all races and like the “Any Part” Black population also includes Black Hispanic or Latino persons.

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

46. According to the 2021 5-Year ACS data Montgomery County, Alabama’s CVAP is 168,675 persons (see Table 15). The BCVAP totaled 99,485 persons or 58.98% of the Montgomery’s CVAP. The Latino CVAP included 2,145 persons and was 1.27% while the White CVAP was 61,860 persons or 36.67%.

Table 15 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Montgomery County, Alabama

Race/Ethnicity	2021 5-Yr ACS	
	#	%
Total CVAP	168,675	100.00%
Hispanic or Latino CVAP	2,145	1.27%
White CVAP	61,860	36.67%
Black or African American CVAP	99,485	58.98%
Other CVAP	5,185	3.07%

Note: White and Black CVAP are Not Hispanic or Latino Alone (Single Race). Latino includes all races.
Source: U.S. Census Bureau 2021 5-Year ACS County CVAP data

H. Crenshaw County, Alabama – Population

47. According to the decennial censuses of 2010 and 2020, Crenshaw County’s total population decreased from 13,906 to 13,194 persons—a decrease of 712 persons or 5.12%—between 2010 and 2020. (see Table 16).

48. From 2010 to 2020, the Black population in Crenshaw County increased (see Table 10).

During that span, the Black population grew from 3,356 to 3,360 (from 24.13% to 25.47%).

The White population decreased in population from 10,020 persons in 2010 to 9,333 persons in 2020 – a decrease of 687 persons (72.06% to 70.74%). The Latino total population decreased as well from 2010 to 2020, decreasing from 204 to 187 (decreasing from 1.47% and 1.42%).

Table 16 – Total Pop by Race/Ethnicity (2010 - 2020) for Crenshaw County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total Population	13,906	100.00%	13,194	100.00%	-712	-5.12%
Hispanic or Latino	204	1.47%	187	1.42%	-17	-0.05%
White	10,020	72.06%	9,333	70.74%	-687	-1.32%
Black or African American	3,356	24.13%	3,360	25.47%	4	1.33%
Other	326	2.34%	314	2.38%	-12	0.04%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race).

*The increase in total population from 2010 to 2020

Source: U.S. Census Bureau PL94-171 Alabama data for 2010, 2020

49. According to the decennial censuses of 2010 and 2020, Crenshaw County’s Voting Age

Population (VAP) decreased from 10,598 to 10,360 persons—a decrease of 2.25% —
between 2010 and 2020.

50. As with the total population, from 2010 to 2020, the Black VAP in Crenshaw County

increased (see Table 17). From 2010 to 2020, the Black population grew from 2,430 to 2,517
(from 22.93% to 24.30%). Like the total population, the White VAP decreased from 7,781
persons in 2010 to 7,477 persons in 2020 – a decrease 304 persons (73.42% to 72.17%). The
Latino VAP population decreased similarly as the Latino total population from 2010 to 2020,
growing from 149 to 119 (decreasing from 1.41% and 1.15%).

Table 17 – VAP by Race/Ethnicity (2010 - 2020) for Crenshaw County, Alabama

Race/Ethnicity	2010		2020		Inc/Dec*	
	#	%	#	%	#	%
Total VAP	10,598	100.00%	10,360	100.00%	-238	-2.25%
Hispanic or Latino VAP	149	1.41%	119	1.15%	-30	-0.26%
White VAP	7,781	73.42%	7,477	72.17%	-304	-1.25%
Black or African American VAP	2,430	22.93%	2,517	24.30%	87	1.37%
Other VAP	238	2.25%	247	2.38%	9	0.14%

Note: Black population refers to the “Any Part” Race category. White populations are Not Hispanic or Latino Alone (Single Race).

*The increase in VAP from 2010 to 2020

Source: U.S. Census Bureau PL94-171 data for 2010, 2020

51. According to the 2021 5-Year ACS data Crenshaw County, Alabama’s CVAP is 10,160 persons (see Table 18). The Black CVAP totaled 2,540 persons or 25.00% of the county’s CVAP population. The Latino CVAP included only 50 persons and 0.49% while the White CVAP was 7,350 persons or 72.34%.

Table 18 – CVAP by Race/Ethnicity (2021 5-Yr ACS) for Crenshaw County, Alabama

	2021 5-Yr ACS	
	#	%
Total CVAP	10,160	100.00%
Hispanic or Latino CVAP	50	0.49%
White CVAP	7,350	72.34%
Black or African American CVAP	2,540	25.00%
Other CVAP	220	2.17%

Note: White and Black CVAP are Not Hispanic or Latino Alone (Single Race). Hispanic or Latino CVAP includes all races of individuals who identify as Hispanic or Latino.

Source: U.S. Census Bureau 2021 5-Year ACS County CVAP data

VII. Illustrative Plan

A. Illustrative Plan Introduction

52. To develop the Illustrative Plan, I used the Enacted Plan as a starting point. Twenty of the 35 state senate districts in the Illustrative Plan are identical to those in the Enacted Plan (see Appendix C). Eleven additional districts are between 50.00% and 99.66% of the Enacted Plan's population contained within the districts. Only four districts in the Illustrative Plan have less than 50% of the corresponding Enacted Plan's district. However, the Illustrative Plan shows that it is possible to draw a plan with additional majority Black state senate districts (see Figure 1), particularly in the Montgomery and Huntsville areas, while prioritizing compactness, contiguity, respect for political subdivisions, and objective factors identifying communities of interest.

Alabama State Senate Districts Illustrative Plan



Figure 1 – Illustrative Plan for Alabama’s State Senate Districts

53. The resulting configuration and demographic data for the Illustrative Plan demonstrates that Alabama can create two additional majority Black state senate districts beyond those in the Enacted Plan while adhering to traditional redistricting criteria and meeting or beating the Enacted Plan on these criteria.

B. Illustrative Plan - Equal Population (Population Deviation)

54. The Illustrative Plan falls within the acceptable deviation of +/-5% for each district and an overall range less than 10% with an overall percentage of 9.73% (See Table 20).

Table 20 – Population Dev. for Illustrative Plan for AL Senate Districts

District	Population	Deviation	% Devn.
1	150,324	6,773	4.72%
2	150,216	6,665	4.64%
3	145,833	2,282	1.59%
4	140,747	-2,804	-1.95%
5	137,763	-5,788	-4.03%
6	147,129	3,578	2.49%
7	137,221	-6,330	-4.41%
8	149,752	6,201	4.32%
9	150,566	7,015	4.89%
10	150,286	6,735	4.69%
11	149,539	5,988	4.17%
12	150,048	6,497	4.53%
13	149,072	5,521	3.85%
14	148,144	4,593	3.20%
15	147,950	4,399	3.06%
16	143,702	151	0.11%
17	146,786	3,235	2.25%
18	138,146	-5,405	-3.77%
19	136,601	-6,950	-4.84%
20	138,987	-4,564	-3.18%
21	143,889	338	0.24%
22	136,607	-6,944	-4.84%
23	141,391	-2,160	-1.50%
24	140,966	-2,585	-1.80%
25	137,414	-6,137	-4.28%
26	136,855	-6,696	-4.66%

Table 20 – Population Dev. for Illustrative Plan for AL Senate Districts

District	Population	Deviation	% Devn.
27	148,431	4,880	3.40%
28	147,002	3,451	2.40%
29	142,364	-1,187	-0.83%
30	141,406	-2,145	-1.49%
31	137,028	-6,523	-4.54%
32	150,428	6,877	4.79%
33	136,593	-6,958	-4.85%
34	138,149	-5,402	-3.76%
35	136,944	-6,607	-4.60%
Absolute Range:			-6,958 to 7,015
Absolute Overall Range:			13,973
Relative Range:			-4.85% to 4.89%
Relative Overall Range:			9.73%

Source: U.S. Census Bureau 2020 Data for the Illustrative Plan exported from Maptitude

C. Illustrative Plan – Adherence to Section 2 of the Voting Rights Act and the U.S. Constitution (Majority Black Districts)

55. The Illustrative Plan avoids violating the Constitution or potentially running afoul of Section 2 of the VRA, as it includes two additional majority Black Senate Districts that adhere to traditional redistricting criteria without eliminating any of the eight existing majority Black Senate Districts, and the Illustrative Plan did not prioritize race over other factors. (See the section below on *Gingles I Analysis* for a detailed analysis of the majority Black districts.)

Senate District 7

56. Illustrative Plan's Senate District 7 is a new majority Black district in northern Alabama. The Illustrative Plan's SD7 connects the core of Huntsville in the northeast of the district to a substantial portion of the city of Decatur in the southwest (see Figure 2). The southern end of SD7 follows the natural boundary of the Tennessee River from the Redstone Arsenal to the city of Decatur.

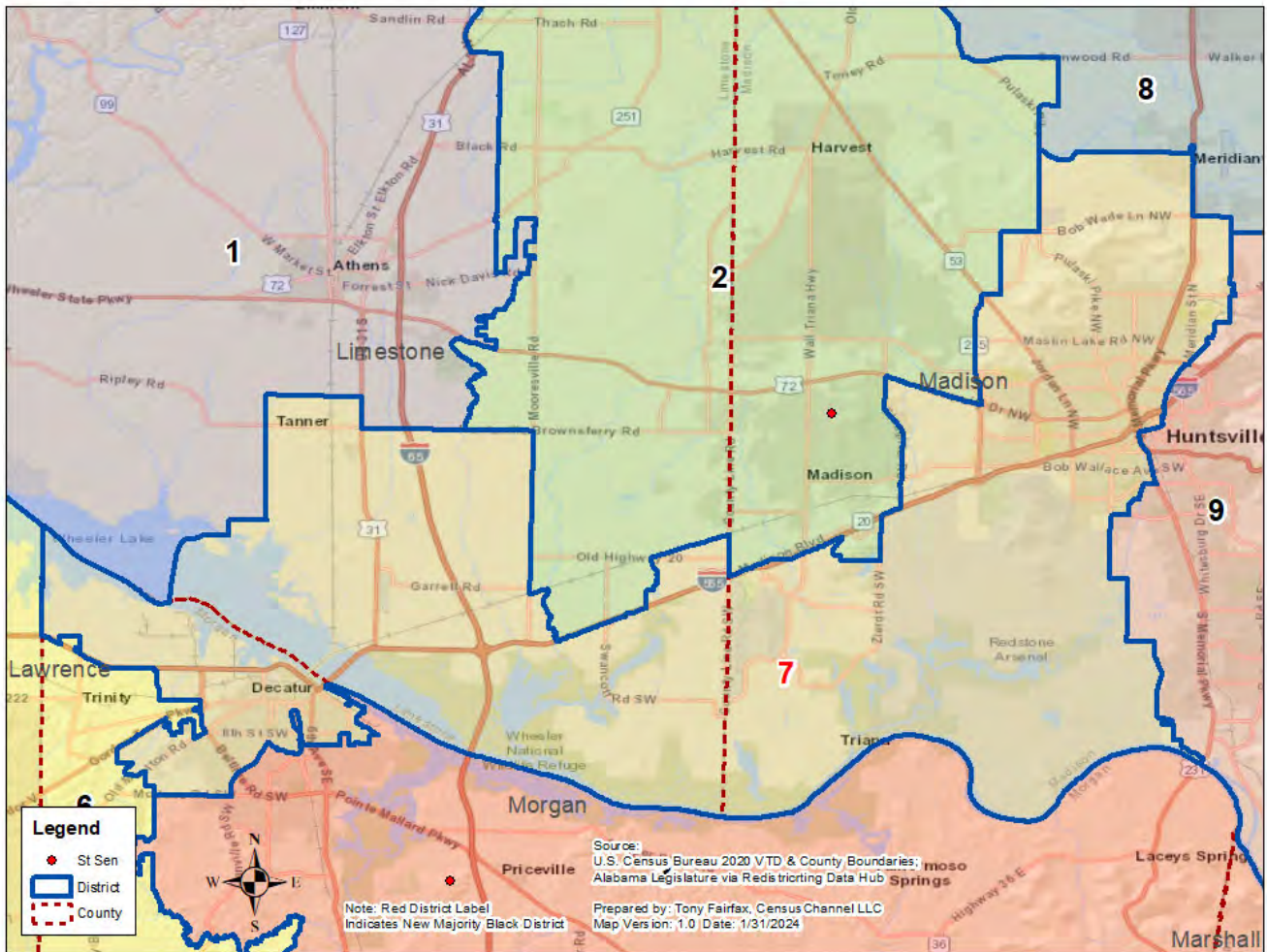


Figure 2 – Illustrative Plan's State Senate District 7 Zoom

57. The district wholly encompasses the towns of Triana and Mooresville and the CDP of Redstone Arsenal (see Appendix B). The Illustrative Plan's SD7 also contains a small portion of the city of Athens and Madison (with populations of 362 and 117 persons, respectively). Athens and Madison have small geographic areas that extend into the VTDs included in SD7. Thus, adding these VTDs necessarily adds these small geographic areas. Finally, there are two zero populated census blocks that are part of the town of Trinity. The two census blocks are once again also part of a VTD that has been added to SD7.

58. Almost half (47.9%) of the city of Decatur is contained within the Illustrative Plan's SD7 with only whole VTDs added (see Appendix C). Huntsville and Decatur are part of the third largest Combined Statistical Area (CSA) within the state of Alabama. It is important to note that the entire city of Decatur could not be added without substantially decreasing another portion of SD7 in order to meet the equal population guidelines.
59. Although SD7 crosses the Tennessee River in Decatur, the district boundaries bring together the northern part of the city of Decatur, located in Limestone County with the southern portion located in Morgan County. The two parts of the city and district are connected by the river and by Bee Line Highway. A sizable portion of the SD7 community in Decatur on the Morgan County side, has a similar socioeconomic makeup (i.e., median household income and median housing values) as another sizable area within SD7 that exists in the city of Huntsville (see the socioeconomic maps in Appendix E).
60. Finally, one of the notable communities of interest area that is included in the Illustrative Plan's majority Black SD7 is Alabama A&M University. Alabama A&M University is the state's largest Historically Black College and University (HBCU). The school has over 6,000 undergraduate, graduate, and doctoral students and the Illustrative Plan keeps the entire campus whole within SD7.³⁰ In the Enacted Plan Alabama A & M was wholly contained within SD8, which is a more rural district and has less communities in common than the more urban areas of SD7 in the Illustrative Plan.

³⁰ The U.S. Census Bureau geographic landmark area file that is included with the Maptitude application has a sliver of area that overlaps the boundaries of Alabama A & M University with SD9. Thus, the report shows a zero populated split for the university.

Senate District 25

61. The Illustrative Plan's SD25 is wholly contained within two counties, Montgomery, and Crenshaw (see Appendix B). The Illustrative Plan's SD25 configuration extends from the south with Crenshaw and follows similarly north as the Enacted Plan in SD25. However, the Enacted Plan's SD25 stretches to three counties, Crenshaw, Montgomery, and Elmore (see Appendix B), while the Illustrative Plan includes only two (see Figure 3). Consequently, the Illustrative Plan's SD25 is more compact than the Enacted Plan's SD25 using three different measures (see Table 13). And the Illustrative Plan's SD25 splits fewer counties and outperforms the Enacted Plan's SD25 with the criterion on the number of counties contained within the district.

62. The Illustrative Plan's SD25 wholly contains seven census places: the towns of Brantley, Dozier, Glenwood, Petrey, Pike Road, Rutledge, and the city of Luverne. Almost half (49.69%) of the city of Montgomery is contained within the Illustrative Plan's SD25 (see Appendix B) with the remaining portion in SD26. In SD25 in the Illustrative Plan, the town of Pike Road is made whole, unlike in the Enacted Plan, which splits the town between SD25 and SD26. Illustrative Plan's SD25 removes all areas in Elmore County and compensates for the loss by adding additional parts of the city of Montgomery, as well as nearby suburban and rural areas.

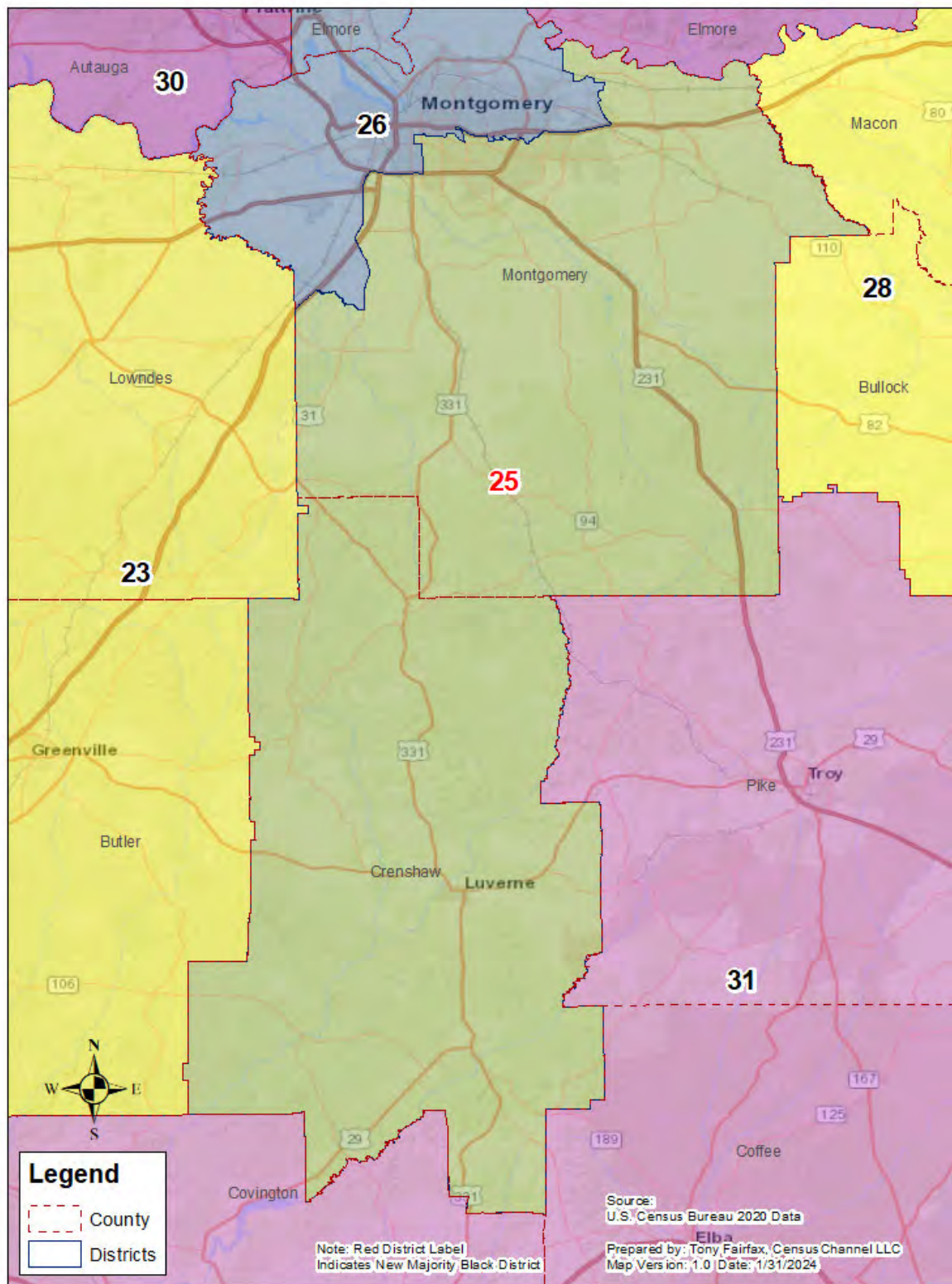


Figure 3 – Illustrative Plan’s State Senate District 25 Zoom

D. Illustrative Plan - Contiguity

63. The Illustrative Plan includes all contiguous districts. However, the Enacted Plan includes a point contiguous area as part of SD8.³¹ Since the Illustrative Plan used the Enacted Plan as a starting point to minimize differences, that point contiguity is replicated in the Illustrative Plan.

E. Illustrative Plan - Compactness

64. The Illustrative Plan's districts are reasonably geographically compact. See the section below on *Gingles I Analysis* for a detailed analysis of the compactness of the Illustrative Plan's districts.

F. Illustrative Plan – Respect for Communities of Interest/Political Subdivisions

65. The Illustrative Plan sufficiently preserves census places to include cities, towns, and Census Designated Places. Since the Illustrative Plan utilizes the Enacted Plan as a starting point, the number of split cities, towns, and CDPs are similar. The Illustrative Plan splits only five more census places (cities, town, and CDPs) than the Enacted Plan. The Illustrative Plan splits 105 while the Enacted Plan splits 100 (see Appendix C).

66. When reviewing Landmark Areas (to include COIs such as colleges & universities, military bases, and airports) the Illustrative Plan splits fewer of these geographic areas than the Enacted Plan. The Illustrative Plan splits 93 Landmark Areas while the Enacted Plan splits 99 (see Appendix C).

³¹ Census Blocks 010719507003083, 010719507003081, 010719507003080, 010719507003084, 010719507003082 are contained within an area that is point contiguous for the Enacted and Illustrative Plans.

67. The Illustrative Plan minimizes political subdivision splits. The Illustrative Plan splits only 11 VTDs while the Enacted Plan splits 13 (see Appendix C).

68. The Illustrative Plan minimizes county splits. Both the Illustrative Plan and the Enacted Plan split 19 counties (see Appendix C).

G. Illustrative Plan – Preserve District Cores

69. The Illustrative Plan used the Enacted Plan as a baseline starting point, with the goal to answer the *Gingles* 1 test but still minimize differences between the two maps and thus replicate the Enacted Plan’s district cores and existing boundaries to the extent feasible.³²

70. As previously referenced, twenty of the 35 state senate districts of the Illustrative Plan are identical to the Enacted Plan’s. Eleven additional districts include between 53.88% and 99.66% of the Enacted Plan’s districts. Only four districts in the Illustrative Plan have less than 50% of the correlated Enacted Plan’s district.

H. Illustrative Plan – Incumbent Pairing

71. The Illustrative Plan performs satisfactorily when minimizing incumbent pairings. The Illustrative Plan only pairs two incumbents in one district (SD9). The Enacted Plan does not pair any incumbents.

³² The Enacted Plan largely preserved district cores, as a result of using that plan as a starting point, so does the Illustrative plan. Accordingly, both the Illustrative and Enacted Plans are largely comparable in their preservation of the district cores of the previous plan configuration used in 2020 (the original 2010 plan had been altered due to litigation).

VIII. *Gingles* 1 Analysis

72. *Thornburg v. Gingles*, 478 U.S. 30, 50-51 (1986) established that the plaintiffs in a Section 2 minority vote dilution case must show that the minority group “is sufficiently large and geographically compact to constitute a majority in a single-member district.” In my opinion, the Illustrative Plan meets both components³³ of the first precondition of *Gingles*.

A. Illustrative Plan Districts – “Sufficiently Large” (Majority-Black Districts)

Introduction

73. The first component of the first precondition of *Gingles* requires demonstrating that one or more majority-minority districts can be developed in which the minority population is “sufficiently large” to constitute a majority. For this analysis, I show that two additional majority-Black senate districts can be created in Alabama, beyond those in the Enacted Plan. The term “majority” under the context of this Illustrative Plan means greater than 50% CVAP for the Black population within the district.³⁴

74. All of the Illustrative Plan’s majority-Black state senate districts, with the exception of SD7, are majority Black using VAP and CVAP. However, further analysis is needed to determine whether only CVAP could be used as the racial population group to determine majority Black status for SD7. The central determinant for using CVAP centers on the fact that the VAP data from the 2020 Census includes both citizens and noncitizens above the age of 18 years. In many instances, VAP may be an adequate population group to determine majority

³³ Using BVAP and BCVPAP for all districts except for SD7, as the determinant of majority Black status for the sufficiently large component of the first precondition of *Gingles*. SD7 used BCVPAP as the determinant of majority Black status for the first component of the first precondition of *Gingles*.

³⁴ *League of United Latin Am. Citizens v. Perry*, 548 U.S. 399, 427 (2006).

minority status of the voters within a district. However, when a meaningful number of noncitizens are present, CVAP, which only includes citizens, becomes a more appropriate racial population group to determine the majority of “eligible” voters (because noncitizens are not eligible to vote and when there is a significant amount, they should be removed from the analyzed population group). Thus, CVAP represents a more accurate population group that only includes citizens above the age of 18 years. Consequently, in my opinion, CVAP and in particular BCVAP the racial population group when considering majority Black status for SD7 since the district contains areas with a significant population of noncitizens.

75. Specifically, the two counties (Madison and Morgan Counties) that make up most of SD7 have a significant number of noncitizens. Madison County has the second largest population of noncitizens VAP in Alabama with 9,591 persons (3.13% of the county) while Morgan County has the ninth largest with 4,205 persons but one of the highest percentages at 4.43% of the county. See Appendix E for detailed tables.

76. In addition, the Black noncitizens VAP make up a lower percentage than their total VAP counterpart. According to the 2022 5-Year ACS data, there were 906 Black³⁵ VAP noncitizens in Madison County out of 9,591 total noncitizens or only 9.45%. This lower percentage of noncitizen VAP is another indicator that BCVAP should be used and will be a more accurate depiction of the eligible Black voting population contained within Madison County.

³⁵ The noncitizen VAP consists of Black Alone population which also includes Hispanic or Latino population.

77. Morgan County has an even more stark difference when considering the noncitizen population. According to the 2022 5-Year ACS data, there were only 11³⁶ Black³⁷ noncitizen VAP in Madison County out of a total of 4,205 or 0.26%. This is an even greater significant drop than Madison County from the 12.77% BCVP for the county (see Appendix D). Thus, once again, BCVP reflects a more accurate depiction of the eligible Black voting population contained within Madison County.

78. Similarly, the two major cities (Huntsville and Decatur) that make up SD7 also have a significant number of noncitizens. The city of Huntsville has the largest population of noncitizens in the state of Alabama with 6,517 persons (or 3.76% of the city) while the city of Decatur has the sixth with 2,874 persons (6.56% of the city). See Appendix D for detailed tables.

79. Given the magnitude of noncitizens within the counties and major cities of SD7, CVAP is an appropriate racial population group to determine majority Black status for the district.

Majority Black Districts

80. According to 2020 Census data, the state of Alabama had a BVAP of 25.68%. In addition, the 2022 1-Year ACS data yielded a BCVP percentage of 25.6% (*See* Tables 1 and 2). The State's BVAP and BCVP, which are both over a quarter of the population, are sufficiently large and compact enough to draw a plan that includes ten majority BCVP districts out of the thirty-five and meet the first component of the first *Gingles* precondition (see Table 21).

³⁶ Even when the highest margin of error value is considered, the total for Monroe County is only 59 Black VAP noncitizens.

³⁷ This consists of Black Alone population which includes Hispanic or Latino population.

81. SD7 contained within the Illustrative Plan has a BCVAP of 50.16%. The Illustrative Plan also contains SD25 with a BCVAP of 55.42%. The other eight majority Black state senate districts within the Illustrative Plan, which were also contained within the Enacted Plan, are greater than 50% BCVAP as well.

Table 21 – Illustrative Plan’s Senate District’s Race/Ethnicity%

District	CVAP	Latino CVAP	White CVAP	Other CVAP	Black CVAP
1	117,202	2.17%	85.44%	1.51%	10.88%
2	108,165	2.99%	72.48%	3.57%	20.96%
3	103,054	4.18%	88.97%	2.03%	4.82%
4	107,955	1.83%	94.39%	1.65%	2.13%
5	103,936	0.77%	91.06%	0.97%	7.20%
6	110,496	2.96%	82.35%	3.84%	10.85%
7	100,955	4.39%	43.35%	2.10%	50.16%
8	111,439	2.09%	88.39%	4.06%	5.46%
9	115,112	2.55%	84.57%	3.86%	9.02%
10	114,137	2.20%	83.59%	1.54%	12.67%
11	112,612	1.45%	76.08%	1.14%	21.33%
12	114,509	1.84%	74.09%	1.67%	22.40%
13	114,688	1.81%	73.75%	0.91%	23.53%
14	108,217	3.16%	79.17%	1.62%	16.05%
15	104,891	1.97%	86.85%	1.28%	9.90%
16	106,062	2.20%	77.44%	3.93%	16.43%
17	110,597	2.38%	88.32%	1.77%	7.53%
18	108,497	2.11%	39.22%	1.88%	56.79%
19	106,099	0.84%	36.26%	0.43%	62.47%
20	101,785	1.74%	31%	0.45%	66.81%
21	106,951	2.03%	72.94%	1.53%	23.50%
22	106,180	1.98%	75.44%	3.84%	18.74%
23	110,200	0.34%	42.39%	0.90%	56.37%
24	112,244	1.26%	39.12%	0.92%	58.70%
25	99,126	0.85%	41.76%	1.97%	55.42%
26	104,388	1.78%	41.95%	1.53%	54.74%
27	111,290	2.53%	71.51%	2.28%	23.68%
28	112,690	2.53%	42.38%	1.40%	53.69%
29	108,011	3.16%	76.85%	2.02%	17.97%
30	107,125	1.57%	76.04%	1.35%	21.04%
31	103,932	3.03%	73.53%	1.80%	21.64%

Table 21 – Illustrative Plan’s Senate District’s Race/Ethnicity%

District	CVAP	Latino CVAP	White CVAP	Other CVAP	Black CVAP
32	112,751	3.05%	86.99%	2.14%	7.82%
33	104,459	1.54%	32.81%	1.52%	64.13%
34	101,688	2.46%	70.21%	3.15%	24.18%
35	101,477	2.23%	76.86%	3.90%	17.01%

Note: Bold text represents a majority Black state senate district. Shaded cells represent a new majority Black district.
Source: U.S. Census Bureau 2021 5-Year ACS Data of Illustrative Plan Maptitude Reports

82. The resulting demographic data for the Illustrative Plan demonstrates that the first component of the first precondition of *Gingles* has been satisfied. In other words, the Alabama state senate district map can contain ten districts³⁸ with a majority BCVAP and adhere to federal and state redistricting criteria.

B. Illustrative Plan Districts - “Geographically Compact” (Compactness Analysis)

83. The second component of the first *Gingles* precondition is to show that the majority-minority districts are “geographically compact.” Various measures have been developed to quantify a district’s and a plan’s compactness.

84. All of the majority Black state senate districts within the Illustrative Plan are reasonably compact. I used three measures to determine compactness: Reock, Polsby-Popper, and Convex Hull. As mentioned before, each measure indicates a more compact district as the value moves closer to 1. Viewing the compactness measures of a particular plan itself provides some context to the compactness of the plan. An experienced map drawer can glean some insight into a plan’s compactness by only viewing the measurements of the plan itself. However, a comparative analysis with one or more plans is desirable when determining

³⁸ The Illustrative Plan contains nine state senate districts with a majority BVAP.

whether a plan is sufficiently compact. Preferably, a plan should be compared to a previously enacted plan that has been approved. Thus, Table 22 compares the compactness measures of the Illustrative Plan and the Enacted Plan in three different ways.

85. One of the methods of comparing compactness between two plans is to compare district-by-district. Using this method, the Illustrative Plan has nine districts that are more compact than their Enacted Plan counterparts, while the Enacted Plan has five districts that are more compact than the analogous districts in the Illustrative Plan.³⁹

86. Even when comparing district by district for the ten majority Black districts in the Illustrative Plan with the analogous districts in the Enacted Plan, two of the districts are more compact than the Enacted Plan's (i.e., the additional majority Black districts SD7 and SD25). Only one of the Enacted Plans majority Black districts is more compact than the Illustrative Plan's. Finally, six of the Illustrative Plan's majority Black districts are equal in compactness to the Enacted Plan's.

87. Comparing the mean (i.e., the average) of the plans' district compactness measurements, the Illustrative Plan fairs very close to the Enacted Plan. However, the Enacted Plan's means are slightly more compact than the Illustrative Plan's for all three compactness measures (Reock, Polsby-Popper, Convex Hull). The difference between the means for the two plans is either .01 for the Polsby-Popper and Convex Hull measures and .02 for the Reock measure. Thus, comparing the means, the Illustrative and Enacted Plans are similarly compact.

³⁹ When using three compactness measures, a district is considered to be more compact when two or more of the three measures are more compact.

Table 22 – Alabama Senate Districts’ Illustrative/Enacted Plan Compactness Measures

	Reock		Polsby-Popper		Area/Convex Hull		
District	Illustrative	Enacted	Illustrative	Enacted	Illustrative	Enacted	More Compact
1	0.22	0.21	0.30	0.29	0.77	0.78	Illustrative
2	0.54	0.63	0.37	0.37	0.85	0.82	Equal
3	0.28	0.62	0.17	0.54	0.68	0.92	Enacted
4	0.26	0.26	0.33	0.33	0.84	0.84	Equal
5	0.57	0.57	0.38	0.38	0.84	0.84	Equal
6	0.41	0.43	0.42	0.44	0.90	0.83	Enacted
7	0.31	0.26	0.16	0.14	0.58	0.59	Illustrative
8	0.41	0.53	0.29	0.35	0.77	0.87	Enacted
9	0.33	0.48	0.18	0.21	0.68	0.67	Enacted
10	0.41	0.44	0.30	0.28	0.79	0.74	Illustrative
11	0.33	0.32	0.13	0.12	0.58	0.56	Illustrative
12	0.19	0.19	0.16	0.16	0.62	0.62	Equal
13	0.30	0.30	0.27	0.27	0.71	0.71	Equal
14	0.49	0.48	0.34	0.29	0.81	0.82	Illustrative
15	0.53	0.53	0.17	0.16	0.71	0.71	Illustrative
16	0.50	0.50	0.20	0.20	0.74	0.74	Equal
17	0.47	0.46	0.16	0.13	0.73	0.73	Illustrative
18	0.26	0.26	0.23	0.23	0.70	0.70	Equal
19	0.37	0.37	0.20	0.20	0.76	0.76	Equal
20	0.43	0.43	0.18	0.18	0.69	0.69	Equal
21	0.29	0.29	0.17	0.17	0.63	0.63	Equal
22	0.30	0.30	0.12	0.12	0.54	0.54	Equal
23	0.57	0.57	0.29	0.29	0.79	0.79	Equal
24	0.39	0.39	0.37	0.37	0.88	0.88	Equal
25	0.32	0.24	0.23	0.14	0.77	0.65	Illustrative
26	0.37	0.50	0.19	0.18	0.67	0.76	Enacted
27	0.27	0.27	0.21	0.21	0.59	0.59	Equal
28	0.42	0.42	0.25	0.25	0.72	0.72	Equal
29	0.33	0.33	0.28	0.28	0.75	0.75	Equal
30	0.47	0.44	0.23	0.23	0.72	0.70	Illustrative
31	0.44	0.44	0.22	0.22	0.70	0.70	Equal
32	0.46	0.46	0.34	0.34	0.81	0.81	Equal
33	0.38	0.38	0.21	0.21	0.64	0.64	Equal
34	0.48	0.48	0.26	0.26	0.84	0.84	Equal
35	0.56	0.56	0.42	0.42	0.88	0.88	Equal
Mean	0.39	0.41	0.25	0.26	0.73	0.74	Enacted

Table 22 – Alabama Senate Districts’ Illustrative/Enacted Plan Compactness Measures

	Reock		Polsby-Popper		Area/Convex Hull		
District	Illustrative	Enacted	Illustrative	Enacted	Illustrative	Enacted	More Compact
Min	0.26	0.19	0.16	0.12	0.58	0.54	Illustrative

Note: Bold text represents a majority Black state senate district. Shaded cells represent a new majority Black district.

Source: Alabama State Senate Illustrative Plan data from Maptitude for Redistricting Compactness Report

88. Third, reviewing the majority Black Districts 7, 18, 19, 20, 23, 24, 25, 26, 28, and 33 in the Illustrative Plan shows that each is more compact than the least compact district in the Enacted Plan. For instance, the Enacted Plan has 0.19, 0.12, and 0.54 as the lowest compactness measures for Reock, Polsby-Popper, and Convex Hull, respectively. All of the Illustrative Plan’s majority Black districts have higher or more compact measures than those corresponding minimum values. The least compact measures for the Illustrative Plan’s majority Black districts are .26, .16, and .58 for the measures for Reock, Polsby-Popper, and Convex Hull, respectively.

89. Fourth, both of the new majority Black Districts, SD7 and SD25 are more compact than their numeric counterparts in the Enacted Plan. SD25 was more compact for all measures while SD7 was more compact for Reock and Polsby-Popper. Thus, the compactness analysis results clearly show that the Illustrative Plan satisfies the “Geographically Compact” component of the first precondition of *Gingles*.

IX. Comparative Analysis with the Enacted Plan

90. The results from my analysis reveal that the Illustrative Plan contains reasonably configured majority-Black districts. Among other considerations, the Illustrative Plan fares equal to or better than the Enacted Plan using the state’s redistricting criteria (*See* Table 23).

Table 23 – Illustrative Plan and Enacted Plans’ Criteria Comparison

Criteria	Illustrative Plan	Enacted Plan	Best Criteria
U.S. Constitution, Alabama Constitution, and the Federal Voting Rights Act - Section 2 (<i>Gingles</i> Prong 1)	10 Maj Black	8 Maj Black	Illustrative
Equal Population	Y (9.73%)	Y (9.97%)	Illustrative
Contiguity	Y	Y	Same
Compactness [^] - Plan Mean - District by District - Comparing Maj Black Districts - Minimum Enacted Plan Values: Compared to 10 Maj Black SDs	.39 .25 .73 9 of 35 2 10 of 10	.41 .26 .74 5 of 35 1 0 of 10	Illustrative
Respect COIs/Political Subdivisions* - Census Places (cities, towns, CDPs) - Landmark Areas - Voting Districts (VTDs)	105 93 11	100 99 13	Illustrative
Minimizing County Splits	19	19	Same

Source: Illustrative and Enacted Plans extracted from Maptitude for Redistricting reports

[^]See the *Gingles* Analysis section *Illustrative Plan Districts - “Geographically Compact” (Compactness Analysis)*.

*The Illustrative Plan split fewer COI/political subdivisions in two of the three metrics, landmark areas and VTDs.

91. The Illustrative Plan performs better than the Enacted Plan on the criteria set out by the Constitution and federal VRA as well as those identified as emblematic of traditional redistricting criteria by the Supreme Court⁴⁰ to create a reasonably configured district: 1) adhering to the U.S. Constitution, Alabama Constitution, and the Federal Voting Rights Act; 2) Equal Population; 3) Compactness; and 4) Respect for COI/Political Subdivisions. The Illustrative and Enacted Plans performed equally with the criteria of Contiguity and County splits.

⁴⁰ See *Milligan v. Allen*.

92. When comparing the remaining two ARC criteria, district cores and incumbent pairing, the Illustrative Plan and Enacted Plan are very comparable. The Illustrative Plan has 31 districts with greater than 50% of the 2020 Plan's population contained within the same districts while the Enacted Plan has 35 districts. Also, when comparing incumbent pairing the Illustrative Plan only has one incumbent pair while the Enacted Plan pairs zero. It is important to note that these two criteria were not identified by the Supreme Court as relevant to the *Gingles* 1 inquiry in the recent *Allen v. Milligan* case.

X. Conclusions

93. The state of Alabama has seen growth in the Black population such that it constituted more than a quarter of the state's total population (27.16%) in 2020. Also, in 2020, the state's White population decreased to 63.12% of the total population.

94. Alabama's BVAP increased from 2010 to 2020 as well and now stands at over twenty-five percent (25.90%) of the total VAP. During the same period, the White VAP decreased significantly to 65.47%. According to the 2022 1-Year ACS CVAP data, the state had a BCVAP of 25.6% and a White CVAP of 67.7%.

95. The Illustrative Plan is reasonable when measured by its adherence to the requirements of the U.S. Constitution, including Equal Population (one-Person, one-vote); Alabama Constitution; and the Federal Voting Rights Act.

96. The Illustrative Plan also performs the same or better when viewing traditional redistricting criteria of 1) Contiguity, 2) Compactness, 3) Respecting Communities of Interest, and 4) Minimizing County Splits.

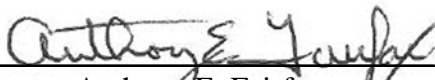
97. Given the analysis and results of the Illustrative Plan, I conclude that the Black population in the state of Alabama is sufficiently large and geographically compact to create a map with two additional single-member majority-Black districts that adheres to traditional redistricting criteria.

XI. Appendices

98. The following appendices are included with this report:

- Appendix A - Resume of Anthony E. Fairfax
- Appendix B - Maps of the Enacted and Illustrative Plans
- Appendix C - Redistricting Criteria Reports
- Appendix D - Noncitizen Maps and Data
- Appendix E - Socioeconomic Maps

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


Anthony E. Fairfax
Executed on: February 2, 2024