EXHIBIT C

Expert Report of Blakeman B. Esselstyn

I. INTRODUCTION

A. Qualifications

1. My name is Blakeman B. Esselstyn. I am the founder and principal of a consultancy called Mapfigure Consulting, which provides expert services in the areas of redistricting, demographics, and geographic information systems (GIS). For more specific information about the qualifications and credentials in the paragraphs below, please see my Curriculum Vitae, provided as **Attachment A**.

2. On February 8th and 9th of 2022, in the preliminary injunction proceedings related to this matter, I served as a testifying expert. I was accepted by the Court as an expert in redistricting, demographics, and census data, and my expert testimony was credited by the Court.

3. I have previously served as a consulting expert in four other redistricting cases, and as a testifying expert in three cases related to other topics.

4. I have developed 16 redistricting plans that have been enacted for use in elections by jurisdictions at various levels of government.

5. I earned a bachelor's degree in Geology & Geophysics and International Studies from Yale University and a master's degree in Computer and Information Technology from the University of Pennsylvania. I have professional certifications both as a Geographic Information Systems Professional (GISP) and as a member of the American Institute of Certified Planners (AICP).

6. I have taught graduate-level semester courses in Geographic Information Systems (GIS) and have presented on redistricting at conferences at Harvard University, Duke University, the University of North Carolina at Chapel Hill, the University of Texas, and several other universities. I have also presented at national events organized by the National Conference of State Legislatures (NCSL), the Urban and Regional Information Systems Association (URISA), and the American Planning Association (APA).

7. In addition to speaking engagements, my work and opinions related to redistricting have often been cited in media outlets, and some of my related writings have been published or cited in national publications. Again, for details, please see **Attachment A**.

8. I am being compensated at a rate of $325 per hour. No part of my compensation is dependent upon the conclusions that I reach or the opinions that I offer.

B. About this report

9. Plaintiffs' counsel has asked me to determine whether there are areas in the State of Georgia where the Black population is "sufficiently large and geographically compact"[1] to enable the creation of additional majority-Black legislative districts relative to the number of such districts provided in the enacted State Senate and State House of Representatives redistricting plans from 2021.

[1] *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986).

10. The Georgia General Assembly has two chambers, each with distinct redistricting plans that I will consider individually. Following a demographic overview of the state that will be relevant for both chambers, the report will provide separate sections addressing each chamber's districts: first the State Senate, then the House of Representatives. For each chamber, I will briefly review the enacted plan, present an alternative illustrative plan, and supply some analysis of selected characteristics of the plans.

11. Unless otherwise specified, all map images in the report are ones that I created (though they may be maps showing redistricting plans I did not create).[2]

12. More detailed information about the sources of data, the software, and my methodology can be found in **Attachment B**.

C. Summary of conclusions

13. It is possible to create three additional majority-Black districts in the State Senate plan and five additional majority-Black districts in the State House plan in accordance with traditional redistricting principles.

[2] Some maps deliberately do not show the State of Georgia in its entirety, as districts in large areas of the northern and southern parts of the state are unchanged in the illustrative plans. Focusing in on affected portions of the State's geography allows for more clarity and higher level of detail in the map figures.

II. Statewide Demographic Overview

A. Georgia and the 2020 Census

14. Georgia's population increased by more than one million people between the 2010 and 2020 censuses, from 9,687,653 to 10,711,908—an increase of approximately 10.6%.[3]

15. According to the 2020 census, 33.0% of Georgia's population (essentially one-third) identified as "Black or African American alone or in combination."[4] The 2010–2020 population increase in this group outpaced the growth in the state as a whole, increasing by approximately 15.8%.

16. By contrast, the state's population identifying as White and neither Hispanic nor multi-racial *decreased* by 1.0% between 2010 and 2020. This non-Hispanic White population still constitutes a majority of the state population, but only barely, at 50.1%. In 2010, this group constituted 55.9% of Georgia's population.

17. The *voting age* population identifying as Black increased 21.8% from 2010 to 2020. In 2020 this group (sometimes abbreviated as BVAP for the Black voting age population) made up 31.7% of the voting age population, an increase from 29.7% in

[3] All demographic analysis is based on statistics obtained from the U.S. Census Bureau website, https://www.census.gov. For URLs of specific census resources used, please consult Attachment B.

[4] The Census Bureau classification "Black or African American alone or in combination," sometimes stated as "any part Black," will be the measure of the Black population that I use most frequently in this report. Unless otherwise stated, in the text that follows, "Black" can be taken to indicate "alone or in combination." This measure includes Black residents who also identify as Hispanic. It is my understanding that the "alone or in combination" designation is the appropriate measure for most Voting Rights Act Section 2 considerations.

2010. The non-Hispanic single-race White proportion of the voting age population, however, decreased from 59.0% in 2010 to 52.8% in 2020.

B. Geographic distribution of the Black population

18. Just about half of Georgia's Black population lives in six of the state's 159 counties, all of which are in the Metro Atlanta region. These six counties are, in order of decreasing Black population, Fulton, DeKalb, Gwinnett, Cobb, Clayton, and Henry.

19. The counties in Georgia where the percentage of Black residents generally tends to be highest can be grouped into two main categories: the aforementioned Metro Atlanta region and the so-called "Black Belt" of Georgia. Though some accounts say the origin of the term "Black Belt" in the American South stems from descriptions of the soil, modern classifications of which counties are in this region can hinge on the percentage of the population that is Black.[5] In Georgia, this belt of counties, most of which are rural, constitutes a wide band from the southwest corner of the state to the central part of the South Carolina border near Augusta-Richmond County. See Figure 1.

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[5] See, e.g., *Southeastern Geographer* article at https://www.jstor.org/stable/26225503.

Figure 1: Statewide map showing percentages of Black population across counties.

20. For a table showing demographic statistics from the 2020 census for Georgia's counties, please see **Attachment C**.

III. Georgia State Senate redistricting plan

A. Review of enacted State Senate plan

21. On December 30th, 2021, Georgia Governor Brian Kemp signed new State Senate districts into law. With districts for 56 senators in this enacted plan, each district

is designed to have a population near 191,284, or one-fifty-sixth of Georgia's total population. See Figure 2.

Figure 2: Map of all districts in enacted State Senate plan.

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22. Of the 56 districts in the enacted plan, 14 are majority-Black.[6] Ten of those are in the Metro Atlanta area and four are in the Black Belt. These districts are highlighted in Figure 3 below.

Figure 3: Map indicating majority-Black districts in enacted State Senate plan.

23. For more maps and statistics related to the enacted State Senate districts, please see **Attachment D**.

[6] Per convention in Section 2 cases, "majority-Black" is taken to indicate that the district's *voting age* population that identifies as Black (alone or in combination) constitutes more than 50% of the district's voting age population.

B. Illustrative State Senate plan

24. The illustrative State Senate plan, like the enacted plan, has 56 districts, all designed to have populations near 191,284.

25. The illustrative plans for the State Senate and House discussed in this report have both been modified slightly from the versions provided as part of the PI proceedings. With the availability of additional data (e.g., incumbent addresses) and information gleaned during the PI proceedings, I sought to improve the plans' performance on multiple criteria. During both the earlier process of creating the PI illustrative plans and the process of revising those plans to create the plans described in this report, I was constantly balancing a number of considerations, and there was no one dominant factor or metric. More details about differences between the newer versions of the illustrative plans and the PI versions are provided in the "Comparative characteristics" sections below.

26. One of the guiding principles in the creation of both the State Senate and House illustrative plans was to minimize changes to the enacted plan while adhering to other neutral criteria. Modifying one district necessarily requires changes to districts adjacent to the original modification, and harmonizing those changes with traditional redistricting criteria (such as population equality and intactness of counties) often inescapably results in cascading changes to other surrounding districts. Notably, most of the enacted plans' districts remain intact in my illustrative plans. In the illustrative State Senate plan, just 22 of the districts were modified, leaving the other 34 unchanged.

27. The illustrative plan includes three additional majority-Black State Senate districts compared to the enacted plan, for a total of 17. Specifically, Senate Districts 23, 25, and 28 are not majority-Black in the enacted plan but are majority-Black in the illustrative plan. See Figure 4 and Table 1.

Figure 4: Map of majority-Black districts in the illustrative State Senate plan.

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Table 1: Illustrative Senate plan majority-Black districts with BVAP percentages.

District	BVAP%	District	BVAP%	District	BVAP%
10	61.10%	26	52.84%	39	60.21%
12	57.97%	28	57.28%	41	62.61%
15	54.00%	34	58.97%	43	58.52%
22	50.84%	35	54.05%	44	71.52%
23	51.06%	36	51.34%	55	65.97%
25	58.93%	38	66.36%		

28. The enacted plans have fewer majority-Black districts than the illustrative plans because, in part, more Black voters were heavily concentrated into certain Metro Atlanta districts in the enacted plans.

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29. The additional majority-Black State Senate district in the eastern Black Belt area (District 23) includes all of Burke, Glascock, Hancock, Jefferson, Screven, Taliaferro, Warren, and Washington Counties and parts of Baldwin, Greene, McDuffie, Augusta-Richmond, and Wilkes Counties. See Figure 5.[7]

Figure 5: Map of eastern Black Belt region of illustrative plan with majority-Black State Senate districts indicated.

[7] Additionally, in the illustrative plan, Macon-Bibb County is no longer divided; the majority-Black District 26 includes all of Macon-Bibb County in a single district (as well as a part of Houston County). The intactness of Macon-Bibb County is in keeping with recommendations made during public comment at the hearing held in Macon, Georgia on July 29th, 2021. Two witnesses at the hearing—including Cathy Cox, the former Georgia Secretary of State and then Dean of Mercer University School of Law—spoke about Macon-Bibb County as a community that should be considered as a unit and kept whole. See https://www.youtube.com/watch?v=lYkQpSFVerY (video at 1:36:52 and 1:37:46). Written statements submitted online also supported keeping Macon-Bibb County intact. See, e.g., comments of S. Doonan (July 26th, 2021), C. Hargrove (July 30th, 2021), and A. Bailey (December 1st, 2021) at https://www.legis.ga.gov/joint-office/reapportionment/public-comments.

30. The additional majority-Black State Senate district in the southeastern Metro Atlanta area (District 25) is composed of portions of Clayton and Henry Counties. See Figure 6.

Figure 6: Map of eastern Metro Atlanta area of illustrative plan with majority-Black State Senate districts indicated.

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31. The additional majority-Black State Senate district in the southwestern Metro Atlanta area (District 28) is composed of portions of Clayton, Coweta, Fayette, and Fulton Counties. See Figure 7.[8]

Figure 7: Map of western Metro Atlanta area of illustrative plan with majority-Black State Senate districts indicated.

32. For more demographic statistics related to the illustrative State Senate districts, please see **Attachment E**.

[8] Incidentally, the illustrative map also includes all of Douglas County in one majority-Black State Senate district, rather than dividing it between two districts as it is in the enacted plan.

C. Comparative characteristics

33. In undertaking the creation of a new redistricting plan for the State Senate, the Senate Reapportionment Committee adopted the "2021-2022 Senate Reapportionment Committee Guidelines," a full copy of which is appended to this report as **Attachment F**. Within this document is a section called "GENERAL PRINCIPLES FOR DRAFTING PLANS," which contains a list of principles. The illustrative plan was drawn to comply with and balance these principles.

34. The guidelines provide that "[e]ach legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below." Noting that adherence to other principles can be in tension with population equality, both the enacted plan and the illustrative plan get substantially closer to population equality than the permissible threshold of ±5%. In both plans, most district populations are within ±1% of the ideal, and a small minority are within between ± 1 and 2%. None has a deviation of more than 2%. For the enacted plan, the relative average deviation is 0.53%, and for the illustrative plan the relative average deviation is 0.67%.

35. The guidelines additionally provide that "[d]istricts shall be composed of contiguous geography." The illustrative plan districts meet this contiguity requirement in the same manner as the enacted plan.

36. The guidelines further provide that "[c]ompactness" "should [be] consider[ed]." Numerous measures exist for quantifying compactness of districts, and a selection of some of the most commonly used measures in redistricting are shown in

Table 2 below—both for the enacted plan and the illustrative plan. One can see that the average compactness measures for the plans are almost identical. An explanation of the five compactness metrics is provided as **Attachment G**.[9]

Table 2: Compactness measures for enacted and illustrative State Senate plans.

	Reock (average)	Schwartzberg (average)	Polsby-Popper (average)	Area/Convex Hull (average)	Number of Cut Edges
Enacted	0.42	1.75	0.29	0.76	11,005
Illustrative	0.41	1.76	0.28	0.75	11,003

37. Figure 8 below shows how the three additional majority-Black districts in the illustrative State Senate plan all fall within the range of compactness scores of districts in the enacted plan. The gray lines represent the compactness scores of each of the enacted districts, in sorted order. The purple, orange, and green lines represent the scores of illustrative Districts 23, 25, and 28, respectively. The heights of the lines represent the score (marked on the axis on the left), and the location of the line indicates the position within the sorted order between maximum compactness (left side) and minimum compactness (right side). For all four measures, the scores of the three additional majority-Black districts in the illustrative plan are comparable to those of enacted districts and indicate greater compactness than the least compact districts in the enacted plan. See Table 3 for the specific related numeric scores.

[9] A simplified summary of how to interpret the measures follows: the Reock, Polsby-Popper, and Area/Convex Hull measures all provide scores between zero and one, with scores closer to one (i.e., *higher* values) indicating more compactness; the Schwartzberg measure provides scores greater than or equal to one, and scores closer to one (i.e., *lower* values) indicate more compactness; and for the Number of Cut Edges, which is only meaningful for comparing entire plans—not individual districts—a lower score indicates more compactness.

Figure 8: Sorted compactness measures for all enacted plan districts and additional majority-Black districts in the illustrative State Senate plan.

Table 3: Summary compactness scores for enacted State Senate districts and compactness scores for illustrative State Senate districts.

	Measures of Compactness			
	Reock	Schwartzberg	Polsby-Popper	Area/ Convex Hull
Enacted plan least compact score	0.17	2.67	0.13	0.50
Enacted plan median score	0.415	1.725	0.28	0.755
Illustrative District 23 score	0.34	1.93	0.17	0.69
Illustrative District 25 score	0.57	1.55	0.34	0.80
Illustrative District 28 score	0.38	2.17	0.19	0.66

38. Illustrative State Senate District 23 offers an interesting example of how different compactness measures weight boundary features in different ways. In Figure 8 above, one can see that illustrative State Senate District 23 scores very close to the

"bottom" (i.e., least compact) value in the range for the Polsby-Popper measure, but not for the other three measures. The Polsby-Popper measure, which considers a district's perimeter in its formula, heavily penalizes a district if it has a wiggly border, even if the district's overall shape isn't stringy or convoluted. Figure 9 below shows two sections of illustrative District 23's outline where it is simply following county boundaries, and those county boundaries happen to be serpentine in shape. As is often the case, the county boundaries follow significant rivers (the Oconee and Savannah), which are widely considered to be intuitive features to use as the division between districts or other administrative areas.

Figure 9: Detail of selected Illustrative State Senate District 23 boundaries.

39. The guidelines also provide that "[t]he boundaries of counties and precincts" "should [be] consider[ed]." In redistricting in the United States, consideration of such boundaries is generally taken to mean that counties and precincts should be kept intact to the extent possible (i.e., not split among multiple districts). While the Reapportionment Committee's language regarding this guideline is not explicit, Table 4: below provides numbers of counties and VTDs (the Census "Voting District" used by redistricting software as a proxy for precincts) split in both the enacted and illustrative State Senate plans.

Table 4: Political subdivision splits for enacted and illustrative State Senate plans.

	Intact Counties	Split Counties	Split VTDs
Enacted	130	29	47
Illustrative	125	34	49

40. While the creation of three additional majority-Black State Senate districts involved the division of additional counties and VTDs, the differences are marginal.[10] Figure 10 below shows which counties those VTD splits are in in the illustrative State Senate plan. All of the VTDs spilt in the illustrative State Senate plan are confined to just 18 of the State's 159 counties.

[10] The number of county splits in the State Senate illustrative plan (34) is lower than the number of such splits in the State Senate plan adopted in 2014 (38), which was used in elections from 2014 through 2020. See https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/senate14-county.pdf?sfvrsn=e8061e5c_2 and https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/counties-by-house-districts.pdf?sfvrsn=b7c39a42_2.

Figure 10: VTD splits in illustrative State Senate plan by county.

41. The guidelines further call for consideration of "[c]ommunities of interest." Communities of interest can be larger than a county or smaller than a college campus, and individuals may have different opinions about their exact geographic extents. In identifying such communities, I generally referred to recognizable entities visible in the *Maptitude for Redistricting* software interface, such as municipalities and landmark areas, as well as areas and communities I've heard described by Georgians, either in personal conversations or in statements made in public hearings. When making changes to districts for my PI illustrative plan, I did strive to keep communities of interest intact as much as possible while also honoring the other guidelines. In that plan, however, I inadvertently divided the two campuses of Georgia College (they are both in Milledgeville, but about a mile apart). The revised district lines for the illustrative plan submitted with this report not only keep both campuses in the same State Senate district, but they also do a better job of keeping central Milledgeville in a single district.

42. The final specified guideline is that "[e]fforts should be made to avoid the unnecessary pairing of incumbents." Based on my analysis of the residential addresses of the recently elected State Senators (provided by counsel), the illustrative plan would not pair any incumbent Senators in the same district. The avoidance of any incumbent pairing represents an improvement over the PI illustrative plan, which paired two incumbents according to a declaration from John Morgan provided as part of the PI proceedings.[11]

43. For more detailed statistics and reports on the above characteristics, please see **Attachment H**.

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[11] See Declaration of John B. Morgan, January 18, 2022, p. 8.

IV. Georgia House redistricting plan

A. Review of enacted House plan

44. On December 30th, 2021, Governor Kemp signed new House of Representatives districts into law. With districts for 180 Representatives in this enacted plan, each district is designed to have a population near 59,511, or one-one-hundred-eightieth of Georgia's total population. See Figure 11.

Figure 11: Map of all districts in enacted House plan.

45. Of the 180 districts in the enacted plan, 49 are majority-Black. Thirty-four of those are in the Metro Atlanta area, 13 are in the Black Belt, and two small districts are

within Chatham (anchored in Savannah) and Lowndes Counties (anchored in Valdosta) in the southeastern part of the state. These districts are highlighted in Figure 12 below.

Figure 12: Map indicating majority-Black districts in enacted House plan.

46. For more maps and statistics related to the enacted House districts, please see **Attachment I**.

B. Illustrative House plan

47. The illustrative House plan, like the enacted plan, has 180 districts, all with populations near 59,511. As with the illustrative State Senate plan, one of the guiding principles was to minimize changes to the enacted plan while adhering to the range of

other neutral criteria. In fact, just 25 of the districts were modified, leaving the other 155 unchanged. The PI version of the illustrative plan, by contrast, modified 26 districts.

48. The illustrative plan includes five additional majority-Black House districts compared to the enacted plan, for a total of 54. Specifically, House Districts 64, 74, 117, 145, and 149 are not majority-Black in the enacted plan but are majority-Black in the illustrative plan. See Figure 13 and Table 5.

Figure 13: Map of majority-Black districts in the illustrative House plan.

Table 5: Illustrative House plan majority-Black districts with BVAP percentages.

District	BVAP%	District	BVAP%	District	BVAP%	District	BVAP%
38	54.23%	69	62.73%	91	60.01%	137	52.13%
39	55.29%	74	53.94%	92	68.79%	140	57.63%
55	55.38%	75	66.89%	93	65.36%	141	57.46%
58	63.04%	76	67.23%	94	69.04%	142	50.14%
59	70.09%	77	76.13%	95	67.15%	143	50.64%
60	63.88%	78	51.03%	113	59.53%	145	50.38%
61	53.49%	79	71.59%	115	53.77%	149	51.53%
62	72.26%	84	73.66%	116	51.95%	150	53.56%
63	69.33%	85	62.71%	117	51.56%	153	67.95%
64	50.24%	86	75.05%	126	54.47%	154	54.82%
65	63.34%	87	73.08%	128	50.41%	165	50.33%
66	53.88%	88	63.35%	129	54.87%	177	53.88%
67	58.92%	89	62.54%	130	59.91%		
68	55.75%	90	58.49%	132	52.34%		

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49. The additional majority-Black House district in the western Metro Atlanta area (District 64) is composed of portions of Douglas, Fulton, and Paulding Counties. See Figure 14.

Figure 14: Map of western Metro Atlanta area of illustrative plan with majority-Black House districts indicated.

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50. The additional majority-Black House districts in the southern Metro Atlanta area (Districts 74 and 117) are built from portions of Clayton, Fayette, and Henry Counties. See Figure 15.

Figure 15: Map of southern Metro Atlanta area of illustrative plan with majority-Black House districts indicated.

51. The two additional majority-Black House districts in the central Black Belt area (Districts 145 and 149) are built from portions of Baldwin, Macon-Bibb, and Houston Counties, as well as all of Twiggs and Wilkinson Counties. The adjacent Twiggs and Wilkinson Counties, included in their entirety in District 149, have been identified

by General Assembly staff as "constitut[ing] a single community of interest."[12] The illustrative plan, like the enacted plan, divides Macon-Bibb County into four districts, two of which (Districts 142 and 143) are wholly contained in Macon-Bibb County, and two of which (Districts 145 and 149 in the illustrative plan) extend outside the county as well. The orientation of Districts 142 and 143 also ensures that the northern portions of Macon-Bibb County stay in a Macon-Bibb County district with portions of Macon, rather than being put in a district with a more rural neighboring county like Monroe; this type of arrangement was specifically recommended during public comment at a Joint Reapportionment Committee hearing.[13] See Figure 16.

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[12] Specifically, Gina Wright, Executive Director of the General Assembly's Legislative and Congressional Reapportionment Office, included this statement in her declaration filed before the Court's PI hearing. See Declaration of Gina Wright, February 4th, 2022, p. 9.

[13] See, e.g., comment at Georgia General Assembly Joint Reapportionment Committee hearing held in Macon, Georgia on July 29th, 2021, https://www.youtube.com/watch?v=lYkQpSFVerY (video at 33:42).

Figure 16: Map of central Black Belt region of illustrative plan with majority-Black House districts indicated.

52. District 149 generally follows the orientation of the Georgia Fall Line geological feature, which brings with it shared economic, historic, and ecological similarities.[14] Macon and Milledgeville, parts of which are in illustrative House District 149, are both characterized as "Fall Line Cities,"[15] and were identified in public comment

[14] See, e.g., https://www.georgiaencyclopedia.org/articles/geography-environment/fall-line/ and http://southres.com/uptowncolumbusdams/thefallline.php.

[15] See "Fall Line Cities" map at https://www.gpb.org/blogs/education-matters/2017/02/06/new-virtual-field-trip-physical-features-of-georgia and the southres.com article in the preceding footnote.

before the General Assembly's Joint Reapportionment Committee as two cities that should be kept in the same district.[16]

53. For more demographic statistics related to the illustrative House districts, please see **Attachment J**.

C. Comparative characteristics

54. In undertaking the creation of a new redistricting plan for the House, the House Reapportionment Committee adopted the "2021-2022 House Reapportionment Committee Guidelines," a full copy of which is appended to this report as **Attachment K**. Within this document is a section called "GENERAL PRINCIPLES FOR DRAFTING PLANS," which contains a list of principles. The illustrative plan was drawn to comply with and balance these principles. As with the Senate Committee's principles discussed above, five of the principles can be quantitatively analyzed to help illustrate adherence.

55. The guidelines provide that "[e]ach legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below." As with the Senate plan, both the enacted plan and the illustrative plan get substantially closer to population equality than the permissible threshold of ±5%. In both plans, most district populations are within ±1% of the ideal, and a small minority are within between ± 1 and 2%. None has a deviation of more than 2%. For the enacted plan, the relative average deviation is 0.61%, and for the illustrative plan the relative average deviation is 0.64%.

[16] See, e.g., comment from Georgia General Assembly Joint Reapportionment Committee hearing on June 15th, 2021 at https://www.youtube.com/watch?v=sewqUNTIUxA (video at 49:15).

56. The guidelines additionally provide that "[d]istricts shall be composed of contiguous geography." The illustrative plan districts meet this contiguity requirement in the same manner as the enacted plan.

57. The guidelines further provide that "[c]ompactness" "should [be] consider[ed]." A selection of some of the most commonly used measures of compactness are shown in Table 6 below—both for the enacted plan and the illustrative plan. One can see that the average compactness measures for the plans are almost identical, if not identical.

Table 6: Compactness measures for enacted and illustrative House plans.

	Reock (average)	Schwartzberg (average)	Polsby-Popper (average)	Area/Convex Hull (average)	Number of Cut Edges
Enacted	0.39	1.80	0.28	0.72	22,020
Illustrative	0.39	1.81	0.28	0.72	22,359

58. Figure 17 below shows how the five additional majority-Black districts in the illustrative House plan all fall within the range of compactness scores of districts in the enacted plan. The gray lines represent the compactness scores of each of the enacted districts, in sorted order. The purple, orange, green, pink, and blue lines represent the scores of illustrative House Districts 64, 74, 117, 145, and 149, respectively. The heights of the lines represent the score (marked on the axis on the left), and the location of the line indicates the position within the sorted order between maximum compactness (left side) and minimum compactness (right side). For all four measures, the scores of the five additional majority-Black districts in the illustrative plan are comparable to those of

enacted districts and indicate greater compactness than the least compact district in the enacted plan. See Table 7 for the specific related numeric scores.

Figure 17: Sorted compactness measures for all enacted plan districts and additional majority-Black districts in the illustrative House plan.

Table 7: Summary compactness scores for enacted House districts and compactness scores for illustrative House districts.

	Measures of Compactness			
	Reock	Schwartzberg	Polsby-Popper	Area/ Convex Hull
Enacted plan least compact score	0.12	2.98	0.10	0.46
Enacted plan median score	0.40	1.765	0.26	0.72
Illustrative District 64 score	0.22	2.05	0.22	0.59
Illustrative District 74 score	0.30	1.98	0.19	0.61
Illustrative District 117 score	0.40	1.62	0.33	0.76
Illustrative District 145 score	0.34	1.63	0.21	0.76
Illustrative District 149 score	0.46	1.48	0.28	0.83

59. The guidelines further provide that "[t]he boundaries of counties and precincts" "should [be] consider[ed]." Table 8 below shows that the numbers of counties and VTDs (akin to precincts) split in the enacted and illustrative House plans are nearly equal. This version of the illustrative House plan splits six fewer VTDs than the PI version. Figure 18 below shows which counties those VTD splits are in. Just 45 of the State's 159 counties account for all of the splits.

Table 8: Political subdivision splits for enacted and illustrative House plans.

	Intact Counties	Split Counties	Split VTDs
Enacted	90	69	185
Illustrative	89	70	186

Figure 18: VTD splits in illustrative State House plan by county.

60. The guidelines next call for consideration of "[c]ommunities of interest." My approach to preserving the intactness of communities of interest in the illustrative House map was similar to the one described in the State Senate "Comparative characteristics" section above. As with the comparable State Senate illustrative map, I

had inadvertently divided the two campuses of Georgia College in the initial illustrative House plan provided during the PI proceeding. The newer House illustrative plan rectifies that community split, and also keeps the central community of Milledgeville more intact. Additionally, as mentioned in the previous section, the district boundaries keep together communities in the Macon-Bibb County area as well as in the central Black Belt region.

61. The final specified guideline is that "[e]fforts should be made to avoid the unnecessary pairing of incumbents." Based on analysis of the residential addresses of the recently elected State Representatives (provided by counsel), the illustrative plan would evidently pair a total of eight incumbents in the same districts.[17] This is the same number of incumbent pairings reported for the enacted plan in the declaration from John Morgan, provided as part of the PI proceedings.[18] Further it represents a significant improvement over the PI illustrative plan (created without knowledge of incumbent addresses), which paired 16 incumbents, according to the same declaration.[19]

62. For more detailed statistics and reports on the above characteristics, please see **Attachment L**.

V. Conclusion

63. This report has demonstrated that it is possible to create three additional majority-Black districts in the Georgia State Senate plan and five additional majority-

[17] Namely Mike Glanton and Kimberly R. New in District 61, El-Mahdi Holly and Regina Lewis-Ward in District 115, Miriam Paris and Dale Washburn in District 142, and Shaw Blackmon and Robert Dickey in District 144.

[18] See Declaration of John B. Morgan, January 18th, 2022, p. 9.

[19] Id.

Black districts in the Georgia House of Representatives plan in accordance with traditional redistricting principles.

64. I reserve the right to supplement this report in consideration of additional facts, testimony, or materials that may come to light.

Executed on December 5th, 2022.

Blakeman B. Esselstyn

Esselstyn Report: Attachment A

December 2022

Blakeman ("Blake") B. Esselstyn
United States: 49 North Street · Asheville, NC 28801-1141
The Netherlands: Schovenlaan 110 · 6225JS Maastricht
blake@mapfigure.com · +1 828·338·8528

EDUCATION

- University of Pennsylvania, School of Engineering and Applied Science, Master of Computer and Information Technology, 2003; GPA 4.0
- Yale University, Geology & Geophysics and International Studies, Bachelor of Arts, 1996

PROFESSIONAL CERTIFICATIONS

- Geographic Information Systems Professional (GISP), #6946, 2009
- American Institute of Certified Planners (AICP), #026364, 2013

EMPLOYMENT (Teaching positions listed separately)

- Redistricting Consultant, dba Mapfigure Consulting (and as Blake Esselstyn), Asheville, NC, 2016-present (and in the Netherlands starting late 2022)
- Principal Consultant, FrontWater, LLC, Asheville, NC, 2015-present
- Urban Planner III – GIS Specialist, City of Asheville Department of Planning and Urban Design, Asheville, NC, 2008-2015
- Urban Planner II, City of Asheville Planning Department, Asheville, NC, 2004-2008
- Independent GIS Consultant, Freelance, Asheville, NC, 2003-2004
- GIS Programmer, Azavea, Inc., Philadelphia, PA, 2002
- Web Support Fellow, University of Pennsylvania, Philadelphia, PA, 2002
- GIS Analyst, Applied Geographics, Inc., Boston, MA, 2001
- GIS Intern, Community and Environmental Spatial Analysis Center, Seattle, WA, 2000
- GIS Analyst, Applied Geographics, Inc., Boston, MA, 2000
- Mapping Technician, Schlosser Geographic Systems, Seattle, WA, 1997
- Digital Mapping Resources Consultant, Social Science Statistical Laboratory at Yale University, New Haven, CT, 1997
- Special Assistant to the CityRoom Coordinator, Neighborhood Partnerships Network, New Haven, CT, 1996-1997

- Lab Monitor, Center for Earth Observation at Yale University, New Haven, CT, 1995

TEACHING EMPLOYMENT

- Adjunct Faculty, Lenoir-Rhyne University, Asheville, NC, 2019
  Taught full-semester graduate-level Geographic Information Systems (GIS) course
- Adjunct Faculty, Western Carolina University, Asheville, NC, 2017
  Taught full-semester graduate-level GIS course
- GIS Course Assistant, University of Pennsylvania, Philadelphia, PA, 2002-2003
  Served as teaching assistant for two undergraduate GIS semester courses
- Teacher, Equity American School, Guatemala City, Guatemala, 1998-1999
  Led mathematics department for grades 7-12; taught one technology course
- Teacher, International School of Panama, Panama City, Republic of Panama, 1997-1998
  Taught computer programming and mathematics to secondary school students

LITIGATION EXPERIENCE (As GIS and/or redistricting expert)

- Testifying expert for plaintiffs, in *Grant v. Raffensperger*, U.S District Court for the Northern District of Georgia, 2022
- Consulting expert for plaintiffs, in *League of United Latin American Citizens v. Abbott*, U.S District Court for the Western District of Texas, 2022
- Consulting expert for plaintiffs, in *Rivera v. Schwab*, Wyandotte County (KS) District Court, 2022
- Consulting expert for plaintiffs, in *Harper v. Lewis*, Wake County (NC) Superior Court, 2019
- Consulting expert for plaintiffs, in *Common Cause v. Lewis*, Wake County (NC) Superior Court, 2019
- Preparation of redistricting map exhibits used in *Vesilind v. Virginia State Board of Elections*, Richmond (VA) Circuit Court, 2017
- Expert witness analysis, deposition, and testimony for City of Asheville, in *Jensen v. City of Asheville*, Buncombe County (NC) Superior Court, 2009-2010
- Expert witness analysis and testimony for City of Asheville, in *Hall v. City of Asheville*, Buncombe County (NC) Superior Court, 2007
- Expert witness analysis and testimony for City of Asheville, in *Arnold v. City of Asheville*, Buncombe County (NC) Superior Court, 2005

PUBLIC REDISTRICTING PROJECT EXPERIENCE

- Design and completion of adopted electoral redistricting plans for Wake County (NC) Board of Education, 2021-2022
- Design and completion of adopted electoral redistricting plans for Mecklenburg County (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for Craven County (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for City of Fayetteville (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for City of Greenville (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Town of Cary (NC) Town Council, 2021
- Design and completion of adopted electoral redistricting plans for City of Hickory (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Town of Mooresville (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for City of Clinton (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Siler City (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for Town of Tarboro (NC) Town Council, 2021
- Design and completion of adopted electoral redistricting plans for Durham Public Schools (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Pitt County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Union County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Edgecombe County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans (in advance of Census data delivery) for Town of Cary (NC) Town Council, 2021
- Lead presenter, Lenoir-Rhyne University Hands-on Redistricting Workshop, Virtual, 2021
- Software operator and presenter, National Conference of State Legislatures Redistricting Seminar: Redistricting Simulation, Columbus, OH, 2019

- Software operator and presenter, National Conference of State Legislatures Redistricting Seminar: Redistricting Simulation, Providence, RI, 2019
- Hands-on GIS software workshop session leader, Metric Geometry of Gerrymandering Group (MGGG) Conference at the University of Texas, Austin, TX, 2018
- Co-leader of redistricting hackathon, Metric Geometry of Gerrymandering Group (MGGG) Conference at Duke University, Durham, NC, 2017
- Preparation of simulated redistricting plans for Democracy North Carolina's Districting Voter Education Forum, Asheville, NC, 2017
- Hands-on GIS software workshop session assistant, Metric Geometry of Gerrymandering Group (MGGG) Conference at Tufts University, Medford, MA, 2017
- Redistricting software operator (converting retired jurists' instructions into maps), Duke University and Common Cause NC independent redistricting commission simulation, Raleigh, NC *and* Winston-Salem, NC, 2016

SPEAKER OR PANELIST

- "Political Reapportionment: Drawing Boundaries with QGIS," FOSS4G (Free and Open Source Software for Geospatial) Conference, Florence, Italy, 2022
- "Just Maps: How Gerrymandering Imperils the Right to Vote," Osher Lifelong Learning Institute at the University of North Carolina Asheville, virtual, 2022
- "How to Be a Redistricting Watchdog," Duke University's Redistricting and American Democracy Conference, Durham, NC, 2021
- "North Carolina Redistricting with Geographers: Local Knowledge & Community Considerations," American Association of Geographers (AAG) Redistricting Panel Series, Virtual, 2021
- "The Basics of Redistricting for Local Governments," NC Council of School Attorneys Summer Law Conference, Virtual, 2021
- "Census Timing and Redistricting," UNC School of Government: Municipal Attorneys' Winter Conference, Virtual, 2021
- "Census Delays and Redistricting," North Carolina League of Municipalities Online Meeting, Virtual, 2021
- "Redistricting: Ten Big Changes that GIS People Should Know About for 2021," North Carolina GIS Conference, Virtual, 2021
- "Demographics, the Census, and a Bit about Redistricting," UNC School of Government: County Attorneys Conference, Virtual, 2021
- "NC Redistricting Updates for the GIS Community," Mountain Region GIS Alliance, Virtual, 2021

- "The Census and Demographics," UNC School of Government: Redistricting for Local Governments Conference, Virtual, 2021
- "The Mechanics of Redistricting," UNC School of Government: Redistricting for Local Governments Conference, Virtual, 2021
- "Ask the Experts Panel," National Conference of State Legislatures (NCSL) Redistricting Seminar, Virtual, 2021
- "GIS and the Data Handoff," National Conference of State Legislatures (NCSL) Redistricting Seminar, Virtual, 2021
- "Electoral Redistricting for School Boards after the 2020 Census," North Carolina School Boards Association 2020 Annual Conference, Virtual, 2020
- "Redistricting Software 2021: The Next Generation of Tools Could Open New Doors," Urban and Regional Information Systems Association (URISA) GIS-Pro Conference, Virtual, 2020
- "Changing Demographics, Drawing Districts, and County Impacts," North Carolina Association of County Commissioners 113th Annual Conference, Virtual, 2020
- "QGIS and democracy: Redistricting and reapportionment with QGIS," QGIS North America Conference, Virtual, 2020
- "Does Your Vote Count?: The Impact of Gerrymandering," virtual panel hosted by League of Women Voters Asheville Buncombe, NC, 2020
- [Scheduled, but cancelled due to COVID-19] "Redistricting with QGIS," Free and Open Source Software for Geospatial Conference, Calgary, Alberta, Canada, 2020
- [Scheduled, but cancelled due to COVID-19] Teaching Faculty (session title to be determined), National Conference of State Legislatures Redistricting Seminar, Las Vegas, NV, 2020
- [Scheduled, but cancelled due to COVID-19] "Census Geography, Precision, & Privacy," Census Symposium, University of North Carolina Asheville, NC, 2020
- "The State of Redistricting Software and Data Resources for 2020," Quantitative Investigations of Gerrymandering and Redistricting Conference, Duke University, Durham, NC, 2020
- "School Board Elections," 53rd School Attorneys' Conference, UNC School of Government, Chapel Hill, NC, 2020
- "Methods and Techniques in Redistricting," Harvard Geography of Redistricting Conference, Cambridge, MA, 2019
- "Redistricting Software: A new generation of geospatial tools," North Carolina GIS Conference, Winston-Salem, NC, 2019
- "The Latest Mapping Technology," Reason, Reform & Redistricting Conference, Duke University, Durham, NC, 2019

- "Redistricting—What Happens Now?" Voter Education Panel hosted by League of Women Voters (and others), Hendersonville, NC, 2019
- "What are all These Districts? How did We Get Here, and Redistricting Reform," Grassroots Democracy: A Nonpartisan Voter Education Series, Leicester, NC, 2019
- "Re-GIS-tricting? A new generation of redistricting geo-tools," Mountain Region GIS Alliance, Asheville, NC, 2019
- "Representing (mis)representation," Tapestry Data Storytelling Conference, University of Miami, Miami, FL, 2018
- "A Redistricting Tour," Democracy in our Hands Conference, Asheville, NC, 2018
- "Dis-tricks: GIS and Public Understanding of Redistricting," NC ArcGIS Users Group, Asheville, NC, 2018
- "Visual Explanations of Gerrymandering," Highlands Indivisible, Highlands, NC, 2018
- "Dave's Redistricting App," Metric Geometry of Gerrymandering Workshop, University of Texas, Austin, TX, 2018
- "Districting Voter Education Forum," Democracy North Carolina, Asheville, NC, 2017
- "When GIS leads planners astray," American Planning Association National Conference, New York, NY, 2017
- "Conveying Uncertainty with GIS," Azavea, Philadelphia, PA, 2017
- "GISkepticism," Appalachian State University, Boone, NC, 2017
- "When GIS leads planners astray," North Carolina Planning Conference, American Planning Association North Carolina Chapter, Asheville, NC, 2016
- "What if the 'S' in GIS stood for Skepticism?" Mountain Region GIS Alliance, Asheville, NC, 2015
- "Open Data? Show Me the Money!" North Carolina GIS Conference, Raleigh, NC, 2015

TEACHING AS SINGLE-CLASS GUEST SPEAKER (On redistricting and/or GIS)

- Lenoir-Rhyne University, Public Policy Course (speaking on redistricting and representation), 2021
- Lenoir-Rhyne University, Geographic Information Systems Course (speaking on GIS), 2021
- University of North Carolina Asheville, Mathematics: Voting Theory Course (speaking on redistricting), 2020
- Metric Geometry and Gerrymandering Group Redistricting Lab (Tufts University + MIT), Geodata Bootcamp Mapmaking Session (speaking on redistricting software), 2020

- [Scheduled, but cancelled due to COVID-19] Duke University, Law School: Election Law Course (leading hands-on redistricting simulation exercise), April 2020
- Duke University, Data Science Capstone Seminar (speaking on data science professional/career advice), 2020
- University of North Carolina Asheville, Political Science: Census Course (speaking on redistricting), 2020
- Lenoir-Rhyne University, Public Policy Course (speaking on redistricting), 2019
- Western Carolina University, Geographic Information Systems Course (speaking on GIS), 2019
- Duke University, Democracy Lab Seminar (speaking on redistricting software tools), 2018
- University of North Carolina Asheville, Political Science: US Elections Course (speaking on redistricting), 2018
- University of North Carolina Asheville, Mathematics: Voting Theory Course (speaking on redistricting), 2018
- Lenoir-Rhyne University, Sustainability Management & Decision-Making Course (speaking on GIS/location intelligence), 2018
- Yale University, School of Organization and Management: Business Information Course (speaking on Maptitude—one class + multiple labs), 1997

MEDIA APPEARANCES, OP-EDS, AND CITATIONS

- "Gerrymandered or no? How will courts judge new North Carolina political maps?" *Raleigh News & Observer*, February 8, 2022
- "Monster: Math, maps and power in North Carolina," special podcast series from *Raleigh News & Observer*, September 24, 2021
- "Census data has arrived. What comes next?" *Chatham News + Record*, September 1, 2021
- "An Explainer for Redistricting Criteria, Part 1: Political Boundaries," *John Locke Foundation*, August 23, 2021
- "Special report: Demystifying the redistricting process," *NC Policy Watch*, August 20, 2021
- "Raleigh, Cary and other NC cities may have to push back their 2021 elections," *Raleigh News & Observer*, February 24, 2021
- "Triad Cities Awaiting Census Data May Delay Elections," WFDD Radio, February 17, 2021
- Live interview, WPTF Radio Afternoon News, February 15, 2021
- "Census Delays Could Delay Charlotte City Council, CMS Fall Elections," WFAE Radio, January 28, 2021

- "What do Buncombe's new district lines mean for 2020 commissioner elections?" (map citation), *Asheville Citizen-Times*, November 21, 2019
- "Confused about new legislative districts? This 'map geek' can help," *NC Policy Watch*, November 21, 2019
- "Which district are you in? After gerrymandering fight, Asheville, Buncombe get final state districts," *Asheville Citizen-Times*, November 4, 2019
- "Suggestions for a fair redistricting process," *Princeton Election Consortium*, September 16, 2019
- "How will Asheville, Buncombe County be affected by gerrymandering decision?" *Asheville Citizen-Times*, September 6, 2019
- "2019 Districting," JMPRO TV's *The Weekly Update*, September 1, 2019
- "As redistricting battle continues in NC, League of Women Voters holds panel," *WLOS-TV*, August 11, 2019
- "With No Supreme Court End to Gerrymandering, Will States Make It More Extreme?" (citation/link of blog article), *New York Times*, June 28, 2019
- "The Supreme Court takes on gerrymandering. A cottage industry wants to prove it's gone too far," *USA Today*, March 26, 2019
- "Gerrymandering: 'Packing' and 'Cracking,' the meat and potatoes of partisan redistricting," *USA Today*, March 25, 2019
- "NC gerrymandering: Turner, McGrady lead reform effort on redistricting," *Asheville Citizen-Times*, February 14, 2019
- "Looking for a Way Forward on Redistricting Reform," *Duke Today*, January 28, 2019
- "Will Asheville try to stop the state from splitting it into districts?" (map citation), *Asheville Citizen-Times*, January 23, 2019
- "Some takeaways from NC's elections," WRAL.com, Nov 7, 2018
- "New Asheville districts are racial gerrymandering, black council members say" *Asheville Citizen-Times*, July 2, 2018
- "Legislature sets up districts for Asheville council, eliminates primaries" (map citation), *Asheville Citizen-Times*, June 27, 2018
- "Van Duyn to back Asheville council districts bill if Senate shifts election dates" (map citation), *Asheville Citizen-Times*, June 21, 2018
- "I Ran the Worst 5K of My Life So I Could Explain Gerrymandering to You," *POLITICO Magazine*, November 15, 2017
- "Event to cover Nov. vote on City Council districts," *Asheville Citizen-Times*, October 17, 2017

- "Republicans silent in wake of court order to draw new maps in one month," *NC Policy Watch*, August 2, 2017
- "Who makes the grade? This week's editorial report card," *Asheville Citizen-Times*, June 2, 2017
- "Asheville grows; Charlotte, Raleigh and their suburbs grow faster," *Asheville Citizen-Times*, May 29, 2017
- "Boundary issues: Where does Asheville end?" (op-ed), *Mountain Xpress*, April 29, 2016
- "For better or worse, Asheville growth inevitable," *Asheville Citizen-Times*, November 21, 2015
- "St. Lawrence Green no litmus test for voters" (op-ed), *Mountain Xpress*, October 29, 2015

PUBLISHED WORK

- "Redistricting Software Applications, Data, and Related Tools," supplement to *Redistricting: A Guide for the GIS Community*, Urban and Regional Information Systems Association, 2021
- (Co-authored with Mark Salling, PhD, GISP) "GIS Software Functionality for Redistricting," *The GIS Professional*, Issue 301, Urban and Regional Information Systems Association, May/June 2021
- (Co-authored with Joan Gardner, Suzanne Rotwein, and Tong Zhang) "Integrating GIS and Social Marketing at HCFA," *ESRI Map Book*, Volume 16, ESRI Press, 2001

SELF-PUBLISHED PUBLIC-FACING EXPLANATORY WRITING & MAPS

- (Co-authored with Christopher Cooper, Gregory Herschlag, Jonathan Mattingly, Rebecca Tippett) "NC General Assembly County Clusterings from the 2020 Census," *Quantifying Gerrymandering* Blog, August 17, 2021
- (Co-authored with Christopher Cooper, Gregory Herschlag, Jonathan Mattingly, Rebecca Tippett) "Legislative County Clustering in North Carolina—Looking towards the 2020 Census," *Quantifying Gerrymandering* Blog, July 16, 2021
- Created the blogs at districks.com (2017) and mapfigure.com (2020) — the story maps "A 'Stephenson' explainer" and "Could COVID repercussions delay NC elections in 2021 & 2022?" have each been viewed more than 2,000 times.

REDISTRICTING AND GIS SOFTWARE EXPERIENCE

- MapInfo (first used 1996)
- Maptitude (first used 1997)
- Esri ArcGIS/ArcInfo/ArcView (first used 2000)

- QGIS (first used 2015)
- Maptitude for Redistricting (first used 2016)
- Dave's Redistricting App (first used 2016)
- DistrictBuilder (first used 2017)
- Esri Redistricting (first used 2018)
- Districtr (first used 2019)
- Statto Software Redistricter (first used 2019)
- ArcBridge DISTRICTSolv (first used 2020)

SELECTED AWARDS (As team member)

- G. Herbert Stout Award for Visionary use of GIS by Local Government, 2009
- International Economic Development Council, Excellence in New Media Initiatives, 2008
- Marvin Collins Outstanding Planning Award for Innovations in Planning Services, Education, and Public Involvement, 2007

SERVICE AS ELECTION OFFICIAL

- Poll worker for multiple elections in Buncombe County, North Carolina (2012, 2020, 2022) and King County, Washington (2000), including as Chief Precinct Judge in 2020 general election and 2022 primary election

SERVICE ON BOARDS AND COMMISSIONS

- Asheville City Council Appointee to Comprehensive Plan Advisory Committee, 2016-2018

ADDITIONAL TRAINING

- Introduction to GIS for Equity and Social Justice, Urban and Regional Information Systems Association Certified Workshop, Virtual, 2020
- Public Data, Public Access, Privacy, and Security: U.S. Law and Policy, Urban and Regional Information Systems Association Certified Workshop, Raleigh, NC, 2015
- An Overview of Open Source GIS Software, Urban and Regional Information Systems Association Certified Workshop, Portland, OR, 2012

- An Introduction to Public Participation GIS: Using GIS to Support Community Decision Making, Urban and Regional Information Systems Association Certified Workshop, Orlando, FL, 2010
- 3-D Geospatial Best Practices and Project Implementation Methods, Urban and Regional Information Systems Association Certified Workshop, Vancouver, BC (Canada), 2006

MEMBERSHIPS

- Urban and Regional Information Systems Association (URISA)
- Mountain Region GIS Alliance (MRGAC)
- American Planning Association (APA)

Esselstyn Report: Attachment B

Data sources, software, and methodology

1. I arrived at the findings in the expert report using data from the United States Census Bureau's website (https://www.census.gov). This federal agency produces a) geographic files—e.g., county boundaries and block boundaries, b) tables of the block-level demographic information yielded specifically for redistricting (sometimes referred to as the PL 94-171 data) from the decennial census counts, c) "block assignment files," which are important for linking geography data to other data, and d) other interactive web-based resources. Representative links for these four categories of data are provided below:

a) https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2020.html

b) https://data.census.gov/cedsci/all?q=&y=2020&d=DEC%20Redistricting%20Data%20%28PL%2094-171%29

c) https://www.census.gov/geographies/reference-files/time-series/geo/block-assignment-files.html

d) https://www.census.gov/library/stories/state-by-state/georgia-population-change-between-census-decade.html

2. Another key source of information for the analysis was the Georgia General Assembly's Legislative and Congressional Reapportionment Office webpage, available at https://www.legis.ga.gov/joint-office/reapportionment. This webpage provided links to representations of the enacted State Senate and State House plans, as well as statistical summaries for the plans and copies of the Reapportionment Committee Guidelines for each chamber.

3. The list of residential addresses of elected Georgia General Assembly legislators was provided to me by counsel. To associate those addresses with coordinates on a map, I used the *Google Maps Platform's Geocoding API*.

4. The primary software application I used in the analysis of maps and the creation of the illustrative plans is *Maptitude for Redistricting*, produced by the Caliper Corporation. This specialized geographic information system (GIS) software allows for the importing, interconnecting, and synthesis of the multiple Census Bureau data files listed above. It allows for an existing plan to be imported (like the enacted plans from the Georgia General Assembly), then modified, or plans can be created starting from a blank template. The application generates not only the aggregated statistics for each of the created districts, but also can supply reports on overall characteristics of the plan like average district compactness and population deviation. *Maptitude for Redistricting* is widely used by state and local governments for redistricting and is in fact used by the Georgia General Assembly.

5. For the production of the visual figures in the report, I used two other pieces of software. For the maps, I used a separate open-source GIS software tool called *QGIS*. *QGIS* enabled me to take geographic files exported from *Maptitude for Redistricting* and create high-resolution graphics for insertion into the document with myriad options for customization of visual elements. For the graphs and charts, I used *Microsoft Excel*.

Esselstyn Report: Attachment C

Georgia county demographic statistics from 2020 census data, generated by Blake Esselstyn

County	Total population	% single race White	% single race Black	% single race American Indian and Alaska Native	% single race Asian	% single race Hawaiian or Pacific Islander	% other single race	% two or more races	% Black alone or in combination	% Hispanic or Latino
Appling	18,444	70.9%	18.4%	0.5%	0.7%	0.0%	5.7%	3.8%	19.8%	9.9%
Atkinson	8,286	63.7%	14.6%	0.8%	0.2%	0.0%	12.5%	8.1%	15.5%	24.7%
Bacon	11,140	74.1%	15.8%	0.1%	0.4%	0.0%	5.1%	4.5%	17.7%	7.9%
Baker	2,876	53.4%	39.3%	0.0%	0.6%	0.0%	2.5%	4.1%	41.0%	5.0%
Baldwin	43,799	51.7%	42.0%	0.2%	1.4%	0.1%	1.5%	3.1%	43.3%	2.6%
Banks	18,035	87.8%	2.2%	0.6%	1.1%	0.1%	2.8%	5.4%	3.3%	6.5%
Barrow	83,505	69.0%	12.4%	0.5%	3.9%	0.0%	6.0%	8.1%	14.3%	12.6%
Bartow	108,901	75.7%	10.6%	0.4%	1.1%	0.0%	4.9%	7.3%	12.3%	9.9%
Ben Hill	17,194	54.9%	36.4%	0.4%	0.7%	0.0%	3.2%	4.4%	38.0%	6.1%
Berrien	18,160	80.6%	10.8%	0.2%	0.4%	0.1%	2.6%	5.3%	12.1%	5.8%
Bibb	157,346	36.7%	54.6%	0.2%	2.1%	0.0%	2.4%	4.0%	56.5%	4.3%
Bleckley	12,583	71.7%	22.4%	0.2%	1.2%	0.1%	1.6%	2.9%	23.5%	3.7%
Brantley	18,021	91.2%	3.2%	0.3%	0.2%	0.0%	0.7%	4.4%	4.1%	1.8%
Brooks	16,301	57.1%	35.1%	0.3%	0.4%	0.0%	2.8%	4.3%	36.5%	5.9%
Bryan	44,738	72.0%	14.5%	0.3%	2.4%	0.1%	2.2%	8.5%	16.7%	7.3%
Bulloch	81,099	62.5%	28.4%	0.3%	1.6%	0.1%	2.3%	4.8%	30.1%	5.2%
Burke	24,596	49.5%	44.8%	0.2%	0.4%	0.1%	1.3%	3.7%	46.5%	3.2%
Butts	25,434	66.1%	26.9%	0.2%	0.4%	0.0%	1.7%	4.7%	28.4%	3.2%
Calhoun	5,573	32.0%	64.3%	0.1%	0.3%	0.0%	1.8%	1.4%	65.1%	2.7%
Camden	54,768	70.1%	17.7%	0.5%	1.6%	0.1%	2.1%	7.9%	20.2%	6.7%
Candler	10,981	61.6%	24.5%	0.3%	0.6%	0.0%	7.4%	5.5%	25.6%	12.5%
Carroll	119,148	69.3%	18.6%	0.4%	0.9%	0.0%	4.2%	6.6%	20.7%	8.0%
Catoosa	67,872	88.3%	2.7%	0.4%	1.5%	0.1%	1.3%	5.7%	3.9%	3.4%
Charlton	12,518	69.9%	21.0%	0.4%	0.9%	0.0%	4.3%	3.6%	22.4%	16.3%
Chatham	295,291	48.7%	37.0%	0.4%	3.6%	0.2%	3.9%	6.2%	39.1%	8.1%
Chattahoochee	9,565	62.4%	15.8%	0.5%	3.2%	1.2%	6.1%	10.9%	19.1%	16.8%
Chattooga	24,965	81.3%	9.6%	0.4%	0.4%	0.0%	3.4%	4.8%	11.5%	5.2%
Cherokee	266,620	76.8%	6.7%	0.5%	2.1%	0.0%	4.7%	9.2%	8.1%	12.0%
Clarke	128,671	58.2%	24.6%	0.5%	3.9%	0.1%	6.1%	6.7%	26.2%	11.1%
Clay	2,848	40.4%	56.1%	0.0%	0.2%	0.0%	0.3%	3.0%	57.4%	1.4%
Clayton	297,595	10.3%	69.9%	0.7%	4.6%	0.1%	8.8%	5.7%	72.7%	14.3%
Clinch	6,749	63.8%	29.1%	0.4%	0.3%	0.2%	2.1%	3.9%	31.1%	3.7%
Cobb	766,149	50.6%	26.6%	0.6%	5.6%	0.1%	7.1%	9.5%	29.1%	14.5%
Coffee	43,092	59.0%	27.8%	0.5%	0.7%	0.1%	6.9%	5.0%	29.2%	12.6%
Colquitt	45,898	59.4%	21.9%	0.9%	0.8%	0.0%	10.5%	6.5%	23.2%	19.0%
Columbia	156,010	65.4%	18.1%	0.3%	4.6%	0.2%	2.5%	8.8%	20.8%	7.6%
Cook	17,229	63.7%	27.7%	0.4%	0.6%	0.1%	3.1%	4.4%	29.1%	6.6%
Coweta	146,158	69.6%	17.7%	0.4%	2.3%	0.0%	3.2%	6.8%	19.4%	7.6%
Crawford	12,130	74.3%	18.7%	0.5%	0.3%	0.0%	1.3%	5.0%	20.2%	3.4%
Crisp	20,128	49.7%	44.1%	0.2%	0.9%	0.0%	1.9%	3.2%	45.7%	3.1%
Dade	16,251	91.7%	0.9%	0.5%	0.8%	0.0%	0.8%	5.3%	1.4%	2.2%
Dawson	26,798	89.0%	0.8%	0.3%	0.9%	0.1%	2.5%	6.4%	1.5%	6.0%
Decatur	29,367	49.6%	41.7%	0.4%	0.6%	0.1%	4.1%	3.6%	42.8%	6.5%
DeKalb	764,382	29.5%	50.9%	0.6%	6.6%	0.0%	5.9%	6.5%	53.3%	10.7%
Dodge	19,925	65.3%	29.5%	0.1%	0.5%	0.1%	1.4%	3.1%	30.9%	3.1%
Dooly	11,208	41.9%	49.6%	0.2%	0.5%	0.0%	5.0%	2.8%	50.4%	7.1%
Dougherty	85,790	24.5%	69.9%	0.2%	0.8%	0.0%	1.6%	3.0%	71.6%	2.8%
Douglas	144,237	36.2%	48.4%	0.5%	1.6%	0.1%	5.8%	7.3%	51.5%	11.1%
Early	10,854	44.8%	51.2%	0.3%	0.4%	0.0%	0.6%	2.6%	52.4%	1.7%
Echols	3,697	68.5%	4.2%	1.8%	0.3%	0.0%	14.7%	10.4%	5.2%	29.5%
Effingham	64,769	75.9%	13.7%	0.4%	1.1%	0.1%	2.1%	6.9%	15.5%	5.4%
Elbert	19,637	65.3%	26.9%	0.3%	0.9%	0.0%	2.6%	3.9%	28.1%	5.1%
Emanuel	22,768	61.6%	31.9%	0.3%	0.6%	0.0%	2.5%	3.1%	33.2%	4.4%
Evans	10,774	57.9%	28.9%	0.3%	0.8%	0.1%	6.4%	5.6%	30.4%	11.5%
Fannin	25,319	93.0%	0.3%	0.4%	0.4%	0.0%	1.3%	4.5%	0.8%	3.0%
Fayette	119,194	58.5%	24.8%	0.3%	5.4%	0.0%	3.3%	7.6%	26.9%	8.0%
Floyd	98,584	70.5%	14.3%	0.7%	1.3%	0.0%	5.9%	7.3%	15.8%	11.6%
Forsyth	251,283	65.1%	4.3%	0.4%	18.0%	0.0%	4.1%	8.1%	5.3%	10.0%
Franklin	23,424	83.0%	8.1%	0.2%	1.1%	0.0%	2.8%	4.7%	9.4%	4.8%
Fulton	1,066,710	39.3%	42.5%	0.3%	7.6%	0.0%	3.6%	6.6%	44.8%	8.1%
Gilmer	31,353	86.0%	0.5%	0.8%	0.5%	0.0%	6.5%	5.7%	0.9%	11.5%
Glascock	2,884	89.8%	6.8%	0.0%	0.2%	0.1%	0.1%	2.9%	7.8%	1.8%
Glynn	84,499	64.2%	24.5%	0.4%	1.4%	0.1%	3.7%	5.7%	26.2%	7.5%

County	Total population	% single race White	% single race Black	% single race American Indian and Alaska Native	% single race Asian	% single race Hawaiian or Pacific Islander	% other single race	% two or more races	% Black alone or in combination	% Hispanic or Latino
Gordon	57,544	78.4%	3.7%	0.6%	1.3%	0.0%	8.0%	8.0%	5.1%	15.6%
Grady	26,236	57.4%	28.0%	1.0%	0.5%	0.0%	8.0%	5.1%	29.3%	12.5%
Greene	18,915	59.7%	30.7%	0.2%	0.9%	0.0%	3.7%	4.7%	31.9%	6.8%
Gwinnett	957,062	35.5%	27.4%	0.8%	13.3%	0.1%	12.1%	10.7%	30.1%	23.0%
Habersham	46,031	78.7%	3.8%	0.5%	2.2%	0.1%	6.6%	8.1%	4.7%	14.9%
Hall	203,136	64.4%	7.2%	0.9%	2.1%	0.1%	14.4%	11.0%	8.4%	28.1%
Hancock	8,735	27.7%	69.0%	0.3%	0.4%	0.0%	0.3%	2.3%	70.2%	0.7%
Haralson	29,919	90.3%	4.2%	0.2%	0.6%	0.0%	0.7%	3.9%	5.2%	1.7%
Harris	34,668	76.0%	15.1%	0.4%	1.1%	0.1%	1.4%	5.9%	16.6%	4.1%
Hart	25,828	75.3%	16.8%	0.2%	1.3%	0.0%	1.8%	4.6%	18.3%	3.6%
Heard	11,412	84.8%	8.3%	0.3%	0.5%	0.1%	0.9%	5.3%	10.0%	2.2%
Henry	240,712	37.1%	49.1%	0.3%	3.4%	0.1%	3.6%	6.5%	52.0%	7.7%
Houston	163,633	54.1%	32.2%	0.4%	3.0%	0.1%	3.0%	7.3%	34.5%	7.2%
Irwin	9,666	67.1%	23.1%	0.2%	1.2%	0.0%	5.2%	3.2%	24.1%	6.9%
Jackson	75,907	79.7%	6.9%	0.3%	2.3%	0.1%	4.1%	6.6%	8.1%	8.8%
Jasper	14,588	74.8%	16.9%	0.3%	0.2%	0.1%	2.5%	5.3%	18.3%	4.7%
Jeff Davis	14,779	70.1%	15.6%	0.6%	0.4%	0.0%	8.5%	4.9%	16.9%	13.9%
Jefferson	15,709	44.2%	50.8%	0.3%	0.4%	0.0%	1.7%	2.6%	52.3%	2.9%
Jenkins	8,674	53.9%	40.9%	0.4%	0.1%	0.1%	2.1%	2.4%	41.9%	3.5%
Johnson	9,189	63.4%	33.0%	0.3%	0.3%	0.2%	0.5%	2.4%	34.0%	1.3%
Jones	28,347	71.3%	23.9%	0.2%	0.5%	0.0%	0.7%	3.5%	25.1%	1.7%
Lamar	18,500	67.4%	26.6%	0.1%	0.6%	0.0%	1.1%	4.2%	28.2%	2.6%
Lanier	9,877	68.8%	22.0%	0.4%	0.8%	0.2%	1.9%	5.8%	24.0%	5.8%
Laurens	49,570	56.8%	37.0%	0.2%	1.0%	0.0%	1.6%	3.4%	38.6%	2.9%
Lee	33,163	69.3%	22.2%	0.2%	2.6%	0.0%	1.1%	4.5%	23.4%	2.9%
Liberty	65,256	39.8%	43.1%	0.5%	2.1%	0.7%	4.1%	9.7%	47.7%	11.9%
Lincoln	7,690	68.1%	27.6%	0.2%	0.3%	0.0%	0.3%	3.4%	28.8%	1.2%
Long	16,168	56.9%	25.5%	0.8%	1.1%	0.6%	5.6%	9.5%	29.3%	12.2%
Lowndes	118,251	51.7%	37.6%	0.4%	1.7%	0.1%	2.7%	5.8%	39.5%	6.7%
Lumpkin	33,488	88.8%	1.3%	0.6%	0.8%	0.1%	2.1%	6.4%	2.0%	5.3%
Macon	12,082	34.4%	59.3%	0.3%	1.3%	0.1%	2.7%	2.0%	60.4%	3.9%
Madison	30,120	79.6%	9.2%	0.3%	1.8%	0.0%	3.4%	5.8%	10.6%	6.5%
Marion	7,498	60.7%	28.7%	0.3%	0.7%	0.2%	4.6%	4.7%	29.6%	7.5%
McDuffie	21,632	53.5%	40.1%	0.2%	0.4%	0.1%	1.6%	4.0%	41.8%	3.7%
McIntosh	10,975	65.1%	29.1%	0.3%	0.4%	0.0%	0.6%	4.4%	31.0%	2.1%
Meriwether	20,613	59.3%	35.3%	0.3%	0.4%	0.0%	1.0%	3.6%	36.6%	2.3%
Miller	6,000	66.4%	29.2%	0.2%	0.5%	0.1%	0.9%	2.7%	30.5%	2.3%
Mitchell	21,755	47.2%	46.5%	0.2%	0.5%	0.0%	2.8%	2.7%	47.8%	4.4%
Monroe	27,957	72.0%	21.9%	0.2%	0.9%	0.0%	1.1%	4.0%	23.0%	2.6%
Montgomery	8,610	67.2%	24.8%	0.3%	0.5%	0.0%	3.8%	3.5%	25.8%	6.6%
Morgan	20,097	72.7%	20.5%	0.2%	0.6%	0.0%	1.9%	4.0%	21.6%	3.5%
Murray	39,973	83.4%	0.7%	1.5%	0.3%	0.0%	7.0%	7.0%	1.4%	14.8%
Muscogee	206,922	39.9%	46.5%	0.4%	2.7%	0.3%	3.2%	7.1%	49.4%	8.0%
Newton	112,483	42.7%	46.9%	0.3%	0.9%	0.1%	3.3%	5.7%	49.7%	6.4%
Oconee	41,799	82.4%	4.6%	0.2%	5.0%	0.0%	2.1%	5.7%	5.5%	5.6%
Oglethorpe	14,825	74.7%	15.2%	0.4%	0.9%	0.0%	2.8%	6.0%	16.6%	5.9%
Paulding	168,661	65.9%	22.1%	0.4%	1.2%	0.1%	3.0%	7.3%	24.5%	7.4%
Peach	27,981	44.7%	43.7%	0.4%	0.7%	0.0%	5.3%	5.2%	45.2%	9.1%
Pickens	33,216	91.5%	0.9%	0.4%	0.6%	0.0%	1.4%	5.1%	1.5%	3.6%
Pierce	19,716	84.5%	8.1%	0.4%	0.4%	0.0%	2.8%	3.7%	9.1%	5.1%
Pike	18,889	87.0%	7.7%	0.2%	0.4%	0.0%	0.7%	4.0%	8.5%	1.8%
Polk	42,853	72.9%	12.2%	0.8%	0.6%	0.1%	7.8%	5.7%	13.6%	13.0%
Pulaski	9,855	61.9%	32.2%	0.1%	0.9%	0.0%	2.0%	2.8%	33.0%	3.3%
Putnam	22,047	66.5%	24.6%	0.4%	0.5%	0.0%	2.8%	5.2%	25.9%	7.1%
Quitman	2,235	53.2%	41.1%	0.6%	0.5%	0.0%	0.4%	4.1%	43.2%	1.4%
Rabun	16,883	89.0%	0.7%	0.4%	0.4%	0.0%	3.1%	6.4%	1.2%	8.6%
Randolph	6,425	35.1%	60.3%	0.2%	0.3%	0.0%	1.4%	2.6%	61.4%	2.2%
Richmond	206,607	34.4%	55.3%	0.3%	1.9%	0.2%	2.3%	5.6%	58.1%	5.5%
Rockdale	93,570	27.4%	58.1%	0.3%	1.6%	0.1%	5.7%	6.6%	61.1%	10.2%
Schley	4,547	75.3%	19.3%	0.1%	0.4%	0.0%	1.1%	3.7%	20.5%	3.8%
Screven	14,067	57.5%	37.7%	0.4%	0.4%	0.1%	0.8%	3.2%	39.3%	2.0%
Seminole	9,147	61.9%	32.7%	0.1%	0.7%	0.0%	1.4%	3.2%	33.8%	2.5%
Spalding	67,306	56.2%	34.6%	0.4%	1.0%	0.0%	2.5%	5.3%	36.4%	5.4%

County	Total population	% single race White	% single race Black	% single race American Indian and Alaska Native	% single race Asian	% single race Hawaiian or Pacific Islander	% other single race	% two or more races	% Black alone or in combination	% Hispanic or Latino
Stephens	26,784	80.6%	11.1%	0.4%	0.9%	0.0%	1.1%	5.9%	13.2%	3.2%
Stewart	5,314	25.4%	46.4%	0.2%	3.2%	0.1%	22.1%	2.5%	47.8%	22.9%
Sumter	29,616	39.8%	51.1%	0.3%	1.7%	0.0%	4.1%	3.1%	52.5%	6.0%
Talbot	5,733	42.9%	53.7%	0.1%	0.3%	0.0%	0.2%	2.8%	54.9%	2.0%
Taliaferro	1,559	38.9%	53.4%	0.3%	0.4%	0.0%	1.8%	5.3%	56.2%	4.4%
Tattnall	22,842	62.5%	26.3%	0.4%	0.6%	0.0%	5.6%	4.6%	27.7%	10.1%
Taylor	7,816	59.4%	36.2%	0.3%	0.5%	0.1%	0.8%	2.8%	37.7%	2.1%
Telfair	12,477	58.3%	37.1%	0.3%	0.3%	0.0%	1.7%	2.4%	38.1%	15.5%
Terrell	9,185	35.2%	60.6%	0.1%	0.7%	0.0%	0.6%	2.6%	62.1%	1.9%
Thomas	45,798	57.6%	35.7%	0.4%	0.9%	0.0%	1.6%	3.8%	37.1%	3.4%
Tift	41,344	56.2%	29.3%	0.3%	1.6%	0.0%	6.7%	5.8%	30.8%	12.6%
Toombs	27,030	61.3%	26.0%	0.4%	0.8%	0.0%	6.5%	5.1%	27.4%	11.3%
Towns	12,493	92.8%	1.0%	0.2%	0.6%	0.0%	1.5%	3.8%	1.3%	3.3%
Treutlen	6,406	64.1%	31.6%	0.3%	0.1%	0.0%	1.0%	2.8%	33.0%	2.7%
Troup	69,426	55.7%	35.0%	0.3%	2.3%	0.1%	2.5%	4.2%	36.7%	4.3%
Turner	9,006	53.4%	40.7%	0.1%	0.6%	0.0%	1.9%	3.3%	42.3%	4.1%
Twiggs	8,022	56.4%	38.9%	0.3%	0.5%	0.0%	0.5%	3.5%	40.2%	1.5%
Union	24,632	92.7%	0.5%	0.4%	0.4%	0.0%	1.1%	4.9%	0.9%	3.3%
Upson	27,700	65.5%	28.5%	0.3%	0.5%	0.0%	1.3%	3.8%	30.1%	2.3%
Walker	67,654	88.9%	4.2%	0.3%	0.4%	0.1%	1.1%	5.0%	5.4%	2.5%
Walton	96,673	72.0%	17.9%	0.3%	1.5%	0.1%	2.6%	5.6%	19.5%	5.4%
Ware	36,251	62.4%	29.7%	0.3%	0.9%	0.0%	2.4%	4.3%	31.5%	4.4%
Warren	5,215	38.2%	58.5%	0.3%	0.3%	0.1%	0.3%	2.3%	60.0%	1.0%
Washington	19,988	42.4%	53.7%	0.2%	0.4%	0.0%	0.8%	2.5%	54.9%	1.7%
Wayne	30,144	72.5%	19.8%	0.3%	0.6%	0.0%	2.5%	4.2%	21.2%	5.7%
Webster	2,348	48.8%	45.3%	0.1%	0.5%	0.3%	0.9%	4.2%	47.1%	2.5%
Wheeler	7,471	56.6%	38.6%	0.4%	0.2%	0.0%	2.0%	2.2%	39.5%	3.6%
White	28,003	90.2%	1.7%	0.5%	0.6%	0.0%	1.2%	5.8%	2.6%	3.3%
Whitfield	102,864	63.3%	3.7%	2.0%	1.4%	0.0%	17.7%	11.9%	4.8%	35.9%
Wilcox	8,766	59.9%	35.4%	0.0%	0.6%	0.0%	1.5%	2.6%	36.1%	3.1%
Wilkes	9,565	52.8%	40.2%	0.4%	0.6%	0.0%	1.9%	4.1%	41.7%	4.2%
Wilkinson	8,877	58.2%	35.8%	0.3%	0.3%	0.1%	1.3%	4.0%	37.5%	2.7%
Worth	20,784	69.9%	25.4%	0.3%	0.4%	0.0%	0.8%	3.1%	26.5%	1.8%

Esselstyn Report: Attachment D

Client: S018
Plan: Senate-prop1-2021
Type: Senate

Proposed Georgia Senate Districts

Legislative and Congressional Reapportionment Office
Georgia General Assembly
Suite 407 Coverdell Legislative Office Bldg.

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Proposed Georgia Senate Districts

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Proposed Georgia Senate Districts

Client: S018
Plan: Senate-prop1-2021
Type: Senate

Proposed Georgia Senate Districts

Client: S018
Plan: Senate-prop1-2021
Type: Senate

User: S018
Plan Name: Senate-prop1-2021
Plan Type: Senate

Population Summary

Summary Statistics:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	-1,964 to 1,879
Absolute Overall Range:	3,843
Relative Range:	-1.03% to 0.98%
Relative Overall Range:	2.01%
Absolute Mean Deviation:	1,012.61
Relative Mean Deviation:	0.53%
Standard Deviation:	1,154.96

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
001	191,402	118	0.06%	145,428	75.98%	58.9%	23.66%	8.78%	2.64%	0.25%	0.3%	0.48%	4.99%
002	190,408	-876	-0.46%	150,843	79.22%	36.4%	47.51%	8.36%	3.4%	0.21%	0.15%	0.46%	3.49%
003	191,212	-72	-0.04%	148,915	77.88%	66.23%	20.92%	6.82%	1.22%	0.26%	0.09%	0.42%	4.04%
004	191,098	-186	-0.10%	146,443	76.63%	64.48%	22.6%	6.49%	1.86%	0.23%	0.07%	0.38%	3.9%
005	191,921	637	0.33%	139,394	72.63%	13.35%	26.84%	45.47%	10.98%	0.15%	0.04%	0.64%	2.52%
006	191,401	117	0.06%	155,781	81.39%	56.41%	21.47%	9.18%	7.21%	0.16%	0.03%	1.11%	4.42%
007	189,709	-1,575	-0.82%	147,425	77.71%	35.09%	20.08%	18.57%	21.67%	0.16%	0.04%	0.66%	3.72%
008	192,396	1,112	0.58%	145,144	75.44%	57.39%	30.03%	7.28%	1.21%	0.28%	0.07%	0.35%	3.4%
009	192,915	1,631	0.85%	142,054	73.64%	32.04%	28.46%	21.09%	13.98%	0.18%	0.03%	0.72%	3.48%
010	192,898	1,614	0.84%	147,884	76.66%	17.71%	68.95%	6.03%	3.1%	0.18%	0.03%	0.66%	3.34%
011	189,976	-1,308	-0.68%	144,597	76.11%	55.75%	31.13%	9.36%	0.69%	0.23%	0.03%	0.26%	2.54%
012	190,819	-465	-0.24%	149,154	78.17%	33.83%	58.82%	3.89%	0.86%	0.16%	0.02%	0.21%	2.2%
013	189,326	-1,958	-1.02%	144,141	76.13%	61.25%	27.08%	7.2%	1.2%	0.17%	0.02%	0.26%	2.81%
014	192,533	1,249	0.65%	155,340	80.68%	54.63%	16.79%	13.97%	9.46%	0.13%	0.04%	0.79%	4.19%
015	189,446	-1,838	-0.96%	144,506	76.28%	34.07%	52.31%	7.57%	1.31%	0.23%	0.27%	0.44%	3.79%
016	191,829	545	0.28%	147,133	76.7%	64.19%	22.31%	5.95%	3.04%	0.17%	0.03%	0.51%	3.79%
017	192,510	1,226	0.64%	144,472	75.05%	56.69%	31.21%	6.08%	1.41%	0.16%	0.05%	0.59%	3.81%
018	191,825	541	0.28%	150,196	78.3%	58.41%	30.01%	5.18%	2.42%	0.22%	0.03%	0.4%	3.33%
019	192,316	1,032	0.54%	146,131	75.98%	61.67%	24.76%	9.72%	0.58%	0.17%	0.06%	0.27%	2.77%
020	192,588	1,304	0.68%	147,033	76.35%	59.74%	30.65%	4.21%	1.73%	0.15%	0.05%	0.31%	3.16%
021	192,572	1,288	0.67%	145,120	75.36%	71.13%	6.52%	10.13%	7.38%	0.19%	0.04%	0.53%	4.08%
022	193,163	1,879	0.98%	150,450	77.89%	31.1%	56.58%	5.63%	1.97%	0.24%	0.18%	0.44%	3.86%
023	190,344	-940	-0.49%	144,113	75.71%	54.27%	34.66%	5.46%	1.16%	0.24%	0.1%	0.34%	3.78%
024	192,674	1,390	0.73%	148,602	77.13%	67.45%	18.98%	5.4%	3.31%	0.18%	0.09%	0.43%	4.15%
025	191,161	-123	-0.06%	148,917	77.9%	57.45%	33.4%	4.27%	1.08%	0.16%	0.05%	0.43%	3.16%
026	189,945	-1,339	-0.70%	145,744	76.73%	33.26%	57.37%	4.85%	0.83%	0.21%	0.04%	0.31%	3.14%
027	190,676	-608	-0.32%	139,196	73%	68%	4.31%	11.61%	11.41%	0.18%	0.04%	0.52%	3.94%
028	190,422	-862	-0.45%	144,973	76.13%	67.06%	18.79%	7.4%	1.96%	0.22%	0.04%	0.48%	4.06%
029	189,424	-1,860	-0.97%	145,674	76.9%	60.71%	26.22%	5.34%	3.02%	0.23%	0.1%	0.42%	3.97%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
030	191,475	191	0.10%	145,077	75.77%	66.97%	19.83%	7.27%	0.95%	0.23%	0.03%	0.49%	4.24%
031	192,560	1,276	0.67%	142,251	73.87%	65.2%	19.83%	8.85%	1.07%	0.23%	0.06%	0.58%	4.19%
032	192,448	1,164	0.61%	149,879	77.88%	63.13%	13.22%	12.09%	5.49%	0.2%	0.04%	0.91%	4.91%
033	192,694	1,410	0.74%	146,415	75.98%	26%	40.48%	26.72%	2.13%	0.19%	0.05%	0.86%	3.56%
034	190,668	-616	-0.32%	141,840	74.39%	11.11%	66.6%	14.82%	3.9%	0.23%	0.04%	0.6%	2.7%
035	192,839	1,555	0.81%	144,675	75.02%	16.46%	69.77%	8.68%	1.13%	0.17%	0.06%	0.64%	3.08%
036	192,282	998	0.52%	161,385	83.93%	33.1%	51.35%	7.56%	3.58%	0.17%	0.04%	0.53%	3.68%
037	192,671	1,387	0.73%	147,779	76.7%	62.38%	18.04%	9.99%	3.85%	0.16%	0.03%	0.78%	4.76%
038	193,155	1,871	0.98%	148,367	76.81%	20.03%	62.74%	9.72%	3.42%	0.18%	0.04%	0.58%	3.29%
039	191,500	216	0.11%	156,022	81.47%	25.32%	60.33%	6.1%	4.25%	0.16%	0.04%	0.57%	3.22%
040	190,544	-740	-0.39%	147,000	77.15%	43.69%	16.42%	24.81%	10.84%	0.12%	0.04%	0.65%	3.43%
041	191,023	-261	-0.14%	145,278	76.05%	18.86%	60.28%	7.32%	9.19%	0.22%	0.02%	0.64%	3.48%
042	190,940	-344	-0.18%	153,952	80.63%	49.91%	28.14%	10.13%	6.81%	0.13%	0.03%	0.61%	4.24%
043	192,729	1,445	0.76%	145,741	75.62%	23.45%	62.77%	8.13%	1.24%	0.17%	0.09%	0.67%	3.49%
044	190,036	-1,248	-0.65%	145,224	76.42%	13.02%	69.13%	9.96%	4.15%	0.16%	0.04%	0.62%	2.91%
045	190,692	-592	-0.31%	140,706	73.79%	52.74%	17.12%	14.66%	10.69%	0.13%	0.03%	0.62%	4.01%
046	190,312	-972	-0.51%	146,713	77.09%	67.24%	16.64%	7.99%	3.77%	0.2%	0.03%	0.58%	3.56%
047	190,607	-677	-0.35%	146,599	76.91%	64.67%	16.96%	11.22%	2.66%	0.16%	0.04%	0.58%	3.71%
048	190,123	-1,161	-0.61%	136,995	72.06%	49.01%	8.35%	7.58%	30.59%	0.13%	0.04%	0.55%	3.75%
049	189,355	-1,929	-1.01%	144,123	76.11%	60.85%	7.13%	26.24%	2.15%	0.15%	0.04%	0.35%	3.08%
050	189,320	-1,964	-1.03%	148,799	78.6%	78.61%	5.05%	11.08%	1.22%	0.22%	0.04%	0.26%	3.52%
051	190,167	-1,117	-0.58%	155,571	81.81%	88.75%	0.84%	5.43%	0.59%	0.31%	0.02%	0.3%	3.77%
052	190,799	-485	-0.25%	146,620	76.85%	71.8%	12.39%	10.11%	1.08%	0.21%	0.03%	0.35%	4.02%
053	190,236	-1,048	-0.55%	148,201	77.9%	85.78%	4.46%	3.98%	1%	0.24%	0.06%	0.3%	4.18%
054	192,443	1,159	0.61%	143,843	74.75%	65.71%	2.97%	26.66%	1.14%	0.19%	0.02%	0.25%	3.07%
055	190,155	-1,129	-0.59%	141,968	74.66%	18.09%	62.96%	10.14%	4.19%	0.17%	0.04%	0.73%	3.67%
056	191,226	-58	-0.03%	144,448	75.54%	73.9%	6.36%	8.63%	5.67%	0.11%	0.03%	0.75%	4.56%

Total: **10,711,908**
Ideal District: **191,284**

User: S018
Plan Name: Senate-prop1-2021
Plan Type: Senate

Population Summary

Summary Statistics:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	-1,964 to 1,879
Absolute Overall Range:	3,843
Relative Range:	-1.03% to 0.98%
Relative Overall Range:	2.01%
Absolute Mean Deviation:	1,012.61
Relative Mean Deviation:	0.53%
Standard Deviation:	1,154.96

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
001	191,402	118	0.06%	145,428	75.98%	61.99%	22.8%	7.55%	2.81%	0.28%	0.27%	0.4%	3.9%
002	190,408	-876	-0.46%	150,843	79.22%	40.21%	44.81%	7.48%	3.77%	0.22%	0.15%	0.42%	2.95%
003	191,212	-72	-0.04%	148,915	77.88%	68.88%	19.81%	6.17%	1.27%	0.27%	0.08%	0.34%	3.19%
004	191,098	-186	-0.10%	146,443	76.63%	66.78%	21.98%	5.52%	1.9%	0.24%	0.07%	0.33%	3.17%
005	191,921	637	0.33%	139,394	72.63%	15.69%	27.21%	41.67%	12.41%	0.14%	0.04%	0.55%	2.28%
006	191,401	117	0.06%	155,781	81.39%	57.79%	21.79%	8.24%	7.14%	0.16%	0.03%	1.05%	3.8%
007	189,709	-1,575	-0.82%	147,425	77.71%	37.84%	19.33%	16.56%	22.58%	0.16%	0.05%	0.55%	2.93%
008	192,396	1,112	0.58%	145,144	75.44%	60.1%	29.02%	6.21%	1.27%	0.29%	0.08%	0.27%	2.75%
009	192,915	1,631	0.85%	142,054	73.64%	35.81%	27.23%	18.77%	14.59%	0.18%	0.04%	0.59%	2.8%
010	192,898	1,614	0.84%	147,884	76.66%	19.64%	68.31%	5.18%	3.15%	0.18%	0.04%	0.61%	2.89%
011	189,976	-1,308	-0.68%	144,597	76.11%	58.97%	30.08%	7.6%	0.72%	0.26%	0.02%	0.22%	2.13%
012	190,819	-465	-0.24%	149,154	78.17%	36.71%	56.63%	3.48%	0.92%	0.18%	0.02%	0.18%	1.88%
013	189,326	-1,958	-1.02%	144,141	76.13%	64.1%	26.01%	6.01%	1.21%	0.17%	0.02%	0.21%	2.26%
014	192,533	1,249	0.65%	155,340	80.68%	57.1%	16.83%	12.13%	9.43%	0.12%	0.05%	0.74%	3.61%
015	189,446	-1,838	-0.96%	144,506	76.28%	36.52%	51.56%	6.59%	1.45%	0.23%	0.25%	0.36%	3.04%
016	191,829	545	0.28%	147,133	76.7%	66.91%	21.49%	5.03%	2.92%	0.18%	0.03%	0.42%	3.01%
017	192,510	1,226	0.64%	144,472	75.05%	59.42%	30.21%	5.13%	1.41%	0.17%	0.03%	0.49%	3.14%
018	191,825	541	0.28%	150,196	78.3%	60.69%	29.2%	4.51%	2.46%	0.22%	0.03%	0.29%	2.6%
019	192,316	1,032	0.54%	146,131	75.98%	63.99%	24.52%	8.38%	0.62%	0.18%	0.06%	0.2%	2.06%
020	192,588	1,304	0.68%	147,033	76.35%	61.71%	30.17%	3.49%	1.76%	0.16%	0.05%	0.25%	2.41%
021	192,572	1,288	0.67%	145,120	75.36%	73.87%	6.37%	8.77%	6.98%	0.18%	0.04%	0.48%	3.32%
022	193,163	1,879	0.98%	150,450	77.89%	34.38%	53.94%	5.35%	2.3%	0.24%	0.18%	0.38%	3.24%
023	190,344	-940	-0.49%	144,113	75.71%	56.89%	33.91%	4.52%	1.24%	0.25%	0.09%	0.27%	2.84%
024	192,674	1,390	0.73%	148,602	77.13%	69.81%	18.69%	4.4%	3.27%	0.2%	0.07%	0.35%	3.2%
025	191,161	-123	-0.06%	148,917	77.9%	59.94%	32.23%	3.66%	1.09%	0.18%	0.04%	0.39%	2.48%
026	189,945	-1,339	-0.70%	145,744	76.73%	36.6%	55.18%	4.24%	0.92%	0.22%	0.03%	0.24%	2.56%
027	190,676	-608	-0.32%	139,196	73%	71.5%	4.16%	10.2%	10.27%	0.15%	0.04%	0.45%	3.22%
028	190,422	-862	-0.45%	144,973	76.13%	69.44%	18.18%	6.44%	1.99%	0.23%	0.04%	0.38%	3.29%

Population Summary

Senate-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
029	189,424	-1,860	-0.97%	145,674	76.9%	63.22%	25.52%	4.45%	3%	0.23%	0.11%	0.33%	3.13%
030	191,475	191	0.10%	145,077	75.77%	69.41%	19.44%	6.1%	0.97%	0.24%	0.03%	0.41%	3.4%
031	192,560	1,276	0.67%	142,251	73.87%	68.26%	19.13%	7.42%	1.12%	0.22%	0.06%	0.46%	3.33%
032	192,448	1,164	0.61%	149,879	77.88%	65.78%	13.13%	10.55%	5.42%	0.2%	0.04%	0.83%	4.05%
033	192,694	1,410	0.74%	146,415	75.98%	30.25%	40.26%	22.93%	2.35%	0.22%	0.05%	0.81%	3.14%
034	190,668	-616	-0.32%	141,840	74.39%	13.36%	66.5%	12.75%	4.26%	0.22%	0.04%	0.56%	2.31%
035	192,839	1,555	0.81%	144,675	75.02%	18.82%	68.87%	7.51%	1.26%	0.18%	0.06%	0.59%	2.7%
036	192,282	998	0.52%	161,385	83.93%	36.18%	48.68%	7.06%	4.01%	0.17%	0.04%	0.51%	3.34%
037	192,671	1,387	0.73%	147,779	76.7%	65.37%	17.41%	8.69%	3.94%	0.17%	0.04%	0.67%	3.73%
038	193,155	1,871	0.98%	148,367	76.81%	21.87%	62.45%	8.44%	3.55%	0.18%	0.04%	0.56%	2.92%
039	191,500	216	0.11%	156,022	81.47%	27.87%	57.97%	5.65%	4.83%	0.15%	0.04%	0.5%	2.98%
040	190,544	-740	-0.39%	147,000	77.15%	46.34%	17.32%	21.62%	11.15%	0.11%	0.04%	0.59%	2.84%
041	191,023	-261	-0.14%	145,278	76.05%	21.39%	59.67%	6.68%	8.42%	0.22%	0.02%	0.6%	3.01%
042	190,940	-344	-0.18%	153,952	80.63%	51.39%	28.73%	8.64%	7.16%	0.12%	0.03%	0.53%	3.4%
043	192,729	1,445	0.76%	145,741	75.62%	26.53%	61.35%	6.89%	1.34%	0.17%	0.08%	0.6%	3.05%
044	190,036	-1,248	-0.65%	145,224	76.42%	15.29%	68.39%	8.6%	4.37%	0.17%	0.04%	0.56%	2.58%
045	190,692	-592	-0.31%	140,706	73.79%	55.47%	16.86%	13.05%	10.89%	0.13%	0.03%	0.5%	3.07%
046	190,312	-972	-0.51%	146,713	77.09%	69.9%	15.64%	6.99%	3.85%	0.22%	0.02%	0.5%	2.89%
047	190,607	-677	-0.35%	146,599	76.91%	67.46%	16.34%	9.57%	2.79%	0.17%	0.04%	0.5%	3.13%
048	190,123	-1,161	-0.61%	136,995	72.06%	52.25%	8.26%	7%	29.05%	0.11%	0.04%	0.47%	2.83%
049	189,355	-1,929	-1.01%	144,123	76.11%	65.64%	7.12%	21.9%	2.22%	0.16%	0.04%	0.29%	2.63%
050	189,320	-1,964	-1.03%	148,799	78.6%	81.54%	5.03%	8.78%	1.24%	0.24%	0.03%	0.24%	2.91%
051	190,167	-1,117	-0.58%	155,571	81.81%	90.24%	0.84%	4.34%	0.61%	0.33%	0.02%	0.27%	3.34%
052	190,799	-485	-0.25%	146,620	76.85%	74.74%	12.08%	8.24%	1.13%	0.22%	0.02%	0.29%	3.27%
053	190,236	-1,048	-0.55%	148,201	77.9%	87.31%	4.49%	3.23%	0.99%	0.26%	0.06%	0.22%	3.44%
054	192,443	1,159	0.61%	143,843	74.75%	69.98%	3.07%	22.64%	1.15%	0.22%	0.02%	0.21%	2.71%
055	190,155	-1,129	-0.59%	141,968	74.66%	20.56%	62.42%	8.71%	4.24%	0.18%	0.04%	0.67%	3.18%
056	191,226	-58	-0.03%	144,448	75.54%	76.17%	6.37%	7.66%	5.51%	0.12%	0.03%	0.63%	3.51%

Total: **10,711,908**

Ideal District: **191,284**

The preceding report, published by the Georgia General Assembly, does not include statistics for the percentage of the voting age population that is "Black or African American alone or in combination," also known as the "any part Black voting age population" percentage or "APBVAP%." As these percentages are relevant for determining which State Senate districts can be considered majority-Black under the conventions used in the expert report, I have provided them below after having exported a listing from the *Maptitude for Redistricting* software.

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
1	25.08%	15	54.00%	29	26.88%	43	64.33%
2	46.86%	16	22.70%	30	20.92%	44	71.34%
3	21.18%	17	32.01%	31	20.70%	45	18.58%
4	23.37%	18	30.40%	32	14.86%	46	16.90%
5	29.94%	19	25.72%	33	42.96%	47	17.42%
6	23.90%	20	31.28%	34	69.54%	48	9.47%
7	21.44%	21	7.46%	35	71.90%	49	7.96%
8	30.38%	22	56.50%	36	51.34%	50	5.61%
9	29.53%	23	35.48%	37	19.27%	51	1.21%
10	71.46%	24	19.85%	38	65.30%	52	13.04%
11	31.04%	25	33.48%	39	60.70%	53	5.10%
12	57.97%	26	56.99%	40	19.24%	54	3.79%
13	26.97%	27	5.00%	41	62.61%	55	65.97%
14	18.97%	28	19.51%	42	30.78%	56	7.57%

Esselstyn Report: Attachment E

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
1	191,402	118	0.06%	61.01%	24.27%	0.38%	2.69%	0.33%	3.22%	8.11%	8.78%	27.05%	25.08%
2	190,408	-876	-0.46%	37.90%	48.03%	0.36%	3.44%	0.17%	4.31%	5.79%	8.36%	50.27%	46.86%
3	191,212	-72	-0.04%	68.28%	21.28%	0.42%	1.25%	0.11%	2.73%	5.93%	6.82%	23.14%	21.18%
4	191,098	-186	-0.10%	65.93%	22.86%	0.34%	1.88%	0.08%	2.94%	5.97%	6.49%	24.63%	23.37%
5	191,921	637	0.33%	18.45%	27.57%	1.64%	11.06%	0.07%	27.36%	13.84%	45.48%	30.07%	29.94%
6	191,834	550	0.29%	57.94%	21.00%	0.37%	7.36%	0.04%	4.82%	8.47%	9.84%	23.20%	22.95%
7	189,709	-1,575	-0.82%	37.68%	20.56%	0.59%	21.74%	0.07%	9.04%	10.32%	18.57%	22.96%	21.44%
8	192,396	1,112	0.58%	59.12%	30.35%	0.43%	1.24%	0.08%	3.29%	5.49%	7.28%	32.11%	30.38%
9	192,915	1,631	0.85%	34.88%	29.00%	0.84%	14.04%	0.05%	10.88%	10.31%	21.09%	31.62%	29.53%
10	192,601	1,317	0.69%	32.32%	59.43%	0.23%	1.03%	0.02%	2.00%	4.96%	4.20%	62.00%	61.10%
11	189,976	-1,308	-0.68%	57.47%	31.30%	0.57%	0.71%	0.03%	5.24%	4.67%	9.36%	32.62%	31.04%
12	190,819	-465	-0.24%	34.34%	59.08%	0.21%	0.88%	0.03%	2.56%	2.90%	3.89%	60.59%	57.97%
13	194,905	3,621	1.89%	62.81%	27.41%	0.29%	1.19%	0.03%	3.72%	4.55%	7.10%	28.75%	27.24%
14	192,533	1,249	0.65%	56.63%	17.15%	0.39%	9.49%	0.05%	6.50%	9.81%	13.97%	19.43%	18.97%
15	189,446	-1,838	-0.96%	35.64%	52.99%	0.37%	1.35%	0.29%	3.34%	6.01%	7.57%	55.72%	54.00%
16	190,077	-1,207	-0.63%	69.67%	19.46%	0.29%	2.53%	0.03%	2.09%	5.93%	5.29%	20.93%	19.72%
17	193,838	2,554	1.34%	70.00%	21.64%	0.26%	0.94%	0.04%	2.25%	4.88%	4.73%	22.98%	21.77%
18	192,680	1,396	0.73%	59.61%	29.57%	0.30%	2.27%	0.06%	2.50%	5.69%	5.47%	31.37%	30.04%
19	192,316	1,032	0.54%	64.20%	25.16%	0.41%	0.60%	0.07%	4.94%	4.62%	9.72%	26.72%	25.72%
20	194,919	3,635	1.90%	60.69%	32.35%	0.23%	1.01%	0.06%	1.82%	3.84%	3.81%	33.78%	32.45%
21	192,572	1,288	0.67%	73.26%	6.66%	0.50%	7.41%	0.04%	3.93%	8.19%	10.13%	8.04%	7.46%
22	188,930	-2,354	-1.23%	36.87%	50.98%	0.35%	2.31%	0.19%	2.78%	6.52%	6.88%	54.05%	50.84%
23	188,095	-3,189	-1.67%	42.46%	51.48%	0.29%	0.61%	0.10%	1.42%	3.64%	3.04%	53.25%	51.06%
24	194,277	2,993	1.56%	69.67%	17.49%	0.29%	3.58%	0.13%	1.95%	6.88%	5.61%	19.48%	18.38%
25	192,708	1,424	0.74%	27.57%	58.22%	0.34%	3.61%	0.06%	3.89%	6.30%	8.14%	61.38%	58.93%
26	190,535	-749	-0.39%	36.13%	54.05%	0.30%	1.92%	0.04%	2.93%	4.64%	5.41%	56.18%	52.84%
27	190,676	-608	-0.32%	69.94%	4.43%	0.45%	11.44%	0.04%	4.92%	8.78%	11.61%	5.51%	5.00%
28	189,696	-1,588	-0.83%	30.66%	56.20%	0.36%	2.24%	0.04%	4.70%	5.79%	8.95%	58.59%	57.28%
29	189,424	-1,860	-0.97%	61.96%	26.49%	0.34%	3.05%	0.11%	2.15%	5.90%	5.34%	28.39%	26.88%
30	191,939	655	0.34%	74.89%	14.88%	0.37%	0.83%	0.03%	3.07%	5.92%	6.15%	16.66%	15.77%
31	192,755	1,471	0.77%	68.30%	19.22%	0.44%	1.07%	0.07%	4.02%	6.88%	8.60%	21.30%	19.61%
32	192,448	1,164	0.61%	65.58%	13.56%	0.45%	5.53%	0.05%	5.09%	9.73%	12.09%	15.61%	14.86%
33	192,694	1,410	0.74%	30.10%	41.18%	1.03%	2.16%	0.07%	14.18%	11.27%	26.72%	44.04%	42.96%
34	192,023	739	0.39%	22.60%	57.52%	0.67%	4.16%	0.06%	8.70%	6.30%	14.36%	60.15%	58.97%
35	193,194	1,910	1.00%	33.51%	52.94%	0.43%	1.33%	0.07%	4.93%	6.79%	9.56%	55.95%	54.05%

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
36	192,282	998	0.52%	34.70%	51.92%	0.35%	3.62%	0.05%	3.23%	6.14%	7.56%	54.36%	51.34%
37	192,671	1,387	0.73%	64.32%	18.38%	0.38%	3.89%	0.04%	3.92%	9.08%	9.99%	20.86%	19.27%
38	190,605	-679	-0.36%	20.91%	64.48%	0.43%	3.34%	0.05%	4.86%	5.94%	9.12%	67.17%	66.36%
39	190,184	-1,100	-0.58%	26.93%	60.38%	0.30%	4.33%	0.05%	2.86%	5.16%	6.09%	62.78%	60.21%
40	190,544	-740	-0.39%	46.44%	16.84%	1.29%	10.90%	0.06%	14.32%	10.16%	24.81%	18.75%	19.24%
41	191,023	-261	-0.14%	19.86%	60.99%	0.44%	9.23%	0.02%	3.93%	5.54%	7.32%	63.74%	62.61%
42	190,153	-1,131	-0.59%	52.87%	26.90%	0.45%	6.95%	0.03%	4.97%	7.83%	10.21%	28.96%	29.09%
43	191,784	500	0.26%	30.42%	57.48%	0.33%	1.16%	0.11%	4.56%	5.95%	8.28%	60.40%	58.52%
44	188,256	-3,028	-1.58%	14.26%	69.94%	0.50%	4.23%	0.05%	5.60%	5.40%	9.71%	72.72%	71.52%
45	190,692	-592	-0.31%	55.41%	17.52%	0.47%	10.75%	0.04%	6.32%	9.49%	14.66%	19.69%	18.58%
46	190,312	-972	-0.51%	68.86%	16.88%	0.35%	3.81%	0.04%	3.65%	6.40%	7.99%	18.49%	16.90%
47	190,607	-677	-0.35%	66.86%	17.14%	0.41%	2.70%	0.05%	5.81%	7.04%	11.22%	18.64%	17.42%
48	190,123	-1,161	-0.61%	50.35%	8.51%	0.26%	30.63%	0.04%	2.69%	7.52%	7.58%	9.93%	9.47%
49	189,355	-1,929	-1.01%	65.60%	7.32%	0.80%	2.17%	0.05%	13.52%	10.54%	26.24%	8.50%	7.96%
50	189,320	-1,964	-1.03%	80.96%	5.13%	0.49%	1.23%	0.05%	5.21%	6.93%	11.08%	6.19%	5.61%
51	190,167	-1,117	-0.58%	89.94%	0.88%	0.51%	0.60%	0.03%	2.50%	5.55%	5.43%	1.49%	1.21%
52	190,799	-485	-0.25%	73.61%	12.56%	0.54%	1.09%	0.03%	5.02%	7.14%	10.11%	14.20%	13.04%
53	190,236	-1,048	-0.55%	86.66%	4.52%	0.38%	1.01%	0.07%	1.96%	5.40%	3.98%	5.74%	5.10%
54	192,443	1,159	0.61%	71.00%	3.13%	1.54%	1.16%	0.03%	13.21%	9.94%	26.66%	4.22%	3.79%
55	190,155	-1,129	-0.59%	19.41%	63.85%	0.45%	4.23%	0.06%	4.93%	7.08%	10.14%	67.34%	65.97%
56	191,226	-58	-0.03%	75.62%	6.50%	0.26%	5.69%	0.04%	2.88%	9.02%	8.63%	8.08%	7.57%

Esselstyn Report: Attachment F

2021 Committee Guidelines

I. HEARINGS AND MEETINGS

A. PUBLIC HEARINGS

1. A series of public hearings were held to actively seek public participation and input concerning the General Assembly's redrawing of congressional and legislative districts.

2. Video recordings of all hearings are and shall remain available on the legislative website, www.legis.ga.gov

B. COMMITTEE MEETINGS

1. All formal meetings of the full committee will be open to the public.

2. When the General Assembly is not in session, notices of all such meetings will be posted at the Offices of the Clerk of the House or Secretary of the Senate and other appropriate places at least 24 hours in advance of any meeting. Individual notices may be transmitted by email to any citizen or organization requesting the same without charge. Persons or organizations needing this information should contact the Senate Press Office or House Communications Office or the Secretary of the Senate or Clerk of the House to be placed on the notification list.

3. Minutes of all such meetings shall be kept and maintained in accordance with the rules of the House and Senate. Copies of the minutes should be made available in a timely manner at a reasonable cost in accordance with these same rules.

IL PUBLIC ACCESS TO REDISTRICTING DATA AND MATERIALS

A. Census information databases on any medium created at public expense and held by the Committee or by the Legislative and Congressional Reapportionment Office for use in the redistricting process are included as public records and copies can be made available to the public in accordance with the rules of the General Assembly and subject to reasonable charges for search, retrieval, reproduction and other reasonable, related costs.

B. Copies of the public records described above may be obtained at the cost of reproduction by members of the public on electronic media if the material exists on an appropriate electronic medium. Cost of reproduction may include not only the medium on which the copies made, but also the labor cost for the search, retrieval, and reproduction of the records and other reasonable, related costs.

C. These guidelines regarding public access to redistricting data and materials do not apply to plans or other related materials prepared by or on behalf of an individual Member of the General Assembly using the Legislative and Congressional Reapportionment Office, where those plans and materials have not been made public through presentation to the Committee.

III. REDISTRICTING PLANS

A. GENERAL PRINCIPLES FOR DRAFTING PLANS

1. Each congressional district should be drawn with a total population of plus or minus one person from the ideal district size.

2. Each legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below.

3. All plans adopted by the Committee will comply with Section 2 of the Voting Rights Act of 1965, as amended.

4. All plans adopted by the Committee will comply with the United States and Georgia Constitutions.

5. Districts shall be composed of contiguous geography. Districts that connect on a single point are not contiguous.

6. No multi-member districts shall be drawn on any legislative redistricting plan.

7. The Committee should consider:

   a. The boundaries of counties and precincts;

   b. Compactness; and

   c. Communities of interest.

8. Efforts should be made to avoid the unnecessary pairing of incumbents.

9. The identifying of these criteria is not intended to limit the consideration of any other principles or factors that the Committee deems appropriate.

B. PLANS PRODUCED THROUGH THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. Staff of the Legislative and Congressional Reapportionment Office will be available to all members of the General Assembly requesting assistance in accordance with the policy of that office.

2. Census data and redistricting work maps will be available to all members of the General Assembly upon request, provided that (a) the map was created by the requesting member, (b) the map is publicly available, or (c) the Legislative and Congressional Reapportionment Office has been granted permission by the author of the map to share a copy with the requesting member.

3. As noted above, redistricting plans and other records related to the provision of staff services to individual members of the General Assembly will not be subject to public disclosure. Only the author of a particular map may waive the confidentiality of his or her own work product. This confidentiality provision will not apply with respect to records related to the provision of staff services to any committee or subcommittee as a whole or to any records which are or have been previously disclosed by or pursuant to the direction of an individual member of the General Assembly.

C. PLANS PRODUCED OUTSIDE OF THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. All plans submitted to the Committee will be made part of the public record and made available in the same manner as other committee public records.

2. All plans prepared outside the Legislative and Congressional Reapportionment Office must be submitted to that office prior to presentation to the Committee by a Member of the General Assembly for technical verification and presentation and bill preparation. All pieces of census geography must be accounted for in some district.

3. The electronic submission of material for technical verification must be made in accordance with the following requirements or in a manner specifically approved and accepted by the Legislative and Congressional Reapportionment Office.

   a. The submission shall be in electronic format with accompanying documentation that shows the submitting sponsor of the proposed plan and contact person for the proposed plan, including email address and telephone number.

b. An electronic map image that clearly depicts defined boundaries, utilizing the 2020 United States Census geographic boundaries, and a block equivalency file containing two columns. The first column shall list the 15-digit census block identification numbers, and the second column shall list the three-digit district identification number. Both block and district numbers shall be zero-filled text files. Such files shall be submitted in .xis, .xlsx, .dbf, .txt, or .csv file formats. The following is a sample:

```
BlockID, DISTRICT
"13001950100101","008"
"13001950100102","008"
"13001950100103","008"
"13001950100104","008"
"13001950100105","008"
"13001950100106","008"
```

4. If submission of the plan cannot be done electronically, the following requirements must be followed:

a. All drafts, amendments, or revisions should be on clearly-depicted maps that follow the 2020 Census geographic boundaries and should be accompanied by a statistical sheet listing the Census geography including the total population for each district.

b. All plans submitted should either be a complete statewide plan or fit back into the plan that they modified, so that the proposal can be evaluated in the context of a statewide plan. All pieces of Census geography must be accounted for in some district.

D. GENERAL GUIDELINES FOR PRESENTATION OF ALL PLANS

1. A redistricting plan may be presented for consideration by the Committee only through the sponsorship of one or more Member(s) of the General Assembly. All such drafts of and amendments or revisions to plans presented at any committee meeting must be on clearly-depicted maps which follow the 2020 Census geographic boundaries and accompanied by a statistical sheet listing the Census geography, including the total population and minority populations for each proposed district.

2. No plan may be presented to the Committee unless that plan makes accommodations for and fits back into a specific, identified statewide map for the particular legislative body involved.

3. All plans presented at committee meetings will be made available for inspection by the public either electronically or by hard copy available at the Office of Legislative and Congressional Reapportionment.

E. These guidelines may be reconsidered or amended by the Committee.

Esselstyn Report: Attachment G

Explanation of compactness measures

The following explanations of the five measures of compactness considered in the report are taken from the documentation that accompanies *Maptitude for Redistricting*, the software that was used to generate the compactness scores.

The **Reock** test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact.

The **Schwartzberg** test is a perimeter-based measure that compares a simplified version of each district to a circle, which is considered to be the most compact shape possible. [...] For each district, the Schwartzberg test computes the ratio of the perimeter of the simplified version of the district to the perimeter of a circle with the same area as the original district. [...] This measure is usually greater than or equal to 1, with 1 being the most compact.

The **Polsby-Popper** test computes the ratio of the district area to the area of a circle with the same perimeter: $4\pi\text{Area}/(\text{Perimeter}^2)$. The measure is always between 0 and 1, with 1 being the most compact.

The **Area/Convex Hull** test computes the ratio the district area to the area of the convex hull of the district (minimum convex polygon which completely contains the district). The measure is always between 0 and 1, with 1 being the most compact.

The **Cut Edges** test counts the number of edges removed ("cut") from the adjacency (dual) graph of the base layer to define the districting plan. The adjacency

graph is defined by creating a node for each base layer area. An edge is added between two nodes if the two corresponding base layer areas are adjacent: i.e., share a common linear boundary. If such a boundary forms part of the district boundary then its corresponding edge is cut by the plan. The measure is a single number for the plan. A smaller number implies a more compact plan.

Explanatory graphic for the Cut Edges test (from same source):

Esselstyn Report: Attachment H

More detailed tables for comparative characteristics of State Senate plans

Population Deviation:

The deviation statistics for each individual district in the respective plans can be found in **Attachment D** and **Attachment E**. Below are the summary statistics generated by the *Maptitude for Redistricting* software.

Enacted plan:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	
Absolute Overall Range:	
Relative Range:	-1,964 to 1,879
Relative Overall Range:	3,843
Absolute Mean Deviation:	-1.03% to 0.98%
Relative Mean Deviation:	2.01%
Standard Deviation:	1,012.61
	0.53%
	1,154.96

Illustrative plan:

Population Range:	
Ratio Range:	
Absolute Range:	188,095 to 194,919
Absolute Overall Range:	0.04
Relative Range:	-3,189 to 3,635
Relative Overall Range:	6,824
Absolute Mean Deviation:	-1.67% to 1.90%
Relative Mean Deviation:	3.57%
Standard Deviation:	1,283.86
	0.67%
	1,529.53

Compactness:

Below is the compactness report for the Senate enacted plan.

User:
Plan Name: **GA Sen 000**
Plan Type: **Reference**

Measures of Compactness Report

Thursday, January 13, 2022 1:11 PM

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
1	0.49	1.60	0.31	0.79
2	0.47	1.80	0.22	0.73
3	0.39	1.70	0.21	0.70
4	0.47	1.64	0.27	0.75
5	0.17	2.10	0.21	0.65
6	0.41	1.94	0.24	0.70
7	0.35	1.66	0.34	0.79
8	0.45	1.77	0.23	0.73
9	0.24	2.06	0.21	0.69
10	0.28	1.98	0.23	0.69
11	0.36	1.57	0.33	0.79

Measures of Compactness Report

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
12	0.62	1.46	0.39	0.86
13	0.45	1.72	0.26	0.73
14	0.27	1.90	0.24	0.66
15	0.57	1.52	0.32	0.83
16	0.37	1.55	0.31	0.77
17	0.35	2.22	0.17	0.63
18	0.47	1.85	0.21	0.76
19	0.53	1.47	0.37	0.84
20	0.41	1.50	0.36	0.80
21	0.42	1.56	0.33	0.83
22	0.41	1.68	0.29	0.75
23	0.37	1.93	0.16	0.70
24	0.37	1.89	0.21	0.68
25	0.39	1.81	0.24	0.73

Measures of Compactness Report

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
26	0.47	1.90	0.20	0.68
27	0.50	1.37	0.46	0.88
28	0.45	1.79	0.25	0.69
29	0.58	1.37	0.42	0.88
30	0.60	1.51	0.41	0.87
31	0.37	1.58	0.38	0.84
32	0.29	1.98	0.21	0.64
33	0.40	1.96	0.22	0.72
34	0.45	1.60	0.34	0.74
35	0.47	1.78	0.26	0.83
36	0.32	1.76	0.30	0.76
37	0.49	1.51	0.37	0.80
38	0.36	2.01	0.21	0.76
39	0.17	2.67	0.13	0.50

Measures of Compactness Report

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
40	0.51	1.65	0.34	0.78
41	0.51	1.78	0.30	0.74
42	0.48	1.73	0.32	0.82
43	0.64	1.56	0.35	0.85
44	0.18	2.12	0.19	0.68
45	0.35	1.72	0.30	0.73
46	0.37	1.99	0.21	0.72
47	0.36	2.06	0.19	0.66
48	0.35	1.61	0.34	0.79
49	0.46	1.55	0.34	0.79
50	0.45	1.79	0.23	0.72
51	0.68	1.31	0.50	0.92
52	0.47	1.80	0.25	0.72
53	0.49	1.48	0.40	0.90

Measures of Compactness Report

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
54	0.60	1.38	0.44	0.83
55	0.34	1.84	0.27	0.81
56	0.38	1.70	0.30	0.80

Measures of Compactness Report

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

Below is the compactness report for the Senate illustrative plan.

User:
Plan Name: **GA Senate Illustrative**
Plan Type: **Reference**

Measures of Compactness Report

Saturday, December 3, 2022 2:09 PM

Number of cut edges: 11,003

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
1	0.49	1.60	0.31	0.79
2	0.47	1.80	0.22	0.73
3	0.39	1.70	0.21	0.70
4	0.47	1.64	0.27	0.75
5	0.17	2.10	0.21	0.65
6	0.42	1.95	0.23	0.71
7	0.35	1.66	0.34	0.79
8	0.45	1.77	0.23	0.73
9	0.24	2.06	0.21	0.69
10	0.25	2.08	0.19	0.68
11	0.36	1.57	0.33	0.79

Measures of Compactness Report

Number of cut edges: 11,003

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
12	0.62	1.46	0.39	0.86
13	0.48	1.70	0.25	0.76
14	0.27	1.90	0.24	0.66
15	0.57	1.52	0.32	0.83
16	0.39	1.76	0.27	0.71
17	0.35	2.21	0.16	0.60
18	0.38	1.91	0.20	0.66
19	0.53	1.47	0.37	0.84
20	0.28	1.83	0.24	0.71
21	0.42	1.56	0.33	0.83
22	0.33	1.70	0.32	0.74
23	0.34	1.93	0.17	0.69
24	0.27	1.87	0.23	0.72
25	0.57	1.55	0.34	0.80

Measures of Compactness Report

Number of cut edges: 11,003

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
26	0.44	1.56	0.25	0.77
27	0.50	1.37	0.46	0.88
28	0.38	2.17	0.19	0.66
29	0.58	1.37	0.42	0.88
30	0.41	1.55	0.38	0.84
31	0.40	1.43	0.46	0.86
32	0.29	1.98	0.21	0.64
33	0.40	1.96	0.22	0.72
34	0.31	1.98	0.21	0.66
35	0.59	1.48	0.42	0.86
36	0.32	1.76	0.30	0.76
37	0.49	1.51	0.37	0.80
38	0.37	2.05	0.20	0.75
39	0.18	2.67	0.13	0.52

Measures of Compactness Report

Number of cut edges: 11,003

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
40	0.51	1.65	0.34	0.78
41	0.51	1.78	0.30	0.74
42	0.47	1.96	0.25	0.78
43	0.49	1.82	0.25	0.79
44	0.33	1.95	0.24	0.72
45	0.35	1.72	0.30	0.73
46	0.37	1.99	0.21	0.72
47	0.36	2.06	0.19	0.66
48	0.35	1.61	0.34	0.79
49	0.46	1.55	0.34	0.79
50	0.45	1.79	0.23	0.72
51	0.68	1.31	0.50	0.92
52	0.47	1.80	0.25	0.72
53	0.49	1.48	0.40	0.90

Measures of Compactness Report

Number of cut edges: 11,003

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
54	0.60	1.38	0.44	0.83
55	0.34	1.84	0.27	0.81
56	0.38	1.70	0.30	0.80

Measures of Compactness Report

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

Divisions of counties and precincts (VTDs):

Below is the political subdivisions splits report for the Senate enacted plan.

User:
Plan Name: **GA Senate Enacted**
Plan Type: **Reference**

Political Subdivision Splits Between Districts

Saturday, December 3, 2022 3:21 PM

Number of subdivisions not split:

County	130
Voting District	2,651

Number of subdivisions split into more than one district:

County	29
Voting District	47

Number of splits involving no population:

County	0
Voting District	8

Split Counts

County
Cases where an area is split among 2 Districts: 18
Cases where an area is split among 3 Districts: 7
Cases where an area is split among 6 Districts: 1
Cases where an area is split among 7 Districts: 1
Cases where an area is split among 9 Districts: 1
Cases where an area is split among 10 Districts: 1

Voting District
Cases where an area is split among 2 Districts: 46
Cases where an area is split among 3 Districts: 1

County	Voting District	District	Population
Split Counties:			
Barrow GA		45	39,217
Barrow GA		46	17,116
Barrow GA		47	27,172
Bartow GA		37	11,130
Bartow GA		52	97,771
Bibb GA		18	53,182
Bibb GA		25	15,513
Bibb GA		26	88,651
Chatham GA		1	81,408
Chatham GA		2	190,408
Chatham GA		4	23,475
Cherokee GA		21	109,034
Cherokee GA		32	90,981
Cherokee GA		56	66,605
Clarke GA		46	52,016
Clarke GA		47	76,655
Clayton GA		34	158,608
Clayton GA		44	138,987
Cobb GA		6	92,249

Political Subdivision Splits Between Districts

GA Senate Enacted

County	Voting District	District	Population
Cobb GA		32	101,467
Cobb GA		33	192,694
Cobb GA		37	181,541
Cobb GA		38	108,305
Cobb GA		56	89,893
Coffee GA		13	19,881
Coffee GA		19	23,211
Columbia GA		23	59,796
Columbia GA		24	96,214
DeKalb GA		10	75,906
DeKalb GA		40	164,997
DeKalb GA		41	183,560
DeKalb GA		42	190,940
DeKalb GA		43	32,212
DeKalb GA		44	51,049
DeKalb GA		55	65,718
Douglas GA		28	25,889
Douglas GA		30	23,454
Douglas GA		35	94,894
Fayette GA		16	87,134
Fayette GA		34	32,060
Floyd GA		52	85,090
Floyd GA		53	13,494
Forsyth GA		27	190,676
Forsyth GA		48	60,607
Fulton GA		6	99,152
Fulton GA		14	192,533
Fulton GA		21	83,538
Fulton GA		28	6,963
Fulton GA		35	97,945
Fulton GA		36	192,282
Fulton GA		38	84,850
Fulton GA		39	191,500
Fulton GA		48	83,219
Fulton GA		56	34,728
Gordon GA		52	7,938
Gordon GA		54	49,606
Gwinnett GA		5	191,921
Gwinnett GA		7	189,709
Gwinnett GA		9	192,915
Gwinnett GA		40	25,547
Gwinnett GA		41	7,463
Gwinnett GA		45	151,475
Gwinnett GA		46	27,298
Gwinnett GA		48	46,297
Gwinnett GA		55	124,437
Hall GA		49	189,355

Political Subdivision Splits Between Districts

GA Senate Enacted

County	Voting District	District	Population
Hall GA		50	13,781
Henry GA		10	116,992
Henry GA		17	82,287
Henry GA		25	41,433
Houston GA		18	42,875
Houston GA		20	74,275
Houston GA		26	46,483
Jackson GA		47	56,660
Jackson GA		50	19,247
Muscogee GA		15	142,205
Muscogee GA		29	64,717
Newton GA		17	45,536
Newton GA		43	66,947
Paulding GA		30	18,954
Paulding GA		31	149,707
Richmond GA		22	193,163
Richmond GA		23	13,444
Walton GA		17	44,590
Walton GA		46	52,083
Ware GA		3	10,431
Ware GA		8	25,820
White GA		50	12,642
White GA		51	15,361
Split VTDs:			
Bibb GA	HOWARD 1	18	5,912
Bibb GA	HOWARD 1	25	31
Bibb GA	HOWARD 2	18	5,445
Bibb GA	HOWARD 2	25	0
Bibb GA	HOWARD 3	18	12,640
Bibb GA	HOWARD 3	25	14
Bibb GA	HOWARD 5	18	267
Bibb GA	HOWARD 5	25	2,103
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	1	4,099
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	4	755
Chatham GA	POOLER CHRURCH	1	5,330
Chatham GA	POOLER CHRURCH	4	4,407
Clarke GA	3B	46	5,752
Clarke GA	3B	47	4,194
Clarke GA	6C	46	2,971
Clarke GA	6C	47	2,036
Cobb GA	Dobbins 01	6	6,586
Cobb GA	Dobbins 01	33	6,310
Cobb GA	Dobbins 01	38	505
Cobb GA	Elizabeth 01	32	3,771
Cobb GA	Elizabeth 01	37	2,099

Political Subdivision Splits Between Districts

GA Senate Enacted

County	Voting District	District	Population
Cobb GA	Kennesaw 1A	32	1,471
Cobb GA	Kennesaw 1A	37	2,972
Cobb GA	Marietta 3A	32	3,439
Cobb GA	Marietta 3A	33	5,460
Cobb GA	Marietta 5A	6	0
Cobb GA	Marietta 5A	33	4,334
Cobb GA	Marietta 6A	6	3,022
Cobb GA	Marietta 6A	32	1,532
Cobb GA	Marietta 7A	6	993
Cobb GA	Marietta 7A	33	5,918
Cobb GA	Nickajack 01	6	2,398
Cobb GA	Nickajack 01	38	3,728
Cobb GA	Norton Park 01	33	7,049
Cobb GA	Norton Park 01	38	752
Cobb GA	Oregon 03	33	12,988
Cobb GA	Oregon 03	37	0
Cobb GA	Powers Ferry 01	6	4,963
Cobb GA	Powers Ferry 01	33	464
Cobb GA	Sewell Mill 03	6	5,051
Cobb GA	Sewell Mill 03	33	1,886
Cobb GA	Vinings 02	6	4,624
Cobb GA	Vinings 02	38	5,019
Coffee GA	DOUGLAS	13	12,595
Coffee GA	DOUGLAS	19	15,976
Floyd GA	GARDEN LAKES	52	1,024
Floyd GA	GARDEN LAKES	53	7,817
Forsyth GA	BIG CREEK	27	15,216
Forsyth GA	BIG CREEK	48	10,302
Forsyth GA	POLO	27	24,894
Forsyth GA	POLO	48	964
Fulton GA	RW09	21	2,971
Fulton GA	RW09	56	4,750
Fulton GA	RW12	21	4,274
Fulton GA	RW12	56	3,958
Fulton GA	SC08B	35	223
Fulton GA	SC08B	39	5,124
Fulton GA	SC18C	35	1,852
Fulton GA	SC18C	39	521
Gordon GA	LILY POND	52	1,641
Gordon GA	LILY POND	54	996
Gwinnett GA	DACULA	45	2,699
Gwinnett GA	DACULA	46	4,613
Gwinnett GA	LAWRENCEVILLE E	5	2,075
Gwinnett GA	LAWRENCEVILLE E	9	1,386
Gwinnett GA	PINCKNEYVILLE W	5	5,605
Gwinnett GA	PINCKNEYVILLE W	7	2,701
Hall GA	GLADE	49	5,135

Political Subdivision Splits Between Districts

GA Senate Enacted

County	Voting District	District	Population
Hall GA	GLADE	50	1,735
Hall GA	TADMORE	49	4,129
Hall GA	TADMORE	50	10,220
Houston GA	FMMS	18	5,178
Houston GA	FMMS	20	8,151
Houston GA	MCMS	18	3,625
Houston GA	MCMS	20	9,869
Houston GA	RECR	20	0
Houston GA	RECR	26	17,798
Jackson GA	Central Jackson	47	24,383
Jackson GA	Central Jackson	50	0
Jackson GA	North Jackson	47	0
Jackson GA	North Jackson	50	19,247
Muscogee GA	COLUMBUS TECH	15	6,919
Muscogee GA	COLUMBUS TECH	29	2,228
Paulding GA	CARL SCOGGINS MID SC	30	7,586
Paulding GA	CARL SCOGGINS MID SC	31	2,162
Paulding GA	TAYLOR FARM PARK	30	475
Paulding GA	TAYLOR FARM PARK	31	12,958
Ware GA	100	3	2,672
Ware GA	100	8	3,692
Ware GA	200A	3	0
Ware GA	200A	8	4,133
Ware GA	304	3	0
Ware GA	304	8	2,107
Ware GA	400	3	4,626
Ware GA	400	8	406

Below is the political subdivisions splits report for the Senate illustrative plan.

User:
Plan Name: **GA Senate Illustrative**
Plan Type: **Reference**

Political Subdivision Splits Between Districts

Saturday, December 3, 2022 3:10 PM

Number of subdivisions not split:

County	125
Voting District	2,649

Number of subdivisions split into more than one district:

County	34
Voting District	49

Number of splits involving no population:

County	0
Voting District	7

Split Counts

County

Cases where an area is split among 2 Districts: 22
Cases where an area is split among 3 Districts: 7
Cases where an area is split among 4 Districts: 1
Cases where an area is split among 6 Districts: 1
Cases where an area is split among 7 Districts: 1
Cases where an area is split among 9 Districts: 1
Cases where an area is split among 10 Districts: 1

Voting District

Cases where an area is split among 2 Districts: 48
Cases where an area is split among 3 Districts: 1

County	Voting District	District	Population
Split Counties:			
Baldwin GA		17	16,966
Baldwin GA		23	26,833
Barrow GA		45	39,217
Barrow GA		46	17,116
Barrow GA		47	27,172
Bartow GA		37	11,130
Bartow GA		52	97,771
Chatham GA		1	81,408
Chatham GA		2	190,408
Chatham GA		4	23,475
Cherokee GA		21	109,034
Cherokee GA		32	90,981
Cherokee GA		56	66,605
Clarke GA		46	52,016
Clarke GA		47	76,655
Clayton GA		25	37,295
Clayton GA		28	19,071
Clayton GA		34	135,995

Political Subdivision Splits Between Districts

GA Senate Illustrative

County	Voting District	District	Population
Clayton GA		44	105,234
Cobb GA		6	97,590
Cobb GA		32	101,467
Cobb GA		33	192,694
Cobb GA		37	181,541
Cobb GA		38	102,964
Cobb GA		56	89,893
Coffee GA		13	19,881
Coffee GA		19	23,211
Columbia GA		22	30,174
Columbia GA		24	125,836
Coweta GA		16	39,894
Coweta GA		28	74,804
Coweta GA		30	31,460
DeKalb GA		10	82,066
DeKalb GA		40	164,997
DeKalb GA		41	183,560
DeKalb GA		42	190,153
DeKalb GA		43	17,660
DeKalb GA		44	60,228
DeKalb GA		55	65,718
Fayette GA		16	45,488
Fayette GA		28	17,678
Fayette GA		34	56,028
Floyd GA		52	85,090
Floyd GA		53	13,494
Forsyth GA		27	190,676
Forsyth GA		48	60,607
Fulton GA		6	94,244
Fulton GA		14	192,533
Fulton GA		21	83,538
Fulton GA		28	78,143
Fulton GA		35	30,198
Fulton GA		36	192,282
Fulton GA		38	87,641
Fulton GA		39	190,184
Fulton GA		48	83,219
Fulton GA		56	34,728
Gordon GA		52	7,938
Gordon GA		54	49,606
Greene GA		17	14,168
Greene GA		23	4,747
Gwinnett GA		5	191,921
Gwinnett GA		7	189,709
Gwinnett GA		9	192,915
Gwinnett GA		40	25,547
Gwinnett GA		41	7,463

Political Subdivision Splits Between Districts

GA Senate Illustrative

County	Voting District	District	Population
Gwinnett GA		45	151,475
Gwinnett GA		46	27,298
Gwinnett GA		48	46,297
Gwinnett GA		55	124,437
Hall GA		49	189,355
Hall GA		50	13,781
Henry GA		10	62,505
Henry GA		25	155,413
Henry GA		44	22,794
Houston GA		18	96,912
Houston GA		20	33,532
Houston GA		26	33,189
Jackson GA		47	56,660
Jackson GA		50	19,247
McDuffie GA		23	12,164
McDuffie GA		24	9,468
Muscogee GA		15	142,205
Muscogee GA		29	64,717
Newton GA		17	9,333
Newton GA		43	103,150
Paulding GA		31	149,902
Paulding GA		35	18,759
Richmond GA		22	158,756
Richmond GA		23	47,851
Rockdale GA		10	22,596
Rockdale GA		43	70,974
Walton GA		17	44,590
Walton GA		46	52,083
Ware GA		3	10,431
Ware GA		8	25,820
White GA		50	12,642
White GA		51	15,361
Wilcox GA		13	5,579
Wilcox GA		20	3,187
Wilkes GA		23	3,747
Wilkes GA		24	5,818
Split VTDs:			
Baldwin GA	NORTH MILLEDGEVILLE	17	2,373
Baldwin GA	NORTH MILLEDGEVILLE	23	991
Baldwin GA	SOUTH MILLEDGEVILLE	17	1,215
Baldwin GA	SOUTH MILLEDGEVILLE	23	2,491
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	1	4,099
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	4	755
Chatham GA	POOLER CHRURCH	1	5,330
Chatham GA	POOLER CHRURCH	4	4,407

Political Subdivision Splits Between Districts

GA Senate Illustrative

County	Voting District	District	Population
Clarke GA	3B	46	5,752
Clarke GA	3B	47	4,194
Clarke GA	6C	46	2,971
Clarke GA	6C	47	2,036
Cobb GA	Dobbins 01	6	6,586
Cobb GA	Dobbins 01	33	6,310
Cobb GA	Dobbins 01	38	505
Cobb GA	Elizabeth 01	32	3,771
Cobb GA	Elizabeth 01	37	2,099
Cobb GA	Kennesaw 1A	32	1,471
Cobb GA	Kennesaw 1A	37	2,972
Cobb GA	Marietta 3A	32	3,439
Cobb GA	Marietta 3A	33	5,460
Cobb GA	Marietta 5A	6	0
Cobb GA	Marietta 5A	33	4,334
Cobb GA	Marietta 6A	6	3,022
Cobb GA	Marietta 6A	32	1,532
Cobb GA	Marietta 7A	6	993
Cobb GA	Marietta 7A	33	5,918
Cobb GA	Nickajack 01	6	2,398
Cobb GA	Nickajack 01	38	3,728
Cobb GA	Norton Park 01	33	7,049
Cobb GA	Norton Park 01	38	752
Cobb GA	Oregon 03	33	12,988
Cobb GA	Oregon 03	37	0
Cobb GA	Powers Ferry 01	6	4,963
Cobb GA	Powers Ferry 01	33	464
Cobb GA	Sewell Mill 03	6	5,051
Cobb GA	Sewell Mill 03	33	1,886
Cobb GA	Smyrna 1A	6	5,341
Cobb GA	Smyrna 1A	38	1,292
Cobb GA	Vinings 02	6	4,624
Cobb GA	Vinings 02	38	5,019
Coffee GA	DOUGLAS	13	12,595
Coffee GA	DOUGLAS	19	15,976
DeKalb GA	Flakes Mill Fire Station	10	2,263
DeKalb GA	Flakes Mill Fire Station	44	396
DeKalb GA	Harris - Narvie J. Harris Elem	10	3,339
DeKalb GA	Harris - Narvie J. Harris Elem	44	1,682
Floyd GA	GARDEN LAKES	52	1,024
Floyd GA	GARDEN LAKES	53	7,817
Forsyth GA	BIG CREEK	27	15,216
Forsyth GA	BIG CREEK	48	10,302
Forsyth GA	POLO	27	24,894
Forsyth GA	POLO	48	964

Political Subdivision Splits Between Districts

GA Senate Illustrative

County	Voting District	District	Population
Fulton GA	RW09	21	2,971
Fulton GA	RW09	56	4,750
Fulton GA	RW12	21	4,274
Fulton GA	RW12	56	3,958
Fulton GA	SC05A	28	681
Fulton GA	SC05A	35	317
Fulton GA	SC08B	28	223
Fulton GA	SC08B	39	5,124
Fulton GA	SC13	28	15
Fulton GA	SC13	35	4,019
Fulton GA	SC18C	35	1,852
Fulton GA	SC18C	39	521
Gordon GA	LILY POND	52	1,641
Gordon GA	LILY POND	54	996
Gwinnett GA	DACULA	45	2,699
Gwinnett GA	DACULA	46	4,613
Gwinnett GA	LAWRENCEVILLE E	5	2,075
Gwinnett GA	LAWRENCEVILLE E	9	1,386
Gwinnett GA	PINCKNEYVILLE W	5	5,605
Gwinnett GA	PINCKNEYVILLE W	7	2,701
Hall GA	GLADE	49	5,135
Hall GA	GLADE	50	1,735
Hall GA	TADMORE	49	4,129
Hall GA	TADMORE	50	10,220
Houston GA	RECR	20	0
Houston GA	RECR	26	17,798
Jackson GA	Central Jackson	47	24,383
Jackson GA	Central Jackson	50	0
Jackson GA	North Jackson	47	0
Jackson GA	North Jackson	50	19,247
Muscogee GA	COLUMBUS TECH	15	6,919
Muscogee GA	COLUMBUS TECH	29	2,228
Paulding GA	AUSTIN MIDDLE SCHOOL	31	971
Paulding GA	AUSTIN MIDDLE SCHOOL	35	9,922
Paulding GA	TAYLOR FARM PARK	31	4,596
Paulding GA	TAYLOR FARM PARK	35	8,837
Ware GA	100	3	2,672
Ware GA	100	8	3,692
Ware GA	200A	3	0
Ware GA	200A	8	4,133
Ware GA	304	3	0
Ware GA	304	8	2,107
Ware GA	400	3	4,626
Ware GA	400	8	406
Wilcox GA	ROCHELLE SOUTH	13	786
Wilcox GA	ROCHELLE SOUTH	20	794

Esselstyn Report: Attachment I

Proposed Georgia House Districts

Client: H097
Plan: House-prop1-2021
Type: House

Legislative and Congressional Reapportionment Office
Georgia General Assembly
Suite 407 Coverdell Legislative Office Bldg

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Map layers
District Layer
County
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Miles

Proposed Georgia House Districts

Client: H097
Plan: House-prop1-2021
Type: House

Proposed Georgia House Districts

Client: H097
Plan: House-prop1-2021
Type: House

Proposed Georgia House Districts

Client: H097
Plan: House-prop1-2021
Type: House

User: **H097**
Plan Name: **House-prop1-2021**
Plan Type: **House**

Population Summary

Summary Statistics:

Population Range:	58,678 to 60,308
Ratio Range:	0.03
Absolute Range:	-833 to 797
Absolute Overall Range:	1,630
Relative Range:	-1.40% to 1.34%
Relative Overall Range:	2.74%
Absolute Mean Deviation:	363.71
Relative Mean Deviation:	0.61%
Standard Deviation:	417.67

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
001	59,666	155	0.26%	46,801	78.44%	87.88%	3.9%	2.59%	0.53%	0.31%	0.04%	0.3%	4.45%
002	59,773	262	0.44%	46,159	77.22%	83.24%	2.56%	9.09%	1.1%	0.18%	0.02%	0.26%	3.55%
003	60,199	688	1.16%	46,716	77.6%	86.9%	2.82%	3.6%	1.63%	0.27%	0.14%	0.18%	4.46%
004	59,070	-441	-0.74%	42,798	72.45%	42.01%	4.17%	50.07%	1.23%	0.17%	0.02%	0.28%	2.05%
005	58,837	-674	-1.13%	44,623	75.84%	75.46%	3.76%	15.29%	1.24%	0.2%	0.02%	0.22%	3.81%
006	59,712	201	0.34%	45,152	75.62%	80.15%	1.01%	14.51%	0.51%	0.2%	0.01%	0.2%	3.4%
007	59,081	-430	-0.72%	48,771	82.55%	87.97%	0.37%	7.43%	0.45%	0.26%	0.01%	0.24%	3.27%
008	59,244	-267	-0.45%	49,612	83.74%	90.8%	1.13%	3.21%	0.54%	0.3%	0.01%	0.34%	3.67%
009	59,474	-37	-0.06%	48,273	81.17%	87.78%	1.01%	5.49%	0.79%	0.37%	0.06%	0.36%	4.15%
010	59,519	8	0.01%	47,164	79.24%	78.61%	2.97%	13.11%	1.51%	0.17%	0.06%	0.24%	3.33%
011	58,792	-719	-1.21%	45,396	77.21%	87.43%	1.55%	5.33%	1.15%	0.22%	0.02%	0.3%	4%
012	59,300	-211	-0.35%	46,487	78.39%	78.45%	8.61%	7.68%	1.01%	0.16%	0.01%	0.42%	3.68%
013	59,150	-361	-0.61%	45,176	76.38%	62.24%	18.71%	13.52%	1.29%	0.22%	0.03%	0.33%	3.65%
014	59,135	-376	-0.63%	45,511	76.96%	81.38%	5.86%	7.04%	0.77%	0.21%	0.03%	0.34%	4.36%
015	59,213	-298	-0.50%	45,791	77.33%	68.38%	13.61%	11.74%	1.3%	0.25%	0.04%	0.49%	4.19%
016	59,402	-109	-0.18%	44,009	74.09%	72.9%	11.15%	10.95%	0.76%	0.22%	0.05%	0.43%	3.54%
017	59,120	-391	-0.66%	42,761	72.33%	63.28%	22.06%	7.9%	1.33%	0.23%	0.07%	0.64%	4.49%
018	59,335	-176	-0.30%	45,159	76.11%	84.78%	7.11%	2.93%	0.59%	0.23%	0.04%	0.35%	3.97%
019	58,955	-556	-0.93%	44,299	75.14%	62.06%	23.47%	7.87%	1.14%	0.25%	0.08%	0.64%	4.49%
020	60,107	596	1.00%	45,725	76.07%	73.93%	8.13%	10.6%	1.97%	0.16%	0.04%	0.63%	4.54%
021	59,529	18	0.03%	44,931	75.48%	80.04%	4.29%	8.54%	1.84%	0.19%	0.04%	0.66%	4.4%
022	59,460	-51	-0.09%	45,815	77.05%	62.53%	13.94%	13.26%	3.86%	0.2%	0.03%	0.81%	5.37%
023	59,048	-463	-0.78%	44,254	74.95%	71.47%	5.64%	17.19%	1.06%	0.22%	0.04%	0.36%	4.01%
024	59,011	-500	-0.84%	41,814	70.86%	60.13%	6%	11.36%	17.65%	0.21%	0.04%	0.62%	3.98%
025	59,414	-97	-0.16%	42,520	71.57%	51.99%	5%	5.42%	33.55%	0.15%	0.03%	0.51%	3.36%
026	59,248	-263	-0.44%	44,081	74.4%	63.48%	3.29%	12.07%	16.8%	0.18%	0.04%	0.5%	3.64%
027	58,795	-716	-1.20%	46,004	78.24%	79.69%	3.22%	11.82%	0.82%	0.19%	0.04%	0.3%	3.91%
028	58,972	-539	-0.91%	44,444	75.36%	76.5%	3.39%	13.59%	2.06%	0.16%	0.03%	0.4%	3.86%
029	59,200	-311	-0.52%	43,131	72.86%	36.05%	12.13%	46.28%	2.72%	0.12%	0.06%	0.41%	2.23%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
030	59,266	-245	-0.41%	45,414	76.63%	67.03%	7.37%	18.78%	3.04%	0.15%	0.03%	0.34%	3.26%
031	59,901	390	0.66%	43,120	71.99%	65.57%	6.64%	21.63%	2.27%	0.19%	0.02%	0.37%	3.31%
032	59,145	-366	-0.62%	45,942	77.68%	80.8%	7.24%	6.03%	1.26%	0.29%	0.05%	0.25%	4.09%
033	59,187	-324	-0.54%	46,498	78.56%	79.94%	10.97%	4.08%	1.2%	0.15%	0.01%	0.36%	3.29%
034	59,875	364	0.61%	45,758	76.42%	66.59%	14.46%	9.06%	4.41%	0.11%	0.04%	0.68%	4.65%
035	59,889	378	0.64%	48,312	80.67%	50.12%	26.55%	12.7%	4.43%	0.21%	0.04%	0.9%	5.04%
036	59,994	483	0.81%	44,911	74.86%	68.01%	16.01%	7.46%	3.07%	0.14%	0.03%	0.73%	4.55%
037	59,176	-335	-0.56%	46,223	78.11%	42.2%	26%	21.96%	4.5%	0.21%	0.03%	1%	4.11%
038	59,317	-194	-0.33%	44,839	75.59%	25.93%	52.72%	14.72%	1.77%	0.22%	0.07%	0.7%	3.88%
039	59,381	-130	-0.22%	44,436	74.83%	20.6%	52.08%	21.79%	1.5%	0.14%	0.03%	0.65%	3.2%
040	59,044	-467	-0.78%	47,976	81.25%	48.94%	30.78%	6.43%	8.54%	0.17%	0.02%	0.7%	4.43%
041	60,122	611	1.03%	45,271	75.3%	23.42%	36.44%	33.22%	2.81%	0.18%	0.05%	0.86%	3.02%
042	59,620	109	0.18%	48,525	81.39%	35.47%	31.18%	20.49%	7.11%	0.19%	0.03%	1.15%	4.37%
043	59,464	-47	-0.08%	47,033	79.09%	43.32%	24.35%	15.85%	7.83%	0.21%	0.09%	2.4%	5.96%
044	60,002	491	0.83%	46,773	77.95%	64.71%	10.98%	11.99%	5.71%	0.18%	0.02%	1.17%	5.24%
045	59,738	227	0.38%	44,023	73.69%	72.29%	4.14%	5.5%	12.94%	0.07%	0.02%	0.67%	4.38%
046	59,108	-403	-0.68%	44,132	74.66%	72.43%	6.76%	8.24%	6.93%	0.12%	0.04%	0.82%	4.66%
047	59,126	-385	-0.65%	43,932	74.3%	61.71%	9.44%	7.83%	15.91%	0.2%	0.03%	0.7%	4.17%
048	59,003	-508	-0.85%	44,779	75.89%	59.05%	10.16%	14.1%	11.77%	0.08%	0.05%	0.64%	4.16%
049	59,153	-358	-0.60%	45,263	76.52%	68.94%	7.2%	7.56%	11.41%	0.1%	0.02%	0.68%	4.09%
050	59,523	12	0.02%	43,940	73.82%	41.55%	11.04%	7.06%	35.46%	0.09%	0.04%	0.66%	4.1%
051	58,952	-559	-0.94%	47,262	80.17%	51.02%	21.93%	15.47%	5.83%	0.17%	0.04%	1.03%	4.51%
052	59,811	300	0.50%	48,525	81.13%	53.81%	13.71%	7.98%	19.72%	0.14%	0.06%	0.72%	3.86%
053	59,953	442	0.74%	46,944	78.3%	70.3%	12.31%	8.2%	4.46%	0.1%	0.02%	0.63%	3.98%
054	60,083	572	0.96%	50,338	83.78%	61.03%	12.98%	15.17%	6.51%	0.14%	0.03%	0.57%	3.56%
055	59,971	460	0.77%	49,255	82.13%	33.78%	54.54%	5.14%	2.85%	0.18%	0.03%	0.4%	3.09%
056	58,929	-582	-0.98%	52,757	89.53%	34.03%	46.33%	5.81%	9.32%	0.18%	0.07%	0.45%	3.8%
057	59,969	458	0.77%	52,097	86.87%	62.89%	15.57%	8.83%	7.58%	0.11%	0.02%	0.65%	4.36%
058	59,057	-454	-0.76%	50,514	85.53%	24.98%	63.09%	5.03%	2.76%	0.14%	0.03%	0.51%	3.45%
059	59,434	-77	-0.13%	49,179	82.75%	19.37%	69.55%	4.45%	2.52%	0.16%	0.02%	0.56%	3.36%
060	59,709	198	0.33%	45,490	76.19%	26.72%	61.76%	5.87%	2.04%	0.17%	0.05%	0.44%	2.96%
061	59,302	-209	-0.35%	45,447	76.64%	14.79%	71.51%	9.1%	0.87%	0.15%	0.06%	0.54%	2.98%
062	59,450	-61	-0.10%	46,426	78.09%	17.17%	70.09%	7.61%	1.13%	0.21%	0.04%	0.53%	3.22%
063	59,381	-130	-0.22%	45,043	75.85%	16.74%	68%	10.42%	1.32%	0.21%	0.03%	0.51%	2.78%
064	58,986	-525	-0.88%	44,189	74.91%	54.76%	29.35%	8.84%	1.37%	0.27%	0.03%	0.78%	4.6%
065	59,464	-47	-0.08%	44,386	74.64%	29.55%	60.08%	5.23%	1.08%	0.18%	0.06%	0.57%	3.27%
066	59,047	-464	-0.78%	44,278	74.99%	29.98%	52.03%	11.05%	1.72%	0.24%	0.07%	0.79%	4.11%
067	59,135	-376	-0.63%	44,299	74.91%	29.09%	57.14%	8.71%	1.29%	0.18%	0.03%	0.5%	3.06%
068	59,477	-34	-0.06%	44,835	75.38%	31.15%	54.67%	7.3%	2.79%	0.16%	0.04%	0.7%	3.19%
069	58,682	-829	-1.39%	45,548	77.62%	24.1%	61.87%	6.47%	3.04%	0.17%	0.04%	0.89%	3.41%
070	59,121	-390	-0.66%	45,249	76.54%	56.51%	27.61%	9.08%	2.17%	0.2%	0.05%	0.47%	3.9%
071	59,538	27	0.05%	44,582	74.88%	67.15%	18.89%	7.44%	0.96%	0.25%	0.02%	0.51%	4.78%
072	59,660	149	0.25%	46,229	77.49%	67.26%	19.34%	8.16%	0.96%	0.2%	0.02%	0.3%	3.75%
073	60,036	525	0.88%	45,736	76.18%	69.92%	11.27%	7.96%	5.88%	0.15%	0.03%	0.52%	4.26%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
074	58,956	-555	-0.93%	44,696	75.81%	61.32%	25.24%	6.67%	2.05%	0.2%	0.02%	0.52%	3.98%
075	59,743	232	0.39%	43,850	73.4%	9.24%	71.27%	12.97%	2.66%	0.19%	0.06%	0.71%	2.9%
076	59,759	248	0.42%	44,371	74.25%	8.61%	64.24%	15.61%	8.11%	0.19%	0.04%	0.57%	2.63%
077	59,242	-269	-0.45%	44,207	74.62%	6.22%	72.49%	14.22%	4.03%	0.22%	0.06%	0.5%	2.27%
078	59,044	-467	-0.78%	44,572	75.49%	12.69%	69.39%	9.94%	4.03%	0.19%	0.03%	0.65%	3.08%
079	59,500	-11	-0.02%	43,223	72.64%	5.69%	68.19%	18.11%	4.87%	0.21%	0.01%	0.57%	2.34%
080	59,461	-50	-0.08%	44,784	75.32%	45.02%	11.65%	26.17%	13.02%	0.08%	0.04%	0.63%	3.39%
081	59,007	-504	-0.85%	46,259	78.4%	44.28%	18.64%	24.58%	8.14%	0.14%	0.02%	0.55%	3.65%
082	59,724	213	0.36%	50,238	84.12%	61.86%	14.34%	7.52%	11.03%	0.11%	0.03%	0.65%	4.46%
083	59,416	-95	-0.16%	46,581	78.4%	44.13%	12.06%	33.75%	6.29%	0.1%	0.02%	0.61%	3.03%
084	59,862	351	0.59%	47,350	79.1%	21.11%	69.74%	3.4%	1.4%	0.16%	0.03%	0.59%	3.58%
085	59,373	-138	-0.23%	46,308	78%	17.08%	60.18%	5.99%	12.29%	0.25%	0.02%	0.68%	3.5%
086	59,205	-306	-0.51%	44,614	75.36%	10.6%	71.76%	4.64%	9.02%	0.15%	0.02%	0.67%	3.14%
087	59,709	198	0.33%	45,615	76.4%	11.48%	70.08%	7.73%	6.46%	0.21%	0.02%	0.7%	3.33%
088	59,689	178	0.30%	46,073	77.19%	15.98%	60.71%	11.46%	7.49%	0.23%	0.06%	0.68%	3.39%
089	59,866	355	0.60%	46,198	77.17%	30.38%	59.77%	3.8%	1.78%	0.15%	0.03%	0.48%	3.6%
090	59,812	301	0.51%	48,015	80.28%	32.08%	57.15%	4.65%	1.58%	0.12%	0.03%	0.62%	3.76%
091	60,050	539	0.91%	46,173	76.89%	19.7%	67.92%	7%	1.39%	0.17%	0.04%	0.54%	3.25%
092	60,273	762	1.28%	46,551	77.23%	20.98%	67.63%	5.49%	1.58%	0.16%	0.04%	0.74%	3.39%
093	60,118	607	1.02%	44,734	74.41%	19.94%	63.27%	11.24%	1.34%	0.16%	0.1%	0.69%	3.26%
094	59,211	-300	-0.50%	44,809	75.68%	16.38%	65.88%	8.72%	4.85%	0.19%	0.02%	0.58%	3.37%
095	60,030	519	0.87%	44,948	74.88%	18.79%	64.99%	9.32%	2.29%	0.19%	0.05%	0.73%	3.63%
096	59,515	4	0.01%	44,671	75.06%	17.47%	20.71%	40.49%	17.64%	0.15%	0.06%	0.72%	2.76%
097	59,072	-439	-0.74%	46,339	78.44%	33.19%	25.12%	21.86%	15%	0.19%	0.05%	0.68%	3.92%
098	59,998	487	0.82%	42,734	71.23%	9.69%	19.56%	57.42%	10.69%	0.13%	0.05%	0.6%	1.86%
099	59,850	339	0.57%	45,004	75.19%	39.77%	13.49%	9.52%	32.49%	0.15%	0.04%	0.56%	3.98%
100	60,030	519	0.87%	42,669	71.08%	55.88%	9.01%	10.85%	19.49%	0.18%	0.05%	0.53%	4.01%
101	59,938	427	0.72%	46,584	77.72%	37.36%	22.37%	20.17%	15.23%	0.16%	0.05%	0.7%	3.96%
102	58,959	-552	-0.93%	42,968	72.88%	26.79%	36.41%	23.45%	8.97%	0.22%	0.03%	0.69%	3.44%
103	60,197	686	1.15%	44,399	73.76%	49.51%	15.16%	19.06%	11.68%	0.13%	0.04%	0.61%	3.81%
104	59,362	-149	-0.25%	43,306	72.95%	60.44%	15.61%	12.64%	6.32%	0.16%	0.04%	0.6%	4.2%
105	59,344	-167	-0.28%	43,474	73.26%	38.89%	27.8%	18.1%	10.56%	0.1%	0.03%	0.65%	3.88%
106	59,112	-399	-0.67%	43,890	74.25%	36.66%	35.66%	12.66%	9.78%	0.17%	0.03%	0.81%	4.23%
107	59,702	191	0.32%	44,509	74.55%	19.03%	27.46%	34.49%	15.45%	0.16%	0.03%	0.64%	2.73%
108	59,577	66	0.11%	44,308	74.37%	38.96%	17.34%	20.98%	18.06%	0.17%	0.03%	0.67%	3.78%
109	59,630	119	0.20%	44,140	74.02%	13.5%	29.44%	39.32%	14.39%	0.14%	0.05%	0.63%	2.54%
110	59,951	440	0.74%	43,226	72.1%	32.7%	45.9%	11.87%	4.49%	0.18%	0.04%	0.84%	3.97%
111	60,009	498	0.84%	44,096	73.48%	60.53%	21.74%	10.37%	2.5%	0.18%	0.04%	0.73%	3.91%
112	59,349	-162	-0.27%	45,120	76.02%	71.55%	18.88%	4%	1.27%	0.2%	0.04%	0.47%	3.59%
113	60,053	542	0.91%	44,538	74.16%	28.82%	57.75%	7.78%	0.79%	0.14%	0.12%	0.62%	3.98%
114	59,867	356	0.60%	45,872	76.62%	66.9%	23.89%	4.53%	0.7%	0.18%	0.03%	0.45%	3.33%
115	60,174	663	1.11%	44,807	74.46%	33.12%	51.3%	7.88%	2.67%	0.17%	0.04%	0.81%	4%
116	59,913	402	0.68%	45,791	76.43%	23.87%	56.71%	8.14%	6.39%	0.18%	0.08%	0.83%	3.81%
117	60,130	619	1.04%	44,973	74.79%	51.61%	35.88%	6.28%	1.53%	0.17%	0.04%	0.59%	3.9%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
118	59,987	476	0.80%	46,342	77.25%	68.26%	22.55%	4.5%	0.43%	0.18%	0.02%	0.47%	3.59%
119	58,947	-564	-0.95%	44,005	74.65%	66.88%	12.47%	12.17%	3.83%	0.16%	0.02%	0.58%	3.89%
120	58,982	-529	-0.89%	46,767	79.29%	69.85%	13.48%	8.42%	4.05%	0.15%	0.05%	0.5%	3.49%
121	59,127	-384	-0.65%	46,598	78.81%	75.06%	8.66%	6.27%	5.64%	0.11%	0%	0.53%	3.73%
122	59,632	121	0.20%	48,840	81.9%	49.13%	30.63%	13.78%	2.13%	0.28%	0.06%	0.86%	3.13%
123	59,282	-229	-0.38%	46,572	78.56%	65.88%	23.82%	5.33%	1.14%	0.17%	0.02%	0.26%	3.39%
124	59,221	-290	-0.49%	47,638	80.44%	61.53%	26.06%	7.57%	1.14%	0.19%	0.02%	0.37%	3.12%
125	60,137	626	1.05%	43,812	72.85%	60%	21.67%	8.93%	2.4%	0.29%	0.19%	0.52%	5.99%
126	59,260	-251	-0.42%	45,497	76.78%	37.81%	53.88%	3.63%	0.76%	0.27%	0.15%	0.37%	3.13%
127	58,678	-833	-1.40%	45,889	78.2%	65.92%	17.12%	5.58%	5.63%	0.18%	0.18%	0.51%	4.88%
128	58,864	-647	-1.09%	46,488	78.98%	44.14%	51%	1.91%	0.36%	0.19%	0.03%	0.17%	2.22%
129	58,829	-682	-1.15%	46,873	79.68%	33.83%	54.95%	4.74%	2.1%	0.21%	0.14%	0.43%	3.6%
130	59,203	-308	-0.52%	44,019	74.35%	30.19%	60.27%	4.33%	0.79%	0.24%	0.16%	0.42%	3.6%
131	58,890	-621	-1.04%	42,968	72.96%	65.57%	15.99%	7.07%	4.92%	0.19%	0.14%	0.61%	5.51%
132	59,142	-369	-0.62%	46,752	79.05%	33.1%	51.88%	7.91%	2.38%	0.26%	0.19%	0.37%	3.91%
133	59,202	-309	-0.52%	47,222	79.76%	56.35%	37.05%	2.42%	1.12%	0.15%	0.04%	0.38%	2.48%
134	59,396	-115	-0.19%	45,110	75.95%	56.72%	34.18%	4.39%	0.74%	0.22%	0.02%	0.35%	3.37%
135	60,063	552	0.93%	46,725	77.79%	70.69%	22.83%	2.21%	0.51%	0.16%	0.01%	0.33%	3.25%
136	59,298	-213	-0.36%	45,367	76.51%	62.16%	28%	4.4%	1.54%	0.24%	0.03%	0.42%	3.21%
137	59,551	40	0.07%	45,358	76.17%	38.1%	51.27%	5.17%	1.66%	0.12%	0.14%	0.37%	3.17%
138	58,912	-599	-1.01%	45,684	77.55%	70.29%	18.77%	4.1%	2.39%	0.25%	0.06%	0.36%	3.77%
139	59,010	-501	-0.84%	45,522	77.14%	63.55%	19.18%	7.24%	4.03%	0.25%	0.21%	0.59%	4.96%
140	59,294	-217	-0.36%	44,411	74.9%	28.76%	55.8%	9.04%	1.02%	0.27%	0.24%	0.53%	4.34%
141	59,019	-492	-0.83%	44,677	75.7%	29.41%	54.88%	7.93%	2.53%	0.24%	0.3%	0.45%	4.25%
142	59,608	97	0.16%	44,584	74.8%	30.78%	60.48%	4.23%	1.29%	0.16%	0.01%	0.36%	2.68%
143	59,469	-42	-0.07%	46,390	78.01%	29.08%	61.66%	4.87%	0.97%	0.19%	0.05%	0.36%	2.82%
144	59,232	-279	-0.47%	46,370	78.29%	60.82%	29.32%	2.91%	3.46%	0.14%	0.02%	0.36%	2.97%
145	59,863	352	0.59%	45,844	76.58%	51.64%	35.66%	7.02%	0.9%	0.28%	0.04%	0.41%	4.05%
146	60,203	692	1.16%	44,589	74.06%	59.32%	26.73%	5.66%	2.67%	0.17%	0.09%	0.45%	4.91%
147	59,178	-333	-0.56%	44,902	75.88%	51.94%	29.55%	8.3%	4.76%	0.23%	0.07%	0.51%	4.64%
148	59,984	473	0.79%	46,614	77.71%	58.49%	33.89%	3.66%	0.9%	0.12%	0.04%	0.28%	2.63%
149	58,893	-618	-1.04%	46,821	79.5%	60.01%	31.14%	5.61%	0.57%	0.17%	0.03%	0.2%	2.28%
150	59,276	-235	-0.39%	47,050	79.37%	36.16%	53.23%	7.23%	1.17%	0.17%	0.03%	0.17%	1.85%
151	60,059	548	0.92%	46,973	78.21%	45.21%	42.21%	7.51%	1.29%	0.18%	0.23%	0.25%	3.12%
152	60,134	623	1.05%	46,026	76.54%	66.12%	25.86%	2.84%	1.6%	0.21%	0.03%	0.3%	3.03%
153	59,299	-212	-0.36%	45,692	77.05%	24.38%	69.08%	2.93%	0.89%	0.13%	0.02%	0.24%	2.33%
154	59,994	483	0.81%	47,273	78.8%	39.54%	55.53%	2.1%	0.38%	0.16%	0.01%	0.2%	2.09%
155	58,759	-752	-1.26%	45,208	76.94%	57.32%	36.14%	2.62%	0.91%	0.18%	0.05%	0.26%	2.52%
156	59,444	-67	-0.11%	45,867	77.16%	58.49%	29.79%	8.27%	0.6%	0.17%	0.01%	0.25%	2.42%
157	59,957	446	0.75%	45,311	75.57%	61.81%	23.59%	11.19%	0.54%	0.16%	0.04%	0.21%	2.47%
158	59,440	-71	-0.12%	45,549	76.63%	59.27%	31.5%	5.6%	0.75%	0.18%	0.03%	0.25%	2.42%
159	59,895	384	0.65%	44,871	74.92%	67.46%	23.88%	3.65%	0.54%	0.28%	0.03%	0.34%	3.82%
160	59,935	424	0.71%	48,057	80.18%	66.84%	21.68%	5.5%	1.62%	0.24%	0.1%	0.28%	3.76%
161	60,097	586	0.98%	44,371	73.83%	57.53%	25.83%	7.89%	3.03%	0.24%	0.09%	0.5%	4.9%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blk]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
162	60,308	797	1.34%	46,733	77.49%	36.7%	43.34%	10.78%	4%	0.2%	0.24%	0.54%	4.19%
163	60,123	612	1.03%	48,461	80.6%	38.48%	46.14%	8.45%	3.12%	0.19%	0.13%	0.39%	3.1%
164	60,101	590	0.99%	45,851	76.29%	57.7%	22.03%	9.95%	4.21%	0.24%	0.12%	0.68%	5.08%
165	59,978	467	0.78%	48,247	80.44%	35.1%	52.41%	5.53%	3.19%	0.22%	0.14%	0.38%	3.02%
166	60,242	731	1.23%	47,580	78.98%	82.79%	4.94%	5.19%	2.65%	0.16%	0.05%	0.4%	3.82%
167	59,493	-18	-0.03%	44,140	74.19%	62.89%	20.99%	8.81%	1.42%	0.35%	0.23%	0.5%	4.79%
168	60,147	636	1.07%	44,867	74.6%	36.24%	43.3%	11.22%	1.98%	0.31%	0.67%	0.48%	5.79%
169	59,138	-373	-0.63%	45,267	76.54%	58.36%	28.84%	9.03%	0.79%	0.15%	0.02%	0.2%	2.6%
170	60,116	605	1.02%	45,316	75.38%	60.65%	24.39%	10.43%	1.19%	0.13%	0.02%	0.28%	2.91%
171	59,237	-274	-0.46%	45,969	77.6%	51.23%	39.79%	5.73%	0.54%	0.21%	0.03%	0.21%	2.26%
172	59,961	450	0.76%	44,756	74.64%	57.24%	23.26%	16%	0.77%	0.21%	0.03%	0.23%	2.27%
173	59,743	232	0.39%	45,292	75.81%	52.67%	36.22%	6.95%	0.79%	0.33%	0.02%	0.3%	2.72%
174	59,852	341	0.57%	45,760	76.46%	70.83%	16.91%	7.88%	0.47%	0.35%	0.04%	0.22%	3.3%
175	59,993	482	0.81%	44,704	74.52%	64.08%	23.75%	6.1%	1.78%	0.26%	0.07%	0.34%	3.64%
176	59,470	-41	-0.07%	44,991	75.65%	63.56%	21.74%	9.95%	0.91%	0.24%	0.08%	0.29%	3.23%
177	59,992	481	0.81%	46,014	76.7%	33.22%	54.7%	6.69%	1.26%	0.21%	0.07%	0.42%	3.42%
178	59,877	366	0.62%	45,638	76.22%	75.62%	14.4%	6.22%	0.52%	0.18%	0.01%	0.29%	2.76%
179	59,356	-155	-0.26%	47,156	79.45%	59.03%	28.39%	7.73%	1.06%	0.17%	0.13%	0.39%	3.11%
180	59,412	-99	-0.17%	45,362	76.35%	68.71%	16.96%	6.47%	1.56%	0.32%	0.11%	0.57%	5.3%

Total: **10,711,908**
Ideal District: **59,511**

User: **H097**
Plan Name: **House-prop1-2021**
Plan Type: **House**

Population Summary

Summary Statistics:

Population Range:	58,678 to 60,308
Ratio Range:	0.03
Absolute Range:	-833 to 797
Absolute Overall Range:	1,630
Relative Range:	-1.40% to 1.34%
Relative Overall Range:	2.74%
Absolute Mean Deviation:	363.71
Relative Mean Deviation:	0.61%
Standard Deviation:	417.67

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
001	59,666	155	0.26%	46,801	78.44%	89.43%	3.65%	2.11%	0.57%	0.32%	0.05%	0.21%	3.65%
002	59,773	262	0.44%	46,159	77.22%	85.33%	2.64%	7.57%	1.07%	0.2%	0.02%	0.2%	2.97%
003	60,199	688	1.16%	46,716	77.6%	88.46%	2.71%	2.96%	1.56%	0.28%	0.14%	0.14%	3.77%
004	59,070	-441	-0.74%	42,798	72.45%	47.78%	4.53%	44.13%	1.28%	0.19%	0.02%	0.21%	1.86%
005	58,837	-674	-1.13%	44,623	75.84%	78.55%	3.81%	12.62%	1.26%	0.22%	0.03%	0.19%	3.31%
006	59,712	201	0.34%	45,152	75.62%	83%	1%	11.96%	0.51%	0.25%	0.02%	0.17%	3.09%
007	59,081	-430	-0.72%	48,771	82.55%	90.15%	0.34%	5.53%	0.46%	0.27%	0.01%	0.21%	3.02%
008	59,244	-267	-0.45%	49,612	83.74%	91.87%	1.12%	2.74%	0.54%	0.3%	0%	0.29%	3.13%
009	59,474	-37	-0.06%	48,273	81.17%	88.93%	1.06%	4.74%	0.83%	0.41%	0.06%	0.33%	3.64%
010	59,519	8	0.01%	47,164	79.24%	81.82%	3.19%	10.04%	1.58%	0.18%	0.03%	0.21%	2.95%
011	58,792	-719	-1.21%	45,396	77.21%	89.31%	1.43%	4.23%	1.06%	0.23%	0.03%	0.27%	3.44%
012	59,300	-211	-0.35%	46,487	78.39%	80.42%	8.94%	6.15%	1.01%	0.18%	0%	0.33%	2.97%
013	59,150	-361	-0.61%	45,176	76.38%	66.3%	18.03%	10.84%	1.36%	0.22%	0.02%	0.26%	2.97%
014	59,135	-376	-0.63%	45,511	76.96%	83.02%	6.06%	5.88%	0.8%	0.25%	0.02%	0.31%	3.65%
015	59,213	-298	-0.50%	45,791	77.33%	71.9%	13.11%	9.67%	1.36%	0.27%	0.03%	0.36%	3.3%
016	59,402	-109	-0.18%	44,009	74.09%	76.42%	10.83%	8.61%	0.79%	0.21%	0.05%	0.32%	2.76%
017	59,120	-391	-0.66%	42,761	72.33%	66.02%	21.24%	6.94%	1.41%	0.25%	0.06%	0.54%	3.55%
018	59,335	-176	-0.30%	45,159	76.11%	86.01%	7.17%	2.39%	0.62%	0.26%	0.04%	0.26%	3.24%
019	58,955	-556	-0.93%	44,299	75.14%	65.37%	22.26%	6.8%	1.21%	0.21%	0.07%	0.48%	3.59%
020	60,107	596	1.00%	45,725	76.07%	76.4%	7.96%	9.18%	2.03%	0.14%	0.04%	0.55%	3.7%
021	59,529	18	0.03%	44,931	75.48%	82.07%	4.23%	7.44%	1.87%	0.22%	0.05%	0.61%	3.51%
022	59,460	-51	-0.09%	45,815	77.05%	65.61%	13.32%	11.57%	4.04%	0.21%	0.03%	0.76%	4.47%
023	59,048	-463	-0.78%	44,254	74.95%	75.29%	5.48%	14.23%	1.12%	0.21%	0.05%	0.32%	3.3%
024	59,011	-500	-0.84%	41,814	70.86%	63.42%	6.04%	10.32%	16.41%	0.17%	0.05%	0.56%	3.03%
025	59,414	-97	-0.16%	42,520	71.57%	56.12%	5.08%	5.09%	30.56%	0.1%	0.03%	0.45%	2.56%
026	59,248	-263	-0.44%	44,081	74.4%	68.21%	3.18%	10.76%	14.26%	0.12%	0.04%	0.44%	2.99%
027	58,795	-716	-1.20%	46,004	78.24%	82.61%	3.07%	9.6%	0.83%	0.2%	0.04%	0.24%	3.4%
028	58,972	-539	-0.91%	44,444	75.36%	79.36%	3.15%	11.44%	2.16%	0.17%	0.03%	0.36%	3.33%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
029	59,200	-311	-0.52%	43,131	72.86%	42.29%	12.55%	39.71%	3.02%	0.14%	0.06%	0.33%	1.91%
030	59,266	-245	-0.41%	45,414	76.63%	70.5%	7.19%	16.13%	2.96%	0.15%	0.02%	0.28%	2.77%
031	59,901	390	0.66%	43,120	71.99%	68.65%	6.79%	18.95%	2.35%	0.21%	0.03%	0.32%	2.69%
032	59,145	-366	-0.62%	45,942	77.68%	82.98%	7.21%	4.87%	1.25%	0.32%	0.05%	0.2%	3.12%
033	59,187	-324	-0.54%	46,498	78.56%	82.25%	10.57%	3.13%	1.16%	0.15%	0.01%	0.29%	2.43%
034	59,875	364	0.61%	45,758	76.42%	69.23%	14.11%	7.85%	4.43%	0.12%	0.03%	0.65%	3.58%
035	59,889	378	0.64%	48,312	80.67%	53.63%	25.59%	11.15%	4.58%	0.19%	0.05%	0.77%	4.04%
036	59,994	483	0.81%	44,911	74.86%	70.77%	15.48%	6.51%	3.02%	0.15%	0.04%	0.6%	3.44%
037	59,176	-335	-0.56%	46,223	78.11%	46.26%	25.84%	18.64%	4.61%	0.21%	0.02%	0.91%	3.52%
038	59,317	-194	-0.33%	44,839	75.59%	30.1%	51.13%	12.62%	1.87%	0.24%	0.05%	0.63%	3.36%
039	59,381	-130	-0.22%	44,436	74.83%	23.47%	52.5%	18.66%	1.77%	0.17%	0.03%	0.6%	2.79%
040	59,044	-467	-0.78%	47,976	81.25%	51.14%	30.35%	5.92%	8.24%	0.15%	0.01%	0.63%	3.55%
041	60,122	611	1.03%	45,271	75.3%	27.62%	36.96%	28.55%	3.13%	0.22%	0.05%	0.84%	2.62%
042	59,620	109	0.18%	48,525	81.39%	39%	30.85%	17.38%	7.45%	0.2%	0.04%	1.14%	3.94%
043	59,464	-47	-0.08%	47,033	79.09%	46.31%	24.03%	14.15%	7.62%	0.21%	0.09%	2.27%	5.32%
044	60,002	491	0.83%	46,773	77.95%	67.69%	10.5%	10.53%	5.78%	0.2%	0.02%	1.06%	4.23%
045	59,738	227	0.38%	44,023	73.69%	74.94%	4.27%	4.85%	12.05%	0.05%	0.02%	0.59%	3.23%
046	59,108	-403	-0.68%	44,132	74.66%	74.81%	6.79%	7.38%	6.72%	0.13%	0.04%	0.61%	3.53%
047	59,126	-385	-0.65%	43,932	74.3%	63.89%	9.3%	7.37%	15.16%	0.17%	0.03%	0.62%	3.46%
048	59,003	-508	-0.85%	44,779	75.89%	61.77%	10.14%	12.41%	11.59%	0.08%	0.04%	0.56%	3.42%
049	59,153	-358	-0.60%	45,263	76.52%	71.48%	7.22%	6.7%	10.74%	0.1%	0.03%	0.63%	3.12%
050	59,523	12	0.02%	43,940	73.82%	44.37%	10.8%	6.36%	34.63%	0.07%	0.05%	0.58%	3.13%
051	58,952	-559	-0.94%	47,262	80.17%	54.33%	21.3%	13.31%	5.93%	0.18%	0.05%	1.01%	3.89%
052	59,811	300	0.50%	48,525	81.13%	55.14%	14.19%	7.41%	19.12%	0.14%	0.07%	0.68%	3.24%
053	59,953	442	0.74%	46,944	78.3%	71.2%	12.71%	7.44%	4.58%	0.09%	0.02%	0.54%	3.41%
054	60,083	572	0.96%	50,338	83.78%	62.98%	13.67%	12.79%	6.86%	0.13%	0.03%	0.53%	3.02%
055	59,971	460	0.77%	49,255	82.13%	35.51%	52.85%	4.97%	3.19%	0.18%	0.04%	0.37%	2.88%
056	58,929	-582	-0.98%	52,757	89.53%	36.98%	42.9%	5.84%	9.92%	0.2%	0.08%	0.41%	3.67%
057	59,969	458	0.77%	52,097	86.87%	63.64%	16.18%	7.95%	7.99%	0.1%	0.02%	0.6%	3.52%
058	59,057	-454	-0.76%	50,514	85.53%	27.56%	60.36%	5.07%	3.04%	0.12%	0.04%	0.51%	3.3%
059	59,434	-77	-0.13%	49,179	82.75%	22.04%	66.72%	4.43%	2.9%	0.17%	0.02%	0.54%	3.18%
060	59,709	198	0.33%	45,490	76.19%	28.09%	61.3%	5.11%	2.17%	0.18%	0.05%	0.43%	2.67%
061	59,302	-209	-0.35%	45,447	76.64%	16.75%	71.33%	7.61%	0.97%	0.17%	0.05%	0.51%	2.6%
062	59,450	-61	-0.10%	46,426	78.09%	19.07%	69.19%	6.83%	1.3%	0.21%	0.05%	0.47%	2.88%
063	59,381	-130	-0.22%	45,043	75.85%	19.22%	66.7%	9.26%	1.54%	0.21%	0.04%	0.47%	2.56%
064	58,986	-525	-0.88%	44,189	74.91%	57.83%	28.63%	7.44%	1.41%	0.3%	0.04%	0.7%	3.67%
065	59,464	-47	-0.08%	44,386	74.64%	31.46%	59.19%	4.53%	1.15%	0.19%	0.05%	0.51%	2.92%
066	59,047	-464	-0.78%	44,278	74.99%	33.93%	50.39%	9.49%	1.86%	0.26%	0.08%	0.63%	3.36%
067	59,135	-376	-0.63%	44,299	74.91%	30.86%	56.59%	7.75%	1.39%	0.19%	0.03%	0.49%	2.7%
068	59,477	-34	-0.06%	44,835	75.38%	33.94%	53.42%	6.33%	2.77%	0.14%	0.05%	0.63%	2.72%
069	58,682	-829	-1.39%	45,548	77.62%	26.89%	60.9%	5.42%	3.12%	0.18%	0.04%	0.78%	2.68%
070	59,121	-390	-0.66%	45,249	76.54%	59.69%	26.23%	7.96%	2.23%	0.22%	0.06%	0.4%	3.22%
071	59,538	27	0.05%	44,582	74.88%	69.8%	18.45%	6.18%	1.01%	0.24%	0.02%	0.42%	3.88%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
072	59,660	149	0.25%	46,229	77.49%	69.24%	19.51%	6.94%	0.93%	0.19%	0.02%	0.23%	2.94%
073	60,036	525	0.88%	45,736	76.18%	72.58%	10.84%	7.05%	5.58%	0.14%	0.03%	0.4%	3.38%
074	58,956	-555	-0.93%	44,696	75.81%	64.44%	24%	5.55%	2.04%	0.21%	0.02%	0.47%	3.26%
075	59,743	232	0.39%	43,850	73.4%	11.27%	71.04%	11.28%	2.93%	0.18%	0.07%	0.66%	2.57%
076	59,759	248	0.42%	44,371	74.25%	10.51%	64.4%	13.23%	8.69%	0.21%	0.05%	0.51%	2.41%
077	59,242	-269	-0.45%	44,207	74.62%	7.58%	73.27%	12.2%	4.36%	0.23%	0.06%	0.41%	1.9%
078	59,044	-467	-0.78%	44,572	75.49%	15.05%	68.35%	8.89%	4.21%	0.2%	0.03%	0.63%	2.63%
079	59,500	-11	-0.02%	43,223	72.64%	7.15%	68.44%	16.03%	5.51%	0.2%	0.01%	0.56%	2.09%
080	59,461	-50	-0.08%	44,784	75.32%	47.63%	12.45%	23.12%	13.33%	0.07%	0.04%	0.56%	2.79%
081	59,007	-504	-0.85%	46,259	78.4%	47.01%	19.77%	20.92%	8.71%	0.14%	0.01%	0.46%	2.98%
082	59,724	213	0.36%	50,238	84.12%	62.46%	15.19%	6.79%	11.35%	0.11%	0.04%	0.56%	3.51%
083	59,416	-95	-0.16%	46,581	78.4%	47.9%	13.51%	28.47%	6.91%	0.1%	0.02%	0.55%	2.55%
084	59,862	351	0.59%	47,350	79.1%	21.29%	70.47%	2.96%	1.48%	0.16%	0.02%	0.55%	3.07%
085	59,373	-138	-0.23%	46,308	78%	19.48%	59.85%	5.92%	10.8%	0.21%	0.02%	0.57%	3.14%
086	59,205	-306	-0.51%	44,614	75.36%	12.08%	72.02%	4.29%	7.95%	0.15%	0.01%	0.65%	2.84%
087	59,709	198	0.33%	45,615	76.4%	13.5%	69.72%	6.69%	6.22%	0.24%	0.02%	0.64%	2.97%
088	59,689	178	0.30%	46,073	77.19%	18.3%	60.15%	9.97%	7.64%	0.22%	0.07%	0.64%	3.01%
089	59,866	355	0.60%	46,198	77.17%	31.07%	60.06%	3.42%	1.92%	0.15%	0.03%	0.41%	2.93%
090	59,812	301	0.51%	48,015	80.28%	33.98%	56.05%	4.26%	1.82%	0.12%	0.03%	0.53%	3.2%
091	60,050	539	0.91%	46,173	76.89%	22%	67.15%	5.86%	1.44%	0.15%	0.05%	0.49%	2.86%
092	60,273	762	1.28%	46,551	77.23%	24.05%	65.71%	4.68%	1.67%	0.17%	0.03%	0.61%	3.08%
093	60,118	607	1.02%	44,734	74.41%	22.91%	62.36%	9.58%	1.48%	0.17%	0.09%	0.61%	2.81%
094	59,211	-300	-0.50%	44,809	75.68%	18.42%	65.61%	7.29%	4.85%	0.19%	0.02%	0.54%	3.07%
095	60,030	519	0.87%	44,948	74.88%	21.83%	63.61%	7.94%	2.43%	0.22%	0.04%	0.67%	3.27%
096	59,515	4	0.01%	44,671	75.06%	20.32%	20.75%	36.03%	19.7%	0.11%	0.04%	0.6%	2.44%
097	59,072	-439	-0.74%	46,339	78.44%	36.44%	24.16%	19.23%	16.07%	0.19%	0.05%	0.6%	3.25%
098	59,998	487	0.82%	42,734	71.23%	11.66%	20.91%	52.77%	12.28%	0.12%	0.05%	0.51%	1.71%
099	59,850	339	0.57%	45,004	75.19%	42.1%	13.07%	8.67%	32.63%	0.13%	0.04%	0.48%	2.89%
100	60,030	519	0.87%	42,669	71.08%	59.05%	8.86%	9.98%	18.41%	0.19%	0.06%	0.43%	3.02%
101	59,938	427	0.72%	46,584	77.72%	40.14%	21.87%	18.24%	15.98%	0.16%	0.05%	0.54%	3.02%
102	58,959	-552	-0.93%	42,968	72.88%	30.65%	34.79%	21.34%	9.57%	0.2%	0.03%	0.52%	2.89%
103	60,197	686	1.15%	44,399	73.76%	52.42%	15.01%	16.89%	12.19%	0.12%	0.03%	0.5%	2.83%
104	59,362	-149	-0.25%	43,306	72.95%	62.96%	15.44%	11.14%	6.38%	0.18%	0.05%	0.51%	3.34%
105	59,344	-167	-0.28%	43,474	73.26%	41.74%	26.67%	16.76%	11.05%	0.1%	0.03%	0.54%	3.12%
106	59,112	-399	-0.67%	43,890	74.25%	41.22%	33.7%	11.14%	9.73%	0.16%	0.03%	0.74%	3.28%
107	59,702	191	0.32%	44,509	74.55%	21.96%	27.02%	31.09%	16.75%	0.18%	0.04%	0.56%	2.4%
108	59,577	66	0.11%	44,308	74.37%	43.36%	16.55%	18.16%	18.34%	0.18%	0.04%	0.53%	2.84%
109	59,630	119	0.20%	44,140	74.02%	15.44%	29.65%	36.12%	15.82%	0.12%	0.06%	0.55%	2.25%
110	59,951	440	0.74%	43,226	72.1%	36.58%	44.02%	10.49%	4.72%	0.18%	0.04%	0.72%	3.25%
111	60,009	498	0.84%	44,096	73.48%	64%	20.56%	8.84%	2.56%	0.2%	0.04%	0.64%	3.17%
112	59,349	-162	-0.27%	45,120	76.02%	73.73%	18.26%	3.28%	1.26%	0.22%	0.02%	0.41%	2.81%
113	60,053	542	0.91%	44,538	74.16%	31.8%	56.48%	6.65%	0.83%	0.15%	0.11%	0.59%	3.39%
114	59,867	356	0.60%	45,872	76.62%	68.84%	23.42%	3.73%	0.71%	0.18%	0.01%	0.35%	2.76%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
115	60,174	663	1.11%	44,807	74.46%	36.95%	49.2%	6.97%	2.68%	0.2%	0.05%	0.69%	3.26%
116	59,913	402	0.68%	45,791	76.43%	27.22%	54.93%	7.29%	6.48%	0.19%	0.09%	0.74%	3.05%
117	60,130	619	1.04%	44,973	74.79%	54.5%	34.54%	5.44%	1.54%	0.19%	0.04%	0.52%	3.22%
118	59,987	476	0.80%	46,342	77.25%	69.73%	22.7%	3.68%	0.42%	0.2%	0.02%	0.39%	2.85%
119	58,947	-564	-0.95%	44,005	74.65%	69.8%	12.31%	10.44%	3.75%	0.17%	0.02%	0.43%	3.08%
120	58,982	-529	-0.89%	46,767	79.29%	71.94%	13.21%	7.09%	4.18%	0.16%	0.05%	0.44%	2.91%
121	59,127	-384	-0.65%	46,598	78.81%	76.13%	8.6%	5.57%	5.84%	0.1%	0%	0.46%	3.3%
122	59,632	121	0.20%	48,840	81.9%	54.8%	27.13%	11.7%	2.41%	0.32%	0.06%	0.79%	2.79%
123	59,282	-229	-0.38%	46,572	78.56%	68.06%	23.42%	4.31%	1.06%	0.19%	0.02%	0.2%	2.75%
124	59,221	-290	-0.49%	47,638	80.44%	65.01%	24.61%	6.17%	1.08%	0.19%	0.02%	0.31%	2.61%
125	60,137	626	1.05%	43,812	72.85%	63.03%	21.43%	7.66%	2.6%	0.31%	0.16%	0.39%	4.41%
126	59,260	-251	-0.42%	45,497	76.78%	39.97%	52.63%	3.17%	0.89%	0.29%	0.16%	0.29%	2.62%
127	58,678	-833	-1.40%	45,889	78.2%	68.13%	16.88%	4.77%	5.68%	0.19%	0.16%	0.43%	3.77%
128	58,864	-647	-1.09%	46,488	78.98%	46.49%	49.38%	1.7%	0.35%	0.19%	0.01%	0.17%	1.71%
129	58,829	-682	-1.15%	46,873	79.68%	37.16%	52.33%	4.26%	2.4%	0.19%	0.15%	0.41%	3.1%
130	59,203	-308	-0.52%	44,019	74.35%	33.74%	57.69%	3.86%	0.97%	0.26%	0.19%	0.34%	2.95%
131	58,890	-621	-1.04%	42,968	72.96%	68.16%	15.87%	5.87%	5.21%	0.21%	0.1%	0.55%	4.03%
132	59,142	-369	-0.62%	46,752	79.05%	35.63%	49.82%	7.8%	2.74%	0.27%	0.16%	0.3%	3.28%
133	59,202	-309	-0.52%	47,222	79.76%	58.39%	35.87%	2.15%	1.15%	0.15%	0.04%	0.36%	1.89%
134	59,396	-115	-0.19%	45,110	75.95%	59.9%	32.37%	3.74%	0.81%	0.23%	0.02%	0.25%	2.69%
135	60,063	552	0.93%	46,725	77.79%	71.78%	22.84%	1.82%	0.55%	0.16%	0.01%	0.25%	2.57%
136	59,298	-213	-0.36%	45,367	76.51%	63.9%	27.76%	3.64%	1.55%	0.26%	0.04%	0.29%	2.55%
137	59,551	40	0.07%	45,358	76.17%	40.82%	50.02%	4.48%	1.73%	0.12%	0.12%	0.26%	2.44%
138	58,912	-599	-1.01%	45,684	77.55%	72.34%	18.26%	3.31%	2.43%	0.26%	0.07%	0.35%	2.97%
139	59,010	-501	-0.84%	45,522	77.14%	66.19%	18.56%	6.36%	3.89%	0.25%	0.24%	0.46%	4.04%
140	59,294	-217	-0.36%	44,411	74.9%	31.7%	54.74%	8.02%	1.17%	0.24%	0.2%	0.49%	3.43%
141	59,019	-492	-0.83%	44,677	75.7%	31.77%	54.65%	6.55%	2.69%	0.27%	0.3%	0.38%	3.38%
142	59,608	97	0.16%	44,584	74.8%	34.8%	57.42%	3.7%	1.4%	0.17%	0.02%	0.28%	2.2%
143	59,469	-42	-0.07%	46,390	78.01%	32.28%	58.98%	4.67%	1.07%	0.21%	0.05%	0.3%	2.44%
144	59,232	-279	-0.47%	46,370	78.29%	62.95%	28.34%	2.55%	3.45%	0.14%	0.02%	0.26%	2.29%
145	59,863	352	0.59%	45,844	76.58%	55.12%	33.97%	5.94%	0.99%	0.33%	0.03%	0.3%	3.32%
146	60,203	692	1.16%	44,589	74.06%	61.84%	26.08%	4.73%	2.98%	0.18%	0.09%	0.39%	3.71%
147	59,178	-333	-0.56%	44,902	75.88%	55.32%	28.41%	7.17%	4.85%	0.25%	0.07%	0.41%	3.52%
148	59,984	473	0.79%	46,614	77.71%	60.45%	33.11%	3.08%	0.87%	0.14%	0.04%	0.21%	2.1%
149	58,893	-618	-1.04%	46,821	79.5%	60.99%	30.75%	5.69%	0.57%	0.19%	0.04%	0.14%	1.63%
150	59,276	-235	-0.39%	47,050	79.37%	38.31%	52.5%	6.13%	1.18%	0.16%	0.03%	0.15%	1.54%
151	60,059	548	0.92%	46,973	78.21%	47.2%	40.96%	7.28%	1.43%	0.18%	0.18%	0.19%	2.58%
152	60,134	623	1.05%	46,026	76.54%	67.94%	25.26%	2.34%	1.52%	0.24%	0.04%	0.19%	2.46%
153	59,299	-212	-0.36%	45,692	77.05%	27.66%	66.38%	2.55%	1%	0.16%	0.03%	0.23%	2.01%
154	59,994	483	0.81%	47,273	78.8%	42.24%	53.68%	1.67%	0.36%	0.19%	0%	0.16%	1.7%
155	58,759	-752	-1.26%	45,208	76.94%	59.77%	34.6%	2.22%	0.95%	0.16%	0.04%	0.21%	2.05%
156	59,444	-67	-0.11%	45,867	77.16%	60.92%	29.32%	6.88%	0.62%	0.16%	0.01%	0.15%	1.93%
157	59,957	446	0.75%	45,311	75.57%	64.48%	23.7%	8.96%	0.57%	0.17%	0.04%	0.16%	1.93%

Population Summary

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
158	59,440	-71	-0.12%	45,549	76.63%	62.21%	30.2%	4.52%	0.71%	0.21%	0.03%	0.18%	1.93%
159	59,895	384	0.65%	44,871	74.92%	69.39%	23.44%	2.87%	0.57%	0.31%	0.04%	0.26%	3.12%
160	59,935	424	0.71%	48,057	80.18%	68.48%	21.07%	5.04%	1.64%	0.24%	0.09%	0.27%	3.17%
161	60,097	586	0.98%	44,371	73.83%	60.16%	25.26%	6.82%	3.16%	0.25%	0.09%	0.48%	3.77%
162	60,308	797	1.34%	46,733	77.49%	40.62%	41.13%	9.58%	4.16%	0.22%	0.24%	0.44%	3.61%
163	60,123	612	1.03%	48,461	80.6%	41.92%	43.78%	7.38%	3.6%	0.2%	0.1%	0.33%	2.68%
164	60,101	590	0.99%	45,851	76.29%	60.61%	21.43%	8.49%	4.37%	0.26%	0.12%	0.6%	4.12%
165	59,978	467	0.78%	48,247	80.44%	39.18%	48.49%	5.33%	3.68%	0.25%	0.14%	0.35%	2.57%
166	60,242	731	1.23%	47,580	78.98%	84.71%	4.96%	4.07%	2.69%	0.18%	0.05%	0.36%	2.97%
167	59,493	-18	-0.03%	44,140	74.19%	65.96%	20.55%	7.41%	1.48%	0.39%	0.18%	0.39%	3.66%
168	60,147	636	1.07%	44,867	74.6%	39.29%	42.28%	10.3%	2.32%	0.33%	0.65%	0.38%	4.46%
169	59,138	-373	-0.63%	45,267	76.54%	60.95%	28.12%	7.66%	0.88%	0.14%	0.03%	0.16%	2.06%
170	60,116	605	1.02%	45,316	75.38%	64.17%	23.21%	8.65%	1.19%	0.12%	0.02%	0.25%	2.38%
171	59,237	-274	-0.46%	45,969	77.6%	53.85%	38.58%	4.63%	0.56%	0.24%	0.02%	0.17%	1.95%
172	59,961	450	0.76%	44,756	74.64%	61.03%	22.46%	13.42%	0.78%	0.23%	0.03%	0.19%	1.87%
173	59,743	232	0.39%	45,292	75.81%	55.68%	35.18%	5.35%	0.84%	0.37%	0.02%	0.26%	2.31%
174	59,852	341	0.57%	45,760	76.46%	72.25%	16.08%	7.96%	0.52%	0.38%	0.03%	0.15%	2.64%
175	59,993	482	0.81%	44,704	74.52%	66.49%	23.13%	5.03%	1.85%	0.28%	0.06%	0.3%	2.86%
176	59,470	-41	-0.07%	44,991	75.65%	66.15%	21.61%	8.24%	0.96%	0.25%	0.1%	0.19%	2.49%
177	59,992	481	0.81%	46,014	76.7%	37.12%	51.68%	6.12%	1.36%	0.24%	0.08%	0.36%	3.04%
178	59,877	366	0.62%	45,638	76.22%	77.79%	13.99%	5.14%	0.54%	0.2%	0.01%	0.23%	2.09%
179	59,356	-155	-0.26%	47,156	79.45%	63.69%	25.74%	6.38%	1.07%	0.15%	0.11%	0.34%	2.51%
180	59,412	-99	-0.17%	45,362	76.35%	71.17%	16.63%	5.62%	1.67%	0.31%	0.11%	0.47%	4.02%

Total: **10,711,908**
Ideal District: **59,511**

The preceding report, published by the Georgia General Assembly, does not include statistics for the percentage of the voting age population that is "Black or African American alone or in combination," also known as the "any part Black voting age population" percentage or "APBVAP%." As these percentages are relevant for determining which House districts can be considered majority-Black under the conventions used in the expert report, I have provided them below after having exported a listing from the *Maptitude for Redistricting* software.

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
1	4.20%	25	5.90%	49	8.42%	73	12.11%	97	26.77%
2	3.15%	26	4.01%	50	12.40%	74	25.52%	98	23.25%
3	3.35%	27	3.69%	51	23.68%	75	74.40%	99	14.71%
4	5.38%	28	3.93%	52	15.99%	76	67.23%	100	10.01%
5	4.60%	29	13.59%	53	14.53%	77	76.13%	101	24.19%
6	1.51%	30	8.10%	54	15.47%	78	71.58%	102	37.62%
7	0.62%	31	7.57%	55	55.38%	79	71.59%	103	16.79%
8	1.43%	32	7.96%	56	45.48%	80	14.18%	104	17.03%
9	1.57%	33	11.20%	57	18.06%	81	21.83%	105	29.05%
10	3.73%	34	15.67%	58	63.04%	82	16.83%	106	36.27%
11	1.85%	35	28.40%	59	70.09%	83	15.12%	107	29.63%
12	9.68%	36	16.98%	60	63.88%	84	73.66%	108	18.35%
13	19.18%	37	28.18%	61	74.29%	85	62.71%	109	32.51%
14	6.85%	38	54.23%	62	72.26%	86	75.05%	110	47.19%
15	14.19%	39	55.29%	63	69.33%	87	73.08%	111	22.29%
16	11.69%	40	32.98%	64	30.72%	88	63.35%	112	19.21%
17	23.02%	41	39.35%	65	61.98%	89	62.54%	113	59.53%
18	7.98%	42	33.70%	66	53.41%	90	58.49%	114	24.74%
19	24.15%	43	26.53%	67	58.92%	91	70.04%	115	52.13%
20	9.25%	44	12.05%	68	55.75%	92	68.79%	116	58.13%
21	5.06%	45	5.28%	69	63.56%	93	65.36%	117	36.61%
22	15.10%	46	8.07%	70	27.83%	94	69.04%	118	23.60%
23	6.50%	47	10.72%	71	19.92%	95	67.15%	119	13.49%
24	7.00%	48	11.79%	72	20.86%	96	23.00%	120	14.28%

(Table continues on following page.)

(Cont.)

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
121	9.56%	133	36.76%	145	35.67%	157	24.67%	169	29.04%
122	28.42%	134	33.57%	146	27.61%	158	31.20%	170	24.22%
123	24.28%	135	23.75%	147	30.12%	159	24.50%	171	39.60%
124	25.58%	136	28.67%	148	34.02%	160	22.60%	172	23.32%
125	23.68%	137	52.13%	149	32.15%	161	27.14%	173	36.27%
126	54.47%	138	19.32%	150	53.56%	162	43.73%	174	17.37%
127	18.52%	139	20.27%	151	42.41%	163	45.49%	175	24.17%
128	50.41%	140	57.63%	152	26.06%	164	23.47%	176	22.68%
129	54.87%	141	57.46%	153	67.95%	165	50.33%	177	53.88%
130	59.91%	142	59.52%	154	54.82%	166	5.67%	178	14.79%
131	17.62%	143	60.79%	155	35.85%	167	22.28%	179	27.03%
132	52.34%	144	29.33%	156	30.25%	168	46.26%	180	18.21%

Esselstyn Report: Attachment J

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
1	59,666	155	0.26%	88.62%	3.94%	0.41%	0.54%	0.06%	1.12%	5.32%	2.59%	5.09%	4.20%
2	59,773	262	0.44%	85.43%	2.68%	0.43%	1.12%	0.02%	3.69%	6.63%	9.09%	3.64%	3.15%
3	60,199	688	1.16%	87.87%	2.90%	0.36%	1.64%	0.14%	1.40%	5.69%	3.60%	4.09%	3.35%
4	59,070	-441	-0.74%	51.31%	4.41%	2.94%	1.27%	0.04%	25.56%	14.47%	50.07%	5.53%	5.38%
5	58,837	-674	-1.13%	78.57%	3.88%	0.60%	1.24%	0.03%	7.79%	7.90%	15.29%	5.24%	4.60%
6	59,712	201	0.34%	83.29%	1.07%	1.22%	0.53%	0.02%	6.80%	7.06%	14.51%	1.88%	1.51%
7	59,081	-430	-0.72%	89.34%	0.40%	0.61%	0.47%	0.02%	4.07%	5.09%	7.43%	0.87%	0.62%
8	59,244	-267	-0.45%	91.67%	1.16%	0.38%	0.55%	0.01%	1.22%	5.01%	3.21%	1.73%	1.43%
9	59,474	-37	-0.06%	89.17%	1.05%	0.49%	0.79%	0.06%	2.17%	6.27%	5.49%	1.79%	1.57%
10	59,519	8	0.01%	81.72%	3.03%	0.47%	1.53%	0.06%	5.51%	7.68%	13.11%	3.84%	3.73%
11	58,792	-719	-1.21%	88.57%	1.61%	0.37%	1.16%	0.03%	1.98%	6.28%	5.33%	2.35%	1.85%
12	59,300	-211	-0.35%	79.74%	8.68%	0.52%	1.01%	0.01%	4.44%	5.61%	7.68%	10.20%	9.68%
13	59,150	-361	-0.61%	64.15%	18.92%	0.81%	1.29%	0.03%	6.65%	8.15%	13.52%	20.65%	19.18%
14	59,135	-376	-0.63%	83.05%	5.98%	0.34%	0.79%	0.03%	3.25%	6.56%	7.04%	7.34%	6.85%
15	59,213	-298	-0.50%	70.65%	13.85%	0.55%	1.31%	0.05%	6.05%	7.56%	11.74%	15.79%	14.19%
16	59,402	-109	-0.18%	75.06%	11.36%	0.61%	0.77%	0.06%	6.25%	5.89%	10.95%	12.76%	11.69%
17	59,120	-391	-0.66%	65.08%	22.54%	0.36%	1.34%	0.08%	2.97%	7.63%	7.90%	25.01%	23.02%
18	59,335	-176	-0.30%	85.62%	7.19%	0.28%	0.61%	0.04%	1.30%	4.96%	2.93%	8.63%	7.98%
19	58,955	-556	-0.93%	63.74%	23.95%	0.39%	1.17%	0.09%	3.33%	7.34%	7.87%	26.38%	24.15%
20	60,107	596	1.00%	76.19%	8.34%	0.31%	2.01%	0.04%	3.95%	9.16%	10.60%	9.94%	9.25%
21	59,529	18	0.03%	81.93%	4.37%	0.38%	1.86%	0.05%	2.97%	8.44%	8.54%	5.63%	5.06%
22	59,460	-51	-0.09%	65.22%	14.31%	0.44%	3.90%	0.04%	5.20%	10.90%	13.26%	16.63%	15.10%
23	59,048	-463	-0.78%	75.17%	5.81%	1.01%	1.08%	0.05%	7.59%	9.29%	17.19%	7.20%	6.50%
24	59,011	-500	-0.84%	61.94%	6.14%	0.45%	17.71%	0.04%	4.82%	8.90%	11.36%	7.31%	7.00%
25	59,414	-97	-0.16%	53.10%	5.06%	0.19%	33.57%	0.03%	1.50%	6.55%	5.42%	6.07%	5.90%
26	59,248	-263	-0.44%	65.34%	3.41%	0.50%	16.82%	0.05%	5.34%	8.54%	12.07%	4.47%	4.01%
27	58,795	-716	-1.20%	82.10%	3.31%	0.44%	0.84%	0.04%	5.55%	7.72%	11.82%	4.40%	3.69%
28	58,972	-539	-0.91%	79.07%	3.49%	0.53%	2.09%	0.03%	5.99%	8.79%	13.59%	4.55%	3.93%
29	59,200	-311	-0.52%	43.92%	12.45%	1.40%	2.77%	0.07%	25.34%	14.04%	46.28%	13.74%	13.59%
30	59,266	-245	-0.41%	70.51%	7.56%	0.49%	3.06%	0.04%	8.72%	9.63%	18.78%	8.75%	8.10%
31	59,901	390	0.66%	69.79%	6.83%	0.61%	2.33%	0.04%	10.78%	9.61%	21.63%	7.96%	7.57%
32	59,145	-366	-0.62%	82.12%	7.33%	0.48%	1.28%	0.07%	2.88%	5.84%	6.03%	8.88%	7.96%
33	59,187	-324	-0.54%	80.79%	11.02%	0.21%	1.20%	0.02%	2.22%	4.54%	4.08%	12.37%	11.20%
34	59,875	364	0.61%	68.37%	14.73%	0.32%	4.45%	0.04%	3.38%	8.70%	9.06%	16.87%	15.67%
35	59,889	378	0.64%	52.51%	27.13%	0.48%	4.49%	0.05%	5.14%	10.20%	12.70%	30.41%	28.40%
36	59,994	483	0.81%	69.47%	16.26%	0.25%	3.10%	0.05%	2.80%	8.08%	7.46%	18.43%	16.98%

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
37	59,176	-335	-0.56%	45.62%	26.57%	0.99%	4.53%	0.06%	11.93%	10.30%	21.96%	29.02%	28.18%
38	59,317	-194	-0.33%	27.97%	53.68%	0.59%	1.80%	0.09%	7.72%	8.15%	14.72%	56.91%	54.23%
39	59,381	-130	-0.22%	22.83%	52.84%	0.79%	1.53%	0.04%	12.96%	9.01%	21.79%	55.60%	55.29%
40	59,044	-467	-0.78%	50.09%	31.39%	0.25%	8.59%	0.03%	2.33%	7.32%	6.43%	34.18%	32.98%
41	60,122	611	1.03%	29.51%	37.00%	1.11%	2.85%	0.06%	16.74%	12.72%	33.22%	39.66%	39.35%
42	59,620	109	0.18%	38.93%	31.87%	0.61%	7.17%	0.05%	10.28%	11.09%	20.49%	34.76%	33.70%
43	59,464	-47	-0.08%	45.84%	24.83%	0.92%	7.85%	0.10%	9.01%	11.45%	15.85%	27.49%	26.53%
44	60,002	491	0.83%	66.91%	11.23%	0.41%	5.74%	0.04%	5.13%	10.53%	11.99%	13.32%	12.05%
45	59,738	227	0.38%	73.40%	4.24%	0.15%	12.96%	0.02%	1.48%	7.75%	5.50%	5.53%	5.28%
46	59,108	-403	-0.68%	74.02%	6.93%	0.26%	6.95%	0.04%	2.77%	9.03%	8.24%	8.59%	8.07%
47	59,126	-385	-0.65%	63.20%	9.59%	0.31%	15.95%	0.03%	2.72%	8.19%	7.83%	11.15%	10.72%
48	59,003	-508	-0.85%	60.96%	10.38%	0.43%	11.79%	0.06%	6.20%	10.18%	14.10%	12.23%	11.79%
49	59,153	-358	-0.60%	70.45%	7.33%	0.17%	11.43%	0.03%	2.42%	8.17%	7.56%	8.85%	8.42%
50	59,523	12	0.02%	42.70%	11.30%	0.14%	35.51%	0.04%	2.70%	7.60%	7.06%	13.04%	12.40%
51	58,952	-559	-0.94%	53.22%	22.42%	0.44%	5.86%	0.05%	7.50%	10.50%	15.47%	25.05%	23.68%
52	59,811	300	0.50%	55.20%	13.94%	0.30%	19.75%	0.06%	3.11%	7.64%	7.98%	15.82%	15.99%
53	59,953	442	0.74%	71.67%	12.59%	0.20%	4.49%	0.03%	3.08%	7.94%	8.20%	14.49%	14.53%
54	60,083	572	0.96%	62.88%	13.25%	0.42%	6.56%	0.05%	7.69%	9.16%	15.17%	15.06%	15.47%
55	59,971	460	0.77%	34.75%	55.03%	0.28%	2.88%	0.05%	2.12%	4.90%	5.14%	57.32%	55.38%
56	58,929	-582	-0.98%	35.60%	46.85%	0.24%	9.36%	0.08%	1.88%	5.99%	5.81%	49.24%	45.48%
57	59,969	458	0.77%	64.40%	15.89%	0.36%	7.63%	0.03%	3.92%	7.76%	8.83%	17.83%	18.06%
58	59,057	-454	-0.76%	26.52%	63.71%	0.23%	2.79%	0.04%	1.78%	4.93%	5.03%	66.10%	63.04%
59	59,434	-77	-0.13%	20.24%	70.27%	0.26%	2.54%	0.03%	1.60%	5.07%	4.45%	73.14%	70.09%
60	59,709	198	0.33%	27.39%	62.26%	0.35%	2.05%	0.05%	2.94%	4.95%	5.87%	64.58%	63.88%
61	58,950	-561	-0.94%	34.98%	52.47%	0.42%	1.40%	0.05%	4.25%	6.44%	8.36%	55.51%	53.49%
62	59,450	-61	-0.10%	18.14%	70.86%	0.38%	1.16%	0.06%	4.11%	5.29%	7.61%	73.56%	72.26%
63	59,381	-130	-0.22%	18.46%	68.64%	0.56%	1.36%	0.05%	5.60%	5.33%	10.42%	70.98%	69.33%
64	59,648	137	0.23%	36.92%	48.40%	0.45%	1.04%	0.09%	5.96%	7.14%	11.25%	51.05%	50.24%
65	59,240	-271	-0.46%	30.99%	61.67%	0.27%	0.81%	0.04%	1.62%	4.59%	3.70%	64.10%	63.34%
66	58,961	-550	-0.92%	31.21%	53.46%	0.47%	1.86%	0.10%	5.44%	7.46%	10.88%	56.82%	53.88%
67	59,135	-376	-0.63%	30.47%	57.71%	0.33%	1.31%	0.03%	4.63%	5.52%	8.71%	59.93%	58.92%
68	59,477	-34	-0.06%	32.13%	55.20%	0.33%	2.82%	0.05%	3.68%	5.78%	7.30%	57.48%	55.75%
69	58,358	-1,153	-1.94%	26.08%	61.75%	0.28%	2.95%	0.04%	3.29%	5.61%	6.42%	64.56%	62.73%
70	59,121	-390	-0.66%	58.14%	27.99%	0.40%	2.19%	0.05%	4.48%	6.75%	9.08%	30.02%	27.83%
71	59,538	27	0.05%	68.61%	19.16%	0.45%	0.98%	0.02%	3.53%	7.25%	7.44%	21.49%	19.92%
72	59,660	149	0.25%	68.83%	19.64%	0.38%	0.96%	0.03%	4.59%	5.58%	8.16%	21.43%	20.86%

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
73	60,036	525	0.88%	71.55%	11.47%	0.30%	5.94%	0.04%	2.53%	8.17%	7.96%	13.10%	12.11%
74	58,418	-1,093	-1.84%	34.64%	52.32%	0.33%	2.41%	0.06%	4.25%	5.99%	8.22%	54.91%	53.94%
75	59,759	248	0.42%	14.87%	65.44%	0.59%	4.89%	0.07%	8.12%	6.03%	13.11%	68.43%	66.89%
76	59,759	248	0.42%	10.18%	64.99%	0.82%	8.16%	0.06%	9.45%	6.35%	15.61%	67.71%	67.23%
77	59,242	-269	-0.45%	7.77%	73.39%	0.59%	4.06%	0.08%	9.22%	4.89%	14.22%	75.90%	76.13%
78	59,890	379	0.64%	36.56%	51.33%	0.44%	1.69%	0.04%	3.94%	6.01%	8.29%	54.01%	51.03%
79	59,500	-11	-0.02%	7.56%	69.08%	0.94%	4.92%	0.03%	11.61%	5.87%	18.11%	71.79%	71.59%
80	59,461	-50	-0.08%	47.83%	12.00%	1.52%	13.08%	0.07%	15.40%	10.10%	26.17%	13.67%	14.18%
81	59,007	-504	-0.85%	47.01%	19.09%	1.27%	8.24%	0.03%	13.87%	10.49%	24.58%	21.16%	21.83%
82	59,724	213	0.36%	63.25%	14.66%	0.28%	11.08%	0.03%	2.93%	7.77%	7.52%	16.35%	16.83%
83	59,416	-95	-0.16%	47.55%	12.45%	1.70%	6.34%	0.03%	21.02%	10.92%	33.75%	14.01%	15.12%
84	59,862	351	0.59%	21.61%	70.46%	0.19%	1.44%	0.03%	1.26%	5.01%	3.40%	73.35%	73.66%
85	59,373	-138	-0.23%	18.61%	60.90%	0.38%	12.33%	0.03%	2.65%	5.11%	5.99%	63.41%	62.71%
86	59,205	-306	-0.51%	11.04%	72.44%	0.30%	9.07%	0.02%	2.71%	4.42%	4.64%	75.09%	75.05%
87	59,709	198	0.33%	12.16%	70.92%	0.41%	6.49%	0.02%	4.81%	5.20%	7.73%	74.02%	73.08%
88	59,689	178	0.30%	17.17%	61.41%	0.65%	7.51%	0.07%	6.54%	6.65%	11.46%	64.53%	63.35%
89	59,866	355	0.60%	31.03%	60.27%	0.22%	1.80%	0.03%	1.37%	5.29%	3.80%	62.63%	62.54%
90	59,812	301	0.51%	32.92%	57.69%	0.24%	1.62%	0.04%	1.83%	5.67%	4.65%	60.13%	58.49%
91	59,956	445	0.75%	32.76%	58.67%	0.24%	1.19%	0.03%	2.03%	5.07%	4.42%	61.23%	60.01%
92	60,273	762	1.28%	21.57%	68.31%	0.24%	1.59%	0.04%	2.99%	5.27%	5.49%	71.31%	68.79%
93	60,118	607	1.02%	21.33%	64.04%	0.36%	1.34%	0.11%	6.56%	6.26%	11.24%	66.95%	65.36%
94	59,211	-300	-0.50%	17.43%	66.81%	0.45%	4.88%	0.03%	4.41%	5.99%	8.72%	69.91%	69.04%
95	60,030	519	0.87%	19.99%	65.91%	0.39%	2.30%	0.08%	4.61%	6.72%	9.32%	69.44%	67.15%
96	59,515	4	0.01%	21.85%	21.31%	1.48%	17.72%	0.08%	25.19%	12.37%	40.49%	23.47%	23.00%
97	59,072	-439	-0.74%	35.90%	25.79%	0.68%	15.07%	0.09%	11.43%	11.04%	21.86%	28.56%	26.77%
98	59,998	487	0.82%	15.89%	20.23%	2.15%	10.77%	0.10%	36.38%	14.49%	57.42%	22.14%	23.25%
99	59,850	339	0.57%	41.47%	13.80%	0.36%	32.56%	0.05%	3.65%	8.11%	9.52%	15.90%	14.71%
100	60,030	519	0.87%	57.78%	9.19%	0.42%	19.53%	0.06%	4.06%	8.96%	10.85%	10.66%	10.01%
101	59,938	427	0.72%	40.65%	22.90%	0.69%	15.32%	0.06%	8.64%	11.74%	20.17%	25.66%	24.19%
102	58,959	-552	-0.93%	29.76%	37.16%	0.98%	9.04%	0.04%	12.08%	10.94%	23.45%	40.20%	37.62%
103	60,197	686	1.15%	52.61%	15.52%	0.60%	11.76%	0.06%	8.69%	10.76%	19.06%	17.66%	16.79%
104	59,362	-149	-0.25%	62.99%	15.96%	0.40%	6.37%	0.05%	5.27%	8.95%	12.64%	18.10%	17.03%
105	59,344	-167	-0.28%	41.69%	28.45%	0.51%	10.63%	0.04%	7.83%	10.85%	18.10%	31.08%	29.05%
106	59,112	-399	-0.67%	38.57%	36.27%	0.61%	9.86%	0.06%	5.99%	8.65%	12.66%	39.28%	36.27%
107	59,702	191	0.32%	23.31%	28.16%	1.39%	15.52%	0.05%	18.46%	13.13%	34.49%	30.77%	29.63%
108	59,577	66	0.11%	41.71%	17.71%	0.93%	18.12%	0.04%	11.15%	10.35%	20.98%	20.05%	18.35%

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
109	59,630	119	0.20%	18.29%	30.16%	1.16%	14.48%	0.07%	22.25%	13.59%	39.32%	32.86%	32.51%
110	59,951	440	0.74%	34.57%	46.58%	0.33%	4.53%	0.06%	5.00%	8.94%	11.87%	50.11%	47.19%
111	60,009	498	0.84%	62.34%	22.08%	0.40%	2.53%	0.07%	4.84%	7.75%	10.37%	24.28%	22.29%
112	59,349	-162	-0.27%	72.57%	19.06%	0.28%	1.28%	0.06%	1.89%	4.87%	4.00%	20.49%	19.21%
113	60,053	542	0.91%	30.11%	58.29%	0.30%	0.81%	0.14%	4.15%	6.21%	7.78%	61.62%	59.53%
114	59,867	356	0.60%	67.78%	24.16%	0.28%	0.71%	0.04%	2.21%	4.83%	4.53%	25.79%	24.74%
115	59,789	278	0.47%	30.02%	53.14%	0.46%	4.80%	0.06%	4.84%	6.70%	9.30%	56.23%	53.77%
116	60,380	869	1.46%	33.11%	52.02%	0.29%	4.57%	0.08%	3.53%	6.39%	7.80%	55.04%	51.95%
117	60,142	631	1.06%	36.94%	50.92%	0.30%	1.57%	0.06%	3.70%	6.51%	7.78%	53.97%	51.56%
118	59,987	476	0.80%	69.35%	22.72%	0.26%	0.45%	0.03%	1.99%	5.21%	4.50%	24.16%	23.60%
119	58,947	-564	-0.95%	69.24%	12.73%	0.46%	3.87%	0.03%	5.81%	7.87%	12.17%	14.47%	13.49%
120	58,982	-529	-0.89%	71.79%	13.65%	0.34%	4.08%	0.06%	3.79%	6.29%	8.42%	15.04%	14.28%
121	59,127	-384	-0.65%	76.66%	8.80%	0.18%	5.66%	0.01%	2.50%	6.19%	6.27%	9.96%	9.56%
122	59,632	121	0.20%	51.35%	30.85%	0.60%	2.17%	0.08%	8.43%	6.54%	13.78%	32.33%	28.42%
123	59,282	-229	-0.38%	67.02%	23.91%	0.30%	1.16%	0.03%	2.63%	4.94%	5.33%	25.32%	24.28%
124	59,221	-290	-0.49%	62.85%	26.19%	0.32%	1.15%	0.03%	3.77%	5.71%	7.57%	27.61%	25.58%
125	60,137	626	1.05%	62.06%	22.24%	0.45%	2.48%	0.22%	3.27%	9.29%	8.93%	25.37%	23.68%
126	59,260	-251	-0.42%	38.66%	54.30%	0.34%	0.76%	0.16%	1.55%	4.22%	3.63%	56.45%	54.47%
127	58,678	-833	-1.40%	67.34%	17.46%	0.27%	5.68%	0.18%	1.94%	7.13%	5.58%	19.67%	18.52%
128	58,864	-647	-1.09%	44.54%	51.11%	0.21%	0.36%	0.04%	0.81%	2.92%	1.91%	52.50%	50.41%
129	58,829	-682	-1.15%	34.71%	55.50%	0.31%	2.12%	0.15%	2.15%	5.05%	4.74%	58.21%	54.87%
130	59,203	-308	-0.52%	30.99%	60.84%	0.33%	0.82%	0.19%	1.93%	4.90%	4.33%	63.45%	59.91%
131	58,890	-621	-1.04%	67.43%	16.38%	0.29%	4.98%	0.17%	1.99%	8.77%	7.07%	18.92%	17.62%
132	59,142	-369	-0.62%	35.30%	52.48%	0.35%	2.42%	0.19%	3.20%	6.05%	7.91%	55.26%	52.34%
133	59,768	257	0.43%	68.72%	25.32%	0.16%	1.00%	0.03%	1.00%	3.77%	2.36%	26.58%	26.11%
134	59,046	-465	-0.78%	53.95%	38.20%	0.30%	0.75%	0.03%	1.98%	4.79%	4.33%	40.04%	37.41%
135	60,013	502	0.84%	74.82%	19.45%	0.24%	0.62%	0.01%	1.02%	3.84%	2.12%	20.68%	20.35%
136	59,298	-213	-0.36%	63.16%	28.15%	0.34%	1.55%	0.03%	2.06%	4.71%	4.40%	29.56%	28.67%
137	59,551	40	0.07%	39.25%	51.92%	0.19%	1.69%	0.14%	2.07%	4.75%	5.17%	54.16%	52.13%
138	58,912	-599	-1.01%	71.33%	18.92%	0.36%	2.41%	0.06%	1.57%	5.36%	4.10%	20.49%	19.32%
139	59,010	-501	-0.84%	65.30%	19.63%	0.39%	4.09%	0.22%	2.55%	7.82%	7.24%	21.77%	20.27%
140	59,294	-217	-0.36%	30.34%	56.56%	0.53%	1.06%	0.26%	4.45%	6.81%	9.04%	59.80%	57.63%
141	59,019	-492	-0.83%	30.98%	55.60%	0.36%	2.59%	0.33%	3.04%	7.10%	7.93%	58.90%	57.46%
142	59,320	-191	-0.32%	39.78%	51.89%	0.25%	2.27%	0.02%	2.32%	3.48%	4.22%	53.52%	50.14%
143	59,122	-389	-0.65%	38.76%	52.08%	0.21%	2.55%	0.04%	1.91%	4.44%	3.76%	54.15%	50.64%
144	58,533	-978	-1.64%	64.43%	24.36%	0.33%	2.88%	0.06%	1.91%	6.03%	5.04%	26.09%	24.94%

District	Population	Deviation	% Deviation	% single-race White (total pop)	% single-race Black (total pop)	% single-race American Indian Alaska Native (total pop)	% single-race Asian (total pop)	% single-race Native Hawaiian Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
145	59,668	157	0.26%	36.17%	51.16%	0.47%	1.19%	0.07%	4.44%	6.50%	8.64%	53.76%	50.38%
146	59,197	-314	-0.53%	67.39%	23.72%	0.21%	1.65%	0.08%	1.64%	5.31%	4.55%	25.26%	24.38%
147	58,567	-944	-1.59%	54.11%	30.64%	0.32%	3.95%	0.10%	3.34%	7.54%	7.61%	33.12%	30.55%
148	59,887	376	0.63%	56.80%	37.60%	0.18%	0.61%	0.03%	1.74%	3.04%	5.86%	38.90%	37.30%
149	59,392	-119	-0.20%	41.24%	52.64%	0.22%	0.77%	0.06%	1.87%	3.21%	2.88%	54.31%	51.53%
150	59,276	-235	-0.39%	37.15%	53.50%	0.30%	1.19%	0.05%	4.73%	3.08%	7.23%	54.77%	53.56%
151	60,059	548	0.92%	46.66%	42.45%	0.27%	1.32%	0.25%	4.52%	4.53%	7.51%	44.17%	42.41%
152	60,134	623	1.05%	66.75%	25.98%	0.27%	1.61%	0.05%	1.33%	4.01%	2.84%	27.20%	26.06%
153	59,299	-212	-0.36%	24.79%	69.44%	0.17%	0.92%	0.03%	1.68%	2.97%	2.93%	71.14%	67.95%
154	59,994	483	0.81%	39.90%	55.77%	0.19%	0.39%	0.02%	1.00%	2.72%	2.10%	57.13%	54.82%
155	60,134	623	1.05%	58.50%	35.73%	0.21%	0.90%	0.05%	1.41%	3.19%	2.65%	37.24%	35.23%
156	60,647	1,136	1.91%	60.55%	29.57%	0.37%	0.61%	0.01%	4.56%	4.33%	8.19%	30.89%	29.87%
157	59,957	446	0.75%	63.89%	23.82%	0.39%	0.56%	0.04%	6.64%	4.65%	11.19%	25.21%	24.67%
158	59,440	-71	-0.12%	60.33%	31.67%	0.27%	0.77%	0.03%	3.07%	3.86%	5.60%	33.07%	31.20%
159	59,895	384	0.65%	68.50%	24.02%	0.35%	0.54%	0.05%	1.54%	5.00%	3.65%	25.56%	24.50%
160	59,935	424	0.71%	68.19%	22.04%	0.32%	1.64%	0.10%	2.38%	5.33%	5.50%	23.64%	22.60%
161	60,097	586	0.98%	59.24%	26.27%	0.34%	3.05%	0.11%	3.15%	7.84%	7.89%	28.87%	27.14%
162	60,308	797	1.34%	38.55%	43.95%	0.43%	4.04%	0.26%	5.71%	7.06%	10.78%	46.66%	43.73%
163	60,123	612	1.03%	39.74%	46.54%	0.40%	3.15%	0.16%	4.62%	5.39%	8.45%	48.40%	45.49%
164	60,101	590	0.99%	60.02%	22.55%	0.45%	4.26%	0.13%	4.01%	8.58%	9.95%	25.07%	23.47%
165	59,978	467	0.78%	36.28%	52.86%	0.30%	3.23%	0.16%	2.74%	4.44%	5.53%	54.85%	50.33%
166	60,242	731	1.23%	84.02%	5.04%	0.23%	2.67%	0.05%	1.68%	6.30%	5.19%	6.05%	5.67%
167	59,493	-18	-0.03%	64.99%	21.40%	0.62%	1.47%	0.26%	3.75%	7.52%	8.81%	23.93%	22.28%
168	60,147	636	1.07%	39.01%	44.49%	0.44%	2.06%	0.73%	3.84%	9.43%	11.22%	49.11%	46.26%
169	59,138	-373	-0.63%	60.27%	29.04%	0.33%	0.79%	0.03%	5.16%	4.37%	9.03%	30.38%	29.04%
170	60,116	605	1.02%	62.84%	24.56%	0.31%	1.19%	0.03%	5.44%	5.62%	10.43%	26.05%	24.22%
171	59,237	-274	-0.46%	52.16%	40.00%	0.33%	0.54%	0.03%	3.52%	3.41%	5.73%	41.21%	39.60%
172	59,961	450	0.76%	60.41%	23.41%	0.80%	0.77%	0.03%	8.71%	5.87%	16.00%	24.67%	23.32%
173	59,743	232	0.39%	53.63%	36.40%	0.63%	0.83%	0.02%	4.16%	4.33%	6.95%	37.84%	36.27%
174	59,852	341	0.57%	73.85%	17.42%	0.47%	0.49%	0.05%	3.09%	4.63%	7.88%	18.81%	17.37%
175	59,993	482	0.81%	65.60%	23.98%	0.37%	1.79%	0.08%	2.45%	5.73%	6.10%	25.56%	24.17%
176	59,470	-41	-0.07%	66.19%	21.96%	0.45%	0.93%	0.11%	4.65%	5.71%	9.95%	23.59%	22.68%
177	59,992	481	0.81%	34.69%	55.26%	0.37%	1.30%	0.09%	3.02%	5.27%	6.69%	57.52%	53.88%
178	59,877	366	0.62%	77.36%	14.59%	0.35%	0.52%	0.01%	3.20%	3.97%	6.22%	15.91%	14.79%
179	59,356	-155	-0.26%	60.43%	28.66%	0.39%	1.07%	0.17%	4.00%	5.27%	7.73%	30.40%	27.03%
180	59,412	-99	-0.17%	70.77%	17.31%	0.47%	1.62%	0.13%	2.05%	7.65%	6.47%	19.73%	18.21%

Esselstyn Report: Attachment K

2021-2022 GUIDELINES FOR THE HOUSE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT COMMITTEE

I. HEARINGS AND MEETINGS

A. PUBLIC HEARINGS

1. A series of public hearings were held to actively seek public participation and input concerning the General Assembly's redrawing of congressional and legislative districts.

2. Video recordings of all hearings are and shall remain available on the legislative website, www.legis.ga.gov

B. COMMITTEE MEETINGS

1. All formal meetings of the full committee will be open to the public.

2. When the General Assembly is not in session, notices of all such meetings will be posted at the Offices of the Clerk of the House or Secretary of the Senate and other appropriate places at least 24 hours in advance of any meeting. Individual notices may be transmitted by email to any citizen or organization requesting the same without charge. Persons or organizations needing this information should contact the Senate Press Office or House Communications Office or the Secretary of the Senate or Clerk of the House to be placed on the notification list.

3. Minutes of all such meetings shall be kept and maintained in accordance with the rules of the House and Senate. Copies of the minutes should be made available in a timely manner at a reasonable cost in accordance with these same rules.

IL PUBLIC ACCESS TO REDISTRICTING DATA AND MATERIALS

A. Census information databases on any medium created at public expense and held by the Committee or by the Legislative and Congressional Reapportionment Office for use in the redistricting process are included as public records and copies can be made available to the public in accordance with the rules of the General Assembly and subject to reasonable charges for search, retrieval, reproduction and other reasonable, related costs.

B. Copies of the public records described above may be obtained at the cost of reproduction by members of the public on electronic media if the material exists on an appropriate electronic medium. Cost of reproduction may include not only the medium on which the copies made, but also the labor cost for the search, retrieval, and reproduction of the records and other reasonable, related costs.

C. These guidelines regarding public access to redistricting data and materials do not apply to plans or other related materials prepared by or on behalf of an individual Member of the General Assembly using the Legislative and Congressional Reapportionment Office, where those plans and materials have not been made public through presentation to the Committee.

III. REDISTRICTING PLANS

A. GENERAL PRINCIPLES FOR DRAFTING PLANS

1. Each congressional district should be drawn with a total population of plus or minus one person from the ideal district size.

2. Each legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below.

3. All plans adopted by the Committee will comply with Section 2 of the Voting Rights Act of 1965, as amended.

4. All plans adopted by the Committee will comply with the United States and Georgia Constitutions.

5. Districts shall be composed of contiguous geography. Districts that connect on a single point are not contiguous.

6. No multi-member districts shall be drawn on any legislative redistricting plan.

7. The Committee should consider:

   a. The boundaries of counties and precincts;

   b. Compactness; and

   c. Communities of interest.

8. Efforts should be made to avoid the unnecessary pairing of incumbents.

9. The identifying of these criteria is not intended to limit the consideration of any other principles or factors that the Committee deems appropriate.

B. PLANS PRODUCED THROUGH THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. Staff of the Legislative and Congressional Reapportionment Office will be available to all members of the General Assembly requesting assistance in accordance with the policy of that office.

2. Census data and redistricting work maps will be available to all members of the General Assembly upon request, provided that (a) the map was created by the requesting member, (b) the map is publicly available, or (c) the Legislative and Congressional Reapportionment Office has been granted permission by the author of the map to share a copy with the requesting member.

3. As noted above, redistricting plans and other records related to the provision of staff services to individual members of the General Assembly will not be subject to public disclosure. Only the author of a particular map may waive the confidentiality of his or her own work product. This confidentiality provision will not apply with respect to records related to the provision of staff services to any committee or subcommittee as a whole or to any records which are or have been previously disclosed by or pursuant to the direction of an individual member of the General Assembly.

C. PLANS PRODUCED OUTSIDE OF THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. All plans submitted to the Committee will be made part of the public record and made available in the same manner as other committee public records.

2. All plans prepared outside the Legislative and Congressional Reapportionment Office must be submitted to that office prior to presentation to the Committee by a Member of the General Assembly for technical verification and presentation and bill preparation. All pieces of census geography must be accounted for in some district.

3. The electronic submission of material for technical verification must be made in accordance with the following requirements or in a manner specifically approved and accepted by the Legislative and Congressional Reapportionment Office.

   a. The submission shall be in electronic format with accompanying documentation that shows the submitting sponsor of the proposed plan and contact person for the proposed plan, including email address and telephone number.

   b. An electronic map image that clearly depicts defined boundaries, utilizing the 2020 United States Census geographic boundaries,

and a block equivalency file containing two columns. The first column shall list the 15-digit census block identification numbers, and the second column shall list the three-digit district identification number. Both block and district numbers shall be zero-filled text files. Such files shall be submitted in .xis, .xlsx, .dbf, .txt, or .csv file formats. The following is a sample:

```
BlockID, DISTRICT
"13001950100101","008"
"13001950100102","008"
"13001950100103","008"
"13001950100104","008"
"13001950100105","008"
"13001950100106","008"
```

4. If submission of the plan cannot be done electronically, the following requirements must be followed:

   a. All drafts, amendments, or revisions should be on clearly-depicted maps that follow the 2020 Census geographic boundaries and should be accompanied by a statistical sheet listing the Census geography including the total population for each district.

   b. All plans submitted should either be a complete statewide plan or fit back into the plan that they modified, so that the proposal can be evaluated in the context of a statewide plan. All pieces of Census geography must be accounted for in some district.

D. GENERAL GUIDELINES FOR PRESENTATION OF ALL PLANS

1. A redistricting plan may be presented for consideration by the Committee only through the sponsorship of one or more Member(s) of the General Assembly. All such drafts of and amendments or revisions to plans presented at any committee meeting must be on clearly-depicted maps which follow the 2020 Census geographic boundaries and accompanied by a statistical sheet listing the Census geography, including the total population and minority populations for each proposed district.

2. No plan may be presented to the Committee unless that plan makes accommodations for and fits back into a specific, identified statewide map for the particular legislative body involved.

3. All plans presented at committee meetings will be made available for inspection by the public either electronically or by hard copy available at the Office of Legislative and Congressional Reapportionment.

E. These guidelines may be reconsidered or amended by the Committee.

Esselstyn Report: Attachment L

More detailed tables for comparative characteristics of House plans

Population Deviation:

The deviation statistics for each individual district in the respective plans can be found in **Attachment I** and **Attachment J**. Below are the summary statistics generated by the *Maptitude for Redistricting* software.

Enacted plan:

Population Range:	58,678 to 60,308
Ratio Range:	0.03
Absolute Range:	-833 to 797
Absolute Overall Range:	1,630
Relative Range:	-1.40% to 1.34%
Relative Overall Range:	2.74%
Absolute Mean Deviation:	363.71
Relative Mean Deviation:	0.61%
Standard Deviation:	417.67

Illustrative plan:

Population Range:	58,358 to 60,647
Ratio Range:	0.04
Absolute Range:	-1,153 to 1,136
Absolute Overall Range:	2,289
Relative Range:	-1.94% to 1.91%
Relative Overall Range:	3.85%
Absolute Mean Deviation:	379.46
Relative Mean Deviation:	0.64%
Standard Deviation:	442.99

Compactness:

Below is the compactness report for the House enacted plan.

User:
Plan Name: **EnacHSEfromGA**
Plan Type:

Measures of Compactness Report

Tuesday, January 11, 2022 9:53 PM

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
001	0.53	1.45	0.45	0.85
002	0.53	1.95	0.24	0.71
003	0.50	1.49	0.41	0.83
004	0.37	1.93	0.21	0.72
005	0.43	1.67	0.25	0.73
006	0.45	1.72	0.26	0.77
007	0.62	1.31	0.50	0.89
008	0.46	1.71	0.27	0.71
009	0.47	1.63	0.30	0.78
010	0.34	1.48	0.30	0.81
011	0.31	1.72	0.26	0.71

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
012	0.47	1.66	0.31	0.85
013	0.47	2.06	0.19	0.74
014	0.32	1.95	0.23	0.73
015	0.55	1.63	0.33	0.79
016	0.31	1.57	0.35	0.88
017	0.28	1.97	0.21	0.64
018	0.41	1.88	0.25	0.76
019	0.26	1.90	0.26	0.68
020	0.46	1.40	0.45	0.81
021	0.26	1.81	0.27	0.73
022	0.28	1.80	0.22	0.69
023	0.40	1.84	0.19	0.69
024	0.35	1.77	0.30	0.79
025	0.39	1.69	0.31	0.68

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
026	0.27	1.82	0.26	0.70
027	0.60	1.54	0.34	0.82
028	0.38	1.58	0.35	0.80
029	0.34	1.97	0.21	0.62
030	0.43	1.71	0.30	0.66
031	0.44	1.67	0.25	0.70
032	0.39	1.64	0.33	0.73
033	0.49	1.53	0.37	0.80
034	0.45	1.61	0.33	0.75
035	0.32	1.76	0.24	0.73
036	0.32	1.90	0.23	0.68
037	0.45	1.66	0.28	0.82
038	0.59	1.28	0.58	0.91
039	0.59	1.45	0.40	0.87

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
040	0.49	1.69	0.29	0.76
041	0.60	1.47	0.40	0.85
042	0.40	2.01	0.21	0.64
043	0.42	1.94	0.22	0.69
044	0.31	1.76	0.29	0.73
045	0.41	1.64	0.32	0.77
046	0.55	1.42	0.47	0.84
047	0.29	2.02	0.21	0.61
048	0.34	2.12	0.19	0.62
049	0.30	2.23	0.15	0.59
050	0.42	1.40	0.46	0.77
051	0.54	1.60	0.36	0.73
052	0.48	1.65	0.35	0.72
053	0.16	2.52	0.14	0.50

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
054	0.37	1.49	0.45	0.87
055	0.18	2.42	0.16	0.59
056	0.26	2.04	0.23	0.69
057	0.57	1.30	0.59	0.91
058	0.13	2.76	0.13	0.54
059	0.12	2.98	0.11	0.46
060	0.19	2.39	0.15	0.58
061	0.25	2.12	0.20	0.64
062	0.16	2.92	0.10	0.48
063	0.16	2.61	0.14	0.49
064	0.37	1.60	0.36	0.78
065	0.46	2.06	0.17	0.72
066	0.36	1.94	0.25	0.67
067	0.36	2.39	0.12	0.61

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
068	0.32	2.19	0.17	0.71
069	0.40	1.88	0.25	0.69
070	0.45	1.94	0.23	0.65
071	0.44	1.56	0.35	0.79
072	0.42	1.86	0.23	0.73
073	0.28	2.12	0.20	0.66
074	0.50	1.79	0.25	0.76
075	0.42	1.82	0.28	0.64
076	0.53	1.33	0.51	0.86
077	0.40	2.11	0.21	0.64
078	0.21	2.08	0.19	0.62
079	0.50	2.06	0.21	0.73
080	0.38	1.49	0.42	0.79
081	0.47	1.54	0.40	0.81

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
082	0.49	1.74	0.30	0.72
083	0.34	1.62	0.36	0.80
084	0.25	1.97	0.20	0.67
085	0.36	1.65	0.32	0.77
086	0.17	2.34	0.17	0.55
087	0.26	1.97	0.24	0.70
088	0.26	2.14	0.20	0.67
089	0.14	2.90	0.10	0.47
090	0.36	1.78	0.29	0.83
091	0.45	2.08	0.20	0.62
092	0.36	1.98	0.20	0.71
093	0.26	2.66	0.11	0.54
094	0.31	2.42	0.15	0.56
095	0.44	1.72	0.25	0.75

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
096	0.18	2.18	0.21	0.66
097	0.28	1.96	0.24	0.67
098	0.42	1.35	0.52	0.88
099	0.36	1.80	0.29	0.72
100	0.34	1.78	0.29	0.66
101	0.53	1.44	0.46	0.82
102	0.56	1.58	0.35	0.77
103	0.33	1.96	0.24	0.62
104	0.28	1.90	0.25	0.74
105	0.34	1.78	0.28	0.69
106	0.66	1.36	0.50	0.85
107	0.51	1.68	0.32	0.75
108	0.43	1.64	0.32	0.71
109	0.39	1.70	0.28	0.70

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
110	0.36	1.68	0.33	0.74
111	0.33	1.76	0.29	0.68
112	0.62	1.26	0.52	0.91
113	0.50	1.57	0.32	0.85
114	0.51	1.70	0.28	0.71
115	0.44	1.92	0.23	0.63
116	0.41	1.81	0.28	0.63
117	0.41	1.74	0.28	0.75
118	0.35	1.92	0.22	0.68
119	0.39	1.89	0.21	0.64
120	0.44	1.83	0.25	0.72
121	0.43	1.61	0.30	0.76
122	0.48	1.48	0.43	0.85
123	0.30	1.89	0.18	0.69

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
124	0.44	1.78	0.23	0.69
125	0.41	1.89	0.17	0.72
126	0.52	1.39	0.41	0.80
127	0.35	2.17	0.20	0.58
128	0.60	1.51	0.32	0.79
129	0.48	1.94	0.25	0.66
130	0.51	1.48	0.25	0.75
131	0.38	1.74	0.28	0.70
132	0.27	1.69	0.30	0.75
133	0.55	1.36	0.42	0.83
134	0.33	1.96	0.23	0.67
135	0.57	1.32	0.42	0.88
136	0.54	1.74	0.26	0.77
137	0.33	2.22	0.16	0.57

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
138	0.33	2.00	0.20	0.70
139	0.28	1.93	0.23	0.66
140	0.29	2.06	0.19	0.65
141	0.26	2.16	0.20	0.52
142	0.35	1.82	0.23	0.70
143	0.50	1.53	0.30	0.79
144	0.51	1.56	0.32	0.84
145	0.38	1.85	0.19	0.72
146	0.26	2.00	0.19	0.62
147	0.33	1.84	0.26	0.64
148	0.44	1.81	0.24	0.69
149	0.32	1.68	0.22	0.72
150	0.44	1.67	0.28	0.78
151	0.53	1.82	0.22	0.71

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
152	0.40	1.68	0.30	0.81
153	0.30	1.73	0.30	0.70
154	0.41	1.48	0.33	0.79
155	0.49	1.33	0.48	0.89
156	0.23	1.92	0.20	0.67
157	0.32	1.95	0.19	0.72
158	0.48	1.52	0.33	0.80
159	0.34	1.62	0.22	0.73
160	0.49	1.32	0.37	0.88
161	0.51	1.51	0.31	0.81
162	0.37	1.99	0.21	0.61
163	0.27	2.34	0.18	0.54
164	0.30	2.10	0.17	0.66
165	0.23	2.23	0.16	0.52

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
166	0.43	1.43	0.36	0.82
167	0.42	1.97	0.19	0.65
168	0.24	1.67	0.26	0.69
169	0.28	1.97	0.23	0.64
170	0.53	1.49	0.34	0.82
171	0.35	1.46	0.37	0.83
172	0.44	1.59	0.32	0.77
173	0.57	1.46	0.38	0.85
174	0.41	1.70	0.24	0.75
175	0.47	1.54	0.37	0.83
176	0.34	2.23	0.16	0.54
177	0.43	1.57	0.34	0.76
178	0.48	1.83	0.22	0.75
179	0.45	1.39	0.42	0.87

Measures of Compactness Report

Number of cut edges: 22,020

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
180	**0.61**	**1.23**	**0.40**	**0.85**

Measures of Compactness Report

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

Below is the compactness report for the House illustrative plan.

User:
Plan Name: **GA House Illustrative**
Plan Type:

Measures of Compactness Report

Saturday, December 3, 2022 10:02 PM

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
1	0.53	1.45	0.45	0.85
2	0.53	1.95	0.24	0.71
3	0.50	1.49	0.41	0.83
4	0.37	1.93	0.21	0.72
5	0.43	1.67	0.25	0.73
6	0.45	1.72	0.26	0.77
7	0.62	1.31	0.50	0.89
8	0.46	1.71	0.27	0.71
9	0.47	1.63	0.30	0.78
10	0.34	1.48	0.30	0.81
11	0.31	1.72	0.26	0.71

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
12	0.47	1.66	0.31	0.85
13	0.47	2.06	0.19	0.74
14	0.32	1.95	0.23	0.73
15	0.55	1.63	0.33	0.79
16	0.31	1.57	0.35	0.88
17	0.28	1.97	0.21	0.64
18	0.41	1.88	0.25	0.76
19	0.26	1.90	0.26	0.68
20	0.46	1.40	0.45	0.81
21	0.26	1.81	0.27	0.73
22	0.28	1.80	0.22	0.69
23	0.40	1.84	0.19	0.69
24	0.35	1.77	0.30	0.79
25	0.39	1.69	0.31	0.68

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
26	0.27	1.82	0.26	0.70
27	0.60	1.54	0.34	0.82
28	0.38	1.58	0.35	0.80
29	0.34	1.97	0.21	0.62
30	0.43	1.71	0.30	0.66
31	0.44	1.67	0.25	0.70
32	0.39	1.64	0.33	0.73
33	0.49	1.53	0.37	0.80
34	0.45	1.61	0.33	0.75
35	0.32	1.76	0.24	0.73
36	0.32	1.90	0.23	0.68
37	0.45	1.66	0.28	0.82
38	0.59	1.28	0.58	0.91
39	0.59	1.45	0.40	0.87

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
40	0.49	1.69	0.29	0.76
41	0.60	1.47	0.40	0.85
42	0.40	2.01	0.21	0.64
43	0.42	1.94	0.22	0.69
44	0.31	1.76	0.29	0.73
45	0.41	1.64	0.32	0.77
46	0.55	1.42	0.47	0.84
47	0.29	2.02	0.21	0.61
48	0.34	2.12	0.19	0.62
49	0.30	2.23	0.15	0.59
50	0.42	1.40	0.46	0.77
51	0.54	1.60	0.36	0.73
52	0.48	1.65	0.35	0.72
53	0.16	2.52	0.14	0.50

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
54	0.37	1.49	0.45	0.87
55	0.18	2.42	0.16	0.59
56	0.26	2.04	0.23	0.69
57	0.57	1.30	0.59	0.91
58	0.13	2.76	0.13	0.54
59	0.12	2.98	0.11	0.46
60	0.19	2.39	0.15	0.58
61	0.33	2.05	0.21	0.60
62	0.16	2.92	0.10	0.48
63	0.16	2.61	0.14	0.49
64	0.22	2.05	0.22	0.59
65	0.36	2.59	0.11	0.59
66	0.39	1.63	0.35	0.79
67	0.36	2.39	0.12	0.61

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
68	0.32	2.19	0.17	0.71
69	0.33	2.06	0.22	0.68
70	0.45	1.94	0.23	0.65
71	0.44	1.56	0.35	0.79
72	0.42	1.86	0.23	0.73
73	0.28	2.12	0.20	0.66
74	0.30	1.98	0.19	0.61
75	0.46	2.23	0.18	0.68
76	0.53	1.33	0.51	0.86
77	0.40	2.11	0.21	0.64
78	0.31	2.05	0.18	0.65
79	0.50	2.06	0.21	0.73
80	0.38	1.49	0.42	0.79
81	0.47	1.54	0.40	0.81

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
82	0.49	1.74	0.30	0.72
83	0.34	1.62	0.36	0.80
84	0.25	1.97	0.20	0.67
85	0.36	1.65	0.32	0.77
86	0.17	2.34	0.17	0.55
87	0.26	1.97	0.24	0.70
88	0.26	2.14	0.20	0.67
89	0.14	2.90	0.10	0.47
90	0.36	1.78	0.29	0.83
91	0.27	2.15	0.17	0.63
92	0.36	1.98	0.20	0.71
93	0.26	2.66	0.11	0.54
94	0.31	2.42	0.15	0.56
95	0.44	1.72	0.25	0.75

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
96	0.18	2.18	0.21	0.66
97	0.28	1.96	0.24	0.67
98	0.42	1.35	0.52	0.88
99	0.36	1.80	0.29	0.72
100	0.34	1.78	0.29	0.66
101	0.53	1.44	0.46	0.82
102	0.56	1.58	0.35	0.77
103	0.33	1.96	0.24	0.62
104	0.28	1.90	0.25	0.74
105	0.34	1.78	0.28	0.69
106	0.66	1.36	0.50	0.85
107	0.51	1.68	0.32	0.75
108	0.43	1.64	0.32	0.71
109	0.39	1.70	0.28	0.70

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
110	0.36	1.68	0.33	0.74
111	0.33	1.76	0.29	0.68
112	0.62	1.26	0.52	0.91
113	0.50	1.57	0.32	0.85
114	0.51	1.70	0.28	0.71
115	0.29	1.77	0.28	0.71
116	0.33	1.98	0.23	0.62
117	0.40	1.62	0.33	0.76
118	0.35	1.92	0.22	0.68
119	0.39	1.89	0.21	0.64
120	0.44	1.83	0.25	0.72
121	0.43	1.61	0.30	0.76
122	0.48	1.48	0.43	0.85
123	0.30	1.89	0.18	0.69

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
124	0.44	1.78	0.23	0.69
125	0.41	1.89	0.17	0.72
126	0.52	1.39	0.41	0.80
127	0.35	2.17	0.20	0.58
128	0.60	1.51	0.32	0.79
129	0.48	1.94	0.25	0.66
130	0.51	1.48	0.25	0.75
131	0.38	1.74	0.28	0.70
132	0.27	1.69	0.30	0.75
133	0.36	1.69	0.29	0.76
134	0.37	1.73	0.31	0.74
135	0.39	1.79	0.23	0.69
136	0.54	1.74	0.26	0.77
137	0.33	2.22	0.16	0.57

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
138	0.33	2.00	0.20	0.70
139	0.28	1.93	0.23	0.66
140	0.29	2.06	0.19	0.65
141	0.26	2.16	0.20	0.52
142	0.56	1.42	0.36	0.84
143	0.31	1.85	0.26	0.65
144	0.43	1.83	0.22	0.71
145	0.34	1.63	0.21	0.76
146	0.50	1.79	0.26	0.68
147	0.44	1.57	0.37	0.80
148	0.35	2.23	0.18	0.59
149	0.46	1.48	0.28	0.83
150	0.44	1.67	0.28	0.78
151	0.53	1.82	0.22	0.71

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
152	0.40	1.68	0.30	0.81
153	0.30	1.73	0.30	0.70
154	0.41	1.48	0.33	0.79
155	0.47	1.40	0.44	0.86
156	0.25	1.94	0.20	0.71
157	0.32	1.95	0.19	0.72
158	0.48	1.52	0.33	0.80
159	0.34	1.62	0.22	0.73
160	0.49	1.32	0.37	0.88
161	0.51	1.51	0.31	0.81
162	0.37	1.99	0.21	0.61
163	0.27	2.34	0.18	0.54
164	0.30	2.10	0.17	0.66
165	0.23	2.23	0.16	0.52

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
166	0.43	1.43	0.36	0.82
167	0.42	1.97	0.19	0.65
168	0.24	1.67	0.26	0.69
169	0.28	1.97	0.23	0.64
170	0.53	1.49	0.34	0.82
171	0.35	1.46	0.37	0.83
172	0.44	1.59	0.32	0.77
173	0.57	1.46	0.38	0.85
174	0.41	1.70	0.24	0.75
175	0.47	1.54	0.37	0.83
176	0.34	2.23	0.16	0.54
177	0.43	1.57	0.34	0.76
178	0.48	1.83	0.22	0.75
179	0.45	1.39	0.42	0.87

Measures of Compactness Report

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
180	**0.61**	**1.23**	**0.40**	**0.85**

Measures of Compactness Report

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

Divisions of counties and precincts (VTDs):

Below is the political subdivisions splits report for the House enacted plan.

Related note: The first page of the following report generated by *Maptitude for Redistricting* software reports a total number of Voting District (VTD) "subdivisions split in to more than one district," namely 184. However, the "Split Counts" "Voting District" section of the report indicates that "[c]ases where an area is split among 2 Districts" total 175, and "[c]ases where an area is split among 3 Districts" total 10—and the total of 175 and 10 equals 185, not 184. In correspondence with Caliper Corporation (the company that produces *Maptitude for Redistricting*), I have verified that 185 is the correct total, hence that is the number provided in the summary table in section IV.C. of the expert report, not 184.

User:
Plan Name: **GA House Enacted**
Plan Type:

Political Subdivision Splits Between Districts

Saturday, December 3, 2022 10:53 PM

Number of subdivisions not split:

County	90
Voting District	2,514

Number of subdivisions split into more than one district:

County	69
Voting District	184

Number of splits involving no population:

County	0
Voting District	16

Split Counts

County

Cases where an area is split among 2 Districts: 34
Cases where an area is split among 3 Districts: 9
Cases where an area is split among 4 Districts: 12
Cases where an area is split among 5 Districts: 4
Cases where an area is split among 6 Districts: 3
Cases where an area is split among 7 Districts: 2
Cases where an area is split among 9 Districts: 1
Cases where an area is split among 14 Districts: 1
Cases where an area is split among 17 Districts: 1
Cases where an area is split among 21 Districts: 1
Cases where an area is split among 22 Districts: 1

Voting District

Cases where an area is split among 2 Districts: 175
Cases where an area is split among 3 Districts: 10

County	Voting District	District	Population
Split Counties:			
Appling GA		157	12,825
Appling GA		178	5,619
Baldwin GA		128	5,158
Baldwin GA		133	38,641
Barrow GA		104	24,245
Barrow GA		119	54,736
Barrow GA		120	4,524
Bartow GA		14	49,688
Bartow GA		15	59,213
Ben Hill GA		148	5,115
Ben Hill GA		156	12,079
Bibb GA		142	59,608
Bibb GA		143	59,469
Bibb GA		144	33,948

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Bibb GA		145	4,321
Bryan GA		160	11,008
Bryan GA		164	21,420
Bryan GA		166	12,310
Bulloch GA		158	19,285
Bulloch GA		159	12,887
Bulloch GA		160	48,927
Carroll GA		18	18,789
Carroll GA		70	2,854
Carroll GA		71	59,538
Carroll GA		72	37,967
Catoosa GA		2	7,673
Catoosa GA		3	60,199
Chatham GA		161	28,269
Chatham GA		162	60,308
Chatham GA		163	60,123
Chatham GA		164	38,681
Chatham GA		165	59,978
Chatham GA		166	47,932
Cherokee GA		11	6,557
Cherokee GA		14	9,447
Cherokee GA		20	60,107
Cherokee GA		21	59,529
Cherokee GA		22	30,874
Cherokee GA		23	59,048
Cherokee GA		44	21,989
Cherokee GA		46	15,178
Cherokee GA		47	3,891
Clarke GA		120	30,095
Clarke GA		121	26,478
Clarke GA		122	59,632
Clarke GA		124	12,466
Clayton GA		75	59,743
Clayton GA		76	59,759
Clayton GA		77	59,242
Clayton GA		78	55,197
Clayton GA		79	59,500
Clayton GA		116	4,154
Cobb GA		22	28,586
Cobb GA		34	59,875
Cobb GA		35	59,889
Cobb GA		36	59,994
Cobb GA		37	59,176
Cobb GA		38	59,317
Cobb GA		39	59,381
Cobb GA		40	59,044
Cobb GA		41	60,122

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Cobb GA		42	59,620
Cobb GA		43	59,464
Cobb GA		44	38,013
Cobb GA		45	59,738
Cobb GA		46	43,930
Coffee GA		169	33,736
Coffee GA		176	9,356
Columbia GA		123	2,205
Columbia GA		125	55,389
Columbia GA		127	39,526
Columbia GA		131	58,890
Cook GA		170	7,342
Cook GA		172	9,887
Coweta GA		65	13,008
Coweta GA		67	17,272
Coweta GA		70	56,267
Coweta GA		73	31,608
Coweta GA		136	28,003
Dawson GA		7	2,409
Dawson GA		9	24,389
DeKalb GA		52	28,300
DeKalb GA		80	59,461
DeKalb GA		81	59,007
DeKalb GA		82	59,724
DeKalb GA		83	59,416
DeKalb GA		84	59,862
DeKalb GA		85	59,373
DeKalb GA		86	59,205
DeKalb GA		87	59,709
DeKalb GA		88	47,844
DeKalb GA		89	59,866
DeKalb GA		90	59,812
DeKalb GA		91	19,700
DeKalb GA		92	15,607
DeKalb GA		93	11,690
DeKalb GA		94	31,207
DeKalb GA		95	14,599
Dougherty GA		151	6,268
Dougherty GA		152	6,187
Dougherty GA		153	59,299
Dougherty GA		154	14,036
Douglas GA		61	30,206
Douglas GA		64	35,576
Douglas GA		65	19,408
Douglas GA		66	59,047
Effingham GA		159	32,941
Effingham GA		161	31,828

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Fayette GA		68	29,719
Fayette GA		69	37,303
Fayette GA		73	28,428
Fayette GA		74	23,744
Floyd GA		5	5,099
Floyd GA		12	34,335
Floyd GA		13	59,150
Forsyth GA		11	19,019
Forsyth GA		24	59,011
Forsyth GA		25	46,134
Forsyth GA		26	59,248
Forsyth GA		28	50,864
Forsyth GA		100	17,007
Fulton GA		25	13,280
Fulton GA		47	55,235
Fulton GA		48	43,976
Fulton GA		49	59,153
Fulton GA		50	59,523
Fulton GA		51	58,952
Fulton GA		52	31,511
Fulton GA		53	59,953
Fulton GA		54	60,083
Fulton GA		55	59,971
Fulton GA		56	58,929
Fulton GA		57	59,969
Fulton GA		58	59,057
Fulton GA		59	59,434
Fulton GA		60	59,709
Fulton GA		61	29,096
Fulton GA		62	59,450
Fulton GA		63	59,381
Fulton GA		65	27,048
Fulton GA		67	41,863
Fulton GA		68	29,758
Fulton GA		69	21,379
Glynn GA		167	20,499
Glynn GA		179	59,356
Glynn GA		180	4,644
Gordon GA		5	53,738
Gordon GA		6	3,806
Grady GA		171	8,115
Grady GA		173	18,121
Gwinnett GA		30	8,620
Gwinnett GA		48	15,027
Gwinnett GA		88	11,845
Gwinnett GA		94	28,004
Gwinnett GA		95	34,221

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Gwinnett GA		96	59,515
Gwinnett GA		97	59,072
Gwinnett GA		98	59,998
Gwinnett GA		99	59,850
Gwinnett GA		100	35,204
Gwinnett GA		101	59,938
Gwinnett GA		102	58,959
Gwinnett GA		103	51,691
Gwinnett GA		104	35,117
Gwinnett GA		105	59,344
Gwinnett GA		106	59,112
Gwinnett GA		107	59,702
Gwinnett GA		108	59,577
Gwinnett GA		109	59,630
Gwinnett GA		110	59,951
Gwinnett GA		111	22,685
Habersham GA		10	42,636
Habersham GA		32	3,395
Hall GA		27	54,508
Hall GA		28	8,108
Hall GA		29	59,200
Hall GA		30	50,646
Hall GA		31	14,349
Hall GA		100	7,819
Hall GA		103	8,506
Harris GA		138	21,634
Harris GA		139	13,034
Henry GA		74	18,397
Henry GA		78	3,847
Henry GA		91	35,569
Henry GA		115	60,174
Henry GA		116	55,759
Henry GA		117	54,737
Henry GA		118	12,229
Houston GA		145	28,132
Houston GA		146	60,203
Houston GA		147	59,178
Houston GA		148	16,120
Jackson GA		31	45,552
Jackson GA		32	10,931
Jackson GA		119	4,211
Jackson GA		120	15,213
Jasper GA		114	2,855
Jasper GA		118	11,733
Jones GA		133	20,561
Jones GA		144	7,786
Lamar GA		134	5,026

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Lamar GA		135	13,474
Liberty GA		167	5,109
Liberty GA		168	60,147
Lowndes GA		174	9,770
Lowndes GA		175	43,692
Lowndes GA		176	4,797
Lowndes GA		177	59,992
Lumpkin GA		9	29,201
Lumpkin GA		27	4,287
Madison GA		33	9,935
Madison GA		123	20,185
McDuffie GA		125	4,748
McDuffie GA		128	16,884
Meriwether GA		136	13,382
Meriwether GA		137	7,231
Monroe GA		134	9,272
Monroe GA		144	17,498
Monroe GA		145	1,187
Muscogee GA		137	30,443
Muscogee GA		138	12,190
Muscogee GA		139	45,976
Muscogee GA		140	59,294
Muscogee GA		141	59,019
Newton GA		93	15,515
Newton GA		113	60,053
Newton GA		114	36,915
Oconee GA		120	9,150
Oconee GA		121	32,649
Paulding GA		16	16,549
Paulding GA		17	59,120
Paulding GA		18	10,627
Paulding GA		19	58,955
Paulding GA		64	23,410
Peach GA		145	14,093
Peach GA		150	13,888
Putnam GA		118	10,591
Putnam GA		124	11,456
Richmond GA		126	25,990
Richmond GA		127	19,152
Richmond GA		129	58,829
Richmond GA		130	59,203
Richmond GA		132	43,433
Rockdale GA		91	4,781
Rockdale GA		92	44,666
Rockdale GA		93	32,913
Rockdale GA		95	11,210
Spalding GA		74	16,815

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Spalding GA		117	5,393
Spalding GA		134	45,098
Sumter GA		150	14,282
Sumter GA		151	15,334
Tattnall GA		156	1,263
Tattnall GA		157	21,579
Telfair GA		149	9,486
Telfair GA		156	2,991
Thomas GA		172	4,176
Thomas GA		173	41,622
Tift GA		169	6,730
Tift GA		170	34,614
Troup GA		72	10,281
Troup GA		136	17,913
Troup GA		137	16,144
Troup GA		138	25,088
Walker GA		1	43,415
Walker GA		2	24,239
Walton GA		111	37,324
Walton GA		112	59,349
Ware GA		174	9,097
Ware GA		176	27,154
Wayne GA		167	6,742
Wayne GA		178	23,402
White GA		8	22,119
White GA		9	5,884
Whitfield GA		2	27,861
Whitfield GA		4	59,070
Whitfield GA		6	15,933
Split VTDs:			
Barrow GA	16	104	1,708
Barrow GA	16	119	8,060
Bartow GA	CASSVILLE	14	15,558
Bartow GA	CASSVILLE	15	1,047
Bartow GA	WHITE	14	3,335
Bartow GA	WHITE	15	211
Ben Hill GA	WEST	148	5,115
Ben Hill GA	WEST	156	5,229
Bibb GA	HOWARD 1	142	2,326
Bibb GA	HOWARD 1	144	3,617
Bibb GA	HOWARD 2	142	2,369
Bibb GA	HOWARD 2	144	3,076
Bibb GA	HOWARD 3	142	0
Bibb GA	HOWARD 3	144	12,654
Bibb GA	WARRIOR 2	142	4,426
Bibb GA	WARRIOR 2	145	852
Bryan GA	DANIELSIDING	164	1,268

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Bryan GA	DANIELSIDING	166	1,741
Bryan GA	HWY 144 EAST	164	4,552
Bryan GA	HWY 144 EAST	166	4,707
Bryan GA	J.F.GREGORY PARK	164	3,489
Bryan GA	J.F.GREGORY PARK	166	144
Bulloch GA	CHURCH	158	3,764
Bulloch GA	CHURCH	159	5,869
Carroll GA	BONNER	71	410
Carroll GA	BONNER	72	5,554
Chatham GA	CRUSADER COMMUNITY CENTER	162	2,134
Chatham GA	CRUSADER COMMUNITY CENTER	166	1,493
Chatham GA	GEORGETOWN ELEMENTAR	164	5,562
Chatham GA	GEORGETOWN ELEMENTAR	166	0
Chatham GA	GRACE UNITED METHODIST CHURCH	163	2,064
Chatham GA	GRACE UNITED METHODIST CHURCH	165	397
Chatham GA	ROTHWELL BAPTIST CHURCH	161	5,335
Chatham GA	ROTHWELL BAPTIST CHURCH	164	4,987
Chatham GA	THE LIGHT CHURCH	162	1,177
Chatham GA	THE LIGHT CHURCH	163	1,109
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	163	785
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	166	1,890
Cherokee GA	CARMEL	20	5,626
Cherokee GA	CARMEL	22	1,222
Cherokee GA	CARMEL	44	0
Cherokee GA	FREEHOME	21	3,200
Cherokee GA	FREEHOME	47	3,891
Cherokee GA	HOLLY SPRINGS	21	2,250
Cherokee GA	HOLLY SPRINGS	23	2,578
Clarke GA	1A	122	2,758
Clarke GA	1A	124	2,286
Clarke GA	4B	121	7,082
Clarke GA	4B	122	5,589
Clarke GA	7C	120	1,922
Clarke GA	7C	121	3,184
Clayton GA	LOVEJOY 1	75	5,018
Clayton GA	LOVEJOY 1	78	601

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Clayton GA	LOVEJOY 3	78	9,099
Clayton GA	LOVEJOY 3	116	4,154
Clayton GA	MORROW 4	76	1,911
Clayton GA	MORROW 4	78	1,316
Cobb GA	Acworth 1B	35	7,322
Cobb GA	Acworth 1B	36	142
Cobb GA	Baker 01	22	5,226
Cobb GA	Baker 01	35	1,996
Cobb GA	Bells Ferry 03	22	4,918
Cobb GA	Bells Ferry 03	44	3,763
Cobb GA	Dobbins 01	42	11,055
Cobb GA	Dobbins 01	43	2,346
Cobb GA	Elizabeth 01	34	700
Cobb GA	Elizabeth 01	37	5,170
Cobb GA	Elizabeth 04	37	2,031
Cobb GA	Elizabeth 04	43	2,387
Cobb GA	Kennesaw 1A	22	599
Cobb GA	Kennesaw 1A	35	3,844
Cobb GA	Kennesaw 3A	22	0
Cobb GA	Kennesaw 3A	34	871
Cobb GA	Kennesaw 3A	35	8,631
Cobb GA	Lassiter 01	44	2,121
Cobb GA	Lassiter 01	46	2,600
Cobb GA	Lindley 01	39	5,678
Cobb GA	Lindley 01	40	582
Cobb GA	Mableton 01	38	1,589
Cobb GA	Mableton 01	39	5,513
Cobb GA	Mableton 02	38	256
Cobb GA	Mableton 02	39	5,427
Cobb GA	Marietta 1A	37	3,349
Cobb GA	Marietta 1A	43	6,645
Cobb GA	Marietta 2A	34	1,664
Cobb GA	Marietta 2A	37	811
Cobb GA	Marietta 5A	37	2,877
Cobb GA	Marietta 5A	43	1,457
Cobb GA	Marietta 6A	37	1,532
Cobb GA	Marietta 6A	43	3,022
Cobb GA	Marietta 7A	42	1,494
Cobb GA	Marietta 7A	43	5,417
Cobb GA	North Cobb 01	35	2,611
Cobb GA	North Cobb 01	36	559
Cobb GA	Norton Park 01	41	1,955
Cobb GA	Norton Park 01	42	5,846
Cobb GA	Oregon 03	37	6,683
Cobb GA	Oregon 03	41	6,305
Cobb GA	Pine Mountain 02	34	3,976
Cobb GA	Pine Mountain 02	35	0

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Cobb GA	Smyrna 1A	40	1,292
Cobb GA	Smyrna 1A	42	5,341
Cobb GA	Smyrna 4A	40	6,599
Cobb GA	Smyrna 4A	42	1,609
Cobb GA	Smyrna 7A	39	905
Cobb GA	Smyrna 7A	40	7,690
Coffee GA	DOUGLAS	169	19,642
Coffee GA	DOUGLAS	176	8,929
Columbia GA	PATRIOTS PARK	125	326
Columbia GA	PATRIOTS PARK	131	5,958
Coweta GA	JEFFERSON PARKWAY	70	12,590
Coweta GA	JEFFERSON PARKWAY	73	1,521
DeKalb GA	Cedar Grove Middle	89	2,204
DeKalb GA	Cedar Grove Middle	90	316
DeKalb GA	Clarkston	85	5,454
DeKalb GA	Clarkston	86	9,300
DeKalb GA	Dresden Elem (CHA)	81	5,398
DeKalb GA	Dresden Elem (CHA)	83	7,691
DeKalb GA	Freedom Middle	86	1,002
DeKalb GA	Freedom Middle	87	3,088
DeKalb GA	Glennwood (DEC)	82	2,059
DeKalb GA	Glennwood (DEC)	84	1,221
DeKalb GA	Glenwood Road	85	1,698
DeKalb GA	Glenwood Road	86	1,064
DeKalb GA	Memorial South	86	2,226
DeKalb GA	Memorial South	87	2,547
DeKalb GA	Panola Road	86	3,296
DeKalb GA	Panola Road	94	460
DeKalb GA	Redan Middle	87	1,419
DeKalb GA	Redan Middle	88	1,633
DeKalb GA	Rockbridge Road	94	3,736
DeKalb GA	Rockbridge Road	95	1,104
DeKalb GA	Snapfinger Road South	84	920
DeKalb GA	Snapfinger Road South	91	1,271
DeKalb GA	Stone Mill Elem	87	1,863
DeKalb GA	Stone Mill Elem	88	4,069
DeKalb GA	Stone Mountain Champion (STO)	87	1,338
DeKalb GA	Stone Mountain Champion (STO)	88	2,865
DeKalb GA	Stone Mountain Middle (TUC)	87	656
DeKalb GA	Stone Mountain Middle (TUC)	88	3,960
DeKalb GA	Tucker Library (TUC)	81	2,394
DeKalb GA	Tucker Library (TUC)	88	1,635
Dougherty GA	DARTON COLLEGE	151	4,018
Dougherty GA	DARTON COLLEGE	153	2,465

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Dougherty GA	MT ZION CENTER	153	1,245
Dougherty GA	MT ZION CENTER	154	3,972
Effingham GA	4B	159	1,960
Effingham GA	4B	161	959
Fayette GA	ABERDEEN	68	983
Fayette GA	ABERDEEN	73	1,392
Fayette GA	BRAELINN	73	605
Fayette GA	BRAELINN	74	1,646
Fayette GA	STARRSMILL	73	1,932
Fayette GA	STARRSMILL	74	2,452
Floyd GA	ALTO PARK	12	1,576
Floyd GA	ALTO PARK	13	3,847
Floyd GA	MT ALTO NORTH	12	1,080
Floyd GA	MT ALTO NORTH	13	4,509
Forsyth GA	BROWNS BRIDGE	26	10,116
Forsyth GA	BROWNS BRIDGE	28	2,801
Forsyth GA	CONCORD	11	7,687
Forsyth GA	CONCORD	28	7,982
Forsyth GA	CUMMING	26	4,666
Forsyth GA	CUMMING	28	2,410
Forsyth GA	HEARDSVILLE	11	11,332
Forsyth GA	HEARDSVILLE	24	1,335
Forsyth GA	HEARDSVILLE	28	333
Forsyth GA	OTWELL	24	3,988
Forsyth GA	OTWELL	26	6,597
Forsyth GA	OTWELL	28	7,875
Forsyth GA	POLO	24	9,868
Forsyth GA	POLO	25	0
Forsyth GA	POLO	26	15,990
Forsyth GA	SOUTH FORSYTH	25	10,064
Forsyth GA	SOUTH FORSYTH	100	11,887
Forsyth GA	WINDERMERE	26	11,718
Forsyth GA	WINDERMERE	100	5,120
Fulton GA	08C	53	1,524
Fulton GA	08C	60	335
Fulton GA	09K	55	3,033
Fulton GA	09K	60	4,105
Fulton GA	10D	55	1,756
Fulton GA	10D	60	4,311
Fulton GA	11C	55	340
Fulton GA	11C	60	3,418
Fulton GA	AP022	48	862
Fulton GA	AP022	49	2,505
Fulton GA	AP07B	47	1,250
Fulton GA	AP07B	49	1,304
Fulton GA	AP14	48	4,109
Fulton GA	AP14	49	281

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Fulton GA	EP01B	59	2,393
Fulton GA	EP01B	62	2,049
Fulton GA	JC19	48	3,608
Fulton GA	JC19	51	1,792
Fulton GA	ML012	47	501
Fulton GA	ML012	49	123
Fulton GA	ML01B	47	284
Fulton GA	ML01B	49	61
Fulton GA	RW03	51	1,292
Fulton GA	RW03	53	6,066
Fulton GA	RW09	47	2,971
Fulton GA	RW09	49	4,750
Fulton GA	SC02	60	220
Fulton GA	SC02	61	773
Fulton GA	SC05B	61	1,575
Fulton GA	SC05B	65	2,978
Fulton GA	SC07A	65	1,028
Fulton GA	SC07A	67	7,728
Fulton GA	SC08B	62	92
Fulton GA	SC08B	68	5,255
Fulton GA	SC13	65	2,858
Fulton GA	SC13	67	1,176
Fulton GA	UC02A	65	1,070
Fulton GA	UC02A	67	13,013
Gwinnett GA	BAYCREEK A	106	934
Gwinnett GA	BAYCREEK A	110	2,651
Gwinnett GA	BAYCREEK D	102	3,729
Gwinnett GA	BAYCREEK D	110	2,597
Gwinnett GA	BERKSHIRE H	98	2,475
Gwinnett GA	BERKSHIRE H	108	1,991
Gwinnett GA	CATES J	94	955
Gwinnett GA	CATES J	108	4,255
Gwinnett GA	DULUTH F	96	7,245
Gwinnett GA	DULUTH F	107	5,149
Gwinnett GA	DULUTH G	96	1,426
Gwinnett GA	DULUTH G	99	3,389
Gwinnett GA	DUNCANS D	30	8,620
Gwinnett GA	DUNCANS D	104	1,575
Gwinnett GA	LAWRENCEVILLE F	102	2,073
Gwinnett GA	LAWRENCEVILLE F	105	3,924
Gwinnett GA	LAWRENCEVILLE M	102	4,231
Gwinnett GA	LAWRENCEVILLE M	105	7,770
Gwinnett GA	MARTINS H	107	8,164
Gwinnett GA	MARTINS H	109	892
Gwinnett GA	PINCKNEYVILLE W	96	5,745
Gwinnett GA	PINCKNEYVILLE W	97	2,561
Gwinnett GA	PUCKETTS E	103	1,506

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Gwinnett GA	PUCKETTS E	105	7,421
Gwinnett GA	SUGAR HILL D	100	2,158
Gwinnett GA	SUGAR HILL D	103	6,421
Gwinnett GA	SUWANEE F	99	3,224
Gwinnett GA	SUWANEE F	103	2,836
Habersham GA	HABERSHAM SOUTH	10	8,687
Habersham GA	HABERSHAM SOUTH	32	1,972
Hall GA	WILSON	28	3,803
Hall GA	WILSON	29	4,979
Henry GA	FLIPPEN	115	0
Henry GA	FLIPPEN	116	5,686
Henry GA	HICKORY FLAT	115	7,135
Henry GA	HICKORY FLAT	116	17
Henry GA	LOWES	116	5,233
Henry GA	LOWES	117	8,688
Henry GA	RED OAK	78	3,847
Henry GA	RED OAK	116	3,999
Henry GA	STOCKBRIDGE CENTRAL	78	0
Henry GA	STOCKBRIDGE CENTRAL	91	7,453
Henry GA	SWAN LAKE	91	3,240
Henry GA	SWAN LAKE	115	1,518
Houston GA	CENT	145	69
Houston GA	CENT	147	11,815
Houston GA	FMMS	146	9,734
Houston GA	FMMS	147	3,595
Houston GA	HHPC	145	8,748
Houston GA	HHPC	147	6,643
Houston GA	MCMS	146	3,947
Houston GA	MCMS	147	9,547
Houston GA	RECR	145	15,867
Houston GA	RECR	146	0
Houston GA	RECR	147	1,931
Houston GA	ROZR	146	13,202
Houston GA	ROZR	148	7,640
Houston GA	VHS	146	5,586
Houston GA	VHS	148	4,039
Jackson GA	North Jackson	31	4,513
Jackson GA	North Jackson	32	10,931
Jackson GA	North Jackson	120	3,803
Jackson GA	West Jackson	31	16,656
Jackson GA	West Jackson	119	4,211
Jones GA	CLINTON	133	384
Jones GA	CLINTON	144	2,481
Lamar GA	MILNER	134	3,043
Lamar GA	MILNER	135	2,725
Liberty GA	BUTTON GWINNETT	167	5,109
Liberty GA	BUTTON GWINNETT	168	4,344

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Lowndes GA	NORTHSIDE	175	8,373
Lowndes GA	NORTHSIDE	177	37,217
Lowndes GA	RAINWATER	175	6,400
Lowndes GA	RAINWATER	177	8,754
Lowndes GA	S LOWNDES	174	1,951
Lowndes GA	S LOWNDES	175	3,755
Lowndes GA	TRINITY	175	9,620
Lowndes GA	TRINITY	176	4,797
Lowndes GA	TRINITY	177	6,930
Lumpkin GA	DAHLONEGA	9	29,201
Lumpkin GA	DAHLONEGA	27	4,287
Muscogee GA	CUSSETA RD	140	5,391
Muscogee GA	CUSSETA RD	141	5,010
Muscogee GA	EPWORTH UMC	139	3,363
Muscogee GA	EPWORTH UMC	140	4,560
Muscogee GA	FORT/WADDELL	137	5,599
Muscogee GA	FORT/WADDELL	141	6,645
Muscogee GA	OUR LADY OF LOURDES	140	13,744
Muscogee GA	OUR LADY OF LOURDES	141	32
Muscogee GA	ROTHSCHILD	137	8,327
Muscogee GA	ROTHSCHILD	141	3,143
Muscogee GA	ST ANDREWS/MIDLAND	139	5,899
Muscogee GA	ST ANDREWS/MIDLAND	141	5,582
Newton GA	CEDAR SHOALS	93	1,206
Newton GA	CEDAR SHOALS	113	3,687
Newton GA	FAIRVIEW	93	856
Newton GA	FAIRVIEW	113	3,443
Newton GA	TOWN	93	1,668
Newton GA	TOWN	113	5,075
Paulding GA	AUSTIN MIDDLE SCHOOL	18	916
Paulding GA	AUSTIN MIDDLE SCHOOL	64	9,977
Paulding GA	BURNT HICKORY PARK	16	8,392
Paulding GA	BURNT HICKORY PARK	17	16
Paulding GA	CARL SCOGGINS MID SC	17	517
Paulding GA	CARL SCOGGINS MID SC	18	7,991
Paulding GA	CARL SCOGGINS MID SC	19	1,240
Paulding GA	HIRAM HIGH SCHOOL	17	0
Paulding GA	HIRAM HIGH SCHOOL	19	16,110
Paulding GA	SARA RAGSDALE ELM SC	17	5,972
Paulding GA	SARA RAGSDALE ELM SC	18	1,720
Paulding GA	SHELTON ELEMENTARY SCHOOL	16	8,152
Paulding GA	SHELTON ELEMENTARY SCHOOL	17	12,810
Paulding GA	SHELTON ELEMENTARY SCHOOL	19	5,455
Paulding GA	WATSON GOVERNMENT COMPLEX	16	5

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Paulding GA	WATSON GOVERNMENT COMPLEX	17	17,525
Richmond GA	109	129	954
Richmond GA	109	130	886
Richmond GA	301	127	2,362
Richmond GA	301	129	894
Richmond GA	402	126	0
Richmond GA	402	132	9,711
Richmond GA	503	129	3,260
Richmond GA	503	132	2,535
Richmond GA	702	127	586
Richmond GA	702	129	2,007
Richmond GA	703	127	1,164
Richmond GA	703	129	6,148
Richmond GA	803	126	0
Richmond GA	803	132	2,432
Richmond GA	807	126	2,403
Richmond GA	807	132	0
Rockdale GA	MILSTEAD	93	6,444
Rockdale GA	MILSTEAD	95	0
Rockdale GA	OLD TOWNE	93	10,095
Rockdale GA	OLD TOWNE	95	872
Rockdale GA	ROCKDALE	92	6,218
Rockdale GA	ROCKDALE	93	79
Spalding GA	CARVER FIRE STATION	74	235
Spalding GA	CARVER FIRE STATION	134	2,835
Spalding GA	GARY REID FIRE STATION	74	2,075
Spalding GA	GARY REID FIRE STATION	134	4,817
Spalding GA	UGA CAMPUS	74	787
Spalding GA	UGA CAMPUS	134	5,290
Sumter GA	GSW CONF CENTER	150	4,568
Sumter GA	GSW CONF CENTER	151	1,549
Sumter GA	REES PARK	150	5,179
Sumter GA	REES PARK	151	447
Troup GA	MOUNTVILLE	136	2,068
Troup GA	MOUNTVILLE	137	497
Walton GA	BROKEN ARROW	111	2,993
Walton GA	BROKEN ARROW	112	3,003
Ware GA	100	174	2,672
Ware GA	100	176	3,692
Ware GA	200A	174	0
Ware GA	200A	176	4,133
Ware GA	304	174	0
Ware GA	304	176	2,107
Ware GA	400	174	2,506
Ware GA	400	176	2,526
Wayne GA	OGLETHORPE	167	1,928

Political Subdivision Splits Between Districts

GA House Enacted

County	Voting District	District	Population
Wayne GA	OGLETHORPE	178	637
Whitfield GA	2A	2	3,864
Whitfield GA	2A	4	1,000
Whitfield GA	PLEASANT GROVE	2	6,210
Whitfield GA	PLEASANT GROVE	6	2,122

Below is the political subdivisions splits report for the House illustrative plan.

Related note: The first page of the following report generated by *Maptitude for Redistricting* software reports a total number of Voting District (VTD) "subdivisions split in to more than one district," namely 185. However, the "Split Counts" "Voting District" section of the report indicates that "[c]ases where an area is split among 2 Districts" total 175, and "[c]ases where an area is split among 3 Districts" total 11—and the total of 175 and 11 equals 186, not 185. Based on my correspondence with Caliper Corporation described above, I have reported 186 as the correct total in the summary table in section IV.C. of the report, not 185.

User:
Plan Name: **GA House Illustrative**
Plan Type:

Political Subdivision Splits Between Districts

Saturday, December 3, 2022 10:06 PM

Number of subdivisions not split:

County	89
Voting District	2,513

Number of subdivisions split into more than one district:

County	70
Voting District	185

Number of splits involving no population:

County	0
Voting District	13

Split Counts

County

Cases where an area is split among 2 Districts: 35
Cases where an area is split among 3 Districts: 9
Cases where an area is split among 4 Districts: 12
Cases where an area is split among 5 Districts: 4
Cases where an area is split among 6 Districts: 2
Cases where an area is split among 7 Districts: 3
Cases where an area is split among 9 Districts: 1
Cases where an area is split among 14 Districts: 1
Cases where an area is split among 17 Districts: 1
Cases where an area is split among 21 Districts: 1
Cases where an area is split among 23 Districts: 1

Voting District

Cases where an area is split among 2 Districts: 175
Cases where an area is split among 3 Districts: 11

County	Voting District	District	Population
Split Counties:			
Appling GA		157	12,825
Appling GA		178	5,619
Baldwin GA		128	5,158
Baldwin GA		133	12,336
Baldwin GA		149	26,305
Barrow GA		104	24,245
Barrow GA		119	54,736
Barrow GA		120	4,524
Bartow GA		14	49,688
Bartow GA		15	59,213
Ben Hill GA		148	5,115
Ben Hill GA		156	12,079
Bibb GA		142	59,320
Bibb GA		143	59,122

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Bibb GA		145	22,716
Bibb GA		149	16,188
Bryan GA		160	11,008
Bryan GA		164	21,420
Bryan GA		166	12,310
Bulloch GA		158	19,285
Bulloch GA		159	12,887
Bulloch GA		160	48,927
Carroll GA		18	18,789
Carroll GA		70	2,854
Carroll GA		71	59,538
Carroll GA		72	37,967
Catoosa GA		2	7,673
Catoosa GA		3	60,199
Chatham GA		161	28,269
Chatham GA		162	60,308
Chatham GA		163	60,123
Chatham GA		164	38,681
Chatham GA		165	59,978
Chatham GA		166	47,932
Cherokee GA		11	6,557
Cherokee GA		14	9,447
Cherokee GA		20	60,107
Cherokee GA		21	59,529
Cherokee GA		22	30,874
Cherokee GA		23	59,048
Cherokee GA		44	21,989
Cherokee GA		46	15,178
Cherokee GA		47	3,891
Clarke GA		120	30,095
Clarke GA		121	26,478
Clarke GA		122	59,632
Clarke GA		124	12,466
Clayton GA		74	34,350
Clayton GA		75	55,912
Clayton GA		76	59,759
Clayton GA		77	59,242
Clayton GA		78	24,678
Clayton GA		79	59,500
Clayton GA		116	4,154
Cobb GA		22	28,586
Cobb GA		34	59,875
Cobb GA		35	59,889
Cobb GA		36	59,994
Cobb GA		37	59,176
Cobb GA		38	59,317
Cobb GA		39	59,381

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Cobb GA		40	59,044
Cobb GA		41	60,122
Cobb GA		42	59,620
Cobb GA		43	59,464
Cobb GA		44	38,013
Cobb GA		45	59,738
Cobb GA		46	43,930
Coffee GA		169	33,736
Coffee GA		176	9,356
Columbia GA		123	2,205
Columbia GA		125	55,389
Columbia GA		127	39,526
Columbia GA		131	58,890
Cook GA		170	7,342
Cook GA		172	9,887
Coweta GA		65	13,008
Coweta GA		67	17,272
Coweta GA		70	56,267
Coweta GA		73	31,608
Coweta GA		136	28,003
Dawson GA		7	2,409
Dawson GA		9	24,389
DeKalb GA		52	28,300
DeKalb GA		80	59,461
DeKalb GA		81	59,007
DeKalb GA		82	59,724
DeKalb GA		83	59,416
DeKalb GA		84	59,862
DeKalb GA		85	59,373
DeKalb GA		86	59,205
DeKalb GA		87	59,709
DeKalb GA		88	47,844
DeKalb GA		89	59,866
DeKalb GA		90	59,812
DeKalb GA		91	19,700
DeKalb GA		92	15,607
DeKalb GA		93	11,690
DeKalb GA		94	31,207
DeKalb GA		95	14,599
Dodge GA		148	18,550
Dodge GA		155	1,375
Dougherty GA		151	6,268
Dougherty GA		152	6,187
Dougherty GA		153	59,299
Dougherty GA		154	14,036
Douglas GA		61	48,764
Douglas GA		64	30,206

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Douglas GA		65	6,306
Douglas GA		66	58,961
Effingham GA		159	32,941
Effingham GA		161	31,828
Fayette GA		68	29,719
Fayette GA		69	36,979
Fayette GA		73	28,428
Fayette GA		74	24,068
Floyd GA		5	5,099
Floyd GA		12	34,335
Floyd GA		13	59,150
Forsyth GA		11	19,019
Forsyth GA		24	59,011
Forsyth GA		25	46,134
Forsyth GA		26	59,248
Forsyth GA		28	50,864
Forsyth GA		100	17,007
Fulton GA		25	13,280
Fulton GA		47	55,235
Fulton GA		48	43,976
Fulton GA		49	59,153
Fulton GA		50	59,523
Fulton GA		51	58,952
Fulton GA		52	31,511
Fulton GA		53	59,953
Fulton GA		54	60,083
Fulton GA		55	59,971
Fulton GA		56	58,929
Fulton GA		57	59,969
Fulton GA		58	59,057
Fulton GA		59	59,434
Fulton GA		60	59,709
Fulton GA		61	10,186
Fulton GA		62	59,450
Fulton GA		63	59,381
Fulton GA		64	6,032
Fulton GA		65	39,926
Fulton GA		67	41,863
Fulton GA		68	29,758
Fulton GA		69	21,379
Glynn GA		167	20,499
Glynn GA		179	59,356
Glynn GA		180	4,644
Gordon GA		5	53,738
Gordon GA		6	3,806
Grady GA		171	8,115
Grady GA		173	18,121

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Gwinnett GA		30	8,620
Gwinnett GA		48	15,027
Gwinnett GA		88	11,845
Gwinnett GA		94	28,004
Gwinnett GA		95	34,221
Gwinnett GA		96	59,515
Gwinnett GA		97	59,072
Gwinnett GA		98	59,998
Gwinnett GA		99	59,850
Gwinnett GA		100	35,204
Gwinnett GA		101	59,938
Gwinnett GA		102	58,959
Gwinnett GA		103	51,691
Gwinnett GA		104	35,117
Gwinnett GA		105	59,344
Gwinnett GA		106	59,112
Gwinnett GA		107	59,702
Gwinnett GA		108	59,577
Gwinnett GA		109	59,630
Gwinnett GA		110	59,951
Gwinnett GA		111	22,685
Habersham GA		10	42,636
Habersham GA		32	3,395
Hall GA		27	54,508
Hall GA		28	8,108
Hall GA		29	59,200
Hall GA		30	50,646
Hall GA		31	14,349
Hall GA		100	7,819
Hall GA		103	8,506
Harris GA		138	21,634
Harris GA		139	13,034
Henry GA		75	3,847
Henry GA		78	18,397
Henry GA		91	35,475
Henry GA		115	59,789
Henry GA		116	50,833
Henry GA		117	60,142
Henry GA		118	12,229
Houston GA		144	32,310
Houston GA		145	36,952
Houston GA		146	35,804
Houston GA		147	58,567
Jackson GA		31	45,552
Jackson GA		32	10,931
Jackson GA		119	4,211
Jackson GA		120	15,213

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Jasper GA		114	2,855
Jasper GA		118	11,733
Lamar GA		134	13,948
Lamar GA		135	4,552
Liberty GA		167	5,109
Liberty GA		168	60,147
Lowndes GA		174	9,770
Lowndes GA		175	43,692
Lowndes GA		176	4,797
Lowndes GA		177	59,992
Lumpkin GA		9	29,201
Lumpkin GA		27	4,287
Madison GA		33	9,935
Madison GA		123	20,185
McDuffie GA		125	4,748
McDuffie GA		128	16,884
Meriwether GA		136	13,382
Meriwether GA		137	7,231
Monroe GA		133	19,085
Monroe GA		135	8,872
Muscogee GA		137	30,443
Muscogee GA		138	12,190
Muscogee GA		139	45,976
Muscogee GA		140	59,294
Muscogee GA		141	59,019
Newton GA		93	15,515
Newton GA		113	60,053
Newton GA		114	36,915
Oconee GA		120	9,150
Oconee GA		121	32,649
Paulding GA		16	16,549
Paulding GA		17	59,120
Paulding GA		18	10,627
Paulding GA		19	58,955
Paulding GA		64	23,410
Peach GA		144	14,093
Peach GA		150	13,888
Putnam GA		118	10,591
Putnam GA		124	11,456
Richmond GA		126	25,990
Richmond GA		127	19,152
Richmond GA		129	58,829
Richmond GA		130	59,203
Richmond GA		132	43,433
Rockdale GA		91	4,781
Rockdale GA		92	44,666
Rockdale GA		93	32,913

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Rockdale GA		95	11,210
Spalding GA		78	16,815
Spalding GA		116	5,393
Spalding GA		134	45,098
Sumter GA		150	14,282
Sumter GA		151	15,334
Tattnall GA		156	1,263
Tattnall GA		157	21,579
Telfair GA		148	8,283
Telfair GA		156	4,194
Thomas GA		172	4,176
Thomas GA		173	41,622
Tift GA		169	6,730
Tift GA		170	34,614
Troup GA		72	10,281
Troup GA		136	17,913
Troup GA		137	16,144
Troup GA		138	25,088
Walker GA		1	43,415
Walker GA		2	24,239
Walton GA		111	37,324
Walton GA		112	59,349
Ware GA		174	9,097
Ware GA		176	27,154
Wayne GA		167	6,742
Wayne GA		178	23,402
White GA		8	22,119
White GA		9	5,884
Whitfield GA		2	27,861
Whitfield GA		4	59,070
Whitfield GA		6	15,933
Wilcox GA		146	955
Wilcox GA		148	7,811
Split VTDs:			
Baldwin GA	NORTH BALDWIN	133	4,245
Baldwin GA	NORTH BALDWIN	149	647
Baldwin GA	NORTH MILLEDGEVILLE	133	864
Baldwin GA	NORTH MILLEDGEVILLE	149	2,500
Baldwin GA	SOUTH MILLEDGEVILLE	133	932
Baldwin GA	SOUTH MILLEDGEVILLE	149	2,774
Barrow GA	16	104	1,708
Barrow GA	16	119	8,060
Bartow GA	CASSVILLE	14	15,558
Bartow GA	CASSVILLE	15	1,047
Bartow GA	WHITE	14	3,335
Bartow GA	WHITE	15	211
Ben Hill GA	WEST	148	5,115

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Ben Hill GA	WEST	156	5,229
Bibb GA	GODFREY 1	142	4,656
Bibb GA	GODFREY 1	149	6,278
Bibb GA	HOWARD 1	142	5,180
Bibb GA	HOWARD 1	143	763
Bibb GA	HOWARD 3	142	1,789
Bibb GA	HOWARD 3	143	10,865
Bibb GA	RUTLAND 1	142	1,475
Bibb GA	RUTLAND 1	145	6,465
Bibb GA	VINEVILLE 3	142	232
Bibb GA	VINEVILLE 3	143	4,182
Bryan GA	DANIELSIDING	164	1,268
Bryan GA	DANIELSIDING	166	1,741
Bryan GA	HWY 144 EAST	164	4,552
Bryan GA	HWY 144 EAST	166	4,707
Bryan GA	J.F.GREGORY PARK	164	3,489
Bryan GA	J.F.GREGORY PARK	166	144
Bulloch GA	CHURCH	158	3,764
Bulloch GA	CHURCH	159	5,869
Carroll GA	BONNER	71	410
Carroll GA	BONNER	72	5,554
Chatham GA	CRUSADER COMMUNITY CENTER	162	2,134
Chatham GA	CRUSADER COMMUNITY CENTER	166	1,493
Chatham GA	GEORGETOWN ELEMENTAR	164	5,562
Chatham GA	GEORGETOWN ELEMENTAR	166	0
Chatham GA	GRACE UNITED METHODIST CHURCH	163	2,064
Chatham GA	GRACE UNITED METHODIST CHURCH	165	397
Chatham GA	ROTHWELL BAPTIST CHURCH	161	5,335
Chatham GA	ROTHWELL BAPTIST CHURCH	164	4,987
Chatham GA	THE LIGHT CHURCH	162	1,177
Chatham GA	THE LIGHT CHURCH	163	1,109
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	163	785
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	166	1,890
Cherokee GA	CARMEL	20	5,626
Cherokee GA	CARMEL	22	1,222
Cherokee GA	CARMEL	44	0

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Cherokee GA	FREEHOME	21	3,200
Cherokee GA	FREEHOME	47	3,891
Cherokee GA	HOLLY SPRINGS	21	2,250
Cherokee GA	HOLLY SPRINGS	23	2,578
Clarke GA	1A	122	2,758
Clarke GA	1A	124	2,286
Clarke GA	4B	121	7,082
Clarke GA	4B	122	5,589
Clarke GA	7C	120	1,922
Clarke GA	7C	121	3,184
Clayton GA	JONESBORO 13	74	2,066
Clayton GA	JONESBORO 13	75	752
Clayton GA	JONESBORO 14	75	2,726
Clayton GA	JONESBORO 14	78	2,387
Clayton GA	JONESBORO 3	74	0
Clayton GA	JONESBORO 3	75	5,962
Clayton GA	LOVEJOY 1	74	4,484
Clayton GA	LOVEJOY 1	75	948
Clayton GA	LOVEJOY 1	78	187
Clayton GA	LOVEJOY 3	78	9,099
Clayton GA	LOVEJOY 3	116	4,154
Clayton GA	MORROW 4	75	1,316
Clayton GA	MORROW 4	76	1,911
Cobb GA	Acworth 1B	35	7,322
Cobb GA	Acworth 1B	36	142
Cobb GA	Baker 01	22	5,226
Cobb GA	Baker 01	35	1,996
Cobb GA	Bells Ferry 03	22	4,918
Cobb GA	Bells Ferry 03	44	3,763
Cobb GA	Dobbins 01	42	11,055
Cobb GA	Dobbins 01	43	2,346
Cobb GA	Elizabeth 01	34	700
Cobb GA	Elizabeth 01	37	5,170
Cobb GA	Elizabeth 04	37	2,031
Cobb GA	Elizabeth 04	43	2,387
Cobb GA	Kennesaw 1A	22	599
Cobb GA	Kennesaw 1A	35	3,844
Cobb GA	Kennesaw 3A	22	0
Cobb GA	Kennesaw 3A	34	871
Cobb GA	Kennesaw 3A	35	8,631
Cobb GA	Lassiter 01	44	2,121
Cobb GA	Lassiter 01	46	2,600
Cobb GA	Lindley 01	39	5,678
Cobb GA	Lindley 01	40	582
Cobb GA	Mableton 01	38	1,589
Cobb GA	Mableton 01	39	5,513
Cobb GA	Mableton 02	38	256

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Cobb GA	Mableton 02	39	5,427
Cobb GA	Marietta 1A	37	3,349
Cobb GA	Marietta 1A	43	6,645
Cobb GA	Marietta 2A	34	1,664
Cobb GA	Marietta 2A	37	811
Cobb GA	Marietta 5A	37	2,877
Cobb GA	Marietta 5A	43	1,457
Cobb GA	Marietta 6A	37	1,532
Cobb GA	Marietta 6A	43	3,022
Cobb GA	Marietta 7A	42	1,494
Cobb GA	Marietta 7A	43	5,417
Cobb GA	North Cobb 01	35	2,611
Cobb GA	North Cobb 01	36	559
Cobb GA	Norton Park 01	41	1,955
Cobb GA	Norton Park 01	42	5,846
Cobb GA	Oregon 03	37	6,683
Cobb GA	Oregon 03	41	6,305
Cobb GA	Pine Mountain 02	34	3,976
Cobb GA	Pine Mountain 02	35	0
Cobb GA	Smyrna 1A	40	1,292
Cobb GA	Smyrna 1A	42	5,341
Cobb GA	Smyrna 4A	40	6,599
Cobb GA	Smyrna 4A	42	1,609
Cobb GA	Smyrna 7A	39	905
Cobb GA	Smyrna 7A	40	7,690
Coffee GA	DOUGLAS	169	19,642
Coffee GA	DOUGLAS	176	8,929
Columbia GA	PATRIOTS PARK	125	326
Columbia GA	PATRIOTS PARK	131	5,958
Coweta GA	JEFFERSON PARKWAY	70	12,590
Coweta GA	JEFFERSON PARKWAY	73	1,521
DeKalb GA	Cedar Grove Middle	89	2,204
DeKalb GA	Cedar Grove Middle	90	316
DeKalb GA	Clarkston	85	5,454
DeKalb GA	Clarkston	86	9,300
DeKalb GA	Dresden Elem (CHA)	81	5,398
DeKalb GA	Dresden Elem (CHA)	83	7,691
DeKalb GA	Freedom Middle	86	1,002
DeKalb GA	Freedom Middle	87	3,088
DeKalb GA	Glennwood (DEC)	82	2,059
DeKalb GA	Glennwood (DEC)	84	1,221
DeKalb GA	Glenwood Road	85	1,698
DeKalb GA	Glenwood Road	86	1,064
DeKalb GA	Memorial South	86	2,226
DeKalb GA	Memorial South	87	2,547
DeKalb GA	Panola Road	86	3,296
DeKalb GA	Panola Road	94	460

Political Subdivision Splits Between Districts

County	Voting District	District	Population
DeKalb GA	Redan Middle	87	1,419
DeKalb GA	Redan Middle	88	1,633
DeKalb GA	Rockbridge Road	94	3,736
DeKalb GA	Rockbridge Road	95	1,104
DeKalb GA	Snapfinger Road South	84	920
DeKalb GA	Snapfinger Road South	91	1,271
DeKalb GA	Stone Mill Elem	87	1,863
DeKalb GA	Stone Mill Elem	88	4,069
DeKalb GA	Stone Mountain Champion (STO)	87	1,338
DeKalb GA	Stone Mountain Champion (STO)	88	2,865
DeKalb GA	Stone Mountain Middle (TUC)	87	656
DeKalb GA	Stone Mountain Middle (TUC)	88	3,960
DeKalb GA	Tucker Library (TUC)	81	2,394
DeKalb GA	Tucker Library (TUC)	88	1,635
Dougherty GA	DARTON COLLEGE	151	4,018
Dougherty GA	DARTON COLLEGE	153	2,465
Dougherty GA	MT ZION CENTER	153	1,245
Dougherty GA	MT ZION CENTER	154	3,972
Douglas GA	MIRROR LAKE ELEMENTA	61	5,093
Douglas GA	MIRROR LAKE ELEMENTA	66	3,661
Effingham GA	4B	159	1,960
Effingham GA	4B	161	959
Fayette GA	ABERDEEN	68	983
Fayette GA	ABERDEEN	73	1,392
Fayette GA	BANKS	69	1,812
Fayette GA	BANKS	74	247
Fayette GA	BRAELINN	73	605
Fayette GA	BRAELINN	74	1,646
Fayette GA	MURPHY	69	146
Fayette GA	MURPHY	74	3,848
Fayette GA	STARRSMILL	73	1,932
Fayette GA	STARRSMILL	74	2,452
Floyd GA	ALTO PARK	12	1,576
Floyd GA	ALTO PARK	13	3,847
Floyd GA	MT ALTO NORTH	12	1,080
Floyd GA	MT ALTO NORTH	13	4,509
Forsyth GA	BROWNS BRIDGE	26	10,116
Forsyth GA	BROWNS BRIDGE	28	2,801
Forsyth GA	CONCORD	11	7,687
Forsyth GA	CONCORD	28	7,982
Forsyth GA	CUMMING	26	4,666
Forsyth GA	CUMMING	28	2,410
Forsyth GA	HEARDSVILLE	11	11,332
Forsyth GA	HEARDSVILLE	24	1,335

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Forsyth GA	HEARDSVILLE	28	333
Forsyth GA	OTWELL	24	3,988
Forsyth GA	OTWELL	26	6,597
Forsyth GA	OTWELL	28	7,875
Forsyth GA	POLO	24	9,868
Forsyth GA	POLO	25	0
Forsyth GA	POLO	26	15,990
Forsyth GA	SOUTH FORSYTH	25	10,064
Forsyth GA	SOUTH FORSYTH	100	11,887
Forsyth GA	WINDERMERE	26	11,718
Forsyth GA	WINDERMERE	100	5,120
Fulton GA	08C	53	1,524
Fulton GA	08C	60	335
Fulton GA	09K	55	3,033
Fulton GA	09K	60	4,105
Fulton GA	10D	55	1,756
Fulton GA	10D	60	4,311
Fulton GA	11C	55	340
Fulton GA	11C	60	3,418
Fulton GA	AP022	48	862
Fulton GA	AP022	49	2,505
Fulton GA	AP07B	47	1,250
Fulton GA	AP07B	49	1,304
Fulton GA	AP14	48	4,109
Fulton GA	AP14	49	281
Fulton GA	EP01B	59	2,393
Fulton GA	EP01B	62	2,049
Fulton GA	JC19	48	3,608
Fulton GA	JC19	51	1,792
Fulton GA	ML012	47	501
Fulton GA	ML012	49	123
Fulton GA	ML01B	47	284
Fulton GA	ML01B	49	61
Fulton GA	RW03	51	1,292
Fulton GA	RW03	53	6,066
Fulton GA	RW09	47	2,971
Fulton GA	RW09	49	4,750
Fulton GA	SC02	60	220
Fulton GA	SC02	65	773
Fulton GA	SC07A	65	1,028
Fulton GA	SC07A	67	7,728
Fulton GA	SC08B	62	92
Fulton GA	SC08B	68	5,255
Fulton GA	SC13	61	589
Fulton GA	SC13	65	2,269
Fulton GA	SC13	67	1,176
Fulton GA	UC02A	65	1,070

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Fulton GA	UC02A	67	13,013
Gwinnett GA	BAYCREEK A	106	934
Gwinnett GA	BAYCREEK A	110	2,651
Gwinnett GA	BAYCREEK D	102	3,729
Gwinnett GA	BAYCREEK D	110	2,597
Gwinnett GA	BERKSHIRE H	98	2,475
Gwinnett GA	BERKSHIRE H	108	1,991
Gwinnett GA	CATES J	94	955
Gwinnett GA	CATES J	108	4,255
Gwinnett GA	DULUTH F	96	7,245
Gwinnett GA	DULUTH F	107	5,149
Gwinnett GA	DULUTH G	96	1,426
Gwinnett GA	DULUTH G	99	3,389
Gwinnett GA	DUNCANS D	30	8,620
Gwinnett GA	DUNCANS D	104	1,575
Gwinnett GA	LAWRENCEVILLE F	102	2,073
Gwinnett GA	LAWRENCEVILLE F	105	3,924
Gwinnett GA	LAWRENCEVILLE M	102	4,231
Gwinnett GA	LAWRENCEVILLE M	105	7,770
Gwinnett GA	MARTINS H	107	8,164
Gwinnett GA	MARTINS H	109	892
Gwinnett GA	PINCKNEYVILLE W	96	5,745
Gwinnett GA	PINCKNEYVILLE W	97	2,561
Gwinnett GA	PUCKETTS E	103	1,506
Gwinnett GA	PUCKETTS E	105	7,421
Gwinnett GA	SUGAR HILL D	100	2,158
Gwinnett GA	SUGAR HILL D	103	6,421
Gwinnett GA	SUWANEE F	99	3,224
Gwinnett GA	SUWANEE F	103	2,836
Habersham GA	HABERSHAM SOUTH	10	8,687
Habersham GA	HABERSHAM SOUTH	32	1,972
Hall GA	WILSON	28	3,803
Hall GA	WILSON	29	4,979
Henry GA	LAKE HAVEN	116	4,546
Henry GA	LAKE HAVEN	117	1,242
Henry GA	LOCUST GROVE	116	4,436
Henry GA	LOCUST GROVE	117	5,352
Henry GA	RED OAK	75	3,847
Henry GA	RED OAK	116	3,999
Henry GA	SWAN LAKE	91	1,951
Henry GA	SWAN LAKE	115	2,807
Houston GA	CENT	145	315
Houston GA	CENT	147	11,569
Houston GA	MCMS	144	11,859
Houston GA	MCMS	147	1,635
Houston GA	ROZR	144	13,202
Houston GA	ROZR	146	7,640

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Jackson GA	North Jackson	31	4,513
Jackson GA	North Jackson	32	10,931
Jackson GA	North Jackson	120	3,803
Jackson GA	West Jackson	31	16,656
Jackson GA	West Jackson	119	4,211
Liberty GA	BUTTON GWINNETT	167	5,109
Liberty GA	BUTTON GWINNETT	168	4,344
Lowndes GA	NORTHSIDE	175	8,373
Lowndes GA	NORTHSIDE	177	37,217
Lowndes GA	RAINWATER	175	6,400
Lowndes GA	RAINWATER	177	8,754
Lowndes GA	S LOWNDES	174	1,951
Lowndes GA	S LOWNDES	175	3,755
Lowndes GA	TRINITY	175	9,620
Lowndes GA	TRINITY	176	4,797
Lowndes GA	TRINITY	177	6,930
Lumpkin GA	DAHLONEGA	9	29,201
Lumpkin GA	DAHLONEGA	27	4,287
Muscogee GA	CUSSETA RD	140	5,391
Muscogee GA	CUSSETA RD	141	5,010
Muscogee GA	EPWORTH UMC	139	3,363
Muscogee GA	EPWORTH UMC	140	4,560
Muscogee GA	FORT/WADDELL	137	5,599
Muscogee GA	FORT/WADDELL	141	6,645
Muscogee GA	OUR LADY OF LOURDES	140	13,744
Muscogee GA	OUR LADY OF LOURDES	141	32
Muscogee GA	ROTHSCHILD	137	8,327
Muscogee GA	ROTHSCHILD	141	3,143
Muscogee GA	ST ANDREWS/MIDLAND	139	5,899
Muscogee GA	ST ANDREWS/MIDLAND	141	5,582
Newton GA	CEDAR SHOALS	93	1,206
Newton GA	CEDAR SHOALS	113	3,687
Newton GA	FAIRVIEW	93	856
Newton GA	FAIRVIEW	113	3,443
Newton GA	TOWN	93	1,668
Newton GA	TOWN	113	5,075
Paulding GA	AUSTIN MIDDLE SCHOOL	18	916
Paulding GA	AUSTIN MIDDLE SCHOOL	64	9,977
Paulding GA	BURNT HICKORY PARK	16	8,392
Paulding GA	BURNT HICKORY PARK	17	16
Paulding GA	CARL SCOGGINS MID SC	17	517
Paulding GA	CARL SCOGGINS MID SC	18	7,991
Paulding GA	CARL SCOGGINS MID SC	19	1,240
Paulding GA	HIRAM HIGH SCHOOL	17	0
Paulding GA	HIRAM HIGH SCHOOL	19	16,110
Paulding GA	SARA RAGSDALE ELM SC	17	5,972
Paulding GA	SARA RAGSDALE ELM SC	18	1,720

Political Subdivision Splits Between Districts

County	Voting District	District	Population
Paulding GA	SHELTON ELEMENTARY SCHOOL	16	8,152
Paulding GA	SHELTON ELEMENTARY SCHOOL	17	12,810
Paulding GA	SHELTON ELEMENTARY SCHOOL	19	5,455
Paulding GA	WATSON GOVERNMENT COMPLEX	16	5
Paulding GA	WATSON GOVERNMENT COMPLEX	17	17,525
Richmond GA	109	129	954
Richmond GA	109	130	886
Richmond GA	301	127	2,362
Richmond GA	301	129	894
Richmond GA	402	126	0
Richmond GA	402	132	9,711
Richmond GA	503	129	3,260
Richmond GA	503	132	2,535
Richmond GA	702	127	586
Richmond GA	702	129	2,007
Richmond GA	703	127	1,164
Richmond GA	703	129	6,148
Richmond GA	803	126	0
Richmond GA	803	132	2,432
Richmond GA	807	126	2,403
Richmond GA	807	132	0
Rockdale GA	MILSTEAD	93	6,444
Rockdale GA	MILSTEAD	95	0
Rockdale GA	OLD TOWNE	93	10,095
Rockdale GA	OLD TOWNE	95	872
Rockdale GA	ROCKDALE	92	6,218
Rockdale GA	ROCKDALE	93	79
Spalding GA	CARVER FIRE STATION	78	235
Spalding GA	CARVER FIRE STATION	134	2,835
Spalding GA	GARY REID FIRE STATION	78	2,075
Spalding GA	GARY REID FIRE STATION	134	4,817
Spalding GA	UGA CAMPUS	78	787
Spalding GA	UGA CAMPUS	134	5,290
Sumter GA	GSW CONF CENTER	150	4,568
Sumter GA	GSW CONF CENTER	151	1,549
Sumter GA	REES PARK	150	5,179
Sumter GA	REES PARK	151	447
Troup GA	MOUNTVILLE	136	2,068
Troup GA	MOUNTVILLE	137	497
Walton GA	BROKEN ARROW	111	2,993
Walton GA	BROKEN ARROW	112	3,003
Ware GA	100	174	2,672
Ware GA	100	176	3,692

Political Subdivision Splits Between Districts

GA House Illustrative

County	Voting District	District	Population
Ware GA	200A	174	0
Ware GA	200A	176	4,133
Ware GA	304	174	0
Ware GA	304	176	2,107
Ware GA	400	174	2,506
Ware GA	400	176	2,526
Wayne GA	OGLETHORPE	167	1,928
Wayne GA	OGLETHORPE	178	637
Whitfield GA	2A	2	3,864
Whitfield GA	2A	4	1,000
Whitfield GA	PLEASANT GROVE	2	6,210
Whitfield GA	PLEASANT GROVE	6	2,122