# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION 

ANNIE LOIS GRANT, et al.,
Plaintiffs,
v.

BRAD RAFFENSPERGER, et al.,
Defendants.

## DEFENDANTS' STATEMENT OF UNDISPUTED MATERIAL FACTS

Defendants Brad Raffensperger, in his official capacity as Secretary of State; and State Election Board Members William S. Duffey, Sara Tindall Ghazal, Janice Johnston, Edward Lindsey, and Matthew Mashburn, also in their official capacities (collectively, "Defendants") pursuant to Rule 56 of the Federal Rules of Civil Procedure and Local Rule 56.1 submit this Statement of Material Facts as to Which There is No Genuine Issue to be Tried.

1. Census data showed that the increase in the percentage of Black voters in Georgia from 2010 to 2020 was slightly more than two percentage points. Deposition of Blakeman Esselstyn [Doc. 179] ("Esselstyn Dep.") at 103:18-104:4
2. Both chairs of the House and Senate committees with jurisdiction over redistricting sought to meet with all of their colleagues, both Republican and Democratic, to gain input on their areas of the state. Deposition of Gina Wright [Doc. 184] ("Wright Dep.") at 68:17-69:7.
3. Consistent with past redistricting cycles, the joint House and Senate committees also held a series of "listening sessions" across the state to hear from citizens about maps, including several Zoom meetings. Deposition of John Kennedy [Doc. 186] ("Kennedy Dep.") at 171:13-20, 194:1-195:10.
4. And for the first time in 2021, the General Assembly provided a public comment portal online, seeking comments from the public. Wright Dep. 252:20-253:4.
5. After holding a committee education day where a variety of stakeholder groups presented about map-drawing, the committees adopted guidelines to govern the map-drawing process. Kennedy Dep. 161:1-4; Deposition of Bonnie Rich [Doc. 187] ("Rich Dep.") 214:19-215:7.
6. To prepare maps, Gina Wright, the director of the Joint Reapportionment Office, drafted "blind" maps for the House and Senate, essentially drawing based on her own knowledge of Georgia and the historic districts. Wright Dep. 45:15-25 (Senate map); 62:17-62:24 (House map).
7. The chairs of the House and Senate committees then met with Ms. Wright to adjust district boundaries based on the input they received from members and from others. Wright Dep. 54:3-20, 77:2-7 (Senate map); 197:2-6 (House map).
8. When Democrats requested changes, some of those changes were included. Wright Dep. 59:5-60:7 (Sen. Rhett).
9. Information about draft maps was also shared with members of the Democratic caucus, which had its own counsel and map-drawers. Wright Dep. 223:14-224:4, 226:11-17; Deposition of Derrick Jackson [Doc. 188] ("Jackson Dep.") at 12:9-21.
10. The chairs and Ms. Wright also consulted with counsel about compliance with the Voting Rights Act. Wright Dep. 92:8-20.
11. While racial data was available, the chairs of each committee focused on past election data to evaluate the partisan impact of the new plans while drawing with awareness of Republican political performance. Wright Dep. 55:25-56:7; 140:3-11; 140:17-19; 257:21-258:1; 258:2-14.
12. The resulting Senate map reduced the number of split counties from the prior plan, did not pair any incumbents of either party who were running for re-election, and maintained the same number of majority-Black
districts as prior plans. Report of Blakeman Esselstyn, attached as Ex. A ("Esselstyn Report"), đ| 40 n.10; Kennedy Dep. 106:4-11.
13. The state House maps also reduced the number of split counties, increased the number of majority-Black districts in metro Atlanta, and paired a small number of incumbents. Esselstyn Report, $\|$ \| 59-61.
14. The Governor signed the plans on December 30, 2021, and they were used in the 2022 elections. Amended Complaint [Doc. 96, ब 40].
15. The SEB stated in its responses to interrogatories, that they "were not involved in the map-drawing process." Responses to Interrogatories, attached as Ex. B, at Response No. 2.
16. Annie Lois Grant ("Grant") is registered to vote in Greene County, Georgia. Deposition of Annie Lois Grant [Doc. 169] ("Grant Deposition") at 13:6-11, 24:4-6.
17. Grant is a member of the Democratic Party. Id. at 26:20-22.
18. Grant has been Chair of the Greene County Democratic Party for 11 years. Id. at 26:25-27:9.
19. Grant is in her third term as a state committee member of the Democratic Party of Georgia. Id. at 27:18-24.
20. Grant has done volunteer work for campaigns of local Democratic candidates. Id. at 29:23-31:6, 31:19-32:25.
21. Grant has done volunteer work for campaigns of statewide Democratic candidates and for presidential Democratic candidates. Id. at 33:1-10.
22. Quentin T. Howell ("Howell") resided in Milledgeville, Georgia, at the time of the filing of the initial Complaint in Grant on January 11, 2022. Deposition of Quentin T. Howell [Doc. 170] ("Howell Dep.") at 17:22-24.
23. Howell is a member of the Baldwin County Democratic Party. Id. at 27:3-5.
24. Howell has served as Chairman of several committees of the Baldwin County Democratic Party over the past ten years. Id. at 43:11-22.
25. Howell is a member of the Georgia Association of Democratic Chairs. Id. at 27:6-7.
26. Howell is a member of the African-American Caucus of the Georgia Democratic Party. Id. at 27:10-12.
27. Howell is a member of the Central Georgia Democratic Coalition. Id. at 27:13-14.
28. Elroy Tolbert ("Tolbert") is registered to vote in Bibb County, Georgia. Deposition of Elroy Tolbert [Doc. 175] ("Tolbert Deposition") at 15:616.
29. Tolbert has been a member of the Democratic Party since he started voting. Id. at 17:12-16.
30. Tolbert participated in a Democratic Party voter registration drive in 2011 or earlier. Id. at 17:23-18:6.
31. Triana Arnold James ("James") is registered to vote in Douglas County, Georgia. Deposition of Triana Arnold James [Doc. 171] ("James Deposition") at 37:5-8.
32. James considers herself to be a member of the Democratic Party. Id. at 38:20-22.
33. In 2018, James ran for Lieutenant Governor in the Democratic primary, but she did not receive the nomination. Id. at 41:9-18.
34. In "2020/2021," James ran for State Senate in the Democratic primary for Senate District 30, but she did not receive the nomination. Id. at 40:20-41:8.
35. Eunice Sykes ("Sykes") is registered to vote in Henry County, Georgia. Deposition of Eunice Sykes [Doc. 174] ("Sykes Deposition") at 10:24-25-11:1, 22:8-13, 23:7-9.
36. Sykes is a member of the Democratic Party. Id. at 26:9-13.
37. Elbert Solomon ("Solomon") has been registered to vote in Spalding County since 2015. Deposition of Elbert Solomon [Doc. 173] ("Solomon Dep.") at 25:8-12.
38. Solomon is a member of the Democratic Party. Id. at 27:18-20.
39. Solomon supports Democratic candidates in Georgia and in other states, such as his birth state of Mississippi. Id. at 30:8-13.
40. Solomon has voted for members of the Republican Party, but only when there were no members of the Democratic Party on the ballot in those elections. Id. at 30:14-20.
41. Dexter Wimbish ("Wimbish") is registered to vote in Spalding County, Georgia. Deposition of Dexter Wimbish [Doc. 176] ("Wimbish Dep.") at 29:9-12, 31:4-8.
42. Wimbish is a member of the Democratic Party of Spalding County. Id. at 20:2-7.
43. In 2021, Wimbish ran as a Democrat for election as district attorney for the Griffin Judicial District, but he did not win. Id. at 24:6-25:21.
44. Plaintiff Garrett Reynolds ("Reynolds") has resided at his current address in Fayette County, Georgia for approximately 10 years. Deposition of Plaintiff Garrett Reynolds [Doc. 172] ("Reynolds Dep.") at 12:5-16.
45. Reynolds has considered himself to be a member of the Democratic Party "[s]ince the day Donald Trump became president." Id. at 30:21-31:5.
46. Reynolds has been a member of the Fayette County Democratic Committee since 2017. Id. at 19:9-25.
47. According to Reynolds, the goal of the Fayette County Democratic Committee "is to locate and elect [D]emocrats to public office." Id. at 21:2-4.
48. According to Reynolds, he has never considered himself a member of the Republican Party and has not voted for a Republican Party candidate since 2000. Id. at 32:4-23.
49. Jacqueline Faye Arbuthnot tends to support Democrats rather than Republicans for office. Deposition of Jacqueline Faye Arbuthnot Vol. II [Doc. 166] ("Arbuthnot Dep.") at 12:17-20
50. Jacquelyn Bush ("Bush") is registered to vote in Fayette County, Georgia. Deposition of Jacquelyn Bush [Doc. 167] ("Bush Deposition") at 16:11-17:10.
51. Bush is a member of the Democratic Party. Id. at 18:22-24.
52. Bush participated in a Democratic Party voter registration drive in 2008. Id. at 19:8-16.
53. Bush worked on a phone bank for the presidential campaign for Barack Obama in 2008. Id. at 20:8-11, 16-18.
54. Mary Nell Conner ("Conner") is registered to vote in Henry County, Georgia. Deposition of Mary Nell Conner [Doc. 168] ("Conner Deposition") at 14:23-15:14.
55. Conner has been a member of the Democratic Party since 2005. Id. at 16:10-14.
56. Plaintiffs began planning for this litigation before the Georgia maps were even complete—retaining experts to begin drawing alternative maps before the special session was over. Esselstyn Dep. 54:14-55:13.
57. Plaintiffs' goal in offering their illustrative plans was to determine whether they could draw additional majority-Black districts beyond those drawn by the state plans. Esselstyn Dep. 63:19-64:1.
58. Map-drawers distinguish "majority-minority" from "majorityBlack." Majority-minority districts have a majority of non-white and Latino voters, while majority-Black districts are districts where Black voters as a single racial category constitute a majority of a district. Esselstyn Dep. 68:2069:9
59. When Mr. Esselstyn was creating his illustrative maps, he turned on features in the software to indicate where Black individuals were
located, including using it to inform decisions about which populations were included and excluded from districts. Esselstyn Dep. 76:21-77:12, 77:2077:25.
60. Mr. Esselstyn focused on areas with higher concentrations of Black voters for looking where additional districts could be drawn. Esselstyn Dep. 85:6-10.
61. Unlike the legislature, Mr. Esselstyn did not have any political data available to him. Wright Dep. 55:25-56:7; 140:3-11; 140:17-19; 257:21258:1; 258:2-14; Esselstyn Dep. 229:23-230:1.
62. Mr. Esselstyn's county splits were often racial in nature. Report of John Morgan, attached as Ex. C ("Morgan Report"), $\mathbb{\|}$ | 33, 54.
63. Mr. Esselstyn did not review any public comment until after drafting his preliminary injunction plans. Esselstyn Dep. 148:23-149:6.
64. Mr. Esselstyn's illustrative plans contained the maximum number of Black districts he drew for any legislative plan in Georgia. Esselstyn Dep. 64:2-17, 64:18-65:2.
65. Mr. Esselstyn created three additional majority-Black Senate districts in his expert report. Esselstyn Report, § 27.
66. In order to create the additional Senate districts, Mr. Esselstyn modified 22 of the 56 state Senate districts. Esselstyn Report, $\mathbb{\|} 26$.
67. To create Senate District 23, Mr. Esselstyn split counties based on race-in each case where a county is split, the higher-Black-percentage portion of the county is included in illustrative District 23, while the lower-Black-percentage portion of the county is outside of illustrative District 23. Esselstyn Dep. 141:24-142:3.
68. To create Senate District 25, Mr. Esselstyn could not recall why he decided to connect Clayton and Henry Counties in a single district. Esselstyn Dep. 149:24-150:14.
69. In creating Senate District 25, Mr. Esselstyn significantly altered Senate District 10 to include areas with significant white populations and lengthening the district to measure 43 miles from north to south. Morgan Report, $\boldsymbol{\text { IT}}$ |26-28.
70. As a result, the only county in Senate District 10 with a majorityBlack voting age population is DeKalb County. Esselstyn Dep. 152:25-153:4.
71. To create Senate District 28, Mr. Esselstyn connected moreurban areas of Clayton County with more-rural areas in Coweta County. Esselstyn Dep. 153:10-154:1.
72. Mr. Esselstyn was not trying to ensure that Senate District 28 had areas in common with each other. Esselstyn Dep. 154:2-24.
73. Mr. Esselstyn also made changes to Senate District 35 that connected more-rural areas of Paulding County to Fulton County. Esselstyn Dep. 155:12-156:13.
74. The illustrative Senate plan has higher total population deviations than the enacted plan. Esselstyn Dep. 157:13-158:3.
75. Mr. Esselstyn did not report the compactness scores of districts that he changed, instead only reporting the average score for all districts, changed and unchanged. Esselstyn Dep. 158:23-159:7.
76. In his charts, Mr. Esselstyn did not include scores for other illustrative Senate districts that he altered. Esselstyn Dep. 160:15-23
77. The illustrative Senate plan also splits more counties and precincts than the enacted plan. Esselstyn Dep. 160:24-161:5.
78. Mr. Esselstyn created five additional majority-Black House districts in his expert report. Esselstyn Report, § 48.
79. In order to create the additional House districts, Mr. Esselstyn modified 25 of the 180 state House districts. Esselstyn Report, $\mathbb{\text { § }} 47$.
80. Of the new districts created on Mr. Esselstyn's House plan, illustrative House Districts 64, 117, 145, and 149 are all less than $52 \%$ Black voting age population, with several barely above 50\%. Esselstyn Report, © 48, Table 5.
81. Illustrative House Districts 77 and 86 are both greater than $75 \%$ Black voting age population, which Mr. Esselstyn called accidental. Esselstyn Report, 『 48, Table 5; Esselstyn Dep. 176:6-25.
82. To create illustrative House District 64, Mr. Esselstyn connected parts of Paulding and Fulton counties but could not identify any basis for connecting those areas. Esselstyn Dep. 180:16-23.
83. To create illustrative House District 74, Mr. Esselstyn connected heavier concentrations of Black individuals in Clayton County with more heavily white portions of Fayette County, while lowering the compactness of the surrounding districts. Esselstyn Dep. 180:24-181:13; Morgan Report, $\mathbb{\|}$ 54.
84. To create illustrative House District 117, Mr. Esselstyn connected parts of districts from Clayton County to rural areas and was unable to identify any community that was being kept whole in District 117. Esselstyn Dep. 182:12-184:11, 185:5-8.
85. To create illustrative House Districts 145 and 149 in Macon, Mr. Esselstyn lowered the Black percentages of the existing Macon districts to make Black population available to run into other counties and raise the Black percentages in Districts 145 and 149. Morgan Report, © 58; Esselstyn Dep. 187:8-19.
86. Mr. Esselstyn modified the split of Baldwin County from the House plan offered at the preliminary-injunction stage. Esselstyn Dep. 191:18-192:11
87. As a result, all four House districts that include portions of Macon are all very close to 50\% Black voting age population. Esselstyn Dep. 188:21-25.
88. The illustrative House plan has higher total population deviations than the enacted plan. Esselstyn Dep. 195:7-24.
89. Mr. Esselstyn did not report the compactness scores of districts that he changed, instead only reporting the average score for all districts, changed and unchanged. Esselstyn Dep. 196:19-197:4.
90. In his charts, Mr. Esselstyn did not include scores for other illustrative House districts that he altered. Esselstyn Dep. 197:11-198:1.
91. The illustrative House plan also splits one more county and one more precinct than the enacted plan. Esselstyn Dep. 198:18-21.
92. Unlike Mr. Cooper in Alpha Phi Alpha, Mr. Esselstyn did not draw any new majority-Black House districts in east Georgia, Esselstyn Dep. 177:21-24, or in southwest Georgia. Esselstyn Dep. 177:14-20.
93. Unlike Mr. Esselstyn, Mr. Cooper only drew one additional majority-Black state House district in Macon (instead of two) and did not
draw an additional majority-Black district in western metro Atlanta. Report of William Cooper in Alpha Phi Alpha, attached as Ex. D ("Cooper Report"), व 153.
94. Mr. Cooper and Mr. Esselstyn also located their new majorityBlack Senate districts in metro Atlanta in different places, with Mr. Cooper drawing his District 28 without Coweta County and District 17 into DeKalb County as opposed to the placement on Mr. Esselstyn's plans. Cooper Report,【\| 85-86; Esselstyn Report, \| 27, Figure 4.
95. Mr. Esselstyn could identify practically nothing beyond the race of the voters in a number of his districts that united them. Esselstyn Dep. 141:24-142:3, 149:24-150:14, 153:10-154:1, 154:2-24, 180:16-23, 180:24$181: 13,182: 12-184: 11,185: 5-8,187: 8-19$.
96. Dr. Palmer chose not to review any primary results in his report. Deposition of Maxwell Palmer [Doc. 183] ("Palmer Dep.") Dep. 59:23-60:01; Deposition of John Alford [Doc. 178] ("Alford Dep.") 29:07-30:01.
97. Dr. Palmer's data still only demonstrate two material facts: The race of the candidate does not change voting behavior of Georgia voters; and the party of the candidate does. Alford Dep. 54:18-22.

Respectfully submitted this 20th day of March, 2023.

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## CERTIFICATE OF COMPLIANCE

Pursuant to L.R. 7.1(D), the undersigned hereby certifies that the foregoing Statement has been prepared in Century Schoolbook 13, a font and type selection approved by the Court in L.R. 5.1(B).
/s/Bryan P. Tyson Bryan P. Tyson

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## 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 $8^{\text {th }}$ and $9^{\text {th }}$ 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.

[^0]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.
[^1]
## 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.
18. 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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[^2]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 $30^{\text {th }}$, 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 majorityBlack State Senate districts indicated.


[^3]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.

[^4]
## 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 $\pm 5 \%$. In both plans, most district populations are within $\pm 1 \%$ of the ideal, and a small minority are within between $\pm 1$ 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 <br> (average) | Schwartzberg <br> (average) | Polsby- <br> Popper <br> (average) | Area/Convex <br> Hull (average) | Number <br> of Cut <br> 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.
[^5]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 |  |  |  |
| :---: | :---: | :---: | :---: |
| Reocksy- | Area/ |  |  |
| Rehwartzberg | Popper | 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.
[^6]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 $\mathbf{H}$.

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[^7]
## IV. Georgia House redistricting plan

## A. Review of enacted House plan

44. On December $30^{\text {th }}$, 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-hundredeightieth 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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[^8]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

[^9]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 $\pm 5 \%$. In both plans, most district populations are within $\pm 1 \%$ of the ideal, and a small minority are within between $\pm 1$ 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 $0.64 \%$.

[^10]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 <br> (average) | Schwartzberg <br> (average) | Polsby- <br> Popper <br> (average) | Area/Convex <br> Hull (average) | Number <br> of Cut <br> 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 <br> Polsby- |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Reock | Schwartzberg <br> Popper | 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 " $[t] h e$ 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 |

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-
[^11]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 $5^{\text {th }}, 2022$.


Blakeman B. Esselstyn

## Esselstyn Report: Attachment A

## Blakeman ("Blake") B. Esselstyn

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The Netherlands: Schovenlaan $110 \cdot 6225 \mathrm{JS}$ Maastricht
blake@mapfigure.com $\cdot+1828 \cdot 338 \cdot 8528$

## 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 $113^{\text {th }}$ 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 CitizenTimes, 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)
- $\quad$ 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 blocklevel 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\ Redistricting \%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




| County | \% single race |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | American |  | \% single race |  |  |  |  |
|  |  |  |  | Indian and |  | Hawaiian or |  | \% Black alone |  |  |
|  | Total | \% single race | \% single race | Alaska | \% single race | Pacific | \% other | \% two or | or in | \% Hispanic |
|  | population | White | Black | Native | Asian | Islander | single race | more races | combination | 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

## Proposed Georgia Senate Districts



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## Proposed Georgia Senate Districts



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## Proposed Georgia Senate Districts



Case 1:22-cv-00122-SCJ Document 192-1 Filed 03/20/23 Page 60 of 200

## Proposed Georgia Senate Districts



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: | $\mathbf{1 , 1 5 4 . 9 6}$ |



| District | Population | Deviation | \% Devn. | [18+_Pop] | +_Pop] | [\% NH_Wht] | [\% NH_BIk] | [\% 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\% |

[^12]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: | $\mathbf{1 , 0 1 2 . 6 1}$ |
| Relative Mean Deviation: | $0.53 \%$ |
| Standard Deviation: | $\mathbf{1 , 1 5 4 . 9 6}$ |

District Population Deviation \% Devn. [18+_Pop] [\% 18+_Pop] [\% [\% [\% [\% [\% $\quad[\%$

|  |  |  |  |  |  |  |  |  |  |  | ] |  | 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\% |


| 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\% | 145,67 | 4 76.9\% |  | 63.22\% | 25.52\% | 4.45\% | 3\% | 0.23\% | 0.11\% | 0.33\% | 3.13\% |
| 030 | 191,475 | 191 | 0.10\% | 145,07 | 7 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\% | 142,25 | 1 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\% | 149,87 | 9 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\% | 146,41 | 5 75.98\% | 30.25\% | 40.26\% | 22.93\% | 2.35\% | 0.22\% | 0.05\% | 0.81\% | 3.14\% |
| 034 | 190,668 | -616 | -0.32\% | 141,84 | -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\% | 144,67 | 5 75.02\% | 18.82\% | 68.87\% | 7.51\% | 1.26\% | 0.18\% | 0.06\% | 0.59\% | 2.7\% |
| 036 | 192,282 | 998 | 0.52\% | 161,38 | 5 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\% | 147,77 | 9 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\% | 148,36 | 7 76.81\% | 21.87\% | 62.45\% | 8.44\% | 3.55\% | 0.18\% | 0.04\% | 0.56\% | 2.92\% |
| 039 | 191,500 | 216 | 0.11\% | 156,02 | 2 81.47\% | 27.87\% | 57.97\% | 5.65\% | 4.83\% | 0.15\% | 0.04\% | 0.5\% | 2.98\% |
| 040 | 190,544 | -740 | -0.39\% | 147,00 | 77.15\% | 46.34\% | 17.32\% | 21.62\% | 11.15\% | 0.11\% | 0.04\% | 0.59\% | 2.84\% |
| 041 | 191,023 | -261 | -0.14\% | 145,27 | 8 76.05\% | 21.39\% | 59.67\% | 6.68\% | 8.42\% | 0.22\% | 0.02\% | 0.6\% | 3.01\% |
| 042 | 190,940 | -344 | -0.18\% | 153,95 | 2 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\% | 145,74 | 1 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\% | 145,22 | 4 76.42\% | 15.29\% | 68.39\% | 8.6\% | 4.37\% | 0.17\% | 0.04\% | 0.56\% | 2.58\% |
| 045 | 190,692 | -592 | -0.31\% | 140,70 | 6 73.79\% | 55.47\% | 16.86\% | 13.05\% | 10.89\% | 0.13\% | 0.03\% | 0.5\% | 3.07\% |
| 046 | 190,312 | -972 | -0.51\% | 146,71 | $377.09 \%$ | 69.9\% | 15.64\% | 6.99\% | 3.85\% | 0.22\% | 0.02\% | 0.5\% | 2.89\% |
| 047 | 190,607 | -677 | -0.35\% | 146,59 | 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\% | 136,99 | 5 72.06\% | 52.25\% | 8.26\% | 7\% | 29.05\% | 0.11\% | 0.04\% | 0.47\% | 2.83\% |
| 049 | 189,355 | -1,929 | -1.01\% | 144,12 | 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\% | 148,79 | $978.6 \%$ | 81.54\% | 5.03\% | 8.78\% | 1.24\% | 0.24\% | 0.03\% | 0.24\% | 2.91\% |
| 051 | 190,167 | -1,117 | -0.58\% | 155,57 | 1 81.81\% | 90.24\% | 0.84\% | 4.34\% | 0.61\% | 0.33\% | 0.02\% | 0.27\% | 3.34\% |
| 052 | 190,799 | -485 | -0.25\% | 146,62 | -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\% | 148,20 | 1 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\% | 143,84 | 3 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\% | 141,96 | 8 74.66\% | 20.56\% | 62.42\% | 8.71\% | 4.24\% | 0.18\% | 0.04\% | 0.67\% | 3.18\% |
| 056 | 191,226 | -58 | -0.03\% | 144,44 | 8 75.54\% | 76.17\% | 6.37\% | 7.66\% | 5.51\% | 0.12\% | 0.03\% | 0.63\% | 3.51\% |

[^13]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

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% single- <br> race <br> American Indian <br> Alaska <br> Native (total pop) | \% singlerace Asian (total pop) | \% singlerace Native Hawaiian Pacific Islander (total pop) | \% singlerace Other (total pop) | \% multiracial (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\% |

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% single- <br> race <br> American <br> Indian <br> Alaska <br> Native <br> (total pop) | \% singlerace Asian (total pop) | \% singlerace Native Hawaiian Pacific Islander (total pop) | \% singlerace Other (total pop) | \% multiracial (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:

$$
\begin{aligned}
& \text { BlockID, DISTRICT } \\
& \text { "13001950100101","008" } \\
& \text { "13001950100102","008" } \\
& \text { "13001950100103","008" } \\
& \text { "13001950100104","008" } \\
& \text { "13001950100105","008" } \\
& \text { "13001950100106","008" }
\end{aligned}
$$

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: $4 \pi \mathrm{Area} /\left(\right.$ Perimeter $\left.^{2}\right)$. 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 $O$ 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):

This district boundary cuts 7 edges:


This district boundary cuts 12 edges:

$\square$ Census Block $\quad$ Node $\quad .-\ldots . .$. Edge $\quad$ District Boundary $\quad---$ - Cut Edge

## 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 Maptitudefor Redistricting software.

Enacted plan:

| Population Range: | 189,320 to 193,163 |
| :--- | :--- |
| Ratio Range: | 0.02 |
| Absolute Range: |  |
| Absolute Overall Range: | $-1,964$ to 1,879 |
| Relative Range: | 3,843 |
| Relative Overall Range: | $-1.03 \%$ to $0.98 \%$ |
| Absolute Mean Deviation: | $2.01 \%$ |
| Relative Mean Deviation: | $1,012.61$ |
| Standard Deviation: | $0.53 \%$ |
| $\quad$ Illustrative plan: | $1,154.96$ |
|  |  |
| Population Range: |  |
| Ratio Range: | 188,095 to 194,919 |
| Absolute Range: | 0.04 |
| Absolute Overall Range: | $-3,189$ to 3,635 |
| Relative Range: | 6,824 |
| Relative Overall Range: | $-1.67 \%$ to $1.90 \%$ |
| Absolute Mean Deviation: | $3.57 \%$ |
| Relative Mean Deviation: | $1,283.86$ |
| Standard Deviation: | $0.67 \%$ |
|  | $1,529.53$ |

Compactness:
Below is the compactness report for the Senate enacted plan.

## Measures of Compactness Report

Thursday, January 13, 2022

Number of cut edges: 11,005

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

Number of cut edges: 11,005

|  | Reock | Schwartzberg | Polsby <br> Popper | Area/Convex <br> Hull |
| :---: | :---: | :---: | :---: | :---: |
| Sum | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |  |
| 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 | Area/Convex |  |
| Hull |  |  |  |  |

Number of cut edges: 11,005

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

Number of cut edges: 11,005

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 11,005

|  | Reock | Schwartzberg | Polsby- <br> Popper | Area/Convex <br> Hull |
| :---: | :---: | :---: | :---: | :---: |
| Sum | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| 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- <br> Popper | Area/Convex |
| Hull |  |  |  |  |

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.

## Measures of Compactness Report

Saturday, December 3, 2022

Number of cut edges: 11,003
$\left.\begin{array}{ccccc} & \text { Reock } & \text { Schwartzberg } & \begin{array}{c}\text { Polsby- } \\ \text { Popper }\end{array} & \begin{array}{c}\text { Area/Convex } \\ \text { Hull }\end{array} \\ \text { Sum } & \text { N/A } & \mathrm{N} / \mathrm{A} & \mathrm{N} / \mathrm{A}\end{array}\right)$

Number of cut edges: 11,003

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

Number of cut edges: 11,003

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

Number of cut edges: 11,003

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 11,003

|  | Reock | Schwartzberg | Polsby- <br> Popper | Area/Convex <br> Hull |
| :---: | :---: | :---: | :---: | :---: |
| Sum | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| 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- <br> Popper | Area/Convex |
| Hull |  |  |  |  |

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
Number of subdivisions not split:

| County | 130 |
| :--- | ---: |
| Voting District | 2651 |

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: | 45 |  |  |
| Barrow GA | 46 | 39,217 |  |
| Barrow GA | 47 | 17,116 |  |
| Barrow GA | 37 | 27,172 |  |
| Bartow GA | 52 | 11,130 |  |
| Bartow GA | 18 | 97,771 |  |
| Bibb GA | 25 | 53,182 |  |
| Bibb GA | 26 | 15,513 |  |
| Bibb GA | 1 | 88,651 |  |
| Chatham GA | 2 | 81,408 |  |
| Chatham GA | 490,408 |  |  |
| Chatham GA | 21 | 23,475 |  |
| Cherokee GA | 32 | 109,034 |  |
| Cherokee GA | 56 | 90,981 |  |
| Cherokee GA | 46 | 66,605 |  |
| Clarke GA | 47 | 52,016 |  |
| Clarke GA | 47 | 76,655 |  |
| Clayton GA | 34 | 158,608 |  |
| Clayton GA | 44 | 138,987 |  |
| Cobb GA | 6 | 92,249 |  |


| 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 |


| 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 | 1 | 4,099 |
|  | COMMUNITY CENTER |  |  |
| Chatham GA | BLOOMINGDALE | 4 | 755 |
|  | COMMUNITY CENTER |  |  |
| 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 | 6 C | 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 |


| 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 |


| 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 | $200 A$ | 3 | 0 |
| Ware GA | $200 A$ | 8 | 4 |
| Ware GA | 304 | 8 | 4,133 |
| Ware GA | 304 | 3 | 0 |
| Ware GA | 400 | 2,107 |  |
| Ware GA | 400 | 4,626 |  |

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: County125
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 |  |


| 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 |


| 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 | 1 | 4,099 |
|  | COMMUNITY CENTER |  |  |
| Chatham GA | BLOOMINGDALE | 4 | 755 |
|  | COMMUNITY CENTER |  |  |
| Chatham GA | POOLER CHRURCH | 1 | 5,330 |
| Chatham GA | POOLER CHRURCH | 4 | 4,407 |


| 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 |


| 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

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Proposed Georgia House Districts


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## Proposed Georgia House Districts



Case 1:22-cv-00122-SCJ Document 192-1 Filed 03/20/23 Page 108 of 200

## Proposed Georgia House Districts



Case 1:22-cv-00122-SCJ Document 192-1 Filed 03/20/23 Page 109 of 200

## Proposed Georgia House Districts



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 |






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] [\% [\% [\% [\% [\% $\quad[\%$

|  |  |  |  |  |  |  |  |  |  |  | ] |  | 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\% |


| District | Population Deviation | \% Devn. | [18+_Pop] [\% 18+_Pop] | [\% | [\% | [\% | [\% | [\% | [\% | [\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | NH18+_Wht] NH18+_Blk] H18+_Pop] NH18+_Asn] NH18+_Ind] NH18+_Hwn NH18+_Oth] NH18+_2+


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| 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\% |

District Population Deviation $\%$ Devn. [18+_Pop] [\% 18+_Pop] [\% [\% $[\% \quad[\% \quad[\% \quad[\% \quad[\%$ NH18+_Wht] NH18+_Blk] H18+_Pop] NH18+_Asn] NH18+_Ind] NH18+_Hwn NH18+_Oth] NH18+_2+

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| 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\% |

District Population Deviation \% Devn. [18+_Pop] [\% 18+_Pop] [\% [\% [\% $\quad[\%$ NH18+_Wht] NH18+_Blk] H18+_Pop] NH18+_Asn] NH18+_Ind] NH18+_Hwn NH18+_Oth] NH18+_2+

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| 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\% |


| 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: <br> 10,711,908 <br> deal 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 | $14.28 \%$ |
| 20 |  |  |  |  |  |  |  |  |  |

(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

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% single- <br> race <br> American <br> Indian <br> Alaska <br> Native <br> (total pop) | \% singlerace Asian (total pop) | \% singlerace Native <br> Hawaiian <br> Pacific <br> Islander <br> (total pop) | \% singlerace Other (total pop) | \% multiracial (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\% |

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% single- <br> race <br> American <br> Indian <br> Alaska <br> Native <br> (total pop) | \% singlerace Asian (total pop) | \% singlerace Native <br> Hawaiian <br> Pacific <br> Islander <br> (total pop) | \% singlerace Other (total pop) | \% multiracial (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\% |

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% singlerace American Indian Alaska Native (total pop) | \% singlerace Asian (total pop) | \% singlerace Native <br> Hawaiian <br> Pacific <br> Islander <br> (total pop) | \% singlerace Other (total pop) | \% multiracial (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\% |

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| District | Population | Deviation | \% Deviation | \% singlerace White (total pop) | \% singlerace Black (total pop) | \% single- <br> race <br> American <br> Indian <br> Alaska <br> Native <br> (total pop) | \% singlerace Asian (total pop) | \% singlerace Native Hawaiian Pacific Islander (total pop) | \% singlerace Other (total pop) | \% multiracial (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
10. 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.
11. 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.
12. 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.

Plan Name: EnacHSEfromGA
Plan Type:

## Measures of Compactness Report

Tuesday, January 11, 2022

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | Polsby- <br> 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- <br> 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | Polsby- <br> 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 | PolsbyPopper | 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | Polsby- <br> 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- <br> 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | Polsby- <br> 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

Number of cut edges: 22,020

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Number of cut edges: 22,020

|  | Reock | Schwartzberg | Polsby- <br> Popper | Area/Convex <br> Hull |
| :---: | :---: | :---: | :---: | :---: |
| Sum | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| 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- <br> Popper | Area/Convex <br> Hull |
| 180 | 0.61 | 1.23 | 0.40 | 0.85 |

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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
Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | Polsby- <br> 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 | PolsbyPopper | 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 |

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | Polsby- <br> 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | Polsby- <br> 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 | PolsbyPopper | 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | PolsbyPopper | 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- <br> 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 |

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Measures of Compactness Report

Number of cut edges: 22,359

|  | Reock | Schwartzberg | Polsby- <br> 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 | PolsbyPopper | 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 |

Number of cut edges: 22,359

|  | Reock | Schwartzberg | Polsby- <br> Popper | Area/Convex <br> Hull |
| :---: | :---: | :---: | :---: | :---: |
| Sum | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| 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- <br> Popper | Area/Convex <br> Hull |
| 180 | 0.61 | 1.23 | 0.40 | 0.85 |

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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
Number of subdivisions not split: County 90
Voting District 2,514

Number of subdivisions split into more than one district:
County69

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 |  |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 <br> METHODIST CHURCH | 163 | 2,064 |
| Chatham GA | GRACE UNITED <br> 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 | 7 C | 120 | 1,922 |
| Clarke GA | 7 C | 121 | 3,184 |
| Clayton GA | LOVEJOY 1 | 75 | 5,018 |
| Clayton GA | LOVEJOY 1 | 78 | 601 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| County | Voting District | District | Population |
| :---: | :---: | :---: | :---: |
| Paulding GA | WATSON GOVERNMENT | 17 | 17,525 |
|  | COMPLEX |  |  |
| 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 |


| County | Voting District | District | Population |
| :--- | :--- | ---: | ---: |
| Wayne GA | OGLETHORPE | 178 | 637 |
| Whitfield GA | $2 A$ | 2 | 3,864 |
| Whitfield GA | $2 A$ | 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
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 |  |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 <br> 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 |


| 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 | 7 C | 120 | 1,922 |
| Clarke GA | 7 C | 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| 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 |


| County | Voting District | District | Population |
| :---: | :---: | :---: | :---: |
| Paulding GA | SHELTON ELEMENTARY | 16 | 8,152 |
|  | SCHOOL |  |  |
| Paulding GA | SHELTON ELEMENTARY | 17 | 12,810 |
|  | SCHOOL |  |  |
| Paulding GA | SHELTON ELEMENTARY | 19 | 5,455 |
|  | SCHOOL |  |  |
| Paulding GA | WATSON GOVERNMENT | 16 | 5 |
|  | COMPLEX |  |  |
| Paulding GA | WATSON GOVERNMENT | 17 | 17,525 |
|  | COMPLEX |  |  |
| 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 | $200 A$ | 174 | 0 |
| Ware GA | $200 A$ | 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 | $2 A$ | 2 | 3,864 |
| Whitfield GA | $2 A$ | 4 | 1,000 |
| Whitfield GA | PLEASANT GROVE | 2 | 6,210 |
| Whitfield GA | PLEASANT GROVE | 6 | 2,122 |



# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION 

ANNIE LOIS GRANT, et al.,
Plaintiffs,
v.

BRAD RAFFENSPERGER, et al.,
Defendants.

## CIVIL ACTION

FILE NO. 1:22-CV-00122-SCJ

## DEFENDANT STATE ELECTION BOARD MEMBERS' OBJECTIONS AND RESPONSES TO PLAINTIFFS' FIRST SET OF INTERROGATORIES

Defendants William S. Duffey Jr., in his official capacity as Chair of the State Election Board; and Matthew Mashburn, Sara Tindall Ghazal, Edward Lindsey, and Janice Johnston, in their official capacity as members of the State Election Board (collectively, "Defendants"), file these objections and responses to Plaintiffs' First Set of Interrogatories. The answers provided are based on each member's personal knowledge about the subject matter of the interrogatory posed. Defendants state they have not been and are not involved or knowledgeable about the redistricting process in any upcoming election.

## SPECIFIC OBJECTIONS AND RESPONSES TO PLAINTIFFS' FIRST SET OF INTERROGATORIES

## Interrogatory No. 1:

Identify all persons whom you know or have any reason to believe have
any knowledge about the allegations in the Amended Complaint or the allegations and affirmative defenses in the Answer, and with respect to each individual, state with specificity the substance and basis of their knowledge.

## Response No. 1:

Defendants do not know the individuals who have knowledge of the allegations of the Amended Complaint and Answer because they were not involved in the mapdrawing process and do not know who provided information about the allegations of the Amended Complaint.

## Interrogatory No. 2:

Identify all state interests, policies, or other justifications you contend are served by or underlie SB 1EX and HB 1EX, including but not limited to any state interests, policies, or other justifications cited by you in your motion to dismiss the Complaint, see ECF No. 23; your response in opposition to Plaintiffs' motion for preliminary injunction, see ECF No. 25; your reply in support of your motion to dismiss, see ECF No. 37; your proposed findings of fact and conclusions of law, see ECF No. 81; and the Answer.

## Response No. 2:

Defendants do not have information regarding those state interests, policies, or justifications, other than those included in their prior filings, including because they were not involved in the mapdrawing process and are not aware of all state interests that may have been considered by the General

Assembly in drawing districts for any specific election.

## Interrogatory No. 3:

Identify the current residential addresses of all members of the Georgia State Senate and the Georgia House of Representatives.

## Response No. 3:

Defendants do not know the current residential addresses of the Georgia General Assembly members.

## Interrogatory No. 4:

Identify the latest date by which you believe statewide districting plans (including state legislative and congressional maps) must be in place in advance of the 2024 primary elections, including any specific deadlines, requirements, or other reasons justifying this determination. Alternatively, if the date of the 2024 primary elections has not been finalized at the time these interrogatories are propounded, state the minimum number of days in advance of the 2024 primary elections that you believe statewide districting plans must be in place, including any specific deadlines, requirements, or other reasons justifying this determination.

## Response No. 4:

Defendants object to the concluding language of the interrogatory which states "including any specific deadlines, requirements, or other reasons
justifying this determination" on the grounds this part of the interrogatory is vague and uncertain, and thus incapable of a response.

Subject to this objection, Defendants do not know the date by which districting plans must be in place for the 2024 election and do not have any belief about the minimum number of days in advance of the 2024 primary elections within which districting plans must be in place.

## Interrogatory No. 5:

Identify all communications you have had with the General Assembly or Governor Brian Kemp or his staff regarding SB 1EX, HB 1EX, the allegations in the Amended Complaint, the allegations and affirmative defenses in the Answer, or this litigation.

## Response No. 5:

Defendants are not and were not involved in the redistricting process and have not had any conversations with the General Assembly, Governor Brian Kemp, or his staff regarding SB 1EX, HB 1EX, the allegations in the Amended Complaint, the allegations and affirmative defenses in the Answer, or this litigation.

## Interrogatory No. 6:

Identify each person participating in the preparation of responses to these interrogatories, and for each person listed, state with specificity the substance and basis of their knowledge.

## Response No. 6:

Defendants state that the following individuals participated in preparation of these interrogatories:

1. William S. Duffey Jr., Chair of the State Election Board and, as the interrogatory answers state, he does not have information responsive to the interrogatories.
2. Sara Tindall Ghazal, member of the State Election Board, and, as the interrogatory answers state, she does not have information responsive to the interrogatories.
3. Janice Johnston, member of the State Election Board, and, as the interrogatory answers state, she does not have information responsive to the interrogatories.
4. Edward Lindsey, member of the State Election Board, and, as the interrogatory answers state, he does not have information responsive to the interrogatories.
5. Matthew Mashburn, member of the State Election Board, and, as the interrogatory answers state, he does not have information responsive to the interrogatories.
6. Counsel for Defendants, who formatted and helped administratively prepare these responses.

This 9th day of September, 2022.

Respectfully submitted,
Christopher M. Carr
Attorney General
Georgia Bar No. 112505
Bryan K. Webb
Deputy Attorney General
Georgia Bar No. 743580
Russell D. Willard
Senior Assistant Attorney General
Georgia Bar No. 760280
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Counsel for Defendants

## CERTIFICATE OF SERVICE

I hereby certify that on September 9, 2022, I caused a copy of the foregoing to be served by electronic mail on all counsel of record.

/s/ Bryan P. Tyson<br>Bryan P. Tyson<br>Counsel for Defendants



# IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION 

ANNIE LOIS GRANT, et al.,

Plaintiffs,
v.

BRAD RAFFENSPERGER, et al., Defendants.

## CIVIL ACTION

FILE NO. 1:22-CV-00122-SCJ

## EXPERT REPORT OF JOHN B. MORGAN

Pursuant to 28 U.S.C. § 1746, Fed. R. Civ. P. 26, and F.R.E. 702 and 703, I, JOHN B. MORGAN, make the following declaration:

1. My name is John B. Morgan. I am over the age of 21 years, and I am under no legal disability which would prevent me from giving this declaration. If called to testify, I would testify under oath to these facts.
2. I hold a B.A. in History from the University of Chicago. As detailed in my CV, attached as Exhibit 1, I have extensive experience over many years in the field of redistricting. I have worked on redistricting plans in the redistricting efforts following the 1990 Census, the 2000 Census, the 2010 Census and the 2020 Census. I have testified as an expert witness in demographics and redistricting.
3. I am being compensated at a rate of $\$ 325$ per hour for my services in this case.
4. The redistricting geographic information system (GIS) software package used for this analysis is Maptitude for Redistricting 2021 from Caliper Corporation. The redistricting software was loaded with the census PL94-171 data from the Census Bureau and the census geography for Georgia. I was also provided with election data files used by the Georgia General Assembly during the redistricting process. The full suite of census geography was available, including counties, places, voting districts, water bodies, and roads, as well as census blocks, which are the lowest level of geography for which the Census Bureau reports population counts. Census blocks are generally bounded by visible features, such as roads, streams, and railroads and they can range in size from a city block in urban and suburban areas to many square miles in rural areas.
5. I have been asked to review the House of Representatives and State Senate plans considered and adopted by the Georgia General Assembly and compare them to the proposed House and Senate plans drawn by Mr. Esselstyn and offer opinions regarding my analysis.
6. As a result of this analysis my opinion is that the Esselstyn 1205 Senate and House plans are focused on race, prioritizing race to the detriment of traditional redistricting factors.

## Data utilized for analysis

7. A House and Senate plan was submitted for a preliminary injunction hearing, earlier in this case (I am designating these as PI plans). A House and Senate plan were submitted in Mr. Esselstyn's expert report in this case on December 5, 2022 (I am designating these as 1205 plans).
8. In preparing this analysis, I was given the block-equivalency files of the Esselstyn plans as well as the block-equivalency files of the 2021 adopted plans and incumbent databases used by the Georgia General Assembly during the redistricting process. The incumbent databases list the address locations and districts of the Representatives and Senators serving under the existing House (2015-enacted) and Senate (2014-enacted) plans prior to the election of 2022. I was also given information on incumbents who were not intending to run for re-election to their current offices in 2022.
9. I loaded the 2021 House and 2021 Senate plans enacted by the Georgia General Assembly into the Maptitude for Redistricting software using the blockequivalency files provided. I loaded the Esselstyn House plans and the Esselstyn

Senate plans into the Maptitude for Redistricting software using the blockequivalency files provided. I loaded the prior House (2015-enacted) and Senate (2014-enacted) plans into the Maptitude for Redistricting software using files provided with software. I loaded the associated incumbent databases provided.
10. Using the Maptitude for Redistricting software, I ran seven reports for each 1205 Esselstyn plan:

1- Measures of compactness report,
2- Districts \& incumbents report,
3- Population summary report,
4- Political subdivision splits report,
5- Plan component report,
6- Core constituency report compared to PI plan,
7- Core constituency report compared to Enacted 2021 plan.
11. Each report is included in the appendices to this report as exhibits 2-15. I previously created these reports for the enacted plans that are included in my December 5, 2022 expert report. I also created population summary reports for the PI plans.
12. I also created a series of maps comparing the 1205 plans and the enacted plans. These maps show a theme of AP-Black \% on the voting districts and overlays
of selected districts in the enacted plans and the 1205 plans for comparison. Each of these maps for the Senate is included as Exhibits 16-35 and each of these maps for the House is included as Exhibits 36-46.

## State Senate Plan Analysis

13. Using the Population summary reports, I tallied the number of majorityBlack districts using any-part Black voting age population (18+ AP-Black) for each Senate plan. The chart below shows the total number of majority-Black districts in the 2021 adopted Senate plan, the Esselstyn 1205 Senate plan and the Esselstyn PI Senate plan, as well as the number of districts in the percentage ranges using the any-part Black voting age population.

## Chart 1: Number of Majority-Black Senate Districts.

| Majority-Black Senate Districts |  |  |  |
| :--- | :---: | :---: | :---: |
| \% AP Black <br> VAP | 2021 <br> Adopted <br> Plan | Esselstyn <br> Plan 1205 | Esselstyn <br> Plan PI |
| Over 75\% | 0 | 0 | 0 |
| $70 \%$ to 75\% | 3 | 1 | 1 |
| $65 \%$ to 70\% | 3 | 2 | 2 |
| $60 \%$ to 65\% | 3 | 3 | 4 |
| $55 \%$ to 60\% | 3 | 5 | 4 |
| $52 \%$ to 55\% | 1 | 3 | 3 |
| $50 \%$ to 52\% | 1 | 3 | 3 |
|  |  |  |  |
| Total \# Districts | 14 | 17 | 17 |

14. The 2021 adopted Senate plan includes 14 majority-Black districts, the Esselstyn 1205 Senate plan includes 17 majority-Black districts, and the Esselstyn PI Senate plan has 17 majority-Black districts.
15. The plan drafted by Mr. Esselstyn (1205) differs slightly from the plan submitted previously for the preliminary injunction hearing in this case. There are changes affecting four districts: Districts 17 and 23 exchange population, and 16 and 34 exchange population.
16. Below is a chart which summarizes the changes between the two plans.

## Chart 2: Changes from Esselstyn Sen PI to Esselstyn Sen 1205

|  |  |  |  |  |  |  | Esselstyn <br> Sen 1205 <br> $\%$ AP | Esselstyn <br> Sen PI <br> \% AP |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| District |  |  |  |  |  |  |  |  |
|  | Esselstyn <br> Sen 1205 <br> Population | Esselstyn <br> Sen 1205 <br> dev | Esselstyn <br> Sen PI <br> Population | Esselstyn <br> Sen PI <br> dev | Pop. <br> Diff | Pop. <br> (\% Diff | Black <br> VAP | Black VAP |
| 16 | 190077 | $-0.63 \%$ | 193863 | $1.35 \%$ | -3786 | $-2.0 \%$ | $19.7 \%$ | $19.3 \%$ |
| 34 | 192023 | $0.39 \%$ | 188237 | $-1.59 \%$ | 3786 | $2.0 \%$ | $59.0 \%$ | $60.2 \%$ |
| 17 | 193838 | $1.34 \%$ | 189212 | $-1.08 \%$ | 4626 | $2.4 \%$ | $21.8 \%$ | $21.7 \%$ |
| 23 | 188095 | $-1.67 \%$ | 192721 | $0.75 \%$ | -4626 | $-2.5 \%$ | $51.1 \%$ | $50.4 \%$ |

17. Senate District 16 exchanges population with Senate District 34, resulting in a deviation that moves from $+1.35 \%$ to $-0.63 \%$ and an $18+$ AP Black \% that moves from $60.2 \%$ to $59.0 \%$.
18. District 34 exchanges population with District 16, resulting in a deviation that moves from $+1.59 \%$ to $+0.39 \%$ and an $18+$ AP Black $\%$ that moves from $19.3 \%$ to $19.7 \%$.
19. In another part of the state, Senate District 17 exchanges population with Senate District 23, resulting in a deviation that moves from $+1.08 \%$ to $+1.34 \%$ and an $18+$ AP Black $\%$ that moves from $21.7 \%$ to $21.8 \%$.
20. District 23 exchanges population with District 17, resulting in a deviation that moves from $+0.75 \%$ to $-1.67 \%$ and an $18+$ AP Black $\%$ that moves from $50.4 \%$ to $51.1 \%$. In this exchange, both districts 17 and 23 show an increase in $18+$ AP Black \%. While that might not seem possible from a logical point of view, is possible because the deviation of Senate District 23 is lowered to the make it the lowest deviation in the entire plan at $-1.67 \%$. Having a lower total population, but approximately the same AP Black population results in a higher AP Black \%.
21. Looking more closely at the Esselstyn Senate 1205 plan, here is a chart that summarizes top-line statistics about the plan and compares them to the enacted plan.

Chart 3: Esselstyn 1205 Senate and Enacted Senate Plan comparisons

| Plan metrics | Esselstyn <br> Senate 1205 | Enacted <br> Senate |
| :--- | :---: | :---: |
| County splits | 34 | 29 |
| Voting precinct splits | 49 | 47 |
| Mean compactness - <br> Reock | 0.41 | 0.42 |
| Mean compactness - <br> Polsby Popper | 0.28 | 0.29 |
| \# Paired incumbents | 6 | 4 |
| \# Seats majority <br> $18+\_A P \_B l k \% ~$ | 17 | 14 |
| Deviation relative <br> range | $-1.67 \%$ to <br> $+1.90 \%$ | $-1.03 \%$ to <br> $+0.98 \%$ |
| Deviation overall range | $3.57 \%$ | $2.01 \%$ |

22. In addition to the overall plan metrics in the chart above, the Core constituency report (Ex. 8) shows that the Esselstyn 1205 Senate plan has 34 districts that are exactly the same as the enacted Senate plan. With 34 of 56 districts exactly the same, it is not surprising that the Esselstyn 1205 Senate plan has mean compactness scores close to, but still lower than the enacted Senate plan.
23. The Esselstyn 1205 Senate plan changes 22 districts to create three new Black-majority Senate districts.
24. Below is a map showing the Metro region with a theme of AP-Black \% on the voting districts, as well as maps of Senate District 10 in the Enacted Senate plan and the Esselstyn 1205 Senate plan.

25. Voting districts themed in red have an AP-Black \% of greater than $65 \%$ and voting districts themed in yellow have an AP-Black \% of $50 \%$ to $65 \%$. Voting districts themed in green have an AP-Black $\%$ of $35 \%$ to $50 \%$; light blue have an AP-Black $\%$ of $20 \%$ to $35 \%$; and darker blue have an AP-Black $\%$ of less than $20 \%$.
26. Senate District 10 in the enacted plan is anchored in heavily Black southern DeKalb County (Stonecrest area) and follows the western boundary of Henry County down to its southern border with Spalding County. This district has
a Reock compactness score of 0.28 and a Polsby-Popper compactness score of 0.23 and the district is $71.46 \%$ 18+AP Black. It is comprised of parts of two counties and measures 25 miles from north to south.

27. In comparison, Senate District 10 in the Esselstyn 1205 Senate plan is anchored in heavily Black southern DeKalb County (Stonecrest area) and stretches through Rockdale County and Henry County to pick up predominantly white Butts County. The construction of Senate District 10 splits a portion of Rockdale County
and strategically avoids much of the Black population in Henry County (the portion of Henry County in SD 10 is only $35.1 \%$ 18+ AP Black \%). This district has a Reock compactness score of 0.25 and a Polsby-Popper compactness score of 0.19 and the district is $61.1 \% 18+$ AP Black. It is comprised of parts of four counties and measures 43 miles from north to south.

28. Looking at specific districts (as above) shows that the compactness of the districts is impacted by the efforts to create more majority Black districts. The

Black percentage is lowered only by elongating the district to include lower concentrations of Black population. This allows the Black population to be redistributed and to create other majority Black districts.
29. Below is a map showing Augusta and the East Central region with a theme of AP-Black $\%$ on the counties. The map shows that Richmond County (Augusta) has a majority of AP-Black population. At over 200,000 in population, Richmond County has more than enough population for a Senate district. The map also shows some majority AP-Black population counties, which are not very populous, to the west of Augusta - Washington, Jefferson, Hancock, Warren and Taliaferro.

30. A similarly themed map on the voting districts shows concentrations of Black population in the region.

31. Senate District 22 in the enacted plan is drawn entirely within Richmond County. Enacted Senate District 22 has a Reock compactness score of 0.41 and a Polsby-Popper compactness score of 0.29 and the district is $56.5 \% 18+\mathrm{AP}$ Black. In the enacted plan, the balance of Richmond County is placed in Senate District 23 along with a portion of Columbia County and nine whole counties. Enacted Senate District 23 has a Reock compactness score of 0.37 and a PolsbyPopper compactness score of 0.16 and the district is $35.48 \% 18+$ AP Black.

32. In order to change the racial makeup of Senate Districts 22 and 23, the Esselstyn 1205 Senate plan pushes part of SD 22 out of Richmond County into Columbia County. The Esselstyn 1205 Senate plan strategically utilizes the Black population in Columbia County, selecting the highest-concentration AP-Black population voting districts close to the county border in order to keep SD 22 above $50 \%$ 18+AP Black population. By moving SD 22 into Columbia County, stronger
concentrations of Black population in Richmond County can be transferred into Senate District 23.

33. The construction of Senate District 23 in the Cooper 1205 Senate plan splits Wilkes, Greene, McDuffie and Baldwin Counties, taking the lion's share of Black population in each of those counties into the district. The map shows that the boundary of Senate District 23 follows the contours of the underlying high concentrations of Black population within voting precincts. Senate District 23
connects many separate enclaves of Black population from these split counties, including Milledgeville in Baldwin County, which measures more than 80 miles away from the eastern part of the district in Augusta. The chart below shows that the counties are split such that the portion with higher concentrations of Black population is in SD 23 and the portion with lower concentrations of Black population is outside the district.

## Chart 4: Counties split in Esselstyn Senate 1205 SD 23

| Split County | Pop. | AP Black Pop. | VAP | AP <br> Black <br> VAP | $\begin{array}{\|l} \hline \% \text { AP } \\ \text { Black } \\ \text { VAP } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Baldwin (in 23) | 26833 | 13267 | 22274 | 10300 | 46\% |
| Baldwin (outside 23) | 16966 | 5718 | 13458 | 4215 | 31\% |
| Greene (in 23) | 4747 | 2373 | 3666 | 1772 | 48\% |
| Greene (outside 23) | 14168 | 3654 | 11692 | 2698 | 23\% |
| McDuffie (in 23) | 12164 | 7350 | 9042 | 5130 | 57\% |
| McDuffie (outside 23) | 9468 | 1695 | 7573 | 1295 | 17\% |
| Richmond (in 23) | 47851 | 28212 | 36201 | 20443 | 56\% |
| Richmond (outside 23) | 158756 | 91758 | 124698 | 67487 | 54\% |
| Wilkes (in 23) | 3747 | 2465 | 2873 | 1840 | 64\% |
| Wilkes (outside 23) | 5818 | 1524 | 4778 | 1231 | 26\% |

34. As discussed earlier in this report, Esselstyn 1205 Senate district 23 has the lowest population deviation at $-1.67 \%$ and this deviation has an effect on the 18+AP Black population in the district. Senate District 23 also has the most split counties of any district in the plan at five split counties.
35. The chart below compares the split counties in both the Enacted and Esselstyn 1205 Senate plans as well as some demographic data for those counties.

The enacted Senate plan splits 29 counties and the Esselstyn 1205 Senate plan splits 34 counties. Both plans split the same 27 counties.

Chart 5: County splits Enacted SD vs Esselstyn 1205

| County | Population | AP Blk | $\begin{aligned} & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ } \\ & \text { Pop } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ AP } \\ & \text { Blk } \end{aligned}$ | $\begin{aligned} & \hline \mathbf{1 8 +} \\ & \text { AP } \\ & \text { Blk } \\ & \mathbf{\%} \\ & \hline \end{aligned}$ | Split in Enacted Senate | Split in <br> Esselstyn <br> Sen 1205 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Barrow | 83,505 | 11,907 | 14.3\% | 62,195 | 8,222 | 13.2\% | X | X |
| Bartow | 108,901 | 13,395 | 12.3\% | 83,570 | 9,377 | 11.2\% | X | X |
| Chatham | 295,291 | 115,458 | 39.1\% | 234,715 | 85,178 | 36.3\% | X | X |
| Cherokee | 266,620 | 21,687 | 8.1\% | 202,928 | 14,976 | 7.4\% | X | X |
| Clarke | 128,671 | 33,672 | 26.2\% | 106,830 | 24,776 | 23.2\% | X | X |
| Clayton | 297,595 | 216,351 | 72.7\% | 220,578 | 158,854 | 72.0\% | X | X |
| Cobb | 766,149 | 223,116 | 29.1\% | 591,848 | 166,141 | 28.1\% | X | X |
| Coffee | 43,092 | 12,575 | 29.2\% | 32,419 | 9,191 | 28.4\% | X | X |
| Columbia | 156,010 | 32,516 | 20.8\% | 114,823 | 22,273 | 19.4\% | X | X |
| DeKalb | 764,382 | 407,451 | 53.3\% | 595,276 | 314,230 | 52.8\% | X | X |
| Fayette | 119,194 | 32,076 | 26.9\% | 91,798 | 23,728 | 25.8\% | X | X |
| Floyd | 98,584 | 15,606 | 15.8\% | 76,295 | 11,064 | 14.5\% | X | X |
| Forsyth | 251,283 | 13,222 | 5.3\% | 181,193 | 8,751 | 4.8\% | X | X |
| Fulton | 1,066,710 | 477,624 | 44.8\% | 847,182 | 368,635 | 43.5\% | X | X |
| Gordon | 57,544 | 2,919 | 5.1\% | 43,500 | 1,939 | 4.5\% | X | X |
| Gwinnett | 957,062 | 287,687 | 30.1\% | 709,484 | 202,762 | 28.6\% | X | X |
| Hall | 203,136 | 17,006 | 8.4\% | 153,844 | 12,094 | 7.9\% | X | X |
| Henry | 240,712 | 125,211 | 52.0\% | 179,973 | 89,657 | 49.8\% | X | X |
| Houston | 163,633 | 56,520 | 34.5\% | 122,118 | 39,605 | 32.4\% | X | X |
| Jackson | 75,907 | 6,148 | 8.1\% | 56,451 | 4,268 | 7.6\% | X | X |
| Muscogee | 206,922 | 102,212 | 49.4\% | 157,052 | 74,301 | 47.3\% | X | X |
| Newton | 112,483 | 55,901 | 49.7\% | 84,748 | 40,433 | 47.7\% | X | X |
| Paulding | 168,661 | 41,296 | 24.5\% | 123,998 | 28,164 | 22.7\% | X | X |
| Richmond | 206,607 | 119,970 | 58.1\% | 160,899 | 87,930 | 54.6\% | X | X |
| Walton | 96,673 | 18,804 | 19.5\% | 73,098 | 13,165 | 18.0\% | X | X |
| Ware | 36,251 | 11,421 | 31.5\% | 27,788 | 8,226 | 29.6\% | X | X |
| White | 28,003 | 721 | 2.6\% | 22,482 | 484 | 2.2\% | X | X |
| Bibb | 157,346 | 88,865 | 56.5\% | 120,902 | 64,270 | 53.2\% | X |  |
| Douglas | 144,237 | 74,260 | 51.5\% | 108,428 | 53,377 | 49.2\% | X |  |


| County | Population | AP Blk | $\begin{aligned} & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ } \\ & \text { Pop } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ AP } \\ & \text { Blk } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 18+ } \\ & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | Split in Enacted Senate | Split in <br> Esselstyn <br> Sen 1205 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baldwin | 43,799 | 18,985 | 43.3\% | 35,732 | 14,515 | 40.6\% |  | X |
| Coweta | 146,158 | 28,289 | 19.4\% | 111,155 | 20,196 | 18.2\% |  | X |
| Greene | 18,915 | 6,027 | 31.9\% | 15,358 | 4,470 | 29.1\% |  | X |
| McDuffie | 21,632 | 9,045 | 41.8\% | 16,615 | 6,425 | 38.7\% |  | X |
| Rockdale | 93,570 | 57,204 | 61.1\% | 71,503 | 41,935 | 58.6\% |  | X |
| Wilcox | 8,766 | 3,161 | 36.1\% | 7,218 | 2,693 | 37.3\% |  | X |
| Wilkes | 9,565 | 3,989 | 41.7\% | 7,651 | 3,071 | 40.1\% |  | X |
| TOTAL |  |  |  |  |  |  | 29 | 34 |

36. In comparison to the enacted senate plan, the Esselstyn 1205 Senate plan makes two counties whole (Bibb and Douglas counties) but introduces seven new county splits (Baldwin, Coweta, Greene, McDuffie, Rockdale, Wilcox and Wilkes counties). Four of the seven additional county splits are directly due to Senate District 23. All seven additional split counties are attributable to the effort to create new majority Black districts.
37. Based on my analysis of the Esselstyn 1205 Senate plan, the impact of engineering more majority Black districts can be seen in the overall plan metrics and the differences from the enacted plan. Further, my analysis of the traditional redistricting factors - maintaining communities and traditional boundaries, compactness, and deviation - along with the manipulation of the boundaries of the new AP-Black districts, supports my opinion that the Esselstyn 1205 Senate plan is focused on race, prioritizing race to the detriment of traditional redistricting factors.

## State House Plan Analysis

38. Using the Population summary reports, I tallied the number of majorityBlack districts using any-part Black voting age population for each House plan. The chart below shows the total number of majority-Black districts in the 2021 adopted House plan, the Esselstyn 1205 House plan and the Esselstyn PI House plan, as well as the number of districts in the percentage ranges using the any-part Black voting age population.

## Chart 6: Number of Majority-Black House Districts

| Majority-Black House Districts |  |  |  |
| :--- | :---: | :---: | :---: |
| \% AP Black <br> VAP | 2021 <br> Adopted <br> Plan | Esselstyn <br> Plan 1205 | Esselstyn <br> Plan PI |
| Over 75\% | 2 | 2 | 2 |
| $70 \%$ to 75\% | 9 | 5 | 5 |
| $65 \%$ to 70\% | 7 | 8 | 8 |
| $60 \%$ to 65\% | 8 | 8 | 8 |
| $55 \%$ to 60\% | 11 | 9 | 10 |
| $52 \%$ to 55\% | 10 | 12 | 10 |
| $50 \%$ to 52\% | 2 | 10 | 11 |
|  |  |  |  |
| Total \# Districts | 49 | 54 | 54 |

39. The 2021 adopted House plan includes 49 majority-Black districts, the Esselstyn 1205 House plan includes 54 majority-Black districts, and the Esselstyn PI House plan has 54 majority-Black districts.
40. The House plan drafted by Mr. Esselstyn (1205) differs slightly from the House plan submitted previously for the preliminary injunction hearing in this case. There are changes affecting eight districts: Districts 61, 65 and 66 exchange population; Districts 128, 133 and 149 exchange population; and Districts 144, and 147 exchange population.

## Chart 7: Changes Esselstyn House 1205 from Esselstyn House PI

| District | Esselstyn <br> Hse 1205 <br> Pop | Esselstyn <br> Hse 1205 <br> Dev | Esselstyn <br> Hse PI <br> Pop | Esselstyn <br> Hse PI <br> Dev | Pop. <br> Diff | Pop. \% Diff | Esselstyn <br> Hse 1205 <br> \% AP <br> Black VAP | Esselstyn <br> Hse PI <br> \% AP <br> Black VAP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 61 | 58950 | -0.94\% | 58928 | -0.98\% | 22 | 0.0\% | 53.5\% | 64.9\% |
| 65 | 59240 | -0.46\% | 59076 | -0.73\% | 164 | 0.3\% | 63.3\% | 55.3\% |
| 66 | 58961 | -0.92\% | 59147 | -0.61\% | -186 | -0.3\% | 53.9\% | 50.6\% |
| 128 | 58864 | -1.09\% | 58869 | -1.08\% | -5 | 0.0\% | 50.4\% | 50.4\% |
| 133 | 59768 | 0.43\% | 59695 | 0.31\% | 73 | 0.1\% | 26.1\% | 27.6\% |
| 149 | 59392 | -0.20\% | 59460 | -0.09\% | -68 | -0.1\% | 51.5\% | 50.0\% |
| 144 | 58533 | -1.64\% | 58642 | -1.46\% | -109 | -0.2\% | 24.9\% | 25.0\% |
| 147 | 58567 | -1.59\% | 58458 | -1.77\% | 109 | 0.2\% | 30.5\% | 30.5\% |

41. In the Metro Atlanta area, House District 61 exchanges population with House Districts 65 and 66, resulting in a deviation that moves from $-0.98 \%$ to $-0.94 \%$ and an 18+ AP Black \% that moves from $64.9 \%$ to $53.5 \%$.
42. House District 65 exchanges population with House District 61, resulting in a deviation that moves from $-0.73 \%$ to $-0.46 \%$ and an 18+ AP Black \% that moves from $55.3 \%$ to $63.3 \%$.
43. House District 66 exchanges population with House District 61, resulting in a deviation that moves from $-0.61 \%$ to $-0.92 \%$ and an $18+$ AP Black \% that moves from $50.6 \%$ to $53.9 \%$.
44. In Houston County, House District 144 exchanges population with House District 147, resulting in a deviation that moves from $-1.46 \%$ to $-1.64 \%$ and an $18+$ AP Black \% that moves from $25.0 \%$ to $24.9 \%$.
45. House District 147 exchanges population with House District 144, resulting in a deviation that moves from $-1.77 \%$ to $-1.59 \%$ and an $18+$ AP Black \% that moves from $30.5 \%$ to $30.5 \%$.
46. In Baldwin County, House District 128 exchanges population with House District 149, resulting in a deviation that moves from $-1.08 \%$ to $-1.09 \%$ and an $18+$ AP Black $\%$ that moves from $50.4 \%$ to $50.4 \%$. The effect of these changes makes the Esselstyn 1205 House District 128 the same as the enacted House District 128.
47. In Baldwin County, House District 133 exchanges population with House District 149 , resulting in a deviation that moves from $+0.31 \%$ to $+0.43 \%$ and an 18+ AP Black \% that moves from $27.6 \%$ to $26.1 \%$.
48. In Baldwin County, House District 149 exchanges population with House Districts 128 and 133, resulting in a new deviation that moves from $-0.09 \%$ to $-0.20 \%$ and an $18+$ AP Black \% that moves from $50.0 \%$ to $51.5 \%$.
49. Looking more closely at the Esselstyn House 1205 plan, here is a chart that summarizes top-line statistics about the plan and compares them to the enacted plan.

## Chart 8: Esselstyn 1205 House and Enacted House Plan comparisons

| Plan metrics | Esselstyn <br> House 1205 | Enacted <br> House |
| :--- | :---: | :---: |
| County splits | 70 | 69 |
| Voting precinct splits | 185 | 184 |
| Mean compactness - <br> Reock | 0.39 | 0.39 |
| Mean compactness - <br> Polsby Popper | 0.28 | 0.28 |
| \# Paired incumbents | 28 | 20 |
| \# Seats majority <br> 18+_AP_Blk\% | 54 | 49 |
| Deviation relative <br> range | $-1.94 \%$ to <br> $1.91 \%$ | $-1.40 \%$ to <br> $1.34 \%$ |
| Deviation overall range | $3.85 \%$ | $2.74 \%$ |

50. The Esselstyn 1205 plan uses a deviation range that is a full percentage point larger in range than the 2021 Enacted House plan. The overall compactness scores on the Esselstyn 1205 House plan and the 2021 enacted House plan are similar; however, of the 25 districts changed in the Esselstyn 1205 House plan, 15
districts are less compact on the Reock measurement, and 14 districts are less compact on the Polsby-Popper measurement. The chart below shows the compactness scores of the newly created majority-Black districts which Mr. Esselstyn identified in his report and the compactness scores of the corresponding district number in the 2021 adopted plans.

## Chart 9: Compactness score summary

| New Black- <br> Majority <br> District | Enacted <br> Plan <br> Reock | Esselstyn <br> $\mathbf{1 2 0 5}$ <br> Plan <br> Reock | Enacted <br> Plan Polsby- <br> Popper | Esselstyn <br> 1205Plan <br> Polsby- <br> Popper |
| :--- | :---: | :---: | :---: | :---: |
| House 64 | $\mathbf{0 . 3 7}$ | 0.22 | $\mathbf{0 . 3 6}$ | 0.22 |
| House 74 | $\mathbf{0 . 5 0}$ | 0.30 | $\mathbf{0 . 2 5}$ | 0.19 |
| House 117 | $\mathbf{0 . 4 1}$ | 0.40 | 0.28 | $\mathbf{0 . 3 3}$ |
| House 145 | $\mathbf{0 . 3 8}$ | 0.34 | 0.19 | $\mathbf{0 . 2 1}$ |
| House 149 | 0.32 | $\mathbf{0 . 4 6}$ | 0.22 | $\mathbf{0 . 2 8}$ |

51. Below is a map showing the Metro region with a theme of AP-Black \% on the voting districts, as well as maps of a group of four house districts ( $69,74,75$, and 78) in the Enacted House and the Esselstyn 1205 House plan.

52. As shown in the Senate plan analysis, the voting districts themed in red have an AP-Black \% of greater than $65 \%$ and voting districts themed in yellow have an AP-Black \% of 50\% to 65\%. Voting districts themed in green have an AP-Black $\%$ of $35 \%$ to $50 \%$; light blue have an AP-Black \% of $20 \%$ to $35 \%$; and darker blue have an AP-Black \% of less than $20 \%$.

53. In the enacted House plan, Districts 75 and 78 are primarily within Clayton County, District 69 is anchored in heavily Black southern Fulton County combined with central Fayette County, and District 74 is comprised of southern Fayette County, western Spalding County and two voting precincts of Henry County.

54. In the Esselstyn 1205 House plan, the engineering of a new majority Black district is accomplished by elongating the districts to connect to Clayton County to predominantly white areas of Fayette and Spalding Counties. District 74 takes the "tail" of southern Clayton County and goes south through Henry to western Spalding County. District 74 takes part of Jonesboro in Clayton County, punches through the blocking District 69, to go south to southern Fayette County. The data in the chart below shows that the configuration of these four districts in the Esselstyn

1205 House plan lowers the mean compactness score compared to the configuration of the districts in the Enacted House plan.

Chart 10: Compactness scores in four House districts

| District | Enacted House |  |  |  | Esselstyn House 1205 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% Devn. | Reock | Polsby- <br> Popper | \% 18+ <br> AP Blk | \% Devn. | Reock | PolsbyPopper | $\begin{aligned} & \hline \% \\ & \text { 18+ } \\ & \text { AP } \\ & \text { Blk } \\ & \hline \end{aligned}$ |
| 069 | -1.39 | 0.4 | 0.25 | 63.56\% | -1.94 | 0.33 | 0.22 | 62.7\% |
| 074 | -0.93 | 0.5 | 0.25 | 25.52\% | -1.84 | 0.3 | 0.19 | 53.9\% |
| 075 | 0.39 | 0.42 | 0.28 | 74.40\% | 0.42 | 0.46 | 0.18 | 66.9\% |
| 078 | -0.78 | 0.21 | 0.19 | 71.58\% | 0.64 | 0.31 | 0.18 | 51.0\% |
|  |  |  |  |  |  |  |  |  |
| Mean Compactness |  | 0.38 | 0.24 |  |  | 0.35 | 0.19 |  |

55. Looking at specific districts (as above) shows that the compactness of the districts is impacted by the efforts to create more majority Black districts. The Black percentage is lowered only by elongating the district to include lower concentrations of Black population. This allows the Black population to be redistributed and to create other majority Black districts.
56. Below is a map showing Central Georgia around Macon with a theme of AP-Black \% on the voting districts. The map shows a concentration of Black population in Bibb County (Macon) as well as enclaves of majority AP-Black population voting precincts within the center of the surrounding rural counties.

57. The enacted plan has two majority 18+AP Black districts drawn entirely within Bibb County. Enacted House District 143 is in the eastern portion of Bibb County, enacted House District 142 is in the central portion of Bibb County, leaving the western portion of Bibb County in districts to the north and west.

58. In order to create additional majority 18+AP-Black districts in the Macon area, the Esselstyn 1205 House plan moves House Districts 142 and 143 to the west and lowers their 18+AP-Black $\%$ to barely $50 \%$. The plan strategically utilizes the remaining Black population in Bibb County, to spin one district to the south to pick-up Black population from the Robins Air Force base in Houston County and spin one district to the east to connect through two counties to Milledgeville in Baldwin County.

59. The chart below compares the split counties in both the Enacted and Esselstyn 1205 House plans as well as some demographic data for those counties.

The enacted House plan splits 69 counties and the Esselstyn 1205 House plan splits 70 counties. Both plans split the same 68 counties.

Chart 11: County splits Enacted HD vs Esselstyn 1205

| Name | Population | AP Blk | $\begin{aligned} & \text { AP } \\ & \text { BIk } \\ & \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ } \\ & \text { Pop } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ AP } \\ & \text { Blk } \end{aligned}$ | $\begin{aligned} & 18+ \\ & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | Split in Enacted House | Split in Esselstyn 1205 <br> House |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Appling | 18,444 | 3,647 | 19.8\% | 13,958 | 2,540 | 18.2\% | x | x |
| Baldwin | 43,799 | 18,985 | 43.3\% | 35,732 | 14,515 | 40.6\% | x | x |
| Barrow | 83,505 | 11,907 | 14.3\% | 62,195 | 8,222 | 13.2\% | x | x |
| Bartow | 108,901 | 13,395 | 12.3\% | 83,570 | 9,377 | 11.2\% | x | x |
| Ben Hill | 17,194 | 6,537 | 38.0\% | 13,165 | 4,745 | 36.0\% | x | x |
| Bibb | 157,346 | 88,865 | 56.5\% | 120,902 | 64,270 | 53.2\% | X | x |
| Bryan | 44,738 | 7,463 | 16.7\% | 31,828 | 5,025 | 15.8\% | x | x |
| Bulloch | 81,099 | 24,375 | 30.1\% | 64,494 | 18,220 | 28.3\% | x | x |
| Carroll | 119,148 | 24,618 | 20.7\% | 90,996 | 17,827 | 19.6\% | x | x |
| Catoosa | 67,872 | 2,642 | 3.9\% | 52,448 | 1,684 | 3.2\% | x | x |
| Chatham | 295,291 | 115,458 | 39.1\% | 234,715 | 85,178 | 36.3\% | x | x |
| Cherokee | 266,620 | 21,687 | 8.1\% | 202,928 | 14,976 | 7.4\% | x | x |
| Clarke | 128,671 | 33,672 | 26.2\% | 106,830 | 24,776 | 23.2\% | x | x |
| Clayton | 297,595 | 216,351 | 72.7\% | 220,578 | 158,854 | 72.0\% | x | x |
| Cobb | 766,149 | 223,116 | 29.1\% | 591,848 | 166,141 | 28.1\% | x | x |
| Coffee | 43,092 | 12,575 | 29.2\% | 32,419 | 9,191 | 28.4\% | x | x |
| Columbia | 156,010 | 32,516 | 20.8\% | 114,823 | 22,273 | 19.4\% | x | x |
| Cook | 17,229 | 5,014 | 29.1\% | 12,938 | 3,595 | 27.8\% | x | x |
| Coweta | 146,158 | 28,289 | 19.4\% | 111,155 | 20,196 | 18.2\% | x | x |
| Dawson | 26,798 | 392 | 1.5\% | 21,441 | 249 | 1.2\% | x | x |
| DeKalb | 764,382 | 407,451 | 53.3\% | 595,276 | 314,230 | 52.8\% | x | x |
| Dougherty | 85,790 | 61,457 | 71.6\% | 66,266 | 45,631 | 68.9\% | x | x |
| Douglas | 144,237 | 74,260 | 51.5\% | 108,428 | 53,377 | 49.2\% | x | x |
| Effingham | 64,769 | 10,035 | 15.5\% | 47,295 | 6,831 | 14.4\% | x | x |
| Fayette | 119,194 | 32,076 | 26.9\% | 91,798 | 23,728 | 25.8\% | x | x |
| Floyd | 98,584 | 15,606 | 15.8\% | 76,295 | 11,064 | 14.5\% | x | x |
| Forsyth | 251,283 | 13,222 | 5.3\% | 181,193 | 8,751 | 4.8\% | x | x |
| Fulton | 1,066,710 | 477,624 | 44.8\% | 847,182 | 368,635 | 43.5\% | x | x |
| Glynn | 84,499 | 22,098 | 26.2\% | 66,468 | 15,620 | 23.5\% | x | x |
| Gordon | 57,544 | 2,919 | 5.1\% | 43,500 | 1,939 | 4.5\% | x | x |
| Grady | 26,236 | 7,693 | 29.3\% | 19,962 | 5,678 | 28.4\% | x | x |
| Gwinnett | 957,062 | 287,687 | 30.1\% | 709,484 | 202,762 | 28.6\% | x | x |
| Habersham | 46,031 | 2,165 | 4.7\% | 35,878 | 1,675 | 4.7\% | x | x |
| Hall | 203,136 | 17,006 | 8.4\% | 153,844 | 12,094 | 7.9\% | x | x |
| Harris | 34,668 | 5,742 | 16.6\% | 26,799 | 4,431 | 16.5\% | x | x |
| Henry | 240,712 | 125,211 | 52.0\% | 179,973 | 89,657 | 49.8\% | x | x |


| Name | Population | AP Blk | $\begin{aligned} & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ } \\ & \text { Pop } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ AP } \\ & \text { Blk } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 18+ } \\ & \text { AP } \\ & \text { Blk } \\ & \% \\ & \hline \end{aligned}$ | Split in Enacted House | Split in <br> Esselstyn <br> 1205 <br> House |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Houston | 163,633 | 56,520 | 34.5\% | 122,118 | 39,605 | 32.4\% | x | x |
| Jackson | 75,907 | 6,148 | 8.1\% | 56,451 | 4,268 | 7.6\% | x | x |
| Jasper | 14,588 | 2,676 | 18.3\% | 11,118 | 1,966 | 17.7\% | x | x |
| Lamar | 18,500 | 5,220 | 28.2\% | 14,541 | 4,017 | 27.6\% | x | x |
| Liberty | 65,256 | 31,146 | 47.7\% | 48,014 | 21,700 | 45.2\% | x | x |
| Lowndes | 118,251 | 46,758 | 39.5\% | 89,031 | 33,302 | 37.4\% | x | x |
| Lumpkin | 33,488 | 685 | 2.0\% | 27,689 | 507 | 1.8\% | x | x |
| Madison | 30,120 | 3,196 | 10.6\% | 23,112 | 2,225 | 9.6\% | x | x |
| McDuffie | 21,632 | 9,045 | 41.8\% | 16,615 | 6,425 | 38.7\% | X | x |
| Meriwether | 20,613 | 7,547 | 36.6\% | 16,526 | 5,845 | 35.4\% | X | x |
| Monroe | 27,957 | 6,444 | 23.0\% | 21,913 | 5,068 | 23.1\% | x | X |
| Muscogee | 206,922 | 102,212 | 49.4\% | 157,052 | 74,301 | 47.3\% | x | x |
| Newton | 112,483 | 55,901 | 49.7\% | 84,748 | 40,433 | 47.7\% | x | x |
| Oconee | 41,799 | 2,280 | 5.5\% | 30,221 | 1,660 | 5.5\% | x | x |
| Paulding | 168,661 | 41,296 | 24.5\% | 123,998 | 28,164 | 22.7\% | x | x |
| Peach | 27,981 | 12,645 | 45.2\% | 22,111 | 9,720 | 44.0\% | x | x |
| Putnam | 22,047 | 5,701 | 25.9\% | 17,847 | 4,229 | 23.7\% | x | x |
| Richmond | 206,607 | 119,970 | 58.1\% | 160,899 | 87,930 | 54.6\% | X | x |
| Rockdale | 93,570 | 57,204 | 61.1\% | 71,503 | 41,935 | 58.6\% | x | x |
| Spalding | 67,306 | 24,522 | 36.4\% | 52,123 | 17,511 | 33.6\% | x | x |
| Sumter | 29,616 | 15,546 | 52.5\% | 23,036 | 11,479 | 49.8\% | x | x |
| Tattnall | 22,842 | 6,331 | 27.7\% | 17,654 | 4,886 | 27.7\% | x | x |
| Telfair | 12,477 | 4,754 | 38.1\% | 10,190 | 3,806 | 37.4\% | x | x |
| Thomas | 45,798 | 16,975 | 37.1\% | 35,037 | 12,332 | 35.2\% | x | x |
| Tift | 41,344 | 12,734 | 30.8\% | 31,224 | 8,963 | 28.7\% | x | x |
| Troup | 69,426 | 25,473 | 36.7\% | 52,581 | 18,202 | 34.6\% | x | x |
| Walker | 67,654 | 3,664 | 5.4\% | 52,794 | 2,454 | 4.6\% | x | x |
| Walton | 96,673 | 18,804 | 19.5\% | 73,098 | 13,165 | 18.0\% | x | x |
| Ware | 36,251 | 11,421 | 31.5\% | 27,788 | 8,226 | 29.6\% | x | x |
| Wayne | 30,144 | 6,390 | 21.2\% | 23,105 | 4,662 | 20.2\% | x | x |
| White | 28,003 | 721 | 2.6\% | 22,482 | 484 | 2.2\% | x | x |
| Whitfield | 102,864 | 4,919 | 4.8\% | 76,262 | 3,349 | 4.4\% | x | x |
| Jones | 28,347 | 7,114 | 25.1\% | 21,575 | 5,341 | 24.8\% | x |  |
| Dodge | 19,925 | 6,148 | 30.9\% | 15,709 | 4,725 | 30.1\% |  | x |
| Wilcox | 8,766 | 3,161 | 36.1\% | 7,218 | 2,693 | 37.3\% |  | x |
| TOTAL |  |  |  |  |  |  | 69 | 70 |

60. In comparison to the enacted House plan, the Esselstyn 1205 House plan makes one county whole (Jones) but introduces two new county splits (Dodge and Wilcox). Both additional split counties are attributable to the effort to create new majority Black districts.
61. Based on my analysis of the Esselstyn 1205 House plan, the impact of engineering more majority Black districts can be seen in the overall plan metrics and the differences from the enacted plan. Further, my analysis of the traditional redistricting factors - maintaining communities and traditional boundaries, compactness, and deviation - along with the manipulation of the boundaries of the new AP-Black districts, supports my opinion that the Esselstyn 1205 House plan is focused on race, prioritizing race to the detriment of traditional redistricting factors.

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

Executed this 23rd day of January, 2023.


## EXHIBIT 1

## JOHN B. MORGAN

## Curriculum Vitae

## Redistricting Background and Experience

- Performed redistricting work in 20 states, in the areas of map drawing, problem-solving and redistricting software operation.
- Performed demographic and election analysis work in 40 states, for both statewide and legislative candidates


## 2021-2022 Redistricting Cycle

- Mapping expert for Michigan Independent Citizens Redistricting Commission
- Mapping expert for Virginia Redistricting Commission
- Mapping expert for New Jersey Congressional Redistricting Commission
- Mapping expert for New Jersey Legislative Redistricting Commission
- Staff analyst for New Mexico Senate Republican caucus - Dec. 2021 special session
- Mapping consultant to Indiana State Senate Republican caucus
- Mapping consultant to redistricting commissioners in Atlantic County, New Jersey
- Drafted county commission districts for Sampson County, North Carolina
- Drafted wards for town of Brownsburg, Indiana


## 2011-2012 Redistricting Cycle

- Served as a consultant for:
- Connecticut Redistricting Commission
- Ohio Reapportionment Board
- New Jersey Legislative Redistricting Commission
- New Jersey Congressional Redistricting Commission
- Pennsylvania Legislative Reapportionment Commission
- Drafted Wake County, North Carolina school board districts
- Drafted county commission districts in Sampson and Craven counties in North Carolina and Atlantic County in New Jersey
- Worked with redistricting commissions in Atlantic and Essex counties, New Jersey.
- Worked on statewide congressional, legislative, and local plans in the following states: Connecticut, Indiana, Kansas, Missouri, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, and Virginia
- Plans drafted by Morgan adopted in whole or part by the following states: Connecticut, Indiana, New Jersey, New Mexico, North Carolina, South Carolina, Virginia.


## 2001-2002 Redistricting Cycle

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Georgia, Indiana, Iowa, New Jersey, North Carolina, Pennsylvania, Rhode Island, and Virginia.
- Dealt with redistricting issues as a member of the Majority Leader's legislative staff in Virginia House of Delegates. Drafted alternate plans for use by the minority parties in

Rhode Island. Drafted alternate plans for use by legislative leadership in considering plans drawn by redistricting commission staff in Iowa.

## 1991-1992 Redistricting Cycle

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Illinois, Indiana, Michigan, New Jersey, New York, Pennsylvania, Wisconsin.
- Focused primarily on Voting Rights Act issues with Black, Hispanic and Asian communities.
- Federal court incorporated portion of legislative plan drafted in part by Morgan for Wisconsin into final decree, finding the configuration superior to other plans in its treatment of minority voters.


## Expert Experience and Trial Testimony

- Recognized as an expert in demographics and redistricting in Egolfv. Duran, New Mexico First Judicial District Court, Case No. D-101-CV-2011-02942, which dealt with New Mexico's legislative plans.
- In Egolf v. Duran, the Court adopted a House redistricting plan principally drafted by Morgan.
- Filed expert reports in Georgia State Conference of NAACP v. Fayette County Board of Commissioners.
- Filed expert reports and expert testimony in Page v. Board of Elections, Eastern District of Virginia; provided expert testimony at trial.
- Testified at trial in Bethune Hill v. Virginia Board of Elections and Vesilind v. Virginia Board of Elections.
- Filed expert report in Georgia NAACP v. Gwinnett County.
- Filed expert reports and expert testimony Alpha Phi Alpha v. Raffensperger; Grant v. Raffensperger; and Pendergrass v. Raffensperger


## Education

- Bachelor of Arts degree in History from the University of Chicago
- Graduated with honors.
- Bachelor's Honors thesis on "The Net Effects of Gerrymandering 1896-1932."
- Demographic study on LaSalle, Illinois was published in The History of the Illinois and Michigan Canal, Volume Five.


## Employment

- President of Applied Research Coordinates, a consulting firm specializing in political and demographic analysis and its application to elections and redistricting, 2007 to present
- Redistricting consultant for many legislatures and commissions: 1991, 2001, 2011, 2021
- Executive Director, GOPAC (Hon. J.C. Watts, Chairman), 2004-2007
- Vice-President of Applied Research Coordinates, 1999-2004
- National Field Director, GOPAC (Rep. John Shadegg, Chairman) 1995-1999
- Research Analyst, Applied Research Coordinates 1991-1995
- Research Analyst, Republican National Committee 1988-1989, summer


## EXHIBIT 2

Plan Name: Grant_Esselstyn_Sen_illus_12_05
Plan Type:
Measures of Compactness Report

|  | Reock | Polsby-Popper |
| :---: | :---: | :---: |
| Sum | N/A | N/A |
| Min | 0.17 | 0.13 |
| Max | 0.68 | 0.50 |
| Mean | 0.41 | 0.28 |
| Std. Dev. | 0.11 | 0.09 |
| District | Reock | Polsby-Popper |
| 1 | 0.49 | 0.31 |
| 2 | 0.47 | 0.22 |
| 3 | 0.39 | 0.21 |
| 4 | 0.47 | 0.27 |
| 5 | 0.17 | 0.21 |
| 6 | 0.42 | 0.23 |
| 7 | 0.35 | 0.34 |
| 8 | 0.45 | 0.23 |
| 9 | 0.24 | 0.21 |
| 10 | 0.25 | 0.19 |
| 11 | 0.36 | 0.33 |
| 12 | 0.62 | 0.39 |
| 13 | 0.48 | 0.25 |
| 14 | 0.27 | 0.24 |
| 15 | 0.57 | 0.32 |
| 16 | 0.39 | 0.27 |
| 17 | 0.35 | 0.16 |
| 18 | 0.38 | 0.20 |
| 19 | 0.53 | 0.37 |


| District | Reock | Polsby-Popper |
| :---: | :---: | :---: |
| 20 | 0.28 | 0.24 |
| 21 | 0.42 | 0.33 |
| 22 | 0.33 | 0.32 |
| 23 | 0.34 | 0.17 |
| 24 | 0.27 | 0.23 |
| 25 | 0.57 | 0.34 |
| 26 | 0.44 | 0.25 |
| 27 | 0.50 | 0.46 |
| 28 | 0.38 | 0.19 |
| 29 | 0.58 | 0.42 |
| 30 | 0.41 | 0.38 |
| 31 | 0.40 | 0.46 |
| 32 | 0.29 | 0.21 |
| 33 | 0.40 | 0.22 |
| 34 | 0.31 | 0.21 |
| 35 | 0.59 | 0.42 |
| 36 | 0.32 | 0.30 |
| 37 | 0.49 | 0.37 |
| 38 | 0.37 | 0.20 |
| 39 | 0.18 | 0.13 |
| 40 | 0.51 | 0.34 |
| 41 | 0.51 | 0.30 |
| 42 | 0.47 | 0.25 |
| 43 | 0.49 | 0.25 |
| 44 | 0.33 | 0.24 |
| 45 | 0.35 | 0.30 |
| 46 | 0.37 | 0.21 |
| 47 | 0.36 | 0.19 |
| 48 | 0.35 | 0.34 |
| 49 | 0.46 | 0.34 |
| 50 | 0.45 | 0.23 |


| District | Reock | Polsby-Popper |
| :---: | :---: | :---: |
| 51 | 0.68 | 0.50 |
| 52 | 0.47 | 0.25 |
| 53 | 0.49 | 0.40 |
| 54 | 0.60 | 0.44 |
| 55 | 0.34 | 0.27 |
| 56 | 0.38 | 0.30 |

Measures of Compactness Summary

| Reock | The measure is always between 0 and 1 , with 1 being the most compact. |
| :--- | :--- |
| Polsby-Popper | The measure is always between 0 and 1 , with 1 being the most compact. |

## EXHIBIT 3

User:
Plan Name: Grant_Esselstyn_Sen_illus_12_05
Plan Type:

## Districts \& Their Incumbents

Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :---: | :---: | :---: | :---: |
| 1 | Ben Watson | R | 1 |
| 2 | Lester Jackson, III | D | 2 |
| 3 | Sheila McNeill | R | 3 |
| 4 | Billy Hickman | R | 4 |
| 5 | Sheikh Rahman | D | 5 |
| 6 | Jen Jordan | D | 6 |
| 7 |  |  |  |
| 8 | Russ Goodman | R | 8 |
| 9 | Nikki Merritt | D | 9 |
| 10 | Burt Jones | R | 25 |
| 10 | Emanuel Jones | D | 10 |
| 11 | Dean Burke | R | 11 |
| 12 | Freddie Powell Sims | D | 12 |
| 13 | Carden Summers | R | 13 |
| 13 | Tyler Harper | R | 7 |
| 14 |  |  |  |
| 15 | Ed Harbison | D | 15 |
| 16 | Marty Harbin | R | 16 |
| 17 |  |  |  |
| 18 | John Kennedy | R | 18 |
| 19 | Blake Tillery | R | 19 |
| 20 | Larry Walker III | R | 20 |
| 21 | Brandon Beach | R | 21 |
| 22 | Harold Jones | D | 22 |
| 23 | Max Burns | R | 23 |
| 24 | Lee Anderson | R | 24 |
| 25 | Brian Strickland | R | 17 |
| 26 | David Lucas | D | 26 |
| 27 | Greg Dolezal | R | 27 |
| 28 | Matt Brass | R | 28 |
| 29 | Randy Robertson | R | 29 |
| 30 | Mike Dugan | R | 30 |
| 31 | Jason Anavitarte | R | 31 |
| 32 | Kay Kirkpatrick | R | 32 |
| 33 | Michael Rhett | D | 33 |
| 34 | Valencia Seay | D | 34 |
| 35 | Donzella James | D | 35 |
| 36 | Nan Orrock | D | 36 |
| 37 | Lindsey Tippins | R | 37 |
| 38 | Horacena Tate | D | 39 |


| 39 | Sonya Halpern | D | 39 |
| :--- | :--- | :--- | :--- |
| 40 | Sally Harrell | D | 40 |
| 41 | Kim Jackson | D | 41 |
| 42 | Elena Parent | D | 42 |
| 43 | Tonya Anderson | D | 43 |
| 44 | Gail Davenport | D | 44 |
| 45 | Clint Dixon | R | 45 |
| 46 | Bill Cowsert | R | 46 |
| 47 | Frank Ginn | R | 47 |
| 48 | Michelle Au | D | 48 |
| 49 | Butch Miller | R | 49 |
| 50 | Bo Hatchett | R | 50 |
| 51 | Steve Gooch | R | 51 |
| 52 | Chuck Hufstetler | R | 52 |
| 52 | Bruce Thompson | R | 14 |
| 53 | Jeff Mullis | R | 53 |
| 54 | Chuck Payne | R | 54 |
| 55 | Gloria Butler | D | 55 |
| 56 | John Albers | R | 56 |


| Number of Incumbents in District with more than one Incumbent: | 6 |
| :--- | :--- |
| Number of Districts with No Incumbent: | 3 |
| Number of Districts with Incumbents of more than one party: | 1 |
| Number of Districts with Paired Democrats: | 0 |
| Number of Districts with Paired Republicans: | 2 |

## Maptitude

## EXHIBIT 4

User:
Plan Name: Grant_Esselstyn_Sen_illus_12_05
Plan Type:

## Population Summary

[\% 18+_AP_Blk] [\% Black]
24.27\%
48.03\%
21.28\%
22.86\%
27.57\%

21\%
20.56\%
30.35\%

29\%
59.43\%
31.3\%
59.08\%
27.41\%
17.15\%
52.99\%
19.46\%
21.64\%
29.57\%
25.16\%
32.35\%
6.66\%
50.98\%
51.48\%
17.49\%
58.22\%
54.05\%
4.43\%
56.2\%
26.49\%
14.88\%
19.22\%
13.56\%
41.18\%
57.52\%
52.94\%
51.92\%
18.38\%
64.48\%

| 39 | 190,184 | -1,100 | -0.58\% | 60.21\% | 60.38\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | 190,544 | -740 | -0.39\% | 19.24\% | 16.84\% |
| 41 | 191,023 | -261 | -0.14\% | 62.61\% | 60.99\% |
| 42 | 190,153 | -1,131 | -0.59\% | 29.09\% | 26.9\% |
| 43 | 191,784 | 500 | 0.26\% | 58.52\% | 57.48\% |
| 44 | 188,256 | -3,028 | -1.58\% | 71.52\% | 69.94\% |
| 45 | 190,692 | -592 | -0.31\% | 18.58\% | 17.52\% |
| 46 | 190,312 | -972 | -0.51\% | 16.9\% | 16.88\% |
| 47 | 190,607 | -677 | -0.35\% | 17.42\% | 17.14\% |
| 48 | 190,123 | -1,161 | -0.61\% | 9.47\% | 8.51\% |
| 49 | 189,355 | -1,929 | -1.01\% | 7.96\% | 7.32\% |
| 50 | 189,320 | -1,964 | -1.03\% | 5.61\% | 5.13\% |
| 51 | 190,167 | -1,117 | -0.58\% | 1.21\% | 0.88\% |
| 52 | 190,799 | -485 | -0.25\% | 13.04\% | 12.56\% |
| 53 | 190,236 | -1,048 | -0.55\% | 5.1\% | 4.52\% |
| 54 | 192,443 | 1,159 | 0.61\% | 3.79\% | 3.13\% |
| 55 | 190,155 | -1,129 | -0.59\% | 65.97\% | 63.85\% |
| 56 | 191,226 | -58 | -0.03\% | 7.57\% | 6.5\% |
| Total Population: <br> Ideal District Population: | $\begin{aligned} & 10,711,5 \\ & 191,284 \end{aligned}$ |  |  |  |  |
| Summary Statistics: |  |  |  |  |  |
| Population Range: | 188,095 to 194,919 |  |  |  |  |
| Ratio Range: | 0.04 |  |  |  |  |
| Absolute Range: | -3,189 to 3,635 |  |  |  |  |
| Absolute Overall Range: | 6824 |  |  |  |  |
| Relative Range: | -1.67\% to 1.90\% |  |  |  |  |
| Relative Overall Range: | 3.57\% |  |  |  |  |
| Absolute Mean Deviation: | 1283.86 |  |  |  |  |
| Relative Mean Deviation: | 0.67\% |  |  |  |  |
| Standard Deviation: | 1529.53 |  |  |  |  |

## EXHIBIT 5

User:
Plan Name: Grant_Esselstyn_Sen_12_05
Plan Type:

## Political Subdivision Splits Between Districts

Political Subdivision Splits Between Districts

| 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 |  |
| Clark GA | 47 | 76,655 |  |
| Clayton GA | 25 | 37,295 |  |
| Clayton GA | 28 | 19,071 |  |
| Clayton GA | 34 | 135,995 |  |

Political Subdivision Splits Between Districts
Grant_Esselstyn_Sen_12_05

| 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 |
| Gwinnett GA | 45 | 151,475 |
| Gwinnett GA | 46 | 27,298 |
| Gwinnett GA | 48 | 46,297 |
| Gwinnett GA | 55 | 124,437 |

Political Subdivision Splits Between Districts
Grant_Esselstyn_Sen_12_05

| 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 | 1 | 4,099 |
|  | COMMUNITY CENTER |  |  |
| Chatham GA | BLOOMINGDALE | 4 | 755 |
|  | COMMUNITY CENTER |  |  |
| 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 | 6 C | 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 |

Political Subdivision Splits Between Districts
Grant_Esselstyn_Sen_12_05

| 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 |
| 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 |

Political Subdivision Splits Between Districts
Grant_Esselstyn_Sen_12_05

| 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 |

## EXHIBIT 6

User:
Plan Name: Grant_Esselstyn_Sen_12_05
Plan Type:

## Plan Components with Population Detail

Plan Components with Population Detail

|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 1 |  |  |
| County: Bryan GA |  |  |
| Total: | 44,738 | 7,463 |
|  |  | 16.68\% |
| Voting Age | 31,828 | 5,025 |
|  |  | 15.79\% |
| County: Chatham GA |  |  |
| Total: | 81,408 | 13,170 |
|  |  | 16.18\% |
| Voting Age | 65,586 | 9,743 |
|  |  | 14.86\% |
| County: Liberty GA |  |  |
| Total: | 65,256 | 31,146 |
|  |  | 47.73\% |
| Voting Age | 48,014 | 21,700 |
|  |  | 45.20\% |
| District 1 Total |  |  |
| Total: | 191,402 | 51,779 |
|  |  | 27.05\% |
| Voting Age | 145,428 | 36,468 |
|  |  | 25.08\% |
| District 2 |  |  |
| County: Chatham GA |  |  |
| Total: | 190,408 | 95,717 |
|  |  | 50.27\% |
| Voting Age | 150,843 | 70,688 |
|  |  | 46.86\% |
| District 2 Total |  |  |
| Total: | 190,408 | 95,717 |
|  |  | 50.27\% |
| Voting Age | 150,843 | 70,688 |
|  |  | 46.86\% |
| District 3 |  |  |
| County: Brantley GA |  |  |
| Total: | 18,021 | 733 |
|  |  | 4.07\% |
| Voting Age | 13,692 | 470 |
|  |  | 3.43\% |
| County: Camden GA |  |  |
| Total: | 54,768 | 11,072 |
|  |  | 20.22\% |
| Voting Age | 41,808 | 7,828 |
|  |  | 18.72\% |

County: Charlton GA

| Total: | 12,518 | 2,798 |
| :---: | :---: | :---: |
|  |  | 22.35\% |
| Voting Age | 10,135 | 2,147 |
|  |  | 21.18\% |
| County: Glynn GA |  |  |
| Total: | 84,499 | 22,098 |
|  |  | 26.15\% |
| Voting Age | 66,468 | 15,620 |
|  |  | 23.50\% |
| County: McIntosh GA |  |  |
| Total: | 10,975 | 3,400 |
|  |  | 30.98\% |
| Voting Age | 9,040 | 2,641 |
|  |  | 29.21\% |
| County: Ware GA |  |  |
| Total: | 10,431 | 4,137 |
|  |  | 39.66\% |
| Voting Age | 7,772 | 2,839 |
|  |  | 36.53\% |
| District 3 Total |  |  |
| Total: | 191,212 | 44,238 |
|  |  | 23.14\% |
| Voting Age | 148,915 | 31,545 |
|  |  | 21.18\% |
| District 4 |  |  |
| County: Bulloch GA |  |  |
| Total: | 81,099 | 24,375 |
|  |  | 30.06\% |
| Voting Age | 64,494 | 18,220 |
|  |  | 28.25\% |
| County: Candler GA |  |  |
| Total: | 10,981 | 2,807 |
|  |  | 25.56\% |
| Voting Age | 8,241 | 2,009 |
|  |  | 24.38\% |
| County: Chatham GA |  |  |
| Total: | 23,475 | 6,571 |
|  |  | 27.99\% |
| Voting Age | 18,286 | 4,747 |
|  |  | 25.96\% |
| County: Effingham GA |  |  |
| Total: | 64,769 | 10,035 |
|  |  | 15.49\% |
| Voting Age | 47,295 | 6,831 |
|  |  | 14.44\% |
| County: Evans GA |  |  |
| Total: | 10,774 | 3,273 |
|  |  | 30.38\% |
| Voting Age | 8,127 | 2,410 |
|  |  | 29.65\% |
| District 4 Total |  |  |
| Total: | 191,098 | 47,061 |
|  |  | 24.63\% |
| Voting Age | 146,443 | 34,217 |


|  |  | 23.37\% |
| :---: | :---: | :---: |
| District 5 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 191,921 | 57,719 |
|  |  | 30.07\% |
| Voting Age | 139,394 | 41,736 |
|  |  | 29.94\% |
| District 5 Total |  |  |
| Total: | 191,921 | 57,719 |
|  |  | 30.07\% |
| Voting Age | 139,394 | 41,736 |
|  |  | 29.94\% |
| District 6 |  |  |
| County: Cobb GA |  |  |
| Total: | 97,590 | 26,434 |
|  |  | 27.09\% |
| Voting Age | 79,732 | 20,955 |
|  |  | 26.28\% |
| County: Fulton GA |  |  |
| Total: | 94,244 | 18,062 |
|  |  | 19.17\% |
| Voting Age | 76,010 | 14,793 |
|  |  | 19.46\% |
| District 6 Total |  |  |
| Total: | 191,834 | 44,496 |
|  |  | 23.20\% |
| Voting Age | 155,742 | 35,748 |
|  |  | 22.95\% |
| District 7 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 189,709 | 43,563 |
|  |  | 22.96\% |
| Voting Age | 147,425 | 31,601 |
|  |  | 21.44\% |
| District 7 Total |  |  |
| Total: | 189,709 | 43,563 |
|  |  | 22.96\% |
| Voting Age | 147,425 | 31,601 |
|  |  | 21.44\% |
| District 8 |  |  |
| County: Atkinson GA |  |  |
| Total: | 8,286 | 1,284 |
|  |  | 15.50\% |
| Voting Age | 6,129 | 937 |
|  |  | 15.29\% |
| County: Clinch GA |  |  |
| Total: | 6,749 | 2,096 |
|  |  | 31.06\% |
| Voting Age | 5,034 | 1,406 |
|  |  | 27.93\% |
| County: Echols GA |  |  |
| Total: | 3,697 | 193 |
|  |  | 5.22\% |
| Voting Age | 2,709 | 121 |

Plan Components with Population Detail

|  |  | 4.47\% |
| :---: | :---: | :---: |
| County: Lanier GA |  |  |
| Total: | 9,877 | 2,369 |
|  |  | 23.99\% |
| Voting Age | 7,326 | 1,683 |
|  |  | 22.97\% |
| County: Lowndes GA |  |  |
| Total: | 118,251 | 46,758 |
|  |  | 39.54\% |
| Voting Age | 89,031 | 33,302 |
|  |  | 37.40\% |
| County: Pierce GA |  |  |
| Total: | 19,716 | 1,801 |
|  |  | 9.13\% |
| Voting Age | 14,899 | 1,262 |
|  |  | 8.47\% |
| County: Ware GA |  |  |
| Total: | 25,820 | 7,284 |
|  |  | 28.21\% |
| Voting Age | 20,016 | 5,387 |
|  |  | 26.91\% |
| District 8 Total |  |  |
| Total: | 192,396 | 61,785 |
|  |  | 32.11\% |
| Voting Age | 145,144 | 44,098 |
|  |  | 30.38\% |
| District 9 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 192,915 | 61,009 |
|  |  | 31.62\% |
| Voting Age | 142,054 | 41,948 |
|  |  | 29.53\% |
| District 9 Total |  |  |
| Total: | 192,915 | 61,009 |
|  |  | 31.62\% |
| Voting Age | 142,054 | 41,948 |
|  |  | 29.53\% |
| District 10 |  |  |
| County: Butts GA |  |  |
| Total: | 25,434 | 7,212 |
|  |  | 28.36\% |
| Voting Age | 20,360 | 5,660 |
|  |  | 27.80\% |
| County: DeKalb GA |  |  |
| Total: | 82,066 | 78,042 |
|  |  | 95.10\% |
| Voting Age | 63,260 | 60,044 |
|  |  | 94.92\% |
| County: Henry GA |  |  |
| Total: | 62,505 | 22,655 |
|  |  | 36.25\% |
| Voting Age | 47,084 | 16,528 |
|  |  | 35.10\% |


| Total: | 22,596 | 11,509 |
| :---: | :---: | :---: |
|  |  | 50.93\% |
| Voting Age | 17,865 | 8,544 |
|  |  | 47.83\% |
| District 10 Total |  |  |
| Total: | 192,601 | 119,418 |
|  |  | 62.00\% |
| Voting Age | 148,569 | 90,776 |
|  |  | 61.10\% |
| District 11 |  |  |
| County: Brooks GA |  |  |
| Total: | 16,301 | 5,958 |
|  |  | 36.55\% |
| Voting Age | 12,747 | 4,357 |
|  |  | 34.18\% |
| County: Colquitt GA |  |  |
| Total: | 45,898 | 10,648 |
|  |  | 23.20\% |
| Voting Age | 34,193 | 7,461 |
|  |  | 21.82\% |
| County: Cook GA |  |  |
| Total: | 17,229 | 5,014 |
|  |  | 29.10\% |
| Voting Age | 12,938 | 3,595 |
|  |  | 27.79\% |
| County: Decatur GA |  |  |
| Total: | 29,367 | 12,583 |
|  |  | 42.85\% |
| Voting Age | 22,443 | 9,189 |
|  |  | 40.94\% |
| County: Grady GA |  |  |
| Total: | 26,236 | 7,693 |
|  |  | 29.32\% |
| Voting Age | 19,962 | 5,678 |
|  |  | 28.44\% |
| County: Seminole GA |  |  |
| Total: | 9,147 | 3,093 |
|  |  | 33.81\% |
| Voting Age | 7,277 | 2,275 |
|  |  | 31.26\% |
| County: Thomas GA |  |  |
| Total: | 45,798 | 16,975 |
|  |  | 37.06\% |
| Voting Age | 35,037 | 12,332 |
|  |  | 35.20\% |
| District 11 Total |  |  |
| Total: | 189,976 | 61,964 |
|  |  | 32.62\% |
| Voting Age | 144,597 | 44,887 |
|  |  | 31.04\% |
| District 12 |  |  |
| County: Baker GA |  |  |
| Total: | 2,876 | 1,178 |
|  |  | 40.96\% |


| Plan Components with Population Detail |  | Grant_Esselstyn_Sen_12_05 |
| :---: | :---: | :---: |
| Voting Age | 2,275 | 932 |
|  |  | 40.97\% |
| County: Calhoun GA |  |  |
| Total: | 5,573 | 3,629 |
|  |  | 65.12\% |
| Voting Age | 4,687 | 2,998 |
|  |  | 63.96\% |
| County: Clay GA |  |  |
| Total: | 2,848 | 1,634 |
|  |  | 57.37\% |
| Voting Age | 2,246 | 1,231 |
|  |  | 54.81\% |
| County: Dougherty GA |  |  |
| Total: | 85,790 | 61,457 |
|  |  | 71.64\% |
| Voting Age | 66,266 | 45,631 |
|  |  | 68.86\% |
| County: Early GA |  |  |
| Total: | 10,854 | 5,688 |
|  |  | 52.40\% |
| Voting Age | 8,315 | 4,075 |
|  |  | 49.01\% |


| County: Miller GA |  |  |
| :---: | :---: | :---: |
| Total: | 6,000 | 1,831 |
|  |  | 30.52\% |
| Voting Age | 4,749 | 1,358 |
|  |  | 28.60\% |
| County: Mitchell GA |  |  |
| Total: | 21,755 | 10,394 |
|  |  | 47.78\% |
| Voting Age | 17,065 | 7,917 |
|  |  | 46.39\% |
| County: Quitman GA |  |  |
| Total: | 2,235 | 965 |
|  |  | 43.18\% |
| Voting Age | 1,870 | 765 |
|  |  | 40.91\% |
| County: Randolph GA |  |  |
| Total: | 6,425 | 3,947 |
|  |  | 61.43\% |
| Voting Age | 4,977 | 2,913 |
|  |  | 58.53\% |
| County: Stewart GA |  |  |
| Total: | 5,314 | 2,538 |
|  |  | 47.76\% |
| Voting Age | 4,617 | 2,048 |
|  |  | 44.36\% |
| County: Sumter GA |  |  |
| Total: | 29,616 | 15,546 |
|  |  | 52.49\% |
| Voting Age | 23,036 | 11,479 |
|  |  | 49.83\% |
| County: Terrell GA |  |  |
| Total: | 9,185 | 5,707 |


| Voting Age |  | 62.13\% |
| :---: | :---: | :---: |
|  | 7,204 | 4,274 |
|  |  | 59.33\% |
| County: Webster GA |  |  |
| Total: | 2,348 | 1,107 |
|  |  | 47.15\% |
| Voting Age | 1,847 | 844 |
|  |  | 45.70\% |
| District 12 Total |  |  |
| Total: | 190,819 | 115,621 |
|  |  | 60.59\% |
| Voting Age | 149,154 | 86,465 |
|  |  | 57.97\% |
| District 13 |  |  |
| County: Ben Hill GA |  |  |
| Total: | 17,194 | 6,537 |
|  |  | 38.02\% |
| Voting Age | 13,165 | 4,745 |
|  |  | 36.04\% |
| County: Berrien GA |  |  |
| Total: | 18,160 | 2,198 |
|  |  | 12.10\% |
| Voting Age | 13,690 | 1,499 |
|  |  | 10.95\% |
| County: Coffee GA |  |  |
| Total: | 19,881 | 4,080 |
|  |  | 20.52\% |
| Voting Age | 14,865 | 2,978 |
|  |  | 20.03\% |
| County: Crisp GA |  |  |
| Total: | 20,128 | 9,194 |
|  |  | 45.68\% |
| Voting Age | 15,570 | 6,603 |
|  |  | 42.41\% |
| County: Irwin GA |  |  |
| Total: | 9,666 | 2,333 |
|  |  | 24.14\% |
| Voting Age | 7,547 | 1,720 |
|  |  | 22.79\% |
| County: Lee GA |  |  |
| Total: | 33,163 | 7,755 |
|  |  | 23.38\% |
| Voting Age | 24,676 | 5,503 |
|  |  | 22.30\% |
| County: Tift GA |  |  |
| Total: | 41,344 | 12,734 |
|  |  | 30.80\% |
| Voting Age | 31,224 | 8,963 |
|  |  | 28.71\% |
| County: Turner GA |  |  |
| Total: | 9,006 | 3,813 |
|  |  | 42.34\% |
| Voting Age | 6,960 | 2,752 |
|  |  | 39.54\% |


| County: Wilcox GA |  |  |
| :---: | :---: | :---: |
| Total: | 5,579 | 1,866 |
|  |  | 33.45\% |
| Voting Age | 4,705 | 1,669 |
|  |  | 35.47\% |
| County: Worth GA |  |  |
| Total: | 20,784 | 5,517 |
|  |  | 26.54\% |
| Voting Age | 16,444 | 4,108 |
|  |  | 24.98\% |
| District 13 Total |  |  |
| Total: | 194,905 | 56,027 |
|  |  | 28.75\% |
| Voting Age | 148,846 | 40,540 |
|  |  | 27.24\% |
| District 14 |  |  |
| County: Fulton GA |  |  |
| Total: | 192,533 | 37,409 |
|  |  | 19.43\% |
| Voting Age | 155,340 | 29,470 |
|  |  | 18.97\% |
| District 14 Total |  |  |
| Total: | 192,533 | 37,409 |
|  |  | 19.43\% |
| Voting Age | 155,340 | 29,470 |
|  |  | 18.97\% |
| District 15 |  |  |
| County: Chattahoochee GA |  |  |
| Total: | 9,565 | 1,825 |
|  |  | 19.08\% |
| Voting Age | 7,199 | 1,287 |
|  |  | 17.88\% |
| County: Macon GA |  |  |
| Total: | 12,082 | 7,296 |
|  |  | 60.39\% |
| Voting Age | 9,938 | 6,021 |
|  |  | 60.59\% |
| County: Marion GA |  |  |
| Total: | 7,498 | 2,223 |
|  |  | 29.65\% |
| Voting Age | 5,854 | 1,687 |
|  |  | 28.82\% |
| County: Muscogee GA |  |  |
| Total: | 142,205 | 87,188 |
|  |  | 61.31\% |
| Voting Age | 107,284 | 63,629 |
|  |  | 59.31\% |
| County: Schley GA |  |  |
| Total: | 4,547 | 933 |
|  |  | 20.52\% |
| Voting Age | 3,328 | 644 |
|  |  | 19.35\% |
| County: Talbot GA |  |  |
| Total: | 5,733 | 3,145 |


|  |  | $54.86 \%$ |
| :---: | :---: | :---: |
| Voting Age | 4,783 | 2,537 |
|  |  | 53.04\% |
| County: Taylor GA |  |  |
| Total: | 7,816 | 2,946 |
|  |  | 37.69\% |
| Voting Age | 6,120 | 2,235 |
|  |  | 36.52\% |
| District 15 Total |  |  |
| Total: | 189,446 | 105,556 |
|  |  | 55.72\% |
| Voting Age | 144,506 | 78,040 |
|  |  | 54.00\% |
| District 16 |  |  |
| County: Coweta GA |  |  |
| Total: | 39,894 | 3,351 |
|  |  | 8.40\% |
| Voting Age | 30,518 | 2,478 |
|  |  | 8.12\% |
| County: Fayette GA |  |  |
| Total: | 45,488 | 5,070 |
|  |  | 11.15\% |
| Voting Age | 34,787 | 3,585 |
|  |  | 10.31\% |
| County: Lamar GA |  |  |
| Total: | 18,500 | 5,220 |
|  |  | 28.22\% |
| Voting Age | 14,541 | 4,017 |
|  |  | 27.63\% |
| County: Pike GA |  |  |
| Total: | 18,889 | 1,613 |
|  |  | 8.54\% |
| Voting Age | 14,337 | 1,254 |
|  |  | 8.75\% |
| County: Spalding GA |  |  |
| Total: | 67,306 | 24,522 |
|  |  | 36.43\% |
| Voting Age | 52,123 | 17,511 |
|  |  | 33.60\% |
| District 16 Total |  |  |
| Total: | 190,077 | 39,776 |
|  |  | 20.93\% |
| Voting Age | 146,306 | 28,845 |
|  |  | 19.72\% |
| District 17 |  |  |
| County: Baldwin GA |  |  |
| Total: | 16,966 | 5,718 |
|  |  | 33.70\% |
| Voting Age | 13,458 | 4,215 |
|  |  | 31.32\% |
| County: Greene GA |  |  |
| Total: | 14,168 | 3,654 |
|  |  | 25.79\% |
| Voting Age | 11,692 | 2,698 |


|  |  | 23.08\% |
| :---: | :---: | :---: |
| County: Jasper GA |  |  |
| Total: | 14,588 | 2,676 |
|  |  | 18.34\% |
| Voting Age | 11,118 | 1,966 |
|  |  | 17.68\% |
| County: Jones GA |  |  |
| Total: | 28,347 | 7,114 |
|  |  | 25.10\% |
| Voting Age | 21,575 | 5,341 |
|  |  | 24.76\% |
| County: Morgan GA |  |  |
| Total: | 20,097 | 4,339 |
|  |  | 21.59\% |
| Voting Age | 15,574 | 3,280 |
|  |  | 21.06\% |
| County: Newton GA |  |  |
| Total: | 9,333 | 1,544 |
|  |  | 16.54\% |
| Voting Age | 7,166 | 1,113 |
|  |  | 15.53\% |
| County: Oglethorpe GA |  |  |
| Total: | 14,825 | 2,468 |
|  |  | 16.65\% |
| Voting Age | 11,639 | 1,853 |
|  |  | 15.92\% |
| County: Putnam GA |  |  |
| Total: | 22,047 | 5,701 |
|  |  | 25.86\% |
| Voting Age | 17,847 | 4,229 |
|  |  | 23.70\% |
| County: Walton GA |  |  |
| Total: | 44,590 | 7,994 |
|  |  | 17.93\% |
| Voting Age | 33,470 | 5,536 |
|  |  | 16.54\% |
| County: Wilkinson GA |  |  |
| Total: | 8,877 | 3,330 |
|  |  | 37.51\% |
| Voting Age | 7,026 | 2,549 |
|  |  | 36.28\% |
| District 17 Total |  |  |
| Total: | 193,838 | 44,538 |
|  |  | 22.98\% |
| Voting Age | 150,565 | 32,780 |
|  |  | 21.77\% |
| District 18 |  |  |
| County: Crawford GA |  |  |
| Total: | 12,130 | 2,455 |
|  |  | 20.24\% |
| Voting Age | 9,606 | 1,938 |
|  |  | 20.17\% |
| County: Houston GA |  |  |
| Total: | 96,912 | 30,579 |


| Voting Age | 73,167 |  |
| :---: | :---: | :---: |
| County: Monroe GA |  |  |
| Total: | 27,957 | 6,444 |
|  | 21,913 | $23.05 \%$ 5,068 |
| Voting Age |  | 23.13\% |
| County: Peach GA |  |  |
| Total: | 27,981 | $\begin{array}{r} 12,645 \\ 45.19 \% \end{array}$ |
| Voting Age | 22,111 | 9,720 |
|  |  | 43.96\% |
| County: Upson GA |  |  |
| Total: | 27,700 | 8,324 |
|  |  | 30.05\% |
| Voting Age | 21,711 | 6,202 |
|  |  | 28.57\% |
| District 18 Total |  |  |
| Total: | 192,680 | 60,447 |
|  |  | 31.37\% |
| Voting Age | 148,508 | 44,613 |
|  |  | 30.04\% |
| District 19 |  |  |
| County: Appling GA |  |  |
| Total: | 18,444 | 3,647 |
|  |  | 19.77\% |
| Voting Age | 13,958 | 2,540 |
|  |  | 18.20\% |
| County: Bacon GA |  |  |
| Total: | 11,140 | 1,970 |
|  |  | 17.68\% |
| Voting Age | 8,310 | 1,245 |
|  |  | 14.98\% |
| County: Coffee GA |  |  |
| Total: | 23,211 | 8,495 |
|  |  | 36.60\% |
| Voting Age | 17,554 | 6,213 |
|  |  | 35.39\% |
| County: Jeff Davis GA |  |  |
| Total: | 14,779 | 2,493 |
|  |  | 16.87\% |
| Voting Age | 10,856 | 1,752 |
|  |  | 16.14\% |
| County: Long GA |  |  |
| Total: | 16,168 | 4,734 |
|  |  | 29.28\% |
| Voting Age | 11,234 | 3,107 |
|  |  | 27.66\% |
| County: Montgomery GA |  |  |
| Total: | 8,610 | 2,224 |
|  |  | 25.83\% |
| Voting Age | 6,792 | 1,781 |
|  |  | 26.22\% |


| County: Tattnall GA |  |  |
| :---: | :---: | :---: |
| Total: | 22,842 | 6,331 |
|  |  | 27.72\% |
| Voting Age | 17,654 | 4,886 |
|  |  | 27.68\% |
| County: Telfair GA |  |  |
| Total: | 12,477 | 4,754 |
|  |  | 38.10\% |
| Voting Age | 10,190 | 3,806 |
|  |  | 37.35\% |
| County: Toombs GA |  |  |
| Total: | 27,030 | 7,402 |
|  |  | 27.38\% |
| Voting Age | 20,261 | 5,036 |
|  |  | 24.86\% |
| County: Wayne GA |  |  |
| Total: | 30,144 | 6,390 |
|  |  | 21.20\% |
| Voting Age | 23,105 | 4,662 |
|  |  | 20.18\% |
| County: Wheeler GA |  |  |
| Total: | 7,471 | 2,949 |
|  |  | 39.47\% |
| Voting Age | 6,217 | 2,561 |
|  |  | 41.19\% |
| District 19 Total |  |  |
| Total: | 192,316 | 51,389 |
|  |  | 26.72\% |
| Voting Age | 146,131 | 37,589 |
|  |  | 25.72\% |
| District 20 |  |  |
| County: Bleckley GA |  |  |
| Total: | 12,583 | 2,951 |
|  |  | 23.45\% |
| Voting Age | 9,613 | 2,036 |
|  |  | 21.18\% |
| County: Dodge GA |  |  |
| Total: | 19,925 | 6,148 |
|  |  | 30.86\% |
| Voting Age | 15,709 | 4,725 |
|  |  | 30.08\% |
| County: Dooly GA |  |  |
| Total: | 11,208 | 5,652 |
|  |  | 50.43\% |
| Voting Age | 9,187 | 4,526 |
|  |  | 49.27\% |
| County: Emanuel GA |  |  |
| Total: | 22,768 | 7,556 |
|  |  | 33.19\% |
| Voting Age | 17,320 | 5,404 |
|  |  | 31.20\% |
| County: Houston GA |  |  |
| Total: | 33,532 | 7,767 |
|  |  | 23.16\% |


| Voting Age | 24,548 | 5,417 |
| :---: | :---: | :---: |
|  |  | 22.07\% |
| County: Jenkins GA |  |  |
| Total: | 8,674 | 3,638 |
|  |  | 41.94\% |
| Voting Age | 7,005 | 2,843 |
|  |  | 40.59\% |
| County: Johnson GA |  |  |
| Total: | 9,189 | 3,124 |
|  |  | 34.00\% |
| Voting Age | 7,474 | 2,513 |
|  |  | 33.62\% |
| County: Laurens GA |  |  |
| Total: | 49,570 | 19,132 |
|  |  | 38.60\% |
| Voting Age | 37,734 | 13,695 |
|  |  | 36.29\% |
| County: Pulaski GA |  |  |
| Total: | 9,855 | 3,250 |
|  |  | 32.98\% |
| Voting Age | 8,012 | 2,564 |
|  |  | 32.00\% |
| County: Treutlen GA |  |  |
| Total: | 6,406 | 2,114 |
|  |  | 33.00\% |
| Voting Age | 4,934 | 1,514 |
|  |  | 30.69\% |
| County: Twiggs GA |  |  |
| Total: | 8,022 | 3,226 |
|  |  | 40.21\% |
| Voting Age | 6,589 | 2,627 |
|  |  | 39.87\% |
| County: Wilcox GA |  |  |
| Total: | 3,187 | 1,295 |
|  |  | 40.63\% |
| Voting Age | 2,513 | 1,024 |
|  |  | 40.75\% |
| District 20 Total |  |  |
| Total: | 194,919 | 65,853 |
|  |  | 33.78\% |
| Voting Age | 150,638 | 48,888 |
|  |  | 32.45\% |
| District 21 |  |  |
| County: Cherokee GA |  |  |
| Total: | 109,034 | 6,259 |
|  |  | 5.74\% |
| Voting Age | 82,623 | 4,208 |
|  |  | 5.09\% |
| County: Fulton GA |  |  |
| Total: | 83,538 | 9,233 |
|  |  | 11.05\% |
| Voting Age | 62,497 | 6,615 |
|  |  | 10.58\% |


| Total: | 192,572 | 15,492 |
| :---: | :---: | :---: |
|  |  | 8.04\% |
| Voting Age | 145,120 | 10,823 |
|  |  | 7.46\% |
| District 22 |  |  |
| County: Columbia GA |  |  |
| Total: | 30,174 | 10,351 |
|  |  | 34.30\% |
| Voting Age | 21,768 | 6,970 |
|  |  | 32.02\% |
| County: Richmond GA |  |  |
| Total: | 158,756 | 91,758 |
|  |  | 57.80\% |
| Voting Age | 124,698 | 67,487 |
|  |  | 54.12\% |
| District 22 Total |  |  |
| Total: | 188,930 | 102,109 |
|  |  | 54.05\% |
| Voting Age | 146,466 | 74,457 |
|  |  | 50.84\% |
| District 23 |  |  |
| County: Baldwin GA |  |  |
| Total: | 26,833 | 13,267 |
|  |  | 49.44\% |
| Voting Age | 22,274 | 10,300 |
|  |  | 46.24\% |
| County: Burke GA |  |  |
| Total: | 24,596 | 11,430 |
|  |  | 46.47\% |
| Voting Age | 18,778 | 8,362 |
|  |  | 44.53\% |
| County: Glascock GA |  |  |
| Total: | 2,884 | 226 |
|  |  | 7.84\% |
| Voting Age | 2,236 | 167 |
|  |  | 7.47\% |
| County: Greene GA |  |  |
| Total: | 4,747 | 2,373 |
|  |  | 49.99\% |
| Voting Age | 3,666 | 1,772 |
|  |  | 48.34\% |
| County: Hancock GA |  |  |
| Total: | 8,735 | 6,131 |
|  |  | 70.19\% |
| Voting Age | 7,487 | 5,108 |
|  |  | 68.22\% |
| County: Jefferson GA |  |  |
| Total: | 15,709 | 8,208 |
|  |  | 52.25\% |
| Voting Age | 12,301 | 6,324 |
|  |  | 51.41\% |
| County: McDuffie GA |  |  |
| Total: | 12,164 | 7,350 |
|  |  | 60.42\% |


| Voting Age | 9,042 | 5,130 |
| :---: | :---: | :---: |
|  |  | 56.74\% |
| County: Richmond GA |  |  |
| Total: | 47,851 | 28,212 |
|  |  | 58.96\% |
| Voting Age | 36,201 | 20,443 |
|  |  | 56.47\% |
| County: Screven GA |  |  |
| Total: | 14,067 | 5,527 |
|  |  | 39.29\% |
| Voting Age | 10,893 | 4,144 |
|  |  | 38.04\% |
| County: Taliaferro GA |  |  |
| Total: | 1,559 | 876 |
|  |  | 56.19\% |
| Voting Age | 1,289 | 722 |
|  |  | 56.01\% |
| County: Warren GA |  |  |
| Total: | 5,215 | 3,128 |
|  |  | 59.98\% |
| Voting Age | 4,159 | 2,360 |
|  |  | 56.74\% |
| County: Washington GA |  |  |
| Total: | 19,988 | 10,969 |
|  |  | 54.88\% |
| Voting Age | 15,709 | 8,333 |
|  |  | 53.05\% |
| County: Wilkes GA |  |  |
| Total: | 3,747 | 2,465 |
|  |  | 65.79\% |
| Voting Age | 2,873 | 1,840 |
|  |  | 64.04\% |
| District 23 Total |  |  |
| Total: | 188,095 | 100,162 |
|  |  | 53.25\% |
| Voting Age | 146,908 | 75,005 |
|  |  | 51.06\% |
| District 24 |  |  |
| County: Columbia GA |  |  |
| Total: | 125,836 | 22,165 |
|  |  | 17.61\% |
| Voting Age | 93,055 | 15,303 |
|  |  | 16.45\% |
| County: Elbert GA |  |  |
| Total: | 19,637 | 5,520 |
|  |  | 28.11\% |
| Voting Age | 15,493 | 4,122 |
|  |  | 26.61\% |
| County: Hart GA |  |  |
| Total: | 25,828 | 4,732 |
|  |  | 18.32\% |
| Voting Age | 20,436 | 3,447 |
|  |  | 16.87\% |

County: Lincoln GA

| Total: | 7,690 | 2,212 |
| :---: | :---: | :---: |
|  |  | 28.76\% |
| Voting Age | 6,270 | 1,728 |
|  |  | 27.56\% |
| County: McDuffie GA |  |  |
| Total: | 9,468 | 1,695 |
|  |  | 17.90\% |
| Voting Age | 7,573 | 1,295 |
|  |  | 17.10\% |
| County: Wilkes GA |  |  |
| Total: | 5,818 | 1,524 |
|  |  | 26.19\% |
| Voting Age | 4,778 | 1,231 |
|  |  | 25.76\% |
| District 24 Total |  |  |
| Total: | 194,277 | 37,848 |
|  |  | 19.48\% |
| Voting Age | 147,605 | 27,126 |
|  |  | 18.38\% |
| District 25 |  |  |
| County: Clayton GA |  |  |
| Total: | 37,295 | 29,368 |
|  |  | 78.75\% |
| Voting Age | 27,594 | 21,280 |
|  |  | 77.12\% |
| County: Henry GA |  |  |
| Total: | 155,413 | 88,923 |
|  |  | 57.22\% |
| Voting Age | 115,669 | 63,144 |
|  |  | 54.59\% |
| District 25 Total |  |  |
| Total: | 192,708 | 118,291 |
|  |  | 61.38\% |
| Voting Age | 143,263 | 84,424 |
|  |  | 58.93\% |
| District 26 |  |  |
| County: Bibb GA |  |  |
| Total: | 157,346 | 88,865 |
|  |  | 56.48\% |
| Voting Age | 120,902 | 64,270 |
|  |  | 53.16\% |
| County: Houston GA |  |  |
| Total: | 33,189 | 18,174 |
|  |  | 54.76\% |
| Voting Age | 24,403 | 12,503 |
|  |  | 51.24\% |
| District 26 Total |  |  |
| Total: | 190,535 | 107,039 |
|  |  | 56.18\% |
| Voting Age | 145,305 | 76,773 |
|  |  | 52.84\% |
| District 27 |  |  |
| County: Forsyth GA |  |  |
| Total: | 190,676 | 10,506 |



|  |  | 34.62\% |
| :---: | :---: | :---: |
| District 29 Total |  |  |
| Total: | 189,424 | 53,786 |
|  |  | 28.39\% |
| Voting Age | 145,674 | 39,150 |
|  |  | 26.88\% |
| District 30 |  |  |
| County: Carroll GA |  |  |
| Total: | 119,148 | 24,618 |
|  |  | 20.66\% |
| Voting Age | 90,996 | 17,827 |
|  |  | 19.59\% |
| County: Coweta GA |  |  |
| Total: | 31,460 | 4,674 |
|  |  | 14.86\% |
| Voting Age | 24,055 | 3,351 |
|  |  | 13.93\% |
| County: Haralson GA |  |  |
| Total: | 29,919 | 1,541 |
|  |  | 5.15\% |
| Voting Age | 22,854 | 1,106 |
|  |  | 4.84\% |
| County: Heard GA |  |  |
| Total: | 11,412 | 1,142 |
|  |  | 10.01\% |
| Voting Age | 8,698 | 832 |
|  |  | 9.57\% |
| District 30 Total |  |  |
| Total: | 191,939 | 31,975 |
|  |  | 16.66\% |
| Voting Age | 146,603 | 23,116 |
|  |  | 15.77\% |
| District 31 |  |  |
| County: Paulding GA |  |  |
| Total: | 149,902 | 35,238 |
|  |  | 23.51\% |
| Voting Age | 110,217 | 23,946 |
|  |  | 21.73\% |
| County: Polk GA |  |  |
| Total: | 42,853 | 5,816 |
|  |  | 13.57\% |
| Voting Age | 32,238 | 3,991 |
|  |  | 12.38\% |
| District 31 Total |  |  |
| Total: | 192,755 | 41,054 |
|  |  | 21.30\% |
| Voting Age | 142,455 | 27,937 |
|  |  | 19.61\% |
| District 32 |  |  |
| County: Cherokee GA |  |  |
| Total: | 90,981 | 9,461 |
|  |  | 10.40\% |
| Voting Age | 69,190 | 6,571 |
|  |  | 9.50\% |


| County: Cobb GA |  |  |
| :---: | :---: | :---: |
| Total: | 101,467 | 20,578 |
|  |  | 20.28\% |
| Voting Age | 80,689 | 15,703 |
|  |  | 19.46\% |
| District 32 Total |  |  |
| Total: | 192,448 | 30,039 |
|  |  | 15.61\% |
| Voting Age | 149,879 | 22,274 |
|  |  | 14.86\% |
| District 33 |  |  |
| County: Cobb GA |  |  |
| Total: | 192,694 | 84,864 |
|  |  | 44.04\% |
| Voting Age | 146,415 | 62,897 |
|  |  | 42.96\% |
| District 33 Total |  |  |
| Total: | 192,694 | 84,864 |
|  |  | 44.04\% |
| Voting Age | 146,415 | 62,897 |
|  |  | 42.96\% |
| District 34 |  |  |
| County: Clayton GA |  |  |
| Total: | 135,995 | 98,239 |
|  |  | 72.24\% |
| Voting Age | 98,847 | 71,113 |
|  |  | 71.94\% |
| County: Fayette GA |  |  |
| Total: | 56,028 | 17,258 |
|  |  | 30.80\% |
| Voting Age | 43,302 | 12,714 |
|  |  | 29.36\% |
| District 34 Total |  |  |
| Total: | 192,023 | 115,497 |
|  |  | 60.15\% |
| Voting Age | 142,149 | 83,827 |
|  |  | 58.97\% |
| District 35 |  |  |
| County: Douglas GA |  |  |
| Total: | 144,237 | 74,260 |
|  |  | 51.48\% |
| Voting Age | 108,428 | 53,377 |
|  |  | 49.23\% |
| County: Fulton GA |  |  |
| Total: | 30,198 | 27,771 |
|  |  | 91.96\% |
| Voting Age | 22,906 | 20,845 |
|  |  | 91.00\% |
| County: Paulding GA |  |  |
| Total: | 18,759 | 6,058 |
|  |  | 32.29\% |
| Voting Age | 13,781 | 4,218 |
|  |  | 30.61\% |


| Total: | 193,194 | 108,089 |
| :---: | :---: | :---: |
|  |  | 55.95\% |
| Voting Age | 145,115 | 78,440 |
|  |  | 54.05\% |
| District 36 |  |  |
| County: Fulton GA |  |  |
| Total: | 192,282 | 104,523 |
|  |  | 54.36\% |
| Voting Age | 161,385 | 82,859 |
|  |  | 51.34\% |
| District 36 Total |  |  |
| Total: | 192,282 | 104,523 |
|  |  | 54.36\% |
| Voting Age | 161,385 | 82,859 |
|  |  | 51.34\% |
| District 37 |  |  |
| County: Bartow GA |  |  |
| Total: | 11,130 | 646 |
|  |  | 5.80\% |
| Voting Age | 8,818 | 435 |
|  |  | 4.93\% |
| County: Cobb GA |  |  |
| Total: | 181,541 | 39,545 |
|  |  | 21.78\% |
| Voting Age | 138,961 | 28,049 |
|  |  | 20.18\% |
| District 37 Total |  |  |
| Total: | 192,671 | 40,191 |
|  |  | 20.86\% |
| Voting Age | 147,779 | 28,484 |
|  |  | 19.27\% |
| District 38 |  |  |
| County: Cobb GA |  |  |
| Total: | 102,964 | 44,999 |
|  |  | 43.70\% |
| Voting Age | 79,498 | 33,840 |
|  |  | 42.57\% |
| County: Fulton GA |  |  |
| Total: | 87,641 | 83,029 |
|  |  | 94.74\% |
| Voting Age | 66,587 | 63,096 |
|  |  | 94.76\% |
| District 38 Total |  |  |
| Total: | 190,605 | 128,028 |
|  |  | 67.17\% |
| Voting Age | 146,085 | 96,936 |
|  |  | 66.36\% |
| District 39 |  |  |
| County: Fulton GA |  |  |
| Total: | 190,184 | 119,401 |
|  |  | 62.78\% |
| Voting Age | 155,780 | 93,789 |
|  |  | 60.21\% |


| Total: | 190,184 | 119,401 |
| :---: | :---: | :---: |
|  |  | 62.78\% |
| Voting Age | 155,780 | 93,789 |
|  |  | 60.21\% |
| District 40 |  |  |
| County: DeKalb GA |  |  |
| Total: | 164,997 | 27,095 |
|  |  | 16.42\% |
| Voting Age | 127,423 | 21,898 |
|  |  | 17.19\% |
| County: Gwinnett GA |  |  |
| Total: | 25,547 | 8,624 |
|  |  | 33.76\% |
| Voting Age | 19,577 | 6,379 |
|  |  | 32.58\% |
| District 40 Total |  |  |
| Total: | 190,544 | 35,719 |
|  |  | 18.75\% |
| Voting Age | 147,000 | 28,277 |
|  |  | 19.24\% |
| District 41 |  |  |
| County: DeKalb GA |  |  |
| Total: | 183,560 | 120,328 |
|  |  | 65.55\% |
| Voting Age | 139,591 | 90,016 |
|  |  | 64.49\% |
| County: Gwinnett GA |  |  |
| Total: | 7,463 | 1,434 |
|  |  | 19.21\% |
| Voting Age | 5,687 | 945 |
|  |  | 16.62\% |
| District 41 Total |  |  |
| Total: | 191,023 | 121,762 |
|  |  | 63.74\% |
| Voting Age | 145,278 | 90,961 |
|  |  | 62.61\% |
| District 42 |  |  |
| County: DeKalb GA |  |  |
| Total: | 190,153 | 55,060 |
|  |  | 28.96\% |
| Voting Age | 153,285 | 44,597 |
|  |  | 29.09\% |
| District 42 Total |  |  |
| Total: | 190,153 | 55,060 |
|  |  | 28.96\% |
| Voting Age | 153,285 | 44,597 |
|  |  | 29.09\% |
| District 43 |  |  |
| County: DeKalb GA |  |  |
| Total: | 17,660 | 15,789 |
|  |  | 89.41\% |
| Voting Age | 13,478 | 11,964 |
|  |  | 88.77\% |


| Total: | 103,150 | 54,357 |
| :---: | :---: | :---: |
|  |  | 52.70\% |
| Voting Age | 77,582 | 39,320 |
|  |  | 50.68\% |
| County: Rockdale GA |  |  |
| Total: | 70,974 | 45,695 |
|  |  | 64.38\% |
| Voting Age | 53,638 | 33,391 |
|  |  | 62.25\% |
| District 43 Total |  |  |
| Total: | 191,784 | 115,841 |
|  |  | 60.40\% |
| Voting Age | 144,698 | 84,675 |
|  |  | 58.52\% |
| District 44 |  |  |
| County: Clayton GA |  |  |
| Total: | 105,234 | 73,048 |
|  |  | 69.41\% |
| Voting Age | 79,603 | 54,393 |
|  |  | 68.33\% |
| County: DeKalb GA |  |  |
| Total: | 60,228 | 50,225 |
|  |  | 83.39\% |
| Voting Age | 47,783 | 39,047 |
|  |  | 81.72\% |
| County: Henry GA |  |  |
| Total: | 22,794 | 13,633 |
|  |  | 59.81\% |
| Voting Age | 17,220 | 9,985 |
|  |  | 57.98\% |
| District 44 Total |  |  |
| Total: | 188,256 | 136,906 |
|  |  | 72.72\% |
| Voting Age | 144,606 | 103,425 |
|  |  | 71.52\% |
| District 45 |  |  |
| County: Barrow GA |  |  |
| Total: | 39,217 | 5,033 |
|  |  | 12.83\% |
| Voting Age | 29,707 | 3,514 |
|  |  | 11.83\% |
| County: Gwinnett GA |  |  |
| Total: | 151,475 | 32,509 |
|  |  | 21.46\% |
| Voting Age | 110,999 | 22,635 |
|  |  | 20.39\% |
| District 45 Total |  |  |
| Total: | 190,692 | 37,542 |
|  |  | 19.69\% |
| Voting Age | 140,706 | 26,149 |
|  |  | 18.58\% |
| District 46 |  |  |
| County: Barrow GA |  |  |
| Total: | 17,116 | 3,573 |



Plan Components with Population Detail

| District 48 |  |  |
| :---: | :---: | :---: |
| County: Forsyth GA |  |  |
| Total: | 60,607 | 2,716 |
|  |  | 4.48\% |
| Voting Age | 41,997 | 1,790 |
|  |  | 4.26\% |
| County: Fulton GA |  |  |
| Total: | 83,219 | 9,960 |
|  |  | 11.97\% |
| Voting Age | 61,631 | 7,027 |
|  |  | 11.40\% |
| County: Gwinnett GA |  |  |
| Total: | 46,297 | 6,203 |
|  |  | 13.40\% |
| Voting Age | 33,367 | 4,151 |
|  |  | 12.44\% |
| District 48 Total |  |  |
| Total: | 190,123 | 18,879 |
|  |  | 9.93\% |
| Voting Age | 136,995 | 12,968 |
|  |  | 9.47\% |
| District 49 |  |  |
| County: Hall GA |  |  |
| Total: | 189,355 | 16,099 |
|  |  | 8.50\% |
| Voting Age | 144,123 | 11,475 |
|  |  | 7.96\% |
| District 49 Total |  |  |
| Total: | 189,355 | 16,099 |
|  |  | 8.50\% |
| Voting Age | 144,123 | 11,475 |
|  |  | 7.96\% |
| District 50 |  |  |
| County: Banks GA |  |  |
| Total: | 18,035 | 589 |
|  |  | 3.27\% |
| Voting Age | 13,900 | 365 |
|  |  | 2.63\% |
| County: Franklin GA |  |  |
| Total: | 23,424 | 2,207 |
|  |  | 9.42\% |
| Voting Age | 18,307 | 1,523 |
|  |  | 8.32\% |
| County: Habersham GA |  |  |
| Total: | 46,031 | 2,165 |
|  |  | 4.70\% |
| Voting Age | 35,878 | 1,675 |
|  |  | 4.67\% |
| County: Hall GA |  |  |
| Total: | 13,781 | 907 |
|  |  | 6.58\% |
| Voting Age | 9,721 | 619 |
|  |  | 6.37\% |


| Plan Components with Population Detail | Grant_Esselstyn_Sen_12_05 |  |
| :---: | :---: | ---: |
| Total: | 19,247 | 1,755 |
| Voting Age |  | 14,887 |
|  |  | $1,32 \%$ |
|  |  | $8.75 \%$ |


| County: Rabun GA |  |  |
| :---: | :---: | ---: |
| Total: | 16,883 | 210 |
| Voting Age | 13,767 | $1.24 \%$ |
|  |  | 129 |
| County: Stephens GA | $0.94 \%$ |  |
| Total: | 26,784 | 3,527 |
|  |  | $13.17 \%$ |
| Voting Age | 21,163 | 2,467 |
|  |  | $11.66 \%$ |


| County: Towns GA |  |  |
| :---: | :---: | ---: |
| Total: | 12,493 | 168 |
| Voting Age | 10,923 | $1.34 \%$ |
|  |  | 137 |
| County: White GA | $1.25 \%$ |  |
| Total: | 12,642 | 198 |
| Voting Age | 10,253 | $1.57 \%$ |
|  |  | 124 |
| Voting Age | 189,320 | $1.21 \%$ |
| Tistrict 50 Total | 148,799 | 11,726 |
| Total: | $6.19 \%$ |  |
| Vistrict 51 |  | 8,341 |
| County: Dawson GA | $5.61 \%$ |  |
| Total: | 26,798 | 392 |
|  |  | $1.46 \%$ |
|  |  | 249 |
| Voting Age |  | $1.16 \%$ |
| Voting Age | 21,441 | 199 |


| County: Gilmer GA |  |  |
| :--- | :--- | ---: |
| Total: | 31,353 | 296 |
| Voting Age |  | $0.94 \%$ |
|  | 25,417 | 161 |
| County: Lumpkin GA | $0.63 \%$ |  |
| Total: |  | 685 |
|  |  | 23,488 |
| Voting Age |  | 27,689 |
|  |  | 507 |
| County: Pickens GA | $1.83 \%$ |  |
| Total: | 33,216 | 512 |
| Voting Age | 26,799 | $1.54 \%$ |


|  |  | 1.19\% |
| :---: | :---: | :---: |
| County: Union GA |  |  |
| Total: | 24,632 | 228 |
|  |  | 0.93\% |
| Voting Age | 20,808 | 147 |
|  |  | 0.71\% |
| County: White GA |  |  |
| Total: | 15,361 | 523 |
|  |  | 3.40\% |
| Voting Age | 12,229 | 360 |
|  |  | 2.94\% |
| District 51 Total |  |  |
| Total: | 190,167 | 2,835 |
|  |  | 1.49\% |
| Voting Age | 155,571 | 1,876 |
|  |  | 1.21\% |
| District 52 |  |  |
| County: Bartow GA |  |  |
| Total: | 97,771 | 12,749 |
|  |  | 13.04\% |
| Voting Age | 74,752 | 8,942 |
|  |  | 11.96\% |
| County: Floyd GA |  |  |
| Total: | 85,090 | 14,081 |
|  |  | 16.55\% |
| Voting Age | 65,739 | 10,019 |
|  |  | 15.24\% |
| County: Gordon GA |  |  |
| Total: | 7,938 | 266 |
|  |  | 3.35\% |
| Voting Age | 6,129 | 159 |
|  |  | 2.59\% |
| District 52 Total |  |  |
| Total: | 190,799 | 27,096 |
|  |  | 14.20\% |
| Voting Age | 146,620 | 19,120 |
|  |  | 13.04\% |
| District 53 |  |  |
| County: Catoosa GA |  |  |
| Total: | 67,872 | 2,642 |
|  |  | 3.89\% |
| Voting Age | 52,448 | 1,684 |
|  |  | 3.21\% |
| County: Chattooga GA |  |  |
| Total: | 24,965 | 2,865 |
|  |  | 11.48\% |
| Voting Age | 19,416 | 2,235 |
|  |  | 11.51\% |
| County: Dade GA |  |  |
| Total: | 16,251 | 228 |
|  |  | 1.40\% |
| Voting Age | 12,987 | 140 |
|  |  | 1.08\% |


| Total: | 13,494 | 1,525 |
| :---: | :---: | :---: |
|  |  | 11.30\% |
| Voting Age | 10,556 | 1,045 |
|  |  | 9.90\% |
| County: Walker GA |  |  |
| Total: | 67,654 | 3,664 |
|  |  | 5.42\% |
| Voting Age | 52,794 | 2,454 |
|  |  | 4.65\% |
| District 53 Total |  |  |
| Total: | 190,236 | 10,924 |
|  |  | 5.74\% |
| Voting Age | 148,201 | 7,558 |
|  |  | 5.10\% |
| District 54 |  |  |
| County: Gordon GA |  |  |
| Total: | 49,606 | 2,653 |
|  |  | 5.35\% |
| Voting Age | 37,371 | 1,780 |
|  |  | 4.76\% |
| County: Murray GA |  |  |
| Total: | 39,973 | 556 |
|  |  | 1.39\% |
| Voting Age | 30,210 | 321 |
|  |  | 1.06\% |
| County: Whitfield GA |  |  |
| Total: | 102,864 | 4,919 |
|  |  | 4.78\% |
| Voting Age | 76,262 | 3,349 |
|  |  | 4.39\% |
| District 54 Total |  |  |
| Total: | 192,443 | 8,128 |
|  |  | 4.22\% |
| Voting Age | 143,843 | 5,450 |
|  |  | 3.79\% |
| District 55 |  |  |
| County: DeKalb GA |  |  |
| Total: | 65,718 | 60,912 |
|  |  | 92.69\% |
| Voting Age | 50,456 | 46,664 |
|  |  | 92.48\% |
| County: Gwinnett GA |  |  |
| Total: | 124,437 | 67,133 |
|  |  | 53.95\% |
| Voting Age | 91,512 | 46,995 |
|  |  | 51.35\% |
| District 55 Total |  |  |
| Total: | 190,155 | 128,045 |
|  |  | 67.34\% |
| Voting Age | 141,968 | 93,659 |
|  |  | 65.97\% |
| District 56 |  |  |
| County: Cherokee GA |  |  |
| Total: | 66,605 | 5,967 |


| Plan Components with Population Detail |  | Grant_Esselstyn_Sen_12_05 |
| :---: | :---: | :---: |
|  |  | 8.96\% |
| Voting Age | 51,115 | 4,197 |
|  |  | 8.21\% |
| County: Cobb GA |  |  |
| Total: | 89,893 | 6,696 |
|  |  | 7.45\% |
| Voting Age | 66,553 | 4,697 |
|  |  | 7.06\% |
| County: Fulton GA |  |  |
| Total: | 34,728 | 2,792 |
|  |  | 8.04\% |
| Voting Age | 26,780 | 2,046 |
|  |  | 7.64\% |
| District 56 Total |  |  |
| Total: | 191,226 | 15,455 |
|  |  | 8.08\% |
| Voting Age | 144,448 | 10,940 |
|  |  | 7.57\% |

## EXHIBIT 7

User:
Plan Name: Grant_Esselstyn_Sen_12_05
Plan Type:

## Core Constituencies

## Core Constituencies

From Plan: GA_Senate illus-Grant

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,402 Total Population
1 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 1 | $191,402(100.00 \%)$ | $51,779(100.00 \%)$ | $145,428(100.00 \%)$ | $36,468(100.00 \%)$ |
| Total and \% Population |  | $51,779(27.05 \%)$ | $145,428(75.98 \%)$ | $36,468(19.05 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,601 Total Population 10 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 10 | $192,601(100.00 \%)$ | $119,418(100.00 \%)$ | $148,569(100.00 \%)$ | $90,776(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 189,976$ Total Population 11 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 11 | $189,976(100.00 \%)$ | $61,964(100.00 \%)$ | $144,597(100.00 \%)$ | $44,887(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,819$ Total Population 12 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 12 | $190,819(100.00 \%)$ | $115,621(100.00 \%)$ | $149,154(100.00 \%)$ | $86,465(100.00 \%)$ |
| Total and \% Population |  | $115,621(60.59 \%)$ | $149,154(78.17 \%)$ | $86,465(45.31 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
194,905 Total Population 13 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 13 | $194,905(100.00 \%)$ | $56,027(100.00 \%)$ | $148,846(100.00 \%)$ | $40,540(100.00 \%)$ |
| Total and \% Population |  | $56,027(28.75 \%)$ | $148,846(76.37 \%)$ | $40,540(20.80 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,533 Total Population 14 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 14 | $192,533(100.00 \%)$ | $37,409(100.00 \%)$ | $155,340(100.00 \%)$ | $29,470(100.00 \%)$ |
| Total and \% Population |  | $37,409(19.43 \%)$ | $155,340(80.68 \%)$ | $29,470(15.31 \%)$ |

## Core Constituencies

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,446 Total Population 15 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 15 | $189,446(100.00 \%)$ | $105,556(100.00 \%)$ | $144,506(100.00 \%)$ | $78,040(100.00 \%)$ |
| Total and \% Population |  | $105,556(55.72 \%)$ | $144,506(76.28 \%)$ | $78,040(41.19 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,077$ Total Population 16 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 16 | $186,338(98.03 \%)$ | $38,968(97.97 \%)$ | $143,280(97.93 \%)$ | $28,240(97.90 \%)$ |
| Dist. 34 | $3,739(1.97 \%)$ | $808(2.03 \%)$ | $3,026(2.07 \%)$ | $605(2.10 \%)$ |
| Total and \% Population |  | $39,776(20.93 \%)$ | $146,306(76.97 \%)$ | $28,845(15.18 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 193,838$ Total Population 17--

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 17 | $184,949(95.41 \%)$ | $41,658(93.53 \%)$ | $143,616(95.38 \%)$ | $30,784(93.91 \%)$ |
| Dist. 23 | $8,889(4.59 \%)$ | $2,880(6.47 \%)$ | $6,949(4.62 \%)$ | $1,996(6.09 \%)$ |
| Total and \% Population |  | $44,538(22.98 \%)$ | $150,565(77.68 \%)$ | $32,780(16.91 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 192,680$ Total Population 18 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 18 | $192,680(100.00 \%)$ | $60,447(100.00 \%)$ | $148,508(100.00 \%)$ | $44,613(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 192,316$ Total Population 19 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 19 | $192,316(100.00 \%)$ | $51,389(100.00 \%)$ | $146,131(100.00 \%)$ | $37,589(100.00 \%)$ |
| Total and \% Population |  | $51,389(26.72 \%)$ | $146,131(75.98 \%)$ | $37,589(19.55 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,408$ Total Population 2 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 2 | $190,408(100.00 \%)$ | $95,717(100.00 \%)$ | $150,843(100.00 \%)$ | $70,688(100.00 \%)$ |
| Total and \% Population |  | $95,717(50.27 \%)$ | $150,843(79.22 \%)$ | $70,688(37.12 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 194,919 Total Population

 20 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 20 | $194,919(100.00 \%)$ | $65,853(100.00 \%)$ | $150,638(100.00 \%)$ | $48,888(100.00 \%)$ |
| Total and \% Population |  | $65,853(33.78 \%)$ | $150,638(77.28 \%)$ | $48,888(25.08 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,572 Total Population 21 --

Core Constituencies
Grant_Esselstyn_Sen_12_05


Plan: Grant_Esselstyn_Sen_illustrative12_05, District 194,277 Total Population 24 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 24 | $194,277(100.00 \%)$ | $37,848(100.00 \%)$ | $147,605(100.00 \%)$ | $27,126(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,708 Total Population 25 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 25 | $192,708(100.00 \%)$ | $118,291(100.00 \%)$ | $143,263(100.00 \%)$ | $84,424(100.00 \%)$ |
| Total and \% Population |  | $118,291(61.38 \%)$ | $143,263(74.34 \%)$ | $84,424(43.81 \%)$ |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District | $\mathbf{1 9 0 , 5 3 5}$ Total Population |  |  |  |
| $\mathbf{2 6 ~ - - ~}$ |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 26 | $190,535(100.00 \%)$ | $107,039(100.00 \%)$ | $145,305(100.00 \%)$ | $76,773(100.00 \%)$ |
| Total and \% Population |  | $107,039(56.18 \%)$ | $145,305(76.26 \%)$ | $76,773(40.29 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190,676 Total Population
27--

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 27 | $190,676(100.00 \%)$ | $10,506(100.00 \%)$ | $139,196(100.00 \%)$ | $6,961(100.00 \%)$ |
| Total and \% Population |  | $10,506(5.51 \%)$ | $139,196(73.00 \%)$ | $6,961(3.65 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 189,696 Total Population

 28 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 28 | $189,696(100.00 \%)$ | $111,152(100.00 \%)$ | $143,091(100.00 \%)$ | $81,959(100.00 \%)$ |

## Core Constituencies

Total and \% Population
111,152 (58.59\%)
Plan: Grant_Esselstyn_Sen_illustrative12_05, District 29 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 29 | $189,424(100.00 \%)$ | $53,786(100.00 \%)$ | $145,674(100.00 \%)$ | $39,150(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 3 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 3 | $191,212(100.00 \%)$ | $44,238(100.00 \%)$ | $148,915(100.00 \%)$ | $31,545(100.00 \%)$ |
| Total and \% Population |  | $44,238(23.14 \%)$ | $148,915(77.88 \%)$ | $31,545(16.50 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 30 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 30 | $191,939(100.00 \%)$ | $31,975(100.00 \%)$ | $146,603(100.00 \%)$ | $23,116(100.00 \%)$ |
| Total and \% Population |  | $31,975(16.66 \%)$ | $146,603(76.38 \%)$ | $23,116(12.04 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 31 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 31 | $192,755(100.00 \%)$ | $41,054(100.00 \%)$ | $142,455(100.00 \%)$ | $27,937(100.00 \%)$ |
| Total and \% Population |  | $41,054(21.30 \%)$ | $142,455(73.90 \%)$ | $27,937(14.49 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,448 Total Population 32 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 32 | $192,448(100.00 \%)$ | $30,039(100.00 \%)$ | $149,879(100.00 \%)$ | $22,274(100.00 \%)$ |
| Total and \% Population |  | $30,039(15.61 \%)$ | $149,879(77.88 \%)$ | $22,274(11.57 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,694 Total Population 33 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 33 | $192,694(100.00 \%)$ | $84,864(100.00 \%)$ | $146,415(100.00 \%)$ | $62,897(100.00 \%)$ |
| Total and \% Population |  | $84,864(44.04 \%)$ | $146,415(75.98 \%)$ | $62,897(32.64 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,023 Total Population 34 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 16 | $7,525(3.92 \%)$ | $650(0.56 \%)$ | $5,636(3.96 \%)$ | $438(0.52 \%)$ |
| Dist. 34 | $184,498(96.08 \%)$ | $114,847(99.44 \%)$ | $136,513(96.04 \%)$ | $83,389(99.48 \%)$ |
| Total and \% Population |  | $115,497(60.15 \%)$ | $142,149(74.03 \%)$ | $83,827(43.65 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## Core Constituencies

35 --


Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,184$ Total Population 39--

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 39 | $190,184(100.00 \%)$ | $119,401(100.00 \%)$ | $155,780(100.00 \%)$ | $93,789(100.00 \%)$ |
| Total and \% Population |  | $119,401(62.78 \%)$ | $155,780(81.91 \%)$ | $93,789(49.31 \%)$ |


| Plan: Grant_Esselstyn_Sen_illustrative12_05, District <br> $\mathbf{4} \boldsymbol{- -}$ | 191,098 Total Population |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 4 | $191,098(100.00 \%)$ | $47,061(100.00 \%)$ | $146,443(100.00 \%)$ | $34,217(100.00 \%)$ |
| Total and \% Population |  | $47,061(24.63 \%)$ | $146,443(76.63 \%)$ | $34,217(17.91 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,544$ Total Population 40 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 40 | $190,544(100.00 \%)$ | $35,719(100.00 \%)$ | $147,000(100.00 \%)$ | $28,277(100.00 \%)$ |
| Total and \% Population |  | $35,719(18.75 \%)$ | $147,000(77.15 \%)$ | $28,277(14.84 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
191,023 Total Population 41 --
Population $\quad$ AP_Blk $[18+$ Pop $]+$ AP_Blk]

| Core Constituencies |  |  | Grant_Esselstyn_Sen_12_05 |  |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 41 191,023 (100.00\%) | 121,762 (100.00\%) | 145,278 (100.00\%) | 90,961 (100.00\%) |  |
| Total and \% Population | 121,762 (63.74\%) | 145,278 (76.05\%) | 90,961 (47.62\%) |  |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District 42 -- |  | 190,153 Total Population |  |  |
| Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |  |
| Dist. $42 \times 190,153$ (100.00\%) | 55,060 (100.00\%) | 153,285 (100.00\%) | 44,597 (100.00\%) |  |
| Total and \% Population | 55,060 (28.96\%) | 153,285 (80.61\%) | 44,597 (23.45\%) |  |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District 43 -- |  | 191,784 Total Population |  |  |
| Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |  |
| Dist. $43 \quad 191,784$ (100.00\%) | 115,841 (100.00\%) | 144,698 (100.00\%) | 84,675 (100.00\%) |  |
| Total and \% Population | 115,841 (60.40\%) | 144,698 (75.45\%) | 84,675 (44.15\%) |  |
| Plan: Grant_Esselstyn_Sen_illustra 44 -- | e12_05, District | 188,256 Total | ulation |  |


|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 44 | $188,256(100.00 \%)$ | $136,906(100.00 \%)$ | $144,606(100.00 \%)$ | $103,425(100.00 \%)$ |
| Total and \% Population |  | $136,906(72.72 \%)$ | $144,606(76.81 \%)$ | $103,425(54.94 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,692$ Total Population 45 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 45 | $190,692(100.00 \%)$ | $37,542(100.00 \%)$ | $140,706(100.00 \%)$ | $26,149(100.00 \%)$ |
| Total and \% Population |  | $37,542(19.69 \%)$ | $140,706(73.79 \%)$ | $26,149(13.71 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,312$ Total Population 46 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 46 | $190,312(100.00 \%)$ | $35,180(100.00 \%)$ | $146,713(100.00 \%)$ | $24,793(100.00 \%)$ |
| Total and \% Population |  | $35,180(18.49 \%)$ | $146,713(77.09 \%)$ | $24,793(13.03 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,607$ Total Population 47 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 47 | $190,607(100.00 \%)$ | $35,538(100.00 \%)$ | $146,599(100.00 \%)$ | $25,543(100.00 \%)$ |
| Total and \% Population |  | $35,538(18.64 \%)$ | $146,599(76.91 \%)$ | $25,543(13.40 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 190,123 Total Population

 48 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 48 | $190,123(100.00 \%)$ | $18,879(100.00 \%)$ | $136,995(100.00 \%)$ | $12,968(100.00 \%)$ |
| Total and \% Population |  | $18,879(9.93 \%)$ | $136,995(72.06 \%)$ | $12,968(6.82 \%)$ |

## Core Constituencies

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
189,355 Total Population 49 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 49 | $189,355(100.00 \%)$ | $16,099(100.00 \%)$ | $144,123(100.00 \%)$ | $11,475(100.00 \%)$ |
| Total and \% Population |  | $16,099(8.50 \%)$ | $144,123(76.11 \%)$ | $11,475(6.06 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,921 Total Population 5 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 5 | $191,921(100.00 \%)$ | $57,719(100.00 \%)$ | $139,394(100.00 \%)$ | $41,736(100.00 \%)$ |
| Total and \% Population |  | $57,719(30.07 \%)$ | $139,394(72.63 \%)$ | $41,736(21.75 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,320 Total Population 50 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 50 | $189,320(100.00 \%)$ | $11,726(100.00 \%)$ | $148,799(100.00 \%)$ | $8,341(100.00 \%)$ |
| Total and \% Population |  | $11,726(6.19 \%)$ | $148,799(78.60 \%)$ | $8,341(4.41 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,167$ Total Population 51 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 51 | $190,167(100.00 \%)$ | $2,835(100.00 \%)$ | $155,571(100.00 \%)$ | $1,876(100.00 \%)$ |
| Total and \% Population |  | $2,835(1.49 \%)$ | $155,571(81.81 \%)$ | $1,876(0.99 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,799 Total Population 52 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 52 | $190,799(100.00 \%)$ | $27,096(100.00 \%)$ | $146,620(100.00 \%)$ | $19,120(100.00 \%)$ |
| Total and \% Population |  | $27,096(14.20 \%)$ | $146,620(76.85 \%)$ | $19,120(10.02 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,236 Total Population 53 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 53 | $190,236(100.00 \%)$ | $10,924(100.00 \%)$ | $148,201(100.00 \%)$ | $7,558(100.00 \%)$ |
| Total and \% Population |  | $10,924(5.74 \%)$ | $148,201(77.90 \%)$ | $7,558(3.97 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,443 Total Population 54 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 54 | $192,443(100.00 \%)$ | $8,128(100.00 \%)$ | $143,843(100.00 \%)$ | $5,450(100.00 \%)$ |
| Total and \% Population |  | $8,128(4.22 \%)$ | $143,843(74.75 \%)$ | $5,450(2.83 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad 190,155$ Total Population 55 --

## Core Constituencies

| Dist. 55 | $190,155(100.00 \%)$ | $128,045(100.00 \%)$ | $141,968(100.00 \%)$ | $93,659(100.00 \%)$ |
| :--- | :--- | :--- | :--- | :--- |
| Total and \% Population |  | $128,045(67.34 \%)$ | $141,968(74.66 \%)$ | $93,659(49.25 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,226 Total Population
56 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 56 | $191,226(100.00 \%)$ | $15,455(100.00 \%)$ | $144,448(100.00 \%)$ | $10,940(100.00 \%)$ |
| Total and \% Population |  | $15,455(8.08 \%)$ | $144,448(75.54 \%)$ | $10,940(5.72 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,834 Total Population 6 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 6 | $191,834(100.00 \%)$ | $44,496(100.00 \%)$ | $155,742(100.00 \%)$ | $35,748(100.00 \%)$ |
| Total and \% Population |  | $44,496(23.20 \%)$ | $155,742(81.19 \%)$ | $35,748(18.63 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,709 Total Population
7 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 7 | $189,709(100.00 \%)$ | $43,563(100.00 \%)$ | $147,425(100.00 \%)$ | $31,601(100.00 \%)$ |
| Total and \% Population |  | $43,563(22.96 \%)$ | $147,425(77.71 \%)$ | $31,601(16.66 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,396 Total Population
8 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 8 | $192,396(100.00 \%)$ | $61,785(100.00 \%)$ | $145,144(100.00 \%)$ | $44,098(100.00 \%)$ |
| Total and \% Population |  | $61,785(32.11 \%)$ | $145,144(75.44 \%)$ | $44,098(22.92 \%)$ |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District | $\mathbf{1 9 2 , 9 1 5}$ Total Population |  |  |  |
| $\mathbf{9 - -}$ |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 9 | $192,915(100.00 \%)$ | $61,009(100.00 \%)$ | $142,054(100.00 \%)$ | $41,948(100.00 \%)$ |
| Total and \% Population |  | $61,009(31.62 \%)$ | $142,054(73.64 \%)$ | $41,948(21.74 \%)$ |

## EXHIBIT 8

User:
Plan Name: Grant_Esselstyn_Sen_illustrative12_05
Plan Type:

## Core Constituencies

## Core Constituencies

From Plan: GA_Senate2021

Plan: Grant_Esselstyn_Sen_illustrative12_05, District $\quad$ 191,402 Total Population
1 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 001 | $191,402(100.00 \%)$ | $46,451(100.00 \%)$ | $51,779(100.00 \%)$ | $145,428(100.00 \%)$ | $36,468(100.00 \%)$ |
| Total and \% Population |  | $46,451(24.27 \%)$ | $51,779(27.05 \%)$ | $145,428(75.98 \%)$ | $36,468(19.05 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,601 Total Population 10 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 010 | $89,018(46.22 \%)$ | $73,374(64.10 \%)$ | $76,078(63.71 \%)$ | $69,423(46.73 \%)$ | $58,869(64.85 \%)$ |
| Dist. 017 | $36,218(18.80 \%)$ | $9,561(8.35 \%)$ | $10,276(8.61 \%)$ | $26,690(17.96 \%)$ | $7,232(7.97 \%)$ |
| Dist. 025 | $30,217(15.69 \%)$ | $7,270(6.35 \%)$ | $7,736(6.48 \%)$ | $23,919(16.10 \%)$ | $6,035(6.65 \%)$ |
| Dist. 043 | $37,148(19.29 \%)$ | $24,264(21.20 \%)$ | $25,328(21.21 \%)$ | $28,537(19.21 \%)$ | $18,640(20.53 \%)$ |
| Total and \% Population |  | $114,469(59.43 \%)$ | $119,418(62.00 \%)$ | $148,569(77.14 \%)$ | $90,776(47.13 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 189,976 Total Population

 11 --|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 011 | $189,976(100.00 \%)$ | $59,469(100.00 \%)$ | $61,964(100.00 \%)$ | $144,597(100.00 \%)$ | $44,887(100.00 \%)$ |
| Total and \% Population |  | $59,469(31.30 \%)$ | $61,964(32.62 \%)$ | $144,597(76.11 \%)$ | $44,887(23.63 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190,819 Total Population 12--

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 012 | $190,819(100.00 \%)$ | $112,733(100.00 \%)$ | $115,621(100.00 \%)$ | $149,154(100.00 \%)$ | $86,465(100.00 \%)$ |
| Total and \% Population |  | $112,733(59.08 \%)$ | $115,621(60.59 \%)$ | $149,154(78.17 \%)$ | $86,465(45.31 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
194,905 Total Population 13--

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 013 | $189,326(97.14 \%)$ | $51,601(96.58 \%)$ | $54,161(96.67 \%)$ | $144,141(96.84 \%)$ | $38,871(95.88 \%)$ |
| Dist. 020 | $5,579(2.86 \%)$ | $1,826(3.42 \%)$ | $1,866(3.33 \%)$ | $4,705(3.16 \%)$ | $1,669(4.12 \%)$ |
| Total and \% Population |  | $53,427(27.41 \%)$ | $56,027(28.75 \%)$ | $148,846(76.37 \%)$ | $40,540(20.80 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,533 Total Population 14--
Population $\quad$ Black $\quad$ AP_Blk $\quad[18+$ Pop] $\quad$ AP_Blk]

Core Constituencies
Grant_Esselstyn_Sen_12_05

| Dist. 014 | $192,533(100.00 \%)$ | $33,017(100.00 \%)$ | $37,409(100.00 \%)$ | $155,340(100.00 \%)$ | $29,470(100.00 \%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Total and \% Population |  | $33,017(17.15 \%)$ | $37,409(19.43 \%)$ | $155,340(80.68 \%)$ | $29,470(15.31 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,446 Total Population 15--

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 015 | $189,446(100.00 \%)$ | $100,396(100.00 \%)$ | $105,556(100.00 \%)$ | $144,506(100.00 \%)$ | $78,040(100.00 \%)$ |
| Total and \% Population |  |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,077 Total Population 16 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 016 | $150,183(79.01 \%)$ | $34,078(92.14 \%)$ | $36,425(91.58 \%)$ | $115,788(79.14 \%)$ | $26,367(91.41 \%)$ |
| Dist. 028 | $39,894(20.99 \%)$ | $2,906(7.86 \%)$ | $3,351(8.42 \%)$ | $30,518(20.86 \%)$ | $2,478(8.59 \%)$ |
| Total and \% Population |  | $36,984(19.46 \%)$ | $39,776(20.93 \%)$ | $146,306(76.97 \%)$ | $28,845(15.18 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 193,838 Total Population

 17 --|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 017 | $74,020(38.19 \%)$ | $12,832(30.59 \%)$ | $13,877(31.16 \%)$ | $56,210(37.33 \%)$ | $9,929(30.29 \%)$ |
| Dist. 024 | $28,993(14.96 \%)$ | $5,772(13.76 \%)$ | $6,122(13.75 \%)$ | $23,331(15.50 \%)$ | $4,551(13.88 \%)$ |
| Dist. 025 | $81,948(42.28 \%)$ | $20,164(48.07 \%)$ | $21,209(47.62 \%)$ | $63,998(42.51 \%)$ | $15,751(48.05 \%)$ |
| Dist. 026 | $8,877(4.58 \%)$ | $3,175(7.57 \%)$ | $3,330(7.48 \%)$ | $7,026(4.67 \%)$ | $2,549(7.78 \%)$ |
| Total and \% Population |  | $41,943(21.64 \%)$ | $44,538(22.98 \%)$ | $150,565(77.68 \%)$ | $32,780(16.91 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,680 Total Population 18 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 018 | $138,643(71.96 \%)$ | $41,362(72.60 \%)$ | $43,686(72.27 \%)$ | $107,971(72.70 \%)$ | $32,661(73.21 \%)$ |
| Dist. 020 | $40,743(21.15 \%)$ | $11,574(20.31 \%)$ | $12,393(20.50 \%)$ | $30,078(20.25 \%)$ | $8,821(19.77 \%)$ |
| Dist. 026 | $13,294(6.90 \%)$ | $4,039(7.09 \%)$ | $4,368(7.23 \%)$ | $10,459(7.04 \%)$ | $3,131(7.02 \%)$ |
| Total and \% Population |  | $56,975(29.57 \%)$ | $60,447(31.37 \%)$ | $148,508(77.07 \%)$ | $44,613(23.15 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 192,316 Total Population

 19--|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 019 | $192,316(100.00 \%)$ | $48,391(100.00 \%)$ | $51,389(100.00 \%)$ | $146,131(100.00 \%)$ | $37,589(100.00 \%)$ |
| Total and \% Population |  | $48,391(25.16 \%)$ | $51,389(26.72 \%)$ | $146,131(75.98 \%)$ | $37,589(19.55 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,408 Total Population
2 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 002 | $190,408(100.00 \%)$ | $91,457(100.00 \%)$ | $95,717(100.00 \%)$ | $150,843(100.00 \%)$ | $70,688(100.00 \%)$ |
| Total and \% Population |  | $91,457(48.03 \%)$ | $95,717(50.27 \%)$ | $150,843(79.22 \%)$ | $70,688(37.12 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
194,919 Total Population
20--

| Dist. 020 | $146,266(75.04 \%)$ | $46,083(73.09 \%)$ | $48,309(73.36 \%)$ | $112,250(74.52 \%)$ | $35,501(72.62 \%)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 023 | $31,442(16.13 \%)$ | $10,809(17.14 \%)$ | $11,194(17.00 \%)$ | $24,325(16.15 \%)$ | $8,247(16.87 \%)$ |
| Dist. 026 | $17,211(8.83 \%)$ | $6,156(9.76 \%)$ | $6,350(9.64 \%)$ | $14,063(9.34 \%)$ | $5,140(10.51 \%)$ |
| Total and \% Population |  | $63,048(32.35 \%)$ | $65,853(33.78 \%)$ | $150,638(77.28 \%)$ | $48,888(25.08 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 192,572 Total Population
21 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 021 | $192,572(100.00 \%)$ | $12,821(100.00 \%)$ | $15,492(100.00 \%)$ | $145,120(100.00 \%)$ | $10,823(100.00 \%)$ |
| Total and \% Population |  | $12,821(6.66 \%)$ | $15,492(8.04 \%)$ | $145,120(75.36 \%)$ | $10,823(5.62 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
188,930 Total Population
22 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 022 | $158,756(84.03 \%)$ | $87,216(90.55 \%)$ | $91,758(89.86 \%)$ | $124,698(85.14 \%)$ | $67,487(90.64 \%)$ |
| Dist. 023 | $30,174(15.97 \%)$ | $9,103(9.45 \%)$ | $10,351(10.14 \%)$ | $21,768(14.86 \%)$ | $6,970(9.36 \%)$ |
| Total and \% Population |  | $96,319(50.98 \%)$ | $102,109(54.05 \%)$ | $146,466(77.52 \%)$ | $74,457(39.41 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 188,095 Total Population
23 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 022 | $34,407(18.29 \%)$ | $23,288(24.05 \%)$ | $24,227(24.19 \%)$ | $25,752(17.53 \%)$ | $17,522(23.36 \%)$ |
| Dist. 023 | $89,638(47.66 \%)$ | $39,199(40.48 \%)$ | $40,730(40.66 \%)$ | $69,147(47.07 \%)$ | $30,130(40.17 \%)$ |
| Dist. 024 | $8,494(4.52 \%)$ | $4,696(4.85 \%)$ | $4,838(4.83 \%)$ | $6,539(4.45 \%)$ | $3,612(4.82 \%)$ |
| Dist. 025 | $26,833(14.27 \%)$ | $12,890(13.31 \%)$ | $13,267(13.25 \%)$ | $22,274(15.16 \%)$ | $10,300(13.73 \%)$ |
| Dist. 026 | $28,723(15.27 \%)$ | $16,752(17.30 \%)$ | $17,100(17.07 \%)$ | $23,196(15.79 \%)$ | $13,441(17.92 \%)$ |
| Total and \% Population |  | $96,825(51.48 \%)$ | $100,162(53.25 \%)$ | $146,908(78.10 \%)$ | $75,005(39.88 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 194,277 Total Population
24 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Dist. 023 | $39,090(20.12 \%)$ | $7,484(22.03 \%)$ | $8,484(22.42 \%)$ | $28,873(19.56 \%)$ | $5,786(21.33 \%)$ |
| Dist. 024 | $155,187(79.88 \%)$ | $26,487(77.97 \%)$ | $29,364(77.58 \%)$ | $118,732(80.44 \%)$ | $21,340(78.67 \%)$ |
| Total and \% Population |  | $33,971(17.49 \%)$ | $37,848(19.48 \%)$ | $147,605(75.98 \%)$ | $27,126(13.96 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,708 Total Population
25 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 010 | $72,694(37.72 \%)$ | $40,304(35.93 \%)$ | $42,677(36.08 \%)$ | $54,945(38.35 \%)$ | $30,824(36.51 \%)$ |
| Dist. 017 | $46,069(23.91 \%)$ | $26,260(23.41 \%)$ | $27,827(23.52 \%)$ | $34,078(23.79 \%)$ | $19,523(23.12 \%)$ |
| Dist. 025 | $36,650(19.02 \%)$ | $17,374(15.49 \%)$ | $18,419(15.57 \%)$ | $26,646(18.60 \%)$ | $12,797(15.16 \%)$ |
| Dist. 034 | $3,542(1.84 \%)$ | $2,856(2.55 \%)$ | $2,988(2.53 \%)$ | $2,793(1.95 \%)$ | $2,342(2.77 \%)$ |
| Dist. 044 | $33,753(17.52 \%)$ | $25,393(22.63 \%)$ | $26,380(22.30 \%)$ | $24,801(17.31 \%)$ | $18,938(22.43 \%)$ |
| Total and \% Population |  | $112,187(58.22 \%)$ | $118,291(61.38 \%)$ | $143,263(74.34 \%)$ | $84,424(43.81 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,535 Total Population
26 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Dist. 018 | $53,182(27.91 \%)$ | $16,710(16.23 \%)$ | $17,446(16.30 \%)$ | $42,225(29.06 \%)$ | $13,001(16.93 \%)$ |

Core Constituencies

| Dist. 025 | $15,513(8.14 \%)$ | $6,708(6.51 \%)$ | $6,992(6.53 \%)$ | $12,080(8.31 \%)$ | $4,977(6.48 \%)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Dist. 026 | $121,840(63.95 \%)$ | $79,566(77.26 \%)$ | $82,601(77.17 \%)$ | $91,000(62.63 \%)$ | $58,795(76.58 \%)$ |
| Total and \% Population |  | $102,984(54.05 \%)$ | $107,039(56.18 \%)$ | $145,305(76.26 \%)$ | $76,773(40.29 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,676 Total Population 27 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 027 | $190,676(100.00 \%)$ | $8,440(100.00 \%)$ | $10,506(100.00 \%)$ | $139,196(100.00 \%)$ | $6,961(100.00 \%)$ |
| Total and \% Population |  | $8,440(4.43 \%)$ | $10,506(5.51 \%)$ | $139,196(73.00 \%)$ | $6,961(3.65 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,696 Total Population
28--

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 016 | $6,708(3.54 \%)$ | $2,820(2.65 \%)$ | $2,991(2.69 \%)$ | $4,937(3.45 \%)$ | $2,109(2.57 \%)$ |
| Dist. 028 | $81,767(43.10 \%)$ | $22,011(20.65 \%)$ | $23,739(21.36 \%)$ | $62,038(43.36 \%)$ | $16,902(20.62 \%)$ |
| Dist. 034 | $30,041(15.84 \%)$ | $21,601(20.26 \%)$ | $22,453(20.20 \%)$ | $23,306(16.29 \%)$ | $17,388(21.22 \%)$ |
| Dist. 035 | $64,956(34.24 \%)$ | $54,524(51.14 \%)$ | $56,148(50.51 \%)$ | $48,220(33.70 \%)$ | $41,268(50.35 \%)$ |
| Dist. 039 | $6,224(3.28 \%)$ | $5,656(5.31 \%)$ | $5,821(5.24 \%)$ | $4,590(3.21 \%)$ | $4,292(5.24 \%)$ |
| Total and \% Population |  | $106,612(56.20 \%)$ | $111,152(58.59 \%)$ | $143,091(75.43 \%)$ | $81,959(43.21 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 189,424 Total Population 29 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 029 | $189,424(100.00 \%)$ | $50,184(100.00 \%)$ | $53,786(100.00 \%)$ | $145,674(100.00 \%)$ | $39,150(100.00 \%)$ |
| Total and \% Population |  |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,212 Total Population 3 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 003 | $191,212(100.00 \%)$ | $40,685(100.00 \%)$ | $44,238(100.00 \%)$ | $148,915(100.00 \%)$ | $31,545(100.00 \%)$ |
| Total and \% Population |  | $40,685(21.28 \%)$ | $44,238(23.14 \%)$ | $148,915(77.88 \%)$ | $31,545(16.50 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,939 Total Population 30 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 028 | $42,872(22.34 \%)$ | $5,187(18.16 \%)$ | $5,816(18.19 \%)$ | $32,753(22.34 \%)$ | $4,183(18.10 \%)$ |
| Dist. 030 | $149,067(77.66 \%)$ | $23,379(81.84 \%)$ | $26,159(81.81 \%)$ | $113,850(77.66 \%)$ | $18,933(81.90 \%)$ |
| Total and \% Population |  | $28,566(14.88 \%)$ | $31,975(16.66 \%)$ | $146,603(76.38 \%)$ | $23,116(12.04 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 192,755 Total Population

 31--|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 030 | $9,032(4.69 \%)$ | $883(2.38 \%)$ | $1,010(2.46 \%)$ | $6,796(4.77 \%)$ | $680(2.43 \%)$ |
| Dist. 031 | $183,723(95.31 \%)$ | $36,172(97.62 \%)$ | $40,044(97.54 \%)$ | $135,659(95.23 \%)$ | $27,257(97.57 \%)$ |
| Total and \% Population |  | $37,055(19.22 \%)$ | $41,054(21.30 \%)$ | $142,455(73.90 \%)$ | $27,937(14.49 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,448 Total Population
32 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dist. 032 | 192,448 (100.00\%) | 26,098 (100.00\%) | 30,039 (100.00\%) | 149,879 (100.00\%) | 22,274 (100.00\%) |
| Total and \% Population |  | 26,098 (13.56\%) | 30,039 (15.61\%) | 149,879 (77.88\%) | 22,274 (11.57\%) |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District 33 -- |  |  | 192,694 Total Population |  |  |
|  | Population | Black | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 033 | 192,694 (100.00\%) | 79,359 (100.00\%) | 84,864 (100.00\%) | 146,415 (100.00\%) | 62,897 (100.00\%) |
| Total and \% Population |  | 79,359 (41.18\%) | 84,864 (44.04\%) | 146,415 (75.98\%) | 62,897 (32.64\%) |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District 34 -- |  |  | 192,023 Total Population |  |  |
|  | Population | Black | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 016 | 34,938 (18.19\%) | 6,278 (5.68\%) | 6,914 (5.99\%) | 26,408 (18.58\%) | 4,917 (5.87\%) |
| Dist. 034 | 157,085 (81.81\%) | 104,180 (94.32\%) | 108,583 (94.01\%) | 115,741 (81.42\%) | 78,910 (94.13\%) |
| Total and \% Population |  | 110,458 (57.52\%) | 115,497 (60.15\%) | 142,149 (74.03\%) | 83,827 (43.65\%) |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
193, 194 Total Population
35 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 028 | $25,889(13.40 \%)$ | $6,165(6.03 \%)$ | $6,766(6.26 \%)$ | $19,664(13.55 \%)$ | $4,719(6.02 \%)$ |
| Dist. 030 | $33,376(17.28 \%)$ | $14,319(14.00 \%)$ | $15,439(14.28 \%)$ | $24,431(16.84 \%)$ | $10,733(13.68 \%)$ |
| Dist. 031 | $8,837(4.57 \%)$ | $2,767(2.71 \%)$ | $3,020(2.79 \%)$ | $6,592(4.54 \%)$ | $2,183(2.78 \%)$ |
| Dist. 035 | $125,092(64.75 \%)$ | $79,033(77.27 \%)$ | $82,864(76.66 \%)$ | $94,428(65.07 \%)$ | $60,805(77.52 \%)$ |
| Total and \% Population |  | $102,284(52.94 \%)$ | $108,089(55.95 \%)$ | $145,115(75.11 \%)$ | $78,440(40.60 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,282 Total Population
36 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 036 | $192,282(100.00 \%)$ | $99,832(100.00 \%)$ | $104,523(100.00 \%)$ | $161,385(100.00 \%)$ | $82,859(100.00 \%)$ |
| Total and \% Population |  | $99,832(51.92 \%)$ | $104,523(54.36 \%)$ | $161,385(83.93 \%)$ | $82,859(43.09 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,671 Total Population 37 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 037 | $192,671(100.00 \%)$ | $35,411(100.00 \%)$ | $40,191(100.00 \%)$ | $147,779(100.00 \%)$ | $28,484(100.00 \%)$ |
| Total and \% Population |  | $35,411(18.38 \%)$ | $40,191(20.86 \%)$ | $147,779(76.70 \%)$ | $28,484(14.78 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190,605 Total Population
38 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 035 | $2,791(1.46 \%)$ | $2,563(2.09 \%)$ | $2,684(2.10 \%)$ | $2,027(1.39 \%)$ | $1,946(2.01 \%)$ |
| Dist. 038 | $187,814(98.54 \%)$ | $120,333(97.91 \%)$ | $125,344(97.90 \%)$ | $144,058(98.61 \%)$ | $94,990(97.99 \%)$ |
| Total and \% Population |  | $122,896(64.48 \%)$ | $128,028(67.17 \%)$ | $146,085(76.64 \%)$ | $96,936(50.86 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190, 184 Total Population 39 --

Core Constituencies

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 006 | $4,908(2.58 \%)$ | $3,733(3.25 \%)$ | $3,810(3.19 \%)$ | $4,348(2.79 \%)$ | $3,379(3.60 \%)$ |
| Dist. 039 | $185,276(97.42 \%)$ | $111,096(96.75 \%)$ | $115,591(96.81 \%)$ | $151,432(97.21 \%)$ | $90,410(96.40 \%)$ |
| Total and \% Population |  | $114,829(60.38 \%)$ | $119,401(62.78 \%)$ | $155,780(81.91 \%)$ | $93,789(49.31 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 191,098 Total Population
4 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 004 | $191,098(100.00 \%)$ | $43,692(100.00 \%)$ | $47,061(100.00 \%)$ | $146,443(100.00 \%)$ | $34,217(100.00 \%)$ |
| Total and \% Population |  | $43,692(22.86 \%)$ | $47,061(24.63 \%)$ | $146,443(76.63 \%)$ | $34,217(17.91 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190,544 Total Population
40 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 040 | $190,544(100.00 \%)$ | $32,087(100.00 \%)$ | $35,719(100.00 \%)$ | $147,000(100.00 \%)$ | $28,277(100.00 \%)$ |
| Total and \% Population |  | $32,087(16.84 \%)$ | $35,719(18.75 \%)$ | $147,000(77.15 \%)$ | $28,277(14.84 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
191,023 Total Population
41 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 041 | $191,023(100.00 \%)$ | $116,500(100.00 \%)$ | $121,762(100.00 \%)$ | $145,278(100.00 \%)$ | $90,961(100.00 \%)$ |
| Total and \% Population |  | $116,500(60.99 \%)$ | $121,762(63.74 \%)$ | $145,278(76.05 \%)$ | $90,961(47.62 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,153 Total Population
42 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 042 | $182,791(96.13 \%)$ | $48,605(95.04 \%)$ | $52,350(95.08 \%)$ | $147,119(95.98 \%)$ | $42,356(94.97 \%)$ |
| Dist. 044 | $7,362(3.87 \%)$ | $2,537(4.96 \%)$ | $2,710(4.92 \%)$ | $6,166(4.02 \%)$ | $2,241(5.03 \%)$ |
| Total and \% Population |  | $51,142(26.90 \%)$ | $55,060(28.96 \%)$ | $153,285(80.61 \%)$ | $44,597(23.45 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
191,784 Total Population 43 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Dist. 017 | $36,203(18.88 \%)$ | $12,264(11.13 \%)$ | $13,126(11.33 \%)$ | $27,494(19.00 \%)$ | $9,561(11.29 \%)$ |
| Dist. 043 | $155,581(81.12 \%)$ | $97,974(88.87 \%)$ | $102,715(88.67 \%)$ | $117,204(81.00 \%)$ | $75,114(88.71 \%)$ |
| Total and \% Population |  | $110,238(57.48 \%)$ | $115,841(60.40 \%)$ | $144,698(75.45 \%)$ | $84,675(44.15 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 188,256 Total Population 44 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 010 | $31,186(16.57 \%)$ | $20,789(15.79 \%)$ | $21,640(15.81 \%)$ | $23,516(16.26 \%)$ | $15,978(15.45 \%)$ |
| Dist. 042 | $8,149(4.33 \%)$ | $5,898(4.48 \%)$ | $6,089(4.45 \%)$ | $6,833(4.73 \%)$ | $5,027(4.86 \%)$ |
| Dist. 044 | $148,921(79.11 \%)$ | $104,985(79.73 \%)$ | $109,177(79.75 \%)$ | $114,257(79.01 \%)$ | $82,420(79.69 \%)$ |
| Total and \% Population |  | $131,672(69.94 \%)$ | $136,906(72.72 \%)$ | $144,606(76.81 \%)$ | $103,425(54.94 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,692 Total Population 45 --

| Dist. 045 | $190,692(100.00 \%)$ | $33,403(100.00 \%)$ | $37,542(100.00 \%)$ | $140,706(100.00 \%)$ | $26,149(100.00 \%)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Total and \% Population |  | $33,403(17.52 \%)$ | $37,542(19.69 \%)$ | $140,706(73.79 \%)$ | $26,149(13.71 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,312 Total Population
46 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 046 | $190,312(100.00 \%)$ | $32,130(100.00 \%)$ | $35,180(100.00 \%)$ | $146,713(100.00 \%)$ | $24,793(100.00 \%)$ |
| Total and \% Population |  | $32,130(16.88 \%)$ | $35,180(18.49 \%)$ | $146,713(77.09 \%)$ | $24,793(13.03 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,607 Total Population
47 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 047 | $190,607(100.00 \%)$ | $32,662(100.00 \%)$ | $35,538(100.00 \%)$ | $146,599(100.00 \%)$ | $25,543(100.00 \%)$ |
| Total and \% Population |  | $32,662(17.14 \%)$ | $35,538(18.64 \%)$ | $146,599(76.91 \%)$ | $25,543(13.40 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190, 123 Total Population 48 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 048 | $190,123(100.00 \%)$ | $16,184(100.00 \%)$ | $18,879(100.00 \%)$ | $136,995(100.00 \%)$ | $12,968(100.00 \%)$ |
| Total and \% Population |  | $16,184(8.51 \%)$ | $18,879(9.93 \%)$ | $136,995(72.06 \%)$ | $12,968(6.82 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
189,355 Total Population 49 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 049 | $189,355(100.00 \%)$ | $13,866(100.00 \%)$ | $16,099(100.00 \%)$ | $144,123(100.00 \%)$ | $11,475(100.00 \%)$ |
| Total and \% Population |  | $13,866(7.32 \%)$ | $16,099(8.50 \%)$ | $144,123(76.11 \%)$ | $11,475(6.06 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District

## 191,921 Total Population

5 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 005 | $191,921(100.00 \%)$ | $52,919(100.00 \%)$ | $57,719(100.00 \%)$ | $139,394(100.00 \%)$ | $41,736(100.00 \%)$ |
| Total and \% Population |  | $52,919(27.57 \%)$ | $57,719(30.07 \%)$ | $139,394(72.63 \%)$ | $41,736(21.75 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
189,320 Total Population
50 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 050 | $189,320(100.00 \%)$ | $9,706(100.00 \%)$ | $11,726(100.00 \%)$ | $148,799(100.00 \%)$ | $8,341(100.00 \%)$ |
| Total and \% Population |  |  |  |  |  |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190, 167 Total Population 51 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 051 | $190,167(100.00 \%)$ | $1,668(100.00 \%)$ | $2,835(100.00 \%)$ | $155,571(100.00 \%)$ | $1,876(100.00 \%)$ |
| Total and \% Population |  | $1,668(0.88 \%)$ | $2,835(1.49 \%)$ | $155,571(81.81 \%)$ | $1,876(0.99 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,799 Total Population 52 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 052 | $190,799(100.00 \%)$ | $23,969(100.00 \%)$ | $27,096(100.00 \%)$ | $146,620(100.00 \%)$ | $19,120(100.00 \%)$ |
| Total and \% Population |  | $23,969(12.56 \%)$ | $27,096(14.20 \%)$ | $146,620(76.85 \%)$ | $19,120(10.02 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District 190,236 Total Population 53 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 053 | $190,236(100.00 \%)$ | $8,606(100.00 \%)$ | $10,924(100.00 \%)$ | $148,201(100.00 \%)$ | $7,558(100.00 \%)$ |
| Total and \% Population |  | $8,606(4.52 \%)$ | $10,924(5.74 \%)$ | $148,201(77.90 \%)$ | $7,558(3.97 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,443 Total Population 54 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 054 | $192,443(100.00 \%)$ | $6,014(100.00 \%)$ | $8,128(100.00 \%)$ | $143,843(100.00 \%)$ | $5,450(100.00 \%)$ |
| Total and \% Population |  | $6,014(3.13 \%)$ | $8,128(4.22 \%)$ | $143,843(74.75 \%)$ | $5,450(2.83 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
190, 155 Total Population
55 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 055 | $190,155(100.00 \%)$ | $121,409(100.00 \%)$ | $128,045(100.00 \%)$ | $141,968(100.00 \%)$ | $93,659(100.00 \%)$ |
| Total and \% Population |  | $121,409(63.85 \%)$ | $128,045(67.34 \%)$ | $141,968(74.66 \%)$ | $93,659(49.25 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
191,226 Total Population
56 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :--- | :---: | :---: |
| Dist. 056 | $191,226(100.00 \%)$ | $12,428(100.00 \%)$ | $15,455(100.00 \%)$ | $144,448(100.00 \%)$ | $10,940(100.00 \%)$ |
| Total and \% Population |  | $12,428(6.50 \%)$ | $15,455(8.08 \%)$ | $144,448(75.54 \%)$ | $10,940(5.72 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
191,834 Total Population 6 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 006 | $186,493(97.22 \%)$ | $38,139(94.65 \%)$ | $42,136(94.70 \%)$ | $151,433(97.23 \%)$ | $33,852(94.70 \%)$ |
| Dist. 038 | $5,341(2.78 \%)$ | $2,155(5.35 \%)$ | $2,360(5.30 \%)$ | $4,309(2.77 \%)$ | $1,896(5.30 \%)$ |
| Total and \% Population |  | $40,294(21.00 \%)$ | $44,496(23.20 \%)$ | $155,742(81.19 \%)$ | $35,748(18.63 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
189,709 Total Population
7 --

|  | Population | Black | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Dist. 007 | $189,709(100.00 \%)$ | $39,008(100.00 \%)$ | $43,563(100.00 \%)$ | $147,425(100.00 \%)$ | $31,601(100.00 \%)$ |
| Total and \% Population |  | $39,008(20.56 \%)$ | $43,563(22.96 \%)$ | $147,425(77.71 \%)$ | $31,601(16.66 \%)$ |

Plan: Grant_Esselstyn_Sen_illustrative12_05, District
192,396 Total Population
8 --

|  | Population | Black | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dist. 008 | 192,396 (100.00\%) | 58,388 (100.00\%) | 61,785 (100.00\%) | 145,144 (100.00\%) | 44,098 (100.00\%) |
| Total and \% Population |  | 58,388 (30.35\%) | 61,785 (32.11\%) | 145,144 (75.44\%) | 44,098 (22.92\%) |
| Plan: Grant_Esselstyn_Sen_illustrative12_05, District |  |  | 192,915 Total Population |  |  |
| 9-- |  |  |  |  |  |
|  | Population | Black | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 009 | 192,915 (100.00\%) | 55,952 (100.00\%) | 61,009 (100.00\%) | 142,054 (100.00\%) | 41,948 (100.00\%) |
| Total and \% Population |  | 55,952 (29.00\%) | 61,009 (31.62\%) | 142,054 (73.64\%) | 41,948 (21.74\%) |

## EXHIBIT 9

Plan Name: Grant_Esselstyn_Hse_illus_12_05
Plan Type:

# Measures of Compactness Report 

## Reock

| Sum | N/A |
| :---: | :---: |
| Min | 0.12 |
| Max | 0.66 |
| Mean | 0.39 |

District

1
2
3

4

5

6

7

8

9
10

11

12

13

14

15

16

17

18

19
0.53
0.53
0.50
0.37
0.43
0.45
0.62
0.46
0.47
0.34
0.31
0.47
0.47
0.32
0.55
0.31
0.28
0.41
0.26

Polsby-Popper

N/A
0.10
0.59
0.28
0.10

## Polsby-Popper

Measures of Compactness Report

Measures of Compactness Report

| 20 | 0.46 | 0.45 |
| :---: | :---: | :---: |
| 21 | 0.26 | 0.27 |
| 22 | 0.28 | 0.22 |
| 23 | 0.40 | 0.19 |
| 24 | 0.35 | 0.30 |
| 25 | 0.39 | 0.31 |
| 26 | 0.27 | 0.26 |
| 27 | 0.60 | 0.34 |
| 28 | 0.38 | 0.35 |
| 29 | 0.34 | 0.21 |
| 30 | 0.43 | 0.30 |
| 31 | 0.44 | 0.25 |
| 32 | 0.39 | 0.33 |
| 33 | 0.49 | 0.37 |
| 34 | 0.45 | 0.33 |
| 35 | 0.32 | 0.24 |
| 36 | 0.32 | 0.23 |
| 37 | 0.45 | 0.28 |
| 38 | 0.59 | 0.58 |
| 39 | 0.59 | 0.40 |
| 40 | 0.49 | 0.29 |
| 41 | 0.60 | 0.40 |
| 42 | 0.40 | 0.21 |
| 43 | 0.42 | 0.22 |
| 44 | 0.31 | 0.29 |
| 45 | 0.41 | 0.32 |
| 46 | 0.55 | 0.47 |
| 47 | 0.29 | 0.21 |
| 48 | 0.34 | 0.19 |

Measures of Compactness Report

Measures of Compactness Report

| 49 | 0.30 | 0.15 |
| :---: | :---: | :---: |
| 50 | 0.42 | 0.46 |
| 51 | 0.54 | 0.36 |
| 52 | 0.48 | 0.35 |
| 53 | 0.16 | 0.14 |
| 54 | 0.37 | 0.45 |
| 55 | 0.18 | 0.16 |
| 56 | 0.26 | 0.23 |
| 57 | 0.57 | 0.59 |
| 58 | 0.13 | 0.13 |
| 59 | 0.12 | 0.11 |
| 60 | 0.19 | 0.15 |
| 61 | 0.33 | 0.21 |
| 62 | 0.16 | 0.10 |
| 63 | 0.16 | 0.14 |
| 64 | 0.22 | 0.22 |
| 65 | 0.36 | 0.11 |
| 66 | 0.39 | 0.35 |
| 67 | 0.36 | 0.12 |
| 68 | 0.32 | 0.17 |
| 69 | 0.33 | 0.22 |
| 70 | 0.45 | 0.23 |
| 71 | 0.44 | 0.35 |
| 72 | 0.42 | 0.23 |
| 73 | 0.28 | 0.20 |
| 74 | 0.30 | 0.19 |
| 75 | 0.46 | 0.18 |
| 76 | 0.53 | 0.51 |
| 77 | 0.40 | 0.21 |

Measures of Compactness Report

Measures of Compactness Report

| 78 | 0.31 | 0.18 |
| :---: | :---: | :---: |
| 79 | 0.50 | 0.21 |
| 80 | 0.38 | 0.42 |
| 81 | 0.47 | 0.40 |
| 82 | 0.49 | 0.30 |
| 83 | 0.34 | 0.36 |
| 84 | 0.25 | 0.20 |
| 85 | 0.36 | 0.32 |
| 86 | 0.17 | 0.17 |
| 87 | 0.26 | 0.24 |
| 88 | 0.26 | 0.20 |
| 89 | 0.14 | 0.10 |
| 90 | 0.36 | 0.29 |
| 91 | 0.27 | 0.17 |
| 92 | 0.36 | 0.20 |
| 93 | 0.26 | 0.11 |
| 94 | 0.31 | 0.15 |
| 95 | 0.44 | 0.25 |
| 96 | 0.18 | 0.21 |
| 97 | 0.28 | 0.24 |
| 98 | 0.42 | 0.52 |
| 99 | 0.36 | 0.29 |
| 100 | 0.34 | 0.29 |
| 101 | 0.53 | 0.46 |
| 102 | 0.56 | 0.35 |
| 103 | 0.33 | 0.24 |
| 104 | 0.28 | 0.25 |
| 105 | 0.34 | 0.28 |
| 106 | 0.66 | 0.50 |

Measures of Compactness Report

Measures of Compactness Report

| 107 | 0.51 | 0.32 |
| :---: | :---: | :---: |
| 108 | 0.43 | 0.32 |
| 109 | 0.39 | 0.28 |
| 110 | 0.36 | 0.33 |
| 111 | 0.33 | 0.29 |
| 112 | 0.62 | 0.52 |
| 113 | 0.50 | 0.32 |
| 114 | 0.51 | 0.28 |
| 115 | 0.29 | 0.28 |
| 116 | 0.33 | 0.23 |
| 117 | 0.40 | 0.33 |
| 118 | 0.35 | 0.22 |
| 119 | 0.39 | 0.21 |
| 120 | 0.44 | 0.25 |
| 121 | 0.43 | 0.30 |
| 122 | 0.48 | 0.43 |
| 123 | 0.30 | 0.18 |
| 124 | 0.44 | 0.23 |
| 125 | 0.41 | 0.17 |
| 126 | 0.52 | 0.41 |
| 127 | 0.35 | 0.20 |
| 128 | 0.60 | 0.32 |
| 129 | 0.48 | 0.25 |
| 130 | 0.51 | 0.25 |
| 131 | 0.38 | 0.28 |
| 132 | 0.27 | 0.30 |
| 133 | 0.36 | 0.29 |
| 134 | 0.37 | 0.31 |
| 135 | 0.39 | 0.23 |

Measures of Compactness Report

Measures of Compactness Report

| 136 | 0.54 | 0.26 |
| :---: | :---: | :---: |
| 137 | 0.33 | 0.16 |
| 138 | 0.33 | 0.20 |
| 139 | 0.28 | 0.23 |
| 140 | 0.29 | 0.19 |
| 141 | 0.26 | 0.20 |
| 142 | 0.56 | 0.36 |
| 143 | 0.31 | 0.26 |
| 144 | 0.43 | 0.22 |
| 145 | 0.34 | 0.21 |
| 146 | 0.50 | 0.26 |
| 147 | 0.44 | 0.37 |
| 148 | 0.35 | 0.18 |
| 149 | 0.46 | 0.28 |
| 150 | 0.44 | 0.28 |
| 151 | 0.53 | 0.22 |
| 152 | 0.40 | 0.30 |
| 153 | 0.30 | 0.30 |
| 154 | 0.41 | 0.33 |
| 155 | 0.47 | 0.44 |
| 156 | 0.25 | 0.20 |
| 157 | 0.32 | 0.19 |
| 158 | 0.48 | 0.33 |
| 159 | 0.34 | 0.22 |
| 160 | 0.49 | 0.37 |
| 161 | 0.51 | 0.31 |
| 162 | 0.37 | 0.21 |
| 163 | 0.27 | 0.18 |
| 164 | 0.30 | 0.17 |

## Measures of Compactness Report

Measures of Compactness Report

| 165 | 0.23 | 0.16 |
| :--- | :--- | :--- |
| 166 | 0.43 | 0.36 |
| 167 | 0.42 | 0.19 |
| 168 | 0.24 | 0.26 |
| 169 | 0.28 | 0.23 |
| 170 | 0.53 | 0.34 |
| 171 | 0.35 | 0.37 |
| 172 | 0.44 | 0.32 |
| 173 | 0.57 | 0.38 |
| 174 | 0.41 | 0.24 |
| 175 | 0.47 | 0.37 |
| 176 | 0.34 | 0.16 |
| 177 | 0.43 | 0.34 |
| 178 | 0.48 | 0.22 |
| 179 | 0.45 | 0.42 |
| 180 | 0.61 | 0.40 |

Measures of Compactness Summary

Reock The measure is always between 0 and 1 , with 1 being the most compact.
Polsby-Popper The measure is always between 0 and 1 , with 1 being the most compact.

## EXHIBIT 10

User:
Plan Name: Grant_Esselstyn_Hse_illus_12_05
Plan Type:

## Districts \& Their Incumbents

## Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :---: | :---: | :---: | :---: |
| 1 | Michael Cameron | R | 1 |
| 2 | Steve Tarvin | R | 2 |
| 3 | Dewayne Hill | R | 3 |
| 4 | Kasey Carpenter | R | 4 |
| 5 | Matt Barton | R | 5 |
| 6 | Jason Ridley | R | 6 |
| 7 | David Ralston | R | 7 |
| 8 | Norman Gunter | R | 8 |
| 9 | Will Wade | R | 9 |
| 10 | Victor Anderson | R | 10 |
| 11 | Rick Jasperse | R | 11 |
| 12 | James Lumsden | R | 12 |
| 13 | Katie Dempsey | R | 13 |
| 14 | Mitchell scoggins | R | 14 |
| 15 | Matthew Gambill | R | 15 |
| 16 | Trey Kelley | R | 16 |
| 17 | Martin Momtahan | R | 17 |
| 18 | Tyler Smith | R | 18 |
| 19 | Micah Gravley | R | 67 |
| 19 | Joseph Gullett | R | 19 |
| 20 | Charlice Byrd | R | 20 |
| 21 | Brad Thomas | R | 21 |
| 21 | Wes Cantrell | R | 22 |
| 22 | Ed Setzler | R | 35 |
| 23 | Mandi Ballinger | R | 23 |
| 24 | Sheri Gilligan | R | 24 |
| 25 | Todd Jones | R | 25 |
| 26 | Lauren McDonald | R | 26 |
| 27 | Lee Hawkins | R | 27 |
| 28 |  |  |  |
| 29 | Matt Dubnik | R | 29 |
| 30 |  |  |  |
| 31 | Emory Dunahoo Jr | R | 30 |
| 31 | Thomas Benton | R | 31 |
| 32 | Chris Erwin | R | 28 |
| 33 | Alan Powell | R | 32 |
| 34 | Devan Seabaugh | R | 34 |
| 35 |  |  |  |
| 36 | Ginny Ehrhart | R | 36 |
| 37 | Mary Frances Williams | D | 37 |

## Districts \& Their Incumbents

Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :---: | :---: | :---: | :---: |
| 38 | David Wilkerson | D | 38 |
| 39 | Erica Thomas | D | 39 |
| 40 | Erick Allen | D | 40 |
| 41 | Michael Smith | D | 41 |
| 42 | Teri Anulewicz | D | 42 |
| 43 |  |  |  |
| 44 | Donald Parsons | R | 44 |
| 45 | Sharon Cooper | R | 43 |
| 45 | Matthew Dollar | R | 45 |
| 46 | John Carson | R | 46 |
| 47 | Jan Jones | R | 47 |
| 48 | Mary Robichaux | D | 48 |
| 49 | Charles Martin | R | 49 |
| 50 | Angelika Kausche | D | 50 |
| 51 | Josh McLauren | D | 51 |
| 52 | Shea Roberts | D | 52 |
| 53 |  |  |  |
| 54 | Betsy Holland | D | 54 |
| 55 | Marie Metze | D | 55 |
| 56 | Mesha Mainor | D | 56 |
| 57 | Stacy Evans | D | 57 |
| 58 | Park Cannon | D | 58 |
| 59 |  |  |  |
| 60 | Sheila Jones | D | 53 |
| 61 |  |  |  |
| 62 | William Boddie | D | 62 |
| 62 | David Dreyer | D | 59 |
| 63 | Kim Schofield | D | 60 |
| 64 | Roger Bruce | D | 61 |
| 65 | Mandisha Thomas | D | 65 |
| 66 | Kimberly Alexander | D | 66 |
| 67 | Philip Singleton | R | 71 |
| 68 | Derrick Jackson | D | 64 |
| 69 | Debra Bazemore | D | 63 |
| 70 | Lynn Smith | R | 70 |
| 71 | James Collins | R | 68 |
| 72 | Randy Nix | R | 69 |
| 73 | Josh Bonner | R | 72 |
| 74 |  |  |  |
| 75 | Mike Glanton | D | 75 |
| 75 | Demetrius Douglas | D | 78 |
| 76 | Sandra Scott | D | 76 |
| 77 | Rhonda Burnough | D | 77 |

## Districts \& Their Incumbents

Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :---: | :---: | :---: | :---: |
| 78 | Mathiak | R | 73 |
| 79 | Yasmine Neal | D | 74 |
| 80 | Mike Wilensky | D | 79 |
| 81 | Scott Holcomb | D | 81 |
| 82 | Mary Margaret Oliver | D | 82 |
| 83 | Matthew Wilson | D | 80 |
| 84 | Renitta Shannon | D | 84 |
| 85 | Karla Drenner | D | 85 |
| 86 | Zulma Lopez | D | 86 |
| 87 | Viola Davis | D | 87 |
| 88 | Billy Mitchell | D | 88 |
| 89 | Becky Evans | D | 83 |
| 90 | Bee Nguyen | D | 89 |
| 91 | Angela Moore | D | 90 |
| 92 | Rhonda Taylor | D | 91 |
| 93 | Doreen Carter | D | 92 |
| 94 | Karen Bennett | D | 94 |
| 95 | Dar'shun Kendrick | D | 93 |
| 96 | Pedro Marin | D | 96 |
| 97 | Beth Moore | D | 95 |
| 98 | Marvin Lim | D | 99 |
| 99 |  |  |  |
| 100 | Bonnie Rich | R | 97 |
| 101 | Gregg Kennard | D | 102 |
| 102 |  |  |  |
| 103 | Timothy Barr | R | 103 |
| 104 | Chuck Efstration | R | 104 |
| 105 | Donna McLeod | D | 105 |
| 106 | Rebecca Mitchell | D | 106 |
| 106 | Shelly Hutchinson | D | 107 |
| 107 | Sam Park | D | 101 |
| 108 | Jasmine Clark | D | 108 |
| 109 | Dewey McClain | D | 100 |
| 110 |  |  |  |
| 111 | Tom Kirby | R | 114 |
| 112 | Bruce Williamson III | R | 115 |
| 113 | Sharon Henderson | D | 113 |
| 114 | Dave Belton | R | 112 |
| 115 | El-Mahdi Holly | D | 111 |
| 115 | Regina Lewis-Ward | D | 109 |
| 116 |  |  |  |
| 117 |  |  |  |
| 118 | Clint Crowe | R | 110 |

## Districts \& Their Incumbents

Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :---: | :---: | :---: | :---: |
| 118 | Susan Holmes | R | 129 |
| 119 | Terry England | R | 116 |
| 120 | Houston Gaines | R | 117 |
| 121 | Marcus Wiedower | R | 119 |
| 122 | Spencer Frye | D | 118 |
| 123 | Rob Leverett | R | 33 |
| 124 | Trey Rhodes | R | 120 |
| 125 | Barry Fleming | R | 121 |
| 126 | Gloria Frazier | D | 126 |
| 127 | Mark Newton | R | 123 |
| 128 | Mack Jackson | D | 128 |
| 129 | Wayne Howard | D | 124 |
| 130 | Shelia Nelson | D | 125 |
| 131 | Jodi Lott | R | 122 |
| 132 | Brian Prince | D | 127 |
| 133 | Rick Williams | R | 145 |
| 134 | David Knight | R | 130 |
| 135 | Beth Camp | R | 131 |
| 136 | David Jenkins | R | 132 |
| 137 | Debbie Buckner | D | 137 |
| 138 | Vance Smith | R | 133 |
| 139 | Richard Smith | R | 134 |
| 140 | Calvin Smyre | D | 135 |
| 141 | Carolyn Hugley | D | 136 |
| 142 | Miriam Paris | D | 142 |
| 142 | Dale Washburn | R | 141 |
| 143 | James Beverly | D | 143 |
| 144 | Robert Dickey | R | 140 |
| 144 | Shaw Blackmon | R | 146 |
| 145 |  |  |  |
| 146 | Danny Mathis | R | 144 |
| 147 | Heath Clark | R | 147 |
| 148 | Noel Williams | R | 148 |
| 148 | Robert Pruitt | R | 149 |
| 149 |  |  |  |
| 150 | Patty Bentley | D | 139 |
| 151 | Mike Cheokas | R | 138 |
| 152 | Bill Yearta | R | 152 |
| 153 | CaMia Hopson-Jackson | D | 153 |
| 154 | Gerald Greene | R | 151 |
| 154 | Winfred Dukes | D | 154 |
| 155 | Matt Hatchett | R | 150 |
| 156 | Leesa Hagan | R | 156 |

## Districts \& Their Incumbents

Districts \& Their Incumbents

| District | Name | Party | Previous District |
| :--- | :--- | :--- | :--- |
| 157 | William (Bill) Werkheiser | R | 157 |
| 158 | Larry (Butch) Parrish | R | 158 |
| 159 | Jon Burns | R | 159 |
| 160 | Jan Tankersley | R | 160 |
| 161 | Bill Hitchens | R | 161 |
| 162 | Carl Gilliard | D | 162 |
| 163 | Derek Mallow | D | 163 |
| 164 | Ron Stephens | R | 164 |
| 165 |  | R |  |
| 166 | Jesse Petrea | R | 166 |
| 167 | Buddy Deloach | D | 167 |
| 168 | Al Williams | R | 168 |
| 169 | Clay Pirkle | R | 155 |
| 170 | Penny Houston | R | 170 |
| 171 | Joe Campbell | R | 171 |
| 172 | Sam Waston | R | 172 |
| 173 | Darlene Taylor | R | 173 |
| 174 | John Corbett | R | 174 |
| 175 | John LaHood | R | 175 |
| 176 | James Burchett | R | 176 |
| 176 | Dominic LaRiccia | D | 169 |
| 177 | Dexter Sharper | R | 177 |
| 178 | Steven Meeks | Ron Hogan | 178 |
| 179 | Steven Sainz |  | 179 |
| 180 |  |  |  |

Number of Incumbents in District with more than one Incumbent: ..... 28
Number of Districts with No Incumbent: ..... 16
Number of Districts with Incumbents of more than one party: ..... 2
Number of Districts with Paired Democrats: ..... 4Number of Districts with Paired Republicans:8

## EXHIBIT 11

User:
Plan Name: Grant_Esselstyn_Hse_illus_12_05
Plan Type:

## Population Summary

Population Summary

| District | Population | Deviation | \% Devn. | [\% 18+_AP_Blk] | [\% Black] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 59,666 | 155 | 0.26\% | 4.2\% | 3.94\% |
| 2 | 59,773 | 262 | 0.44\% | 3.15\% | 2.68\% |
| 3 | 60,199 | 688 | 1.16\% | 3.35\% | 2.9\% |
| 4 | 59,070 | -441 | -0.74\% | 5.38\% | 4.41\% |
| 5 | 58,837 | -674 | -1.13\% | 4.6\% | 3.88\% |
| 6 | 59,712 | 201 | 0.34\% | 1.51\% | 1.07\% |
| 7 | 59,081 | -430 | -0.72\% | 0.62\% | 0.4\% |
| 8 | 59,244 | -267 | -0.45\% | 1.43\% | 1.16\% |
| 9 | 59,474 | -37 | -0.06\% | 1.57\% | 1.05\% |
| 10 | 59,519 | 8 | 0.01\% | 3.73\% | 3.03\% |
| 11 | 58,792 | -719 | -1.21\% | 1.85\% | 1.61\% |
| 12 | 59,300 | -211 | -0.35\% | 9.68\% | 8.68\% |
| 13 | 59,150 | -361 | -0.61\% | 19.18\% | 18.92\% |
| 14 | 59,135 | -376 | -0.63\% | 6.85\% | 5.98\% |
| 15 | 59,213 | -298 | -0.50\% | 14.19\% | 13.85\% |
| 16 | 59,402 | -109 | -0.18\% | 11.69\% | 11.36\% |
| 17 | 59,120 | -391 | -0.66\% | 23.02\% | 22.54\% |
| 18 | 59,335 | -176 | -0.30\% | 7.98\% | 7.19\% |
| 19 | 58,955 | -556 | -0.93\% | 24.15\% | 23.95\% |
| 20 | 60,107 | 596 | 1.00\% | 9.25\% | 8.34\% |
| 21 | 59,529 | 18 | 0.03\% | 5.06\% | 4.37\% |
| 22 | 59,460 | -51 | -0.09\% | 15.1\% | 14.31\% |
| 23 | 59,048 | -463 | -0.78\% | 6.5\% | 5.81\% |
| 24 | 59,011 | -500 | -0.84\% | 7\% | 6.14\% |
| 25 | 59,414 | -97 | -0.16\% | 5.9\% | 5.06\% |
| 26 | 59,248 | -263 | -0.44\% | 4.01\% | 3.41\% |
| 27 | 58,795 | -716 | -1.20\% | 3.69\% | 3.31\% |
| 28 | 58,972 | -539 | -0.91\% | 3.93\% | 3.49\% |
| 29 | 59,200 | -311 | -0.52\% | 13.59\% | 12.45\% |
| 30 | 59,266 | -245 | -0.41\% | 8.1\% | 7.56\% |
| 31 | 59,901 | 390 | 0.66\% | 7.57\% | 6.83\% |
| 32 | 59,145 | -366 | -0.62\% | 7.96\% | 7.33\% |
| 33 | 59,187 | -324 | -0.54\% | 11.2\% | 11.02\% |
| 34 | 59,875 | 364 | 0.61\% | 15.67\% | 14.73\% |
| 35 | 59,889 | 378 | 0.64\% | 28.4\% | 27.13\% |
| 36 | 59,994 | 483 | 0.81\% | 16.98\% | 16.26\% |
| 37 | 59,176 | -335 | -0.56\% | 28.18\% | 26.57\% |
| 38 | 59,317 | -194 | -0.33\% | 54.23\% | 53.68\% |


| District | Population | Deviation | \% Devn. | [\% 18+_AP_Blk] | [\% Black] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 39 | 59,381 | -130 | -0.22\% | 55.29\% | 52.84\% |
| 40 | 59,044 | -467 | -0.78\% | 32.98\% | 31.39\% |
| 41 | 60,122 | 611 | 1.03\% | 39.35\% | 37\% |
| 42 | 59,620 | 109 | 0.18\% | 33.7\% | 31.87\% |
| 43 | 59,464 | -47 | -0.08\% | 26.53\% | 24.83\% |
| 44 | 60,002 | 491 | 0.83\% | 12.05\% | 11.23\% |
| 45 | 59,738 | 227 | 0.38\% | 5.28\% | 4.24\% |
| 46 | 59,108 | -403 | -0.68\% | 8.07\% | 6.93\% |
| 47 | 59,126 | -385 | -0.65\% | 10.72\% | 9.59\% |
| 48 | 59,003 | -508 | -0.85\% | 11.79\% | 10.38\% |
| 49 | 59,153 | -358 | -0.60\% | 8.42\% | 7.33\% |
| 50 | 59,523 | 12 | 0.02\% | 12.4\% | 11.3\% |
| 51 | 58,952 | -559 | -0.94\% | 23.68\% | 22.42\% |
| 52 | 59,811 | 300 | 0.50\% | 15.99\% | 13.94\% |
| 53 | 59,953 | 442 | 0.74\% | 14.53\% | 12.59\% |
| 54 | 60,083 | 572 | 0.96\% | 15.47\% | 13.25\% |
| 55 | 59,971 | 460 | 0.77\% | 55.38\% | 55.03\% |
| 56 | 58,929 | -582 | -0.98\% | 45.48\% | 46.85\% |
| 57 | 59,969 | 458 | 0.77\% | 18.06\% | 15.89\% |
| 58 | 59,057 | -454 | -0.76\% | 63.04\% | 63.71\% |
| 59 | 59,434 | -77 | -0.13\% | 70.09\% | 70.27\% |
| 60 | 59,709 | 198 | 0.33\% | 63.88\% | 62.26\% |
| 61 | 58,950 | -561 | -0.94\% | 53.49\% | 52.47\% |
| 62 | 59,450 | -61 | -0.10\% | 72.26\% | 70.86\% |
| 63 | 59,381 | -130 | -0.22\% | 69.33\% | 68.64\% |
| 64 | 59,648 | 137 | 0.23\% | 50.24\% | 48.4\% |
| 65 | 59,240 | -271 | -0.46\% | 63.34\% | 61.67\% |
| 66 | 58,961 | -550 | -0.92\% | 53.88\% | 53.46\% |
| 67 | 59,135 | -376 | -0.63\% | 58.92\% | 57.71\% |
| 68 | 59,477 | -34 | -0.06\% | 55.75\% | 55.2\% |
| 69 | 58,358 | -1,153 | -1.94\% | 62.73\% | 61.75\% |
| 70 | 59,121 | -390 | -0.66\% | 27.83\% | 27.99\% |
| 71 | 59,538 | 27 | 0.05\% | 19.92\% | 19.16\% |
| 72 | 59,660 | 149 | 0.25\% | 20.86\% | 19.64\% |
| 73 | 60,036 | 525 | 0.88\% | 12.11\% | 11.47\% |
| 74 | 58,418 | -1,093 | -1.84\% | 53.94\% | 52.32\% |
| 75 | 59,759 | 248 | 0.42\% | 66.89\% | 65.44\% |
| 76 | 59,759 | 248 | 0.42\% | 67.23\% | 64.99\% |
| 77 | 59,242 | -269 | -0.45\% | 76.13\% | 73.39\% |
| 78 | 59,890 | 379 | 0.64\% | 51.03\% | 51.33\% |
| 79 | 59,500 | -11 | -0.02\% | 71.59\% | 69.08\% |
| 80 | 59,461 | -50 | -0.08\% | 14.18\% | 12\% |
| 81 | 59,007 | -504 | -0.85\% | 21.83\% | 19.09\% |
| 82 | 59,724 | 213 | 0.36\% | 16.83\% | 14.66\% |
| 83 | 59,416 | -95 | -0.16\% | 15.12\% | 12.45\% |
| 84 | 59,862 | 351 | 0.59\% | 73.66\% | 70.46\% |


| District | Population | Deviation | \% Devn. | [\% 18+_AP_Blk] | [\% Black] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 85 | 59,373 | -138 | -0.23\% | 62.71\% | 60.9\% |
| 86 | 59,205 | -306 | -0.51\% | 75.05\% | 72.44\% |
| 87 | 59,709 | 198 | 0.33\% | 73.08\% | 70.92\% |
| 88 | 59,689 | 178 | 0.30\% | 63.35\% | 61.41\% |
| 89 | 59,866 | 355 | 0.60\% | 62.54\% | 60.27\% |
| 90 | 59,812 | 301 | 0.51\% | 58.49\% | 57.69\% |
| 91 | 59,956 | 445 | 0.75\% | 60.01\% | 58.67\% |
| 92 | 60,273 | 762 | 1.28\% | 68.79\% | 68.31\% |
| 93 | 60,118 | 607 | 1.02\% | 65.36\% | 64.04\% |
| 94 | 59,211 | -300 | -0.50\% | 69.04\% | 66.81\% |
| 95 | 60,030 | 519 | 0.87\% | 67.15\% | 65.91\% |
| 96 | 59,515 | 4 | 0.01\% | 23\% | 21.31\% |
| 97 | 59,072 | -439 | -0.74\% | 26.77\% | 25.79\% |
| 98 | 59,998 | 487 | 0.82\% | 23.25\% | 20.23\% |
| 99 | 59,850 | 339 | 0.57\% | 14.71\% | 13.8\% |
| 100 | 60,030 | 519 | 0.87\% | 10.01\% | 9.19\% |
| 101 | 59,938 | 427 | 0.72\% | 24.19\% | 22.9\% |
| 102 | 58,959 | -552 | -0.93\% | 37.62\% | 37.16\% |
| 103 | 60,197 | 686 | 1.15\% | 16.79\% | 15.52\% |
| 104 | 59,362 | -149 | -0.25\% | 17.03\% | 15.96\% |
| 105 | 59,344 | -167 | -0.28\% | 29.05\% | 28.45\% |
| 106 | 59,112 | -399 | -0.67\% | 36.27\% | 36.27\% |
| 107 | 59,702 | 191 | 0.32\% | 29.63\% | 28.16\% |
| 108 | 59,577 | 66 | 0.11\% | 18.35\% | 17.71\% |
| 109 | 59,630 | 119 | 0.20\% | 32.51\% | 30.16\% |
| 110 | 59,951 | 440 | 0.74\% | 47.19\% | 46.58\% |
| 111 | 60,009 | 498 | 0.84\% | 22.29\% | 22.08\% |
| 112 | 59,349 | -162 | -0.27\% | 19.21\% | 19.06\% |
| 113 | 60,053 | 542 | 0.91\% | 59.53\% | 58.29\% |
| 114 | 59,867 | 356 | 0.60\% | 24.74\% | 24.16\% |
| 115 | 59,789 | 278 | 0.47\% | 53.77\% | 53.14\% |
| 116 | 60,380 | 869 | 1.46\% | 51.95\% | 52.02\% |
| 117 | 60,142 | 631 | 1.06\% | 51.56\% | 50.92\% |
| 118 | 59,987 | 476 | 0.80\% | 23.6\% | 22.72\% |
| 119 | 58,947 | -564 | -0.95\% | 13.49\% | 12.73\% |
| 120 | 58,982 | -529 | -0.89\% | 14.28\% | 13.65\% |
| 121 | 59,127 | -384 | -0.65\% | 9.56\% | 8.8\% |
| 122 | 59,632 | 121 | 0.20\% | 28.42\% | 30.85\% |
| 123 | 59,282 | -229 | -0.38\% | 24.28\% | 23.91\% |
| 124 | 59,221 | -290 | -0.49\% | 25.58\% | 26.18\% |
| 125 | 60,137 | 626 | 1.05\% | 23.68\% | 22.24\% |
| 126 | 59,260 | -251 | -0.42\% | 54.47\% | 54.3\% |
| 127 | 58,678 | -833 | -1.40\% | 18.52\% | 17.46\% |
| 128 | 58,864 | -647 | -1.09\% | 50.41\% | 51.11\% |
| 129 | 58,829 | -682 | -1.15\% | 54.87\% | 55.5\% |
| 130 | 59,203 | -308 | -0.52\% | 59.91\% | 60.84\% |


| District | Population | Deviation | \% Devn. | [\% 18+_AP_Blk] | [\% Black] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 131 | 58,890 | -621 | -1.04\% | 17.62\% | 16.38\% |
| 132 | 59,142 | -369 | -0.62\% | 52.34\% | 52.48\% |
| 133 | 59,768 | 257 | 0.43\% | 26.11\% | 25.32\% |
| 134 | 59,046 | -465 | -0.78\% | 37.41\% | 38.2\% |
| 135 | 60,013 | 502 | 0.84\% | 20.35\% | 19.45\% |
| 136 | 59,298 | -213 | -0.36\% | 28.67\% | 28.15\% |
| 137 | 59,551 | 40 | 0.07\% | 52.13\% | 51.92\% |
| 138 | 58,912 | -599 | -1.01\% | 19.32\% | 18.92\% |
| 139 | 59,010 | -501 | -0.84\% | 20.27\% | 19.63\% |
| 140 | 59,294 | -217 | -0.36\% | 57.63\% | 56.56\% |
| 141 | 59,019 | -492 | -0.83\% | 57.46\% | 55.6\% |
| 142 | 59,320 | -191 | -0.32\% | 50.14\% | 51.89\% |
| 143 | 59,122 | -389 | -0.65\% | 50.64\% | 52.08\% |
| 144 | 58,533 | -978 | -1.64\% | 24.94\% | 24.36\% |
| 145 | 59,668 | 157 | 0.26\% | 50.38\% | 51.16\% |
| 146 | 59,197 | -314 | -0.53\% | 24.38\% | 23.72\% |
| 147 | 58,567 | -944 | -1.59\% | 30.54\% | 30.63\% |
| 148 | 59,887 | 376 | 0.63\% | 37.3\% | 37.6\% |
| 149 | 59,392 | -119 | -0.20\% | 51.53\% | 52.64\% |
| 150 | 59,276 | -235 | -0.39\% | 53.56\% | 53.5\% |
| 151 | 60,059 | 548 | 0.92\% | 42.41\% | 42.45\% |
| 152 | 60,134 | 623 | 1.05\% | 26.06\% | 25.98\% |
| 153 | 59,299 | -212 | -0.36\% | 67.95\% | 69.44\% |
| 154 | 59,994 | 483 | 0.81\% | 54.82\% | 55.77\% |
| 155 | 60,134 | 623 | 1.05\% | 35.23\% | 35.73\% |
| 156 | 60,647 | 1,136 | 1.91\% | 29.87\% | 29.57\% |
| 157 | 59,957 | 446 | 0.75\% | 24.67\% | 23.82\% |
| 158 | 59,440 | -71 | -0.12\% | 31.19\% | 31.67\% |
| 159 | 59,895 | 384 | 0.65\% | 24.5\% | 24.02\% |
| 160 | 59,935 | 424 | 0.71\% | 22.6\% | 22.04\% |
| 161 | 60,097 | 586 | 0.98\% | 27.14\% | 26.27\% |
| 162 | 60,308 | 797 | 1.34\% | 43.73\% | 43.95\% |
| 163 | 60,123 | 612 | 1.03\% | 45.49\% | 46.54\% |
| 164 | 60,101 | 590 | 0.99\% | 23.47\% | 22.55\% |
| 165 | 59,978 | 467 | 0.78\% | 50.33\% | 52.86\% |
| 166 | 60,242 | 731 | 1.23\% | 5.67\% | 5.04\% |
| 167 | 59,493 | -18 | -0.03\% | 22.28\% | 21.4\% |
| 168 | 60,147 | 636 | 1.07\% | 46.26\% | 44.49\% |
| 169 | 59,138 | -373 | -0.63\% | 29.04\% | 29.04\% |
| 170 | 60,116 | 605 | 1.02\% | 24.22\% | 24.56\% |
| 171 | 59,237 | -274 | -0.46\% | 39.6\% | 40\% |
| 172 | 59,961 | 450 | 0.76\% | 23.32\% | 23.41\% |
| 173 | 59,743 | 232 | 0.39\% | 36.27\% | 36.4\% |
| 174 | 59,852 | 341 | 0.57\% | 17.37\% | 17.42\% |
| 175 | 59,993 | 482 | 0.81\% | 24.17\% | 23.98\% |
| 176 | 59,470 | -41 | -0.07\% | 22.68\% | 21.96\% |


| District | Population | Deviation | \% Devn. | [\% 18+_AP_Blk] | [\% Black] |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 177 | 59,992 | 481 | $0.81 \%$ | $53.88 \%$ | $14.79 \%$ |
| 178 | 59,877 | 366 | $0.62 \%$ | $27.03 \%$ | $14.59 \%$ |
| 179 | 59,356 | -155 | $-0.26 \%$ | $18.21 \%$ |  |
| 180 | 59,412 | -99 | $-0.17 \%$ |  |  |
| Total Population: | $10,711,908$ |  |  |  |  |
| Ideal District Population: | 59,511 |  |  |  |  |
| Summary Statistics: |  |  |  |  |  |
| Population Range: | 58,358 to 60,647 |  |  |  |  |
| Ratio Range: | 0.04 |  |  |  |  |
| Absolute Range: | $-1,153$ to 1,136 |  |  |  |  |
| Absolute Overall Range: | 2289 |  |  |  |  |
| Relative Range: | $-1.94 \%$ to $1.91 \%$ |  |  |  |  |
| Relative Overall Range: | $3.85 \%$ |  |  |  |  |
| Absolute Mean Deviation: | 379.46 |  |  |  |  |
| Relative Mean Deviation: | $0.64 \%$ |  |  |  |  |
| Standard Deviation: |  |  |  |  |  |

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## EXHIBIT 12

User:

## Political Subdivision Splits Between Districts

Political Subdivision Splits Between Districts

| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 | 162 | 2,134 |
|  | CENTER |  |  |
| Chatham GA | CRUSADER COMMUNITY | 166 | 1,493 |
|  | CENTER |  |  |


| Chatham GA | GEORGETOWN ELEMENTAR | 164 | 5,562 |
| :---: | :---: | :---: | :---: |
| Chatham GA | GEORGETOWN ELEMENTAR | 166 | 0 |
| Chatham GA | GRACE UNITED METHODIST | 163 | 2,064 |
| Chatham GA | CHURCH <br> GRACE UNITED METHODIST | 165 | 397 |
| Chatham GA | CHURCH ROTHWELL BAPTIST | 161 | 5,335 |
| Chatham GA | $\mathrm{CH} U R C \mathrm{H}$ ROTHWELL BAPTIST | 164 | 4,987 |
|  | CHURCH |  |  |
| Chatham GA | THE LIGHT CHURCH | 162 | 1,177 |
| Chatham GA | THE LIGHT CHURCH | 163 | 1,109 |
| Chatham GA | WINDSOR FOREST BAPTIST | 163 | 785 |
|  | CHURCH SCHOOL |  |  |
| Chatham GA | WINDSOR FOREST BAPTIST | 166 | 1,890 |
|  | CHURCH SCHOOL |  |  |
| 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 | 7 C | 120 | 1,922 |
| Clarke GA | 7 C | 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 |

Political Subdivision Splits Between Districts

| 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 |
| 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 |

Political Subdivision Splits Between Districts

| 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 |
| 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 |
| 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 |

Political Subdivision Splits Between Districts

| 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 |
| 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 |

Political Subdivision Splits Between Districts

| Houston GA | MCMS | 147 | 1,635 |
| :---: | :---: | :---: | :---: |
| Houston GA | ROZR | 144 | 13,202 |
| Houston GA | ROZR | 146 | 7,640 |
| 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 |


| Paulding GA | SHELTON ELEMENTARY | 16 | 8,152 |
| :---: | :---: | :---: | :---: |
|  | SCHOOL |  |  |
| Paulding GA | SHELTON ELEMENTARY | 17 | 12,810 |
|  | SCHOOL |  |  |
| Paulding GA | SHELTON ELEMENTARY | 19 | 5,455 |
|  | SCHOOL |  |  |
| Paulding GA | WATSON GOVERNMENT | 16 | 5 |
|  | COMPLEX |  |  |
| Paulding GA | WATSON GOVERNMENT | 17 | 17,525 |
|  | COMPLEX |  |  |
| 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 |
| Ware GA | 200A | 174 | 0 |
| Ware GA | 200A | 176 | 4,133 |
| Ware GA | 304 | 174 | 0 |
| Ware GA | 304 | 176 | 2,107 |


| Political Subdivision Splits Between Districts | Grant_Esselstyn_Hse_illus_12_05 |  |  |
| :--- | :--- | ---: | ---: |
| Ware GA | 400 | 174 |  |
| Ware GA | 400 | 176 |  |
| Wayne GA | OGLETHORPE | 167 | 2,506 |
| Wayne GA | OGLETHORPE | 1,928 |  |
| Whitfield GA | $2 A$ | 2 | 637 |
| Whitfield GA | 2A | 4,864 |  |
| Whitfield GA | PLEASANT GROVE | 4 | 1,000 |
| Whitfield GA | PLEASANT GROVE | 2 | 6,210 |

## EXHIBIT 13

User:
Plan Name: Grant_Esselstyn_Hse_illus_12_05
Plan Type:

## Plan Components with Population Detail

Plan Components with Population Detail

|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 1 |  |  |
| County: Dade GA |  |  |
| Total: | 16,251 | 228 |
|  |  | 1.40\% |
| Voting Age | 12,987 | 140 |
|  |  | 1.08\% |
| County: Walker GA |  |  |
| Total: | 43,415 | 2,806 |
|  |  | 6.46\% |
| Voting Age | 33,814 | 1,826 |
|  |  | 5.40\% |
| District 1 Total |  |  |
| Total: | 59,666 | 3,034 |
|  |  | 5.08\% |
| Voting Age | 46,801 | 1,966 |
|  |  | 4.20\% |
| District 2 |  |  |
| County: Catoosa GA |  |  |
| Total: | 7,673 | 179 |
|  |  | 2.33\% |
| Voting Age | 5,732 | 119 |
|  |  | 2.08\% |
| County: Walker GA |  |  |
| Total: | 24,239 | 858 |
|  |  | 3.54\% |
| Voting Age | 18,980 | 628 |
|  |  | 3.31\% |
| County: Whitfield GA |  |  |
| Total: | 27,861 | 1,136 |
|  |  | 4.08\% |
| Voting Age | 21,447 | 709 |
|  |  | 3.31\% |
| District 2 Total |  |  |
| Total: | 59,773 | 2,173 |
|  |  | 3.64\% |
| Voting Age | 46,159 | 1,456 |
|  |  | 3.15\% |
| District 3 |  |  |
| County: Catoosa GA |  |  |
| Total: | 60,199 | 2,463 |
|  |  | 4.09\% |
| Voting Age | 46,716 | 1,565 |
|  |  | 3.35\% |

## District 3 Total

|  | Total | AP_BIk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 60,199 | 2,463 |
|  |  | 4.09\% |
| Voting Age | 46,716 | 1,565 |
|  |  | 3.35\% |
| District 4 |  |  |
| County: Whitfield GA |  |  |
| Total: | 59,070 | 3,264 |
|  |  | 5.53\% |
| Voting Age | 42,798 | 2,303 |
|  |  | 5.38\% |
| District 4 Total |  |  |
| Total: | 59,070 | 3,264 |
|  |  | 5.53\% |
| Voting Age | 42,798 | 2,303 |
|  |  | 5.38\% |
| District 5 |  |  |
| County: Floyd GA |  |  |
| Total: | 5,099 | 213 |
|  |  | 4.18\% |
| Voting Age | 4,048 | 136 |
|  |  | 3.36\% |
| County: Gordon GA |  |  |
| Total: | 53,738 | 2,869 |
|  |  | 5.34\% |
| Voting Age | 40,575 | 1,915 |
|  |  | 4.72\% |
| District 5 Total |  |  |
| Total: | 58,837 | 3,082 |
|  |  | 5.24\% |
| Voting Age | 44,623 | 2,051 |
|  |  | 4.60\% |
| District 6 |  |  |
| County: Gordon GA |  |  |
| Total: | 3,806 | 50 |
|  |  | 1.31\% |
| Voting Age | 2,925 | 24 |
|  |  | 0.82\% |
| County: Murray GA |  |  |
| Total: | 39,973 | 556 |
|  |  | 1.39\% |
| Voting Age | 30,210 | 321 |
|  |  | 1.06\% |
| County: Whitfield GA |  |  |
| Total: | 15,933 | 519 |
|  |  | 3.26\% |
| Voting Age | 12,017 | 337 |
|  |  | 2.80\% |
| District 6 Total |  |  |
| Total: | 59,712 | 1,125 |
|  |  | 1.88\% |
| Voting Age | 45,152 | 682 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
|  |  | 1.51\% |
| District 7 |  |  |
| County: Dawson GA |  |  |
| Total: | 2,409 | 18 |
|  |  | 0.75\% |
| Voting Age | 2,166 | 8 |
|  |  | 0.37\% |
| County: Fannin GA |  |  |
| Total: | 25,319 | 199 |
|  |  | 0.79\% |
| Voting Age | 21,188 | 133 |
|  |  | 0.63\% |
| County: Gilmer GA |  |  |
| Total: | 31,353 | 296 |
|  |  | 0.94\% |
| Voting Age | 25,417 | 161 |
|  |  | 0.63\% |
| District 7 Total |  |  |
| Total: | 59,081 | 513 |
|  |  | 0.87\% |
| Voting Age | 48,771 | 302 |
|  |  | 0.62\% |
| District 8 |  |  |
| County: Towns GA |  |  |
| Total: | 12,493 | 168 |
|  |  | 1.34\% |
| Voting Age | 10,923 | 137 |
|  |  | 1.25\% |
| County: Union GA |  |  |
| Total: | 24,632 | 228 |
|  |  | 0.93\% |
| Voting Age | 20,808 | 147 |
|  |  | 0.71\% |
| County: White GA |  |  |
| Total: | 22,119 | 629 |
|  |  | 2.84\% |
| Voting Age | 17,881 | 424 |
|  |  | 2.37\% |
| District 8 Total |  |  |
| Total: | 59,244 | 1,025 |
|  |  | 1.73\% |
| Voting Age | 49,612 | 708 |
|  |  | 1.43\% |
| District 9 |  |  |
| County: Dawson GA |  |  |
| Total: | 24,389 | 374 |
|  |  | 1.53\% |
| Voting Age | 19,275 | 241 |
|  |  | 1.25\% |
| County: Lumpkin GA |  |  |
| Total: | 29,201 | 600 |



|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| County: Chattooga GA |  |  |
| Total: | 24,965 | 2,865 |
|  |  | 11.48\% |
| Voting Age | 19,416 | 2,235 |
|  |  | 11.51\% |
| County: Floyd GA |  |  |
| Total: | 34,335 | 3,181 |
|  |  | 9.26\% |
| Voting Age | 27,071 | 2,263 |
|  |  | 8.36\% |
| District 12 Total |  |  |
| Total: | 59,300 | 6,046 |
|  |  | 10.20\% |
| Voting Age | 46,487 | 4,498 |
|  |  | 9.68\% |
| District 13 |  |  |
| County: Floyd GA |  |  |
| Total: | 59,150 | 12,212 |
|  |  | 20.65\% |
| Voting Age | 45,176 | 8,665 |
|  |  | 19.18\% |
| District 13 Total |  |  |
| Total: | 59,150 | 12,212 |
|  |  | 20.65\% |
| Voting Age | 45,176 | 8,665 |
|  |  | 19.18\% |
| District 14 |  |  |
| County: Bartow GA |  |  |
| Total: | 49,688 | 4,043 |
|  |  | 8.14\% |
| Voting Age | 37,779 | 2,877 |
|  |  | 7.62\% |
| County: Cherokee GA |  |  |
| Total: | 9,447 | 295 |
|  |  | 3.12\% |
| Voting Age | 7,732 | 240 |
|  |  | 3.10\% |
| District 14 Total |  |  |
| Total: | 59,135 | 4,338 |
|  |  | 7.34\% |
| Voting Age | 45,511 | 3,117 |
|  |  | 6.85\% |
| District 15 |  |  |
| County: Bartow GA |  |  |
| Total: | 59,213 | 9,352 |
|  |  | 15.79\% |
| Voting Age | 45,791 | 6,500 |
|  |  | 14.19\% |
| District 15 Total |  |  |
| Total: | 59,213 | 9,352 |
|  |  | 15.79\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 45,791 | 6,500 |
|  |  | 14.19\% |
| District 16 |  |  |
| County: Paulding GA |  |  |
| Total: | 16,549 | 1,765 |
|  |  | 10.67\% |
| Voting Age | 11,771 | 1,155 |
|  |  | 9.81\% |
| County: Polk GA |  |  |
| Total: | 42,853 | 5,816 |
|  |  | 13.57\% |
| Voting Age | 32,238 | 3,991 |
|  |  | 12.38\% |
| District 16 Total |  |  |
| Total: | 59,402 | 7,581 |
|  |  | 12.76\% |
| Voting Age | 44,009 | 5,146 |
|  |  | 11.69\% |
| District 17 |  |  |
| County: Paulding GA |  |  |
| Total: | 59,120 | 14,783 |
|  |  | 25.01\% |
| Voting Age | 42,761 | 9,843 |
|  |  | 23.02\% |
| District 17 Total |  |  |
| Total: | 59,120 | 14,783 |
|  |  | 25.01\% |
| Voting Age | 42,761 | 9,843 |
|  |  | 23.02\% |
| District 18 |  |  |
| County: Carroll GA |  |  |
| Total: | 18,789 | 2,344 |
|  |  | 12.48\% |
| Voting Age | 14,467 | 1,660 |
|  |  | 11.47\% |
| County: Haralson GA |  |  |
| Total: | 29,919 | 1,541 |
|  |  | 5.15\% |
| Voting Age | 22,854 | 1,106 |
|  |  | 4.84\% |
| County: Paulding GA |  |  |
| Total: | 10,627 | 1,233 |
|  |  | 11.60\% |
| Voting Age | 7,838 | 838 |
|  |  | 10.69\% |
| District 18 Total |  |  |
| Total: | 59,335 | 5,118 |
|  |  | 8.63\% |
| Voting Age | 45,159 | 3,604 |
|  |  | 7.98\% |

[^14]|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| County: Paulding GA |  |  |
| Total: | 58,955 | 15,550 |
|  |  | 26.38\% |
| Voting Age | 44,299 | 10,697 |
|  |  | 24.15\% |
| District 19 Total |  |  |
| Total: | 58,955 | 15,550 |
|  |  | 26.38\% |
| Voting Age | 44,299 | 10,697 |
|  |  | 24.15\% |
| District 20 |  |  |
| County: Cherokee GA |  |  |
| Total: | 60,107 | 5,973 |
|  |  | 9.94\% |
| Voting Age | 45,725 | 4,230 |
|  |  | 9.25\% |
| District 20 Total |  |  |
| Total: | 60,107 | 5,973 |
|  |  | 9.94\% |
| Voting Age | 45,725 | 4,230 |
|  |  | 9.25\% |
| District 21 |  |  |
| County: Cherokee GA |  |  |
| Total: | 59,529 | 3,350 |
|  |  | 5.63\% |
| Voting Age | 44,931 | 2,272 |
|  |  | 5.06\% |
| District 21 Total |  |  |
| Total: | 59,529 | 3,350 |
|  |  | 5.63\% |
| Voting Age | 44,931 | 2,272 |
|  |  | 5.06\% |
| District 22 |  |  |
| County: Cherokee GA |  |  |
| Total: | 30,874 | 3,488 |
|  |  | 11.30\% |
| Voting Age | 23,465 | 2,341 |
|  |  | 9.98\% |
| County: Cobb GA |  |  |
| Total: | 28,586 | 6,402 |
|  |  | 22.40\% |
| Voting Age | 22,350 | 4,577 |
|  |  | 20.48\% |
| District 22 Total |  |  |
| Total: | 59,460 | 9,890 |
|  |  | 16.63\% |
| Voting Age | 45,815 | 6,918 |
|  |  | 15.10\% |
| District 23 |  |  |
| County: Cherokee GA |  |  |
| Total: | 59,048 | 4,250 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 44,254 | $\begin{array}{r} 7.20 \% \\ 2,878 \\ 6.50 \% \end{array}$ |
| District 23 Total |  |  |
| Total: | 59,048 | 4,250 |
|  | 44,254 | $7.20 \%$ 2,878 |
| Voting Age |  | 6.50\% |
| District 24 |  |  |
| County: Forsyth GA |  |  |
| Total: | 59,011 | $\begin{array}{r} 4,313 \\ 7.31 \% \end{array}$ |
| Voting Age | 41,814 | $\begin{array}{r} 2,926 \\ 7.00 \% \end{array}$ |
| District 24 Total |  |  |
| Total: | 59,011 | 4,313 |
| Voting Age | 41,814 | $\begin{array}{r} 7.31 \% \\ 2,926 \\ 7.00 \% \end{array}$ |
| District 25 |  |  |
| County: Forsyth GA |  |  |
| Total: | 46,134 | $\begin{array}{r} 2,200 \\ 4.77 \% \end{array}$ |
| Voting Age | 32,692 | $\begin{array}{r} 1,482 \\ 4.53 \% \end{array}$ |
| County: Fulton GA |  |  |
| Total: | 13,280 | $\begin{array}{r} 1,406 \\ 10.59 \% \end{array}$ |
| Voting Age | 9,828 | $\begin{array}{r} 1,025 \\ 10.43 \% \end{array}$ |
| District 25 Total |  |  |
| Total: | 59,414 | $\begin{array}{r} 3,606 \\ 6.07 \% \end{array}$ |
| Voting Age | 42,520 | $\begin{array}{r} 2,507 \\ 5.90 \% \end{array}$ |
| District 26 |  |  |
| County: Forsyth GA |  |  |
| Total: | 59,248 | $\begin{array}{r} 2,646 \\ 4.47 \% \end{array}$ |
| Voting Age | 44,081 | $\begin{array}{r} 1,767 \\ 4.01 \% \end{array}$ |
| District 26 Total |  |  |
| Total: | 59,248 | 2,646 |
|  |  | 4.47\% |
| Voting Age | 44,081 | 1,767 |
|  |  | 4.01\% |
| District 27 |  |  |
| County: Hall GA |  |  |
| Total: | 54,508 | $\begin{array}{r} 2,504 \\ 4.59 \% \end{array}$ |
| Voting Age | 42,712 | 1,649 |




|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| County: Hart GA |  |  |
| Total: | 25,828 | 4,732 |
| Voting Age | 20,436 | $18.32 \%$ |
|  |  | 16.87\% |
| County: Madison GA |  |  |
| Total: | 9,935 | 383 |
|  |  | 3.86\% |
| Voting Age | 7,755 | 237 |
|  |  | 3.06\% |
| District 33 Total |  |  |
| Total: | 59,187 | 7,322 |
|  |  | 12.37\% |
| Voting Age | 46,498 | 5,207 |
|  |  | 11.20\% |
| District 34 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,875 | 10,102 |
|  |  | 16.87\% |
| Voting Age | 45,758 | 7,169 |
|  |  | 15.67\% |
| District 34 Total |  |  |
| Total: | 59,875 | 10,102 |
|  |  | 16.87\% |
| Voting Age | 45,758 | 7,169 |
|  |  | 15.67\% |
| District 35 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,889 | 18,210 |
|  |  | 30.41\% |
| Voting Age | 48,312 | 13,722 |
|  |  | 28.40\% |
| District 35 Total |  |  |
| Total: | 59,889 | 18,210 |
|  |  | 30.41\% |
| Voting Age | 48,312 | 13,722 |
|  |  | 28.40\% |
| District 36 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,994 | 11,055 |
|  |  | 18.43\% |
| Voting Age | 44,911 | 7,626 |
|  |  | 16.98\% |
| District 36 Total |  |  |
| Total: | 59,994 | 11,055 |
|  |  | 18.43\% |
| Voting Age | 44,911 | 7,626 |
|  |  | 16.98\% |
| District 37 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,176 | 17,171 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 46,223 |  |
| District 37 Total |  |  |
| Total: | 59,176 | 17,171 |
| Voting Age | 46,223 | $\begin{array}{r} 29.02 \% \\ 13,027 \\ 28.18 \% \end{array}$ |
| District 38 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,317 | $\begin{array}{r} 33,760 \\ 56.91 \% \end{array}$ |
| Voting Age | 44,839 | $\begin{array}{r} 24,318 \\ 54.23 \% \end{array}$ |
| District 38 Total |  |  |
| Total: | 59,317 | $\begin{array}{r} 33,760 \\ 56.91 \% \end{array}$ |
| Voting Age | 44,839 | $\begin{array}{r} 24,318 \\ 54.23 \% \end{array}$ |
| District 39 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,381 | 33,016 |
| Voting Age | 44,436 | $\begin{array}{r} 55.60 \% \\ 24,569 \\ 55.29 \% \end{array}$ |
| District 39 Total |  |  |
| Total: | 59,381 | $\begin{array}{r} 33,016 \\ 55.60 \% \end{array}$ |
| Voting Age | 44,436 | $\begin{array}{r} 24,569 \\ 55.29 \% \end{array}$ |
| District 40 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,044 | $\begin{array}{r} 20,179 \\ 34.18 \% \end{array}$ |
| Voting Age | 47,976 | $\begin{array}{r} 15,821 \\ 32.98 \% \end{array}$ |
| District 40 Total |  |  |
| Total: | 59,044 | 20,179 |
| Voting Age | 47,976 | $\begin{array}{r} 34.18 \% \\ 15,821 \\ 32.98 \% \end{array}$ |
| District 41 |  |  |
| County: Cobb GA |  |  |
| Total: | 60,122 | $\begin{array}{r} 23,846 \\ 39.66 \% \end{array}$ |
| Voting Age | 45,271 | $\begin{array}{r} 17,816 \\ 39.35 \% \end{array}$ |
| District 41 Total |  |  |
| Total: | 60,122 | $\begin{array}{r} 23,846 \\ 39.66 \% \end{array}$ |
| Voting Age | 45,271 | 17,816 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 39.35\% |
| District 42 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,620 | 20,726 |
|  |  | 34.76\% |
| Voting Age | 48,525 | 16,353 |
|  |  | 33.70\% |
| District 42 Total |  |  |
| Total: | 59,620 | 20,726 |
|  |  | 34.76\% |
| Voting Age | 48,525 | 16,353 |
|  |  | 33.70\% |
| District 43 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,464 | 16,346 |
|  |  | 27.49\% |
| Voting Age | 47,033 | 12,476 |
|  |  | 26.53\% |
| District 43 Total |  |  |
| Total: | 59,464 | 16,346 |
|  |  | 27.49\% |
| Voting Age | 47,033 | 12,476 |
|  |  | 26.53\% |
| District 44 |  |  |
| County: Cherokee GA |  |  |
| Total: | 21,989 | 2,616 |
|  |  | 11.90\% |
| Voting Age | 17,142 | 1,838 |
|  |  | 10.72\% |
| County: Cobb GA |  |  |
| Total: | 38,013 | 5,374 |
|  |  | 14.14\% |
| Voting Age | 29,631 | 3,797 |
|  |  | 12.81\% |
| District 44 Total |  |  |
| Total: | 60,002 | 7,990 |
|  |  | 13.32\% |
| Voting Age | 46,773 | 5,635 |
|  |  | 12.05\% |
| District 45 |  |  |
| County: Cobb GA |  |  |
| Total: | 59,738 | 3,303 |
|  |  | 5.53\% |
| Voting Age | 44,023 | 2,324 |
|  |  | 5.28\% |
| District 45 Total |  |  |
| Total: | 59,738 | 3,303 |
|  |  | 5.53\% |
| Voting Age | 44,023 | 2,324 |
|  |  | 5.28\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| County: Cherokee GA |  |  |
| Total: | 15,178 | 1,451 |
|  |  | 9.56\% |
| Voting Age | 11,572 | 1,014 |
|  |  | 8.76\% |
| County: Cobb GA |  |  |
| Total: | 43,930 | 3,626 |
|  |  | 8.25\% |
| Voting Age | 32,560 | 2,546 |
|  |  | 7.82\% |
| District 46 Total |  |  |
| Total: | 59,108 | 5,077 |
|  |  | 8.59\% |
| Voting Age | 44,132 | 3,560 |
|  |  | 8.07\% |
| District 47 |  |  |
| County: Cherokee GA |  |  |
| Total: | 3,891 | 146 |
|  |  | 3.75\% |
| Voting Age | 3,103 | 97 |
|  |  | 3.13\% |
| County: Fulton GA |  |  |
| Total: | 55,235 | 6,444 |
|  |  | 11.67\% |
| Voting Age | 40,829 | 4,612 |
|  |  | 11.30\% |
| District 47 Total |  |  |
| Total: | 59,126 | 6,590 |
|  |  | 11.15\% |
| Voting Age | 43,932 | 4,709 |
|  |  | 10.72\% |
| District 48 |  |  |
| County: Fulton GA |  |  |
| Total: | 43,976 | 5,589 |
|  |  | 12.71\% |
| Voting Age | 33,385 | 4,110 |
|  |  | 12.31\% |
| County: Gwinnett GA |  |  |
| Total: | 15,027 | 1,627 |
|  |  | 10.83\% |
| Voting Age | 11,394 | 1,169 |
|  |  | 10.26\% |
| District 48 Total |  |  |
| Total: | 59,003 | 7,216 |
|  |  | 12.23\% |
| Voting Age | 44,779 | 5,279 |
|  |  | 11.79\% |
| District 49 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,153 | 5,234 |
|  |  | 8.85\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 45,263 | 3,813 |
|  |  | 8.42\% |
| District 49 Total |  |  |
| Total: | 59,153 | 5,234 |
|  |  | 8.85\% |
| Voting Age | 45,263 | 3,813 |
|  |  | 8.42\% |
| District 50 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,523 | 7,763 |
|  |  | 13.04\% |
| Voting Age | 43,940 | 5,450 |
|  |  | 12.40\% |
| District 50 Total |  |  |
| Total: | 59,523 | 7,763 |
|  |  | 13.04\% |
| Voting Age | 43,940 | 5,450 |
|  |  | 12.40\% |
| District 51 |  |  |
| County: Fulton GA |  |  |
| Total: | 58,952 | 14,766 |
|  |  | 25.05\% |
| Voting Age | 47,262 | 11,193 |
|  |  | 23.68\% |
| District 51 Total |  |  |
| Total: | 58,952 | 14,766 |
|  |  | 25.05\% |
| Voting Age | 47,262 | 11,193 |
|  |  | 23.68\% |
| District 52 |  |  |
| County: DeKalb GA |  |  |
| Total: | 28,300 | 3,815 |
|  |  | 13.48\% |
| Voting Age | 21,991 | 3,074 |
|  |  | 13.98\% |
| County: Fulton GA |  |  |
| Total: | 31,511 | 5,646 |
|  |  | 17.92\% |
| Voting Age | 26,534 | 4,684 |
|  |  | 17.65\% |
| District 52 Total |  |  |
| Total: | 59,811 | 9,461 |
|  |  | 15.82\% |
| Voting Age | 48,525 | 7,758 |
|  |  | 15.99\% |
| District 53 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,953 | 8,685 |
|  |  | 14.49\% |
| Voting Age | 46,944 | 6,819 |
|  |  | 14.53\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| District 53 Total |  |  |
| Total: | 59,953 | 8,685 |
|  |  | 14.49\% |
| Voting Age | 46,944 | 6,819 |
|  |  | 14.53\% |
| District 54 |  |  |
| County: Fulton GA |  |  |
| Total: | 60,083 | 9,048 |
|  |  | 15.06\% |
| Voting Age | 50,338 | 7,789 |
|  |  | 15.47\% |
| District 54 Total |  |  |
| Total: | 60,083 | 9,048 |
|  |  | 15.06\% |
| Voting Age | 50,338 | 7,789 |
|  |  | 15.47\% |
| District 55 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,971 | 34,374 |
|  |  | 57.32\% |
| Voting Age | 49,255 | 27,279 |
|  |  | 55.38\% |
| District 55 Total |  |  |
| Total: | 59,971 | 34,374 |
|  |  | 57.32\% |
| Voting Age | 49,255 | 27,279 |
|  |  | 55.38\% |
| District 56 |  |  |
| County: Fulton GA |  |  |
| Total: | 58,929 | 29,016 |
|  |  | 49.24\% |
| Voting Age | 52,757 | 23,993 |
|  |  | 45.48\% |
| District 56 Total |  |  |
| Total: | 58,929 | 29,016 |
|  |  | 49.24\% |
| Voting Age | 52,757 | 23,993 |
|  |  | 45.48\% |
| District 57 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,969 | 10,691 |
|  |  | 17.83\% |
| Voting Age | 52,097 | 9,411 |
|  |  | 18.06\% |
| District 57 Total |  |  |
| Total: | 59,969 | 10,691 |
|  |  | 17.83\% |
| Voting Age | 52,097 | 9,411 |
|  |  | 18.06\% |
| District 58 |  |  |
| County: Fulton GA |  |  |


|  | Total | AP_Blk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 59,057 | 39,036 |
|  |  | 66.10\% |
| Voting Age | 50,514 | 31,845 |
|  |  | 63.04\% |
| District 58 Total |  |  |
| Total: | 59,057 | 39,036 |
|  |  | 66.10\% |
| Voting Age | 50,514 | 31,845 |
|  |  | 63.04\% |
| District 59 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,434 | 43,468 |
|  |  | 73.14\% |
| Voting Age | 49,179 | 34,470 |
|  |  | 70.09\% |
| District 59 Total |  |  |
| Total: | 59,434 | 43,468 |
|  |  | 73.14\% |
| Voting Age | 49,179 | 34,470 |
|  |  | 70.09\% |
| District 60 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,709 | 38,562 |
|  |  | 64.58\% |
| Voting Age | 45,490 | 29,061 |
|  |  | 63.88\% |
| District 60 Total |  |  |
| Total: | 59,709 | 38,562 |
|  |  | 64.58\% |
| Voting Age | 45,490 | 29,061 |
|  |  | 63.88\% |
| District 61 |  |  |
| County: Douglas GA |  |  |
| Total: | 48,764 | 23,030 |
|  |  | 47.23\% |
| Voting Age | 36,596 | 16,441 |
|  |  | 44.93\% |
| County: Fulton GA |  |  |
| Total: | 10,186 | 9,691 |
|  |  | 95.14\% |
| Voting Age | 7,616 | 7,210 |
|  |  | 94.67\% |
| District 61 Total |  |  |
| Total: | 58,950 | 32,721 |
|  |  | 55.51\% |
| Voting Age | 44,212 | 23,651 |
|  |  | 53.49\% |
| District 62 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,450 | 43,732 |
|  |  | 73.56\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 46,426 | 33,548 |
|  |  | 72.26\% |
| District 62 Total |  |  |
| Total: | 59,450 | 43,732 |
|  |  | 73.56\% |
| Voting Age | 46,426 | 33,548 |
|  |  | 72.26\% |
| District 63 |  |  |
| County: Fulton GA |  |  |
| Total: | 59,381 | 42,146 |
|  |  | 70.98\% |
| Voting Age | 45,043 | 31,229 |
|  |  | 69.33\% |
| District 63 Total |  |  |
| Total: | 59,381 | 42,146 |
|  |  | 70.98\% |
| Voting Age | 45,043 | 31,229 |
|  |  | 69.33\% |
| District 64 |  |  |
| County: Douglas GA |  |  |
| Total: | 30,206 | 16,654 |
|  |  | 55.13\% |
| Voting Age | 23,160 | 12,498 |
|  |  | 53.96\% |
| County: Fulton GA |  |  |
| Total: | 6,032 | 5,832 |
|  |  | 96.68\% |
| Voting Age | 4,790 | 4,619 |
|  |  | 96.43\% |
| County: Paulding GA |  |  |
| Total: | 23,410 | 7,965 |
|  |  | 34.02\% |
| Voting Age | 17,329 | 5,631 |
|  |  | 32.49\% |
| District 64 Total |  |  |
| Total: | 59,648 | 30,451 |
|  |  | 51.05\% |
| Voting Age | 45,279 | 22,748 |
|  |  | 50.24\% |
| District 65 |  |  |
| County: Coweta GA |  |  |
| Total: | 13,008 | 1,621 |
|  |  | 12.46\% |
| Voting Age | 9,714 | 1,190 |
|  |  | 12.25\% |
| County: Douglas GA |  |  |
| Total: | 6,306 | 1,076 |
|  |  | 17.06\% |
| Voting Age | 4,765 | 781 |
|  |  | 16.39\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Total: | 39,926 | 35,278 |
|  |  | 88.36\% |
| Voting Age | 30,423 | 26,470 |
|  |  | 87.01\% |
| District 65 Total |  |  |
| Total: | 59,240 | 37,975 |
|  |  | 64.10\% |
| Voting Age | 44,902 | 28,441 |
|  |  | 63.34\% |
| District 66 |  |  |
| County: Douglas GA |  |  |
| Total: | 58,961 | 33,500 |
|  |  | 56.82\% |
| Voting Age | 43,907 | 23,657 |
|  |  | 53.88\% |
| District 66 Total |  |  |
| Total: | 58,961 | 33,500 |
|  |  | 56.82\% |
| Voting Age | 43,907 | 23,657 |
|  |  | 53.88\% |
| District 67 |  |  |
| County: Coweta GA |  |  |
| Total: | 17,272 | 1,374 |
|  |  | 7.96\% |
| Voting Age | 13,061 | 996 |
|  |  | 7.63\% |
| County: Fulton GA |  |  |
| Total: | 41,863 | 34,064 |
|  |  | 81.37\% |
| Voting Age | 31,238 | 25,103 |
|  |  | 80.36\% |
| District 67 Total |  |  |
| Total: | 59,135 | 35,438 |
|  |  | 59.93\% |
| Voting Age | 44,299 | 26,099 |
|  |  | 58.92\% |
| District 68 |  |  |
| County: Fayette GA |  |  |
| Total: | 29,719 | 7,094 |
|  |  | 23.87\% |
| Voting Age | 22,798 | 5,151 |
|  |  | 22.59\% |
| County: Fulton GA |  |  |
| Total: | 29,758 | 27,095 |
|  |  | 91.05\% |
| Voting Age | 22,037 | 19,843 |
|  |  | 90.04\% |
| District 68 Total |  |  |
| Total: | 59,477 | 34,189 |
|  |  | 57.48\% |
| Voting Age | 44,835 | 24,994 |



[^15]|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Total: | 11,412 | 1,142 |
|  |  | 10.01\% |
| Voting Age | 8,698 | 832 |
|  |  | 9.57\% |
| County: Troup GA |  |  |
| Total: | 10,281 | 2,312 |
|  |  | 22.49\% |
| Voting Age | 7,843 | 1,628 |
|  |  | 20.76\% |
| District 72 Total |  |  |
| Total: | 59,660 | 12,788 |
|  |  | 21.43\% |
| Voting Age | 46,229 | 9,642 |
|  |  | 20.86\% |
| District 73 |  |  |
| County: Coweta GA |  |  |
| Total: | 31,608 | 4,579 |
|  |  | 14.49\% |
| Voting Age | 24,269 | 3,242 |
|  |  | 13.36\% |
| County: Fayette GA |  |  |
| Total: | 28,428 | 3,286 |
|  |  | 11.56\% |
| Voting Age | 21,467 | 2,296 |
|  |  | 10.70\% |
| District 73 Total |  |  |
| Total: | 60,036 | 7,865 |
|  |  | 13.10\% |
| Voting Age | 45,736 | 5,538 |
|  |  | 12.11\% |
| District 74 |  |  |
| County: Clayton GA |  |  |
| Total: | 34,350 | 28,002 |
|  |  | 81.52\% |
| Voting Age | 25,385 | 20,605 |
|  |  | 81.17\% |
| County: Fayette GA |  |  |
| Total: | 24,068 | 4,077 |
|  |  | 16.94\% |
| Voting Age | 18,217 | 2,916 |
|  |  | 16.01\% |
| District 74 Total |  |  |
| Total: | 58,418 | 32,079 |
|  |  | 54.91\% |
| Voting Age | 43,602 | 23,521 |
|  |  | 53.94\% |
| District 75 |  |  |
| County: Clayton GA |  |  |
| Total: | 55,912 | 38,202 |
|  |  | 68.33\% |
| Voting Age | 42,018 | 28,038 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
|  |  | 66.73\% |
| County: Henry GA |  |  |
| Total: | 3,847 | 2,694 |
|  |  | 70.03\% |
| Voting Age | 2,965 | 2,052 |
|  |  | 69.21\% |
| District 75 Total |  |  |
| Total: | 59,759 | 40,896 |
|  |  | 68.43\% |
| Voting Age | 44,983 | 30,090 |
|  |  | 66.89\% |
| District 76 |  |  |
| County: Clayton GA |  |  |
| Total: | 59,759 | 40,461 |
|  |  | 67.71\% |
| Voting Age | 44,371 | 29,832 |
|  |  | 67.23\% |
| District 76 Total |  |  |
| Total: | 59,759 | 40,461 |
|  |  | 67.71\% |
| Voting Age | 44,371 | 29,832 |
|  |  | 67.23\% |
| District 77 |  |  |
| County: Clayton GA |  |  |
| Total: | 59,242 | 44,963 |
|  |  | 75.90\% |
| Voting Age | 44,207 | 33,655 |
|  |  | 76.13\% |
| District 77 Total |  |  |
| Total: | 59,242 | 44,963 |
|  |  | 75.90\% |
| Voting Age | 44,207 | 33,655 |
|  |  | 76.13\% |
| District 78 |  |  |
| County: Clayton GA |  |  |
| Total: | 24,678 | 19,469 |
|  |  | 78.89\% |
| Voting Age | 18,054 | 13,832 |
|  |  | 76.61\% |
| County: Henry GA |  |  |
| Total: | 18,397 | 9,234 |
|  |  | 50.19\% |
| Voting Age | 13,441 | 6,374 |
|  |  | 47.42\% |
| County: Spalding GA |  |  |
| Total: | 16,815 | 3,645 |
|  |  | 21.68\% |
| Voting Age | 13,276 | 2,642 |
|  |  | 19.90\% |
| District 78 Total |  |  |
| Total: | 59,890 | 32,348 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 44,771 | 54.01\% 22,848 <br> 51.03\% |
| District 79 |  |  |
| County: Clayton GA |  |  |
| Total: | 59,500 | 42,713 |
|  |  | 71.79\% |
| Voting Age | 43,223 | 30,942 |
|  |  | 71.59\% |
| District 79 Total |  |  |
| Total: | 59,500 | 42,713 |
|  |  | 71.79\% |
| Voting Age | 43,223 | 30,942 |
|  |  | 71.59\% |
| District 80 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,461 | 8,128 |
|  |  | 13.67\% |
| Voting Age | 44,784 | 6,350 |
|  |  | 14.18\% |
| District 80 Total |  |  |
| Total: | 59,461 | 8,128 |
|  |  | 13.67\% |
| Voting Age | 44,784 | 6,350 |
|  |  | 14.18\% |
| District 81 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,007 | 12,487 |
|  |  | 21.16\% |
| Voting Age | 46,259 | 10,099 |
|  |  | 21.83\% |
| District 81 Total |  |  |
| Total: | 59,007 | 12,487 |
|  |  | 21.16\% |
| Voting Age | 46,259 | 10,099 |
|  |  | 21.83\% |
| District 82 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,724 | 9,763 |
|  |  | 16.35\% |
| Voting Age | 50,238 | 8,455 |
|  |  | 16.83\% |
| District 82 Total |  |  |
| Total: | 59,724 | 9,763 |
|  |  | 16.35\% |
| Voting Age | 50,238 | 8,455 |
|  |  | 16.83\% |
| District 83 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,416 | 8,327 |
|  |  | 14.01\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 46,581 | 7,044 |
|  |  | 15.12\% |
| District 83 Total |  |  |
| Total: | 59,416 | 8,327 |
|  |  | 14.01\% |
| Voting Age | 46,581 | 7,044 |
|  |  | 15.12\% |
| District 84 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,862 | 43,909 |
|  |  | 73.35\% |
| Voting Age | 47,350 | 34,877 |
|  |  | 73.66\% |
| District 84 Total |  |  |
| Total: | 59,862 | 43,909 |
|  |  | 73.35\% |
| Voting Age | 47,350 | 34,877 |
|  |  | 73.66\% |
| District 85 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,373 | 37,650 |
|  |  | 63.41\% |
| Voting Age | 46,308 | 29,041 |
|  |  | 62.71\% |
| District 85 Total |  |  |
| Total: | 59,373 | 37,650 |
|  |  | 63.41\% |
| Voting Age | 46,308 | 29,041 |
|  |  | 62.71\% |
| District 86 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,205 | 44,458 |
|  |  | 75.09\% |
| Voting Age | 44,614 | 33,485 |
|  |  | 75.05\% |
| District 86 Total |  |  |
| Total: | 59,205 | 44,458 |
|  |  | 75.09\% |
| Voting Age | 44,614 | 33,485 |
|  |  | 75.05\% |
| District 87 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,709 | 44,195 |
|  |  | 74.02\% |
| Voting Age | 45,615 | 33,336 |
|  |  | 73.08\% |
| District 87 Total |  |  |
| Total: | 59,709 | 44,195 |
|  |  | 74.02\% |
| Voting Age | 45,615 | 33,336 |
|  |  | 73.08\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 88 |  |  |
| County: DeKalb GA |  |  |
| Total: | 47,844 | 34,877 |
|  |  | 72.90\% |
| Voting Age | 37,310 | 26,554 |
|  |  | 71.17\% |
| County: Gwinnett GA |  |  |
| Total: | 11,845 | 3,638 |
|  |  | 30.71\% |
| Voting Age | 8,763 | 2,633 |
|  |  | 30.05\% |
| District 88 Total |  |  |
| Total: | 59,689 | 38,515 |
|  |  | 64.53\% |
| Voting Age | 46,073 | 29,187 |
|  |  | 63.35\% |
| District 89 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,866 | 37,494 |
|  |  | 62.63\% |
| Voting Age | 46,198 | 28,890 |
|  |  | 62.54\% |
| District 89 Total |  |  |
| Total: | 59,866 | 37,494 |
|  |  | 62.63\% |
| Voting Age | 46,198 | 28,890 |
|  |  | 62.54\% |
| District 90 |  |  |
| County: DeKalb GA |  |  |
| Total: | 59,812 | 35,965 |
|  |  | 60.13\% |
| Voting Age | 48,015 | 28,082 |
|  |  | 58.49\% |
| District 90 Total |  |  |
| Total: | 59,812 | 35,965 |
|  |  | 60.13\% |
| Voting Age | 48,015 | 28,082 |
|  |  | 58.49\% |
| District 91 |  |  |
| County: DeKalb GA |  |  |
| Total: | 19,700 | 18,867 |
|  |  | 95.77\% |
| Voting Age | 14,941 | 14,323 |
|  |  | 95.86\% |
| County: Henry GA |  |  |
| Total: | 35,475 | 15,389 |
|  |  | 43.38\% |
| Voting Age | 27,241 | 11,402 |
|  |  | 41.86\% |
| County: Rockdale GA |  |  |
| Total: | 4,781 | 2,458 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 3,817 | 51.41\% <br> 1,879 <br> 49.23\% |
| District 91 Total |  |  |
| Total: | 59,956 | 36,714 |
|  |  | 61.23\% |
| Voting Age | 45,999 | $\begin{array}{r} 27,604 \\ 60.01 \% \end{array}$ |
| District 92 |  |  |
| County: DeKalb GA |  |  |
| Total: | 15,607 | 14,612 |
| Voting Age | 11,794 | 93.62\% 10,979 93.09\% |
| County: Rockdale GA |  |  |
| Total: | 44,666 | $\begin{array}{r} 28,366 \\ 63.51 \% \end{array}$ |
| Voting Age | 34,757 | $\begin{array}{r} 21,043 \\ 60.54 \% \end{array}$ |
| District 92 Total |  |  |
| Total: | 60,273 | $\begin{array}{r} 42,978 \\ 71.31 \% \end{array}$ |
| Voting Age | 46,551 | $\begin{array}{r} 32,022 \\ 68.79 \% \\ \hline \end{array}$ |
| District 93 |  |  |
| County: DeKalb GA |  |  |
| Total: | 11,690 | 10,625 |
| Voting Age | 8,476 | 90.89\% <br> 7,662 <br> 90.40\% |
| County: Newton GA |  |  |
| Total: | 15,515 | $\begin{array}{r} 8,194 \\ 52.81 \% \end{array}$ |
| Voting Age | 12,080 | $\begin{array}{r} 6,153 \\ 50.94 \% \end{array}$ |
| County: Rockdale GA |  |  |
| Total: | 32,913 | $\begin{array}{r} 21,430 \\ 65.11 \% \end{array}$ |
| Voting Age | 24,178 | $\begin{array}{r} 15,424 \\ 63.79 \% \end{array}$ |
| District 93 Total |  |  |
| Total: | 60,118 | 40,249 |
| Voting Age | 44,734 |  |
| District 94 |  |  |
| County: DeKalb GA |  |  |
| Total: | 31,207 | $\begin{array}{r} 29,080 \\ 93.18 \% \end{array}$ |
| Voting Age | 23,817 | $\begin{array}{r} 22,124 \\ 92.89 \% \end{array}$ |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| County: Gwinnett GA |  |  |
| Total: | 28,004 | 12,317 |
|  |  | 43.98\% |
| Voting Age | 20,992 | 8,811 |
|  |  | 41.97\% |
| District 94 Total |  |  |
| Total: | 59,211 | 41,397 |
|  |  | 69.91\% |
| Voting Age | 44,809 | 30,935 |
|  |  | 69.04\% |
| District 95 |  |  |
| County: DeKalb GA |  |  |
| Total: | 14,599 | 13,199 |
|  |  | 90.41\% |
| Voting Age | 10,985 | 9,855 |
|  |  | 89.71\% |
| County: Gwinnett GA |  |  |
| Total: | 34,221 | 23,533 |
|  |  | 68.77\% |
| Voting Age | 25,212 | 16,739 |
|  |  | 66.39\% |
| County: Rockdale GA |  |  |
| Total: | 11,210 | 4,950 |
|  |  | 44.16\% |
| Voting Age | 8,751 | 3,589 |
|  |  | 41.01\% |
| District 95 Total |  |  |
| Total: | 60,030 | 41,682 |
|  |  | 69.44\% |
| Voting Age | 44,948 | 30,183 |
|  |  | 67.15\% |
| District 96 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,515 | 13,970 |
|  |  | 23.47\% |
| Voting Age | 44,671 | 10,273 |
|  |  | 23.00\% |
| District 96 Total |  |  |
| Total: | 59,515 | 13,970 |
|  |  | 23.47\% |
| Voting Age | 44,671 | 10,273 |
|  |  | 23.00\% |
| District 97 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,072 | 16,869 |
|  |  | 28.56\% |
| Voting Age | 46,339 | 12,405 |
|  |  | 26.77\% |
| District 97 Total |  |  |
| Total: | 59,072 | 16,869 |
|  |  | 28.56\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 46,339 | 12,405 |
|  |  | 26.77\% |
| District 98 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,998 | 13,286 |
|  |  | 22.14\% |
| Voting Age | 42,734 | 9,934 |
|  |  | 23.25\% |
| District 98 Total |  |  |
| Total: | 59,998 | 13,286 |
|  |  | 22.14\% |
| Voting Age | 42,734 | 9,934 |
|  |  | 23.25\% |
| District 99 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,850 | 9,514 |
|  |  | 15.90\% |
| Voting Age | 45,004 | 6,622 |
|  |  | 14.71\% |
| District 99 Total |  |  |
| Total: | 59,850 | 9,514 |
|  |  | 15.90\% |
| Voting Age | 45,004 | 6,622 |
|  |  | 14.71\% |
| District 100 |  |  |
| County: Forsyth GA |  |  |
| Total: | 17,007 | 886 |
|  |  | 5.21\% |
| Voting Age | 11,368 | 568 |
|  |  | 5.00\% |
| County: Gwinnett GA |  |  |
| Total: | 35,204 | 4,889 |
|  |  | 13.89\% |
| Voting Age | 25,378 | 3,318 |
|  |  | 13.07\% |
| County: Hall GA |  |  |
| Total: | 7,819 | 623 |
|  |  | 7.97\% |
| Voting Age | 5,923 | 387 |
|  |  | 6.53\% |
| District 100 Total |  |  |
| Total: | 60,030 | 6,398 |
|  |  | 10.66\% |
| Voting Age | 42,669 | 4,273 |
|  |  | 10.01\% |
| District 101 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,938 | 15,380 |
|  |  | 25.66\% |
| Voting Age | 46,584 | 11,269 |
|  |  | 24.19\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 101 Total |  |  |
| Total: | 59,938 | 15,380 |
|  |  | 25.66\% |
| Voting Age | 46,584 | 11,269 |
|  |  | 24.19\% |
| District 102 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 58,959 | 23,702 |
|  |  | 40.20\% |
| Voting Age | 42,968 | 16,164 |
|  |  | 37.62\% |
| District 102 Total |  |  |
| Total: | 58,959 | 23,702 |
|  |  | 40.20\% |
| Voting Age | 42,968 | 16,164 |
|  |  | 37.62\% |
| District 103 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 51,691 | 10,201 |
|  |  | 19.73\% |
| Voting Age | 38,022 | 7,144 |
|  |  | 18.79\% |
| County: Hall GA |  |  |
| Total: | 8,506 | 427 |
|  |  | 5.02\% |
| Voting Age | 6,377 | 310 |
|  |  | 4.86\% |
| District 103 Total |  |  |
| Total: | 60,197 | 10,628 |
|  |  | 17.66\% |
| Voting Age | 44,399 | 7,454 |
|  |  | 16.79\% |
| District 104 |  |  |
| County: Barrow GA |  |  |
| Total: | 24,245 | 3,059 |
|  |  | 12.62\% |
| Voting Age | 17,849 | 2,036 |
|  |  | 11.41\% |
| County: Gwinnett GA |  |  |
| Total: | 35,117 | 7,684 |
|  |  | 21.88\% |
| Voting Age | 25,457 | 5,337 |
|  |  | 20.96\% |
| District 104 Total |  |  |
| Total: | 59,362 | 10,743 |
|  |  | 18.10\% |
| Voting Age | 43,306 | 7,373 |
|  |  | 17.03\% |
| District 105 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,344 | 18,444 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 43,474 | 31.08\% 12,628 29.05\% |
| District 105 Total |  |  |
| Total: | 59,344 | $\begin{array}{r} 18,444 \\ 31.08 \% \end{array}$ |
| Voting Age | 43,474 | $\begin{array}{r} 12,628 \\ 29.05 \% \end{array}$ |
| District 106 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,112 | $\begin{array}{r} 23,221 \\ 39.28 \% \end{array}$ |
| Voting Age | 43,890 | $\begin{array}{r} 15,918 \\ 36.27 \% \end{array}$ |
| District 106 Total |  |  |
| Total: | 59,112 | 23,221 |
| Voting Age | 43,890 | 39.28\% 15,918 36.27\% |
| District 107 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,702 | $\begin{array}{r} 18,372 \\ 30.77 \% \end{array}$ |
| Voting Age | 44,509 | $\begin{array}{r} 13,186 \\ 29.63 \% \\ \hline \end{array}$ |
| District 107 Total |  |  |
| Total: | 59,702 | $\begin{array}{r} 18,372 \\ 30.77 \% \end{array}$ |
| Voting Age | 44,509 | $\begin{array}{r} 13,186 \\ 29.63 \% \\ \hline \end{array}$ |
| District 108 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,577 | 11,946 |
| Voting Age | 44,308 | $\begin{array}{r} 20.05 \% \\ 8,132 \\ 18.35 \% \\ \hline \end{array}$ |
| District 108 Total |  |  |
| Total: | 59,577 | $\begin{array}{r} 11,946 \\ 20.05 \% \end{array}$ |
| Voting Age | 44,308 | $\begin{array}{r} 8,132 \\ 18.35 \% \\ \hline \end{array}$ |
| District 109 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,630 | $\begin{array}{r} 19,592 \\ 32.86 \% \end{array}$ |
| Voting Age | 44,140 | $\begin{array}{r} 14,352 \\ 32.51 \% \\ \hline \end{array}$ |
| District 109 Total |  |  |
| Total: Voting Age | 59,630 44,140 | $\begin{array}{r} 19,592 \\ 32.86 \% \\ 14,352 \end{array}$ |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 32.51\% |
| District 110 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 59,951 | $\begin{array}{r} 30,042 \\ 50.11 \% \end{array}$ |
| Voting Age | 43,226 | 20,400 |
|  |  | 47.19\% |
| District 110 Total |  |  |
| Total: | 59,951 | 30,042 |
|  |  | 50.11\% |
| Voting Age | 43,226 | 20,400 |
|  |  | 47.19\% |
| District 111 |  |  |
| County: Gwinnett GA |  |  |
| Total: | 22,685 | 7,931 |
|  |  | 34.96\% |
| Voting Age | 16,118 | 5,330 |
|  |  | 33.07\% |
| County: Walton GA |  |  |
| Total: | 37,324 | 6,641 |
|  |  | 17.79\% |
| Voting Age | 27,978 | 4,498 |
|  |  | 16.08\% |
| District 111 Total |  |  |
| Total: | 60,009 | 14,572 |
|  |  | 24.28\% |
| Voting Age | 44,096 | 9,828 |
|  |  | 22.29\% |
| District 112 |  |  |
| County: Walton GA |  |  |
| Total: | 59,349 | 12,163 |
|  |  | 20.49\% |
| Voting Age | 45,120 | 8,667 |
|  |  | 19.21\% |
| District 112 Total |  |  |
| Total: | 59,349 | 12,163 |
|  |  | 20.49\% |
| Voting Age | 45,120 | 8,667 |
|  |  | 19.21\% |
| District 113 |  |  |
| County: Newton GA |  |  |
| Total: | 60,053 | 37,002 |
|  |  | 61.62\% |
| Voting Age | 44,538 | 26,515 |
|  |  | 59.53\% |
| District 113 Total |  |  |
| Total: | 60,053 | 37,002 |
|  |  | 61.62\% |
| Voting Age | 44,538 | 26,515 |
|  |  | 59.53\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| County: Jasper GA |  |  |
| Total: | 2,855 | 394 |
|  |  | 13.80\% |
| Voting Age | 2,168 | 302 |
|  |  | 13.93\% |
| County: Morgan GA |  |  |
| Total: | 20,097 | 4,339 |
|  |  | 21.59\% |
| Voting Age | 15,574 | 3,280 |
|  |  | 21.06\% |
| County: Newton GA |  |  |
| Total: | 36,915 | 10,705 |
|  |  | 29.00\% |
| Voting Age | 28,130 | 7,765 |
|  |  | 27.60\% |
| District 114 Total |  |  |
| Total: | 59,867 | 15,438 |
|  |  | 25.79\% |
| Voting Age | 45,872 | 11,347 |
|  |  | 24.74\% |
| District 115 |  |  |
| County: Henry GA |  |  |
| Total: | 59,789 | 33,618 |
|  |  | 56.23\% |
| Voting Age | 45,207 | 24,310 |
|  |  | 53.77\% |
| District 115 Total |  |  |
| Total: | 59,789 | 33,618 |
|  |  | 56.23\% |
| Voting Age | 45,207 | 24,310 |
|  |  | 53.77\% |
| District 116 |  |  |
| County: Clayton GA |  |  |
| Total: | 4,154 | 2,541 |
|  |  | 61.17\% |
| Voting Age | 3,320 | 1,950 |
|  |  | 58.73\% |
| County: Henry GA |  |  |
| Total: | 50,833 | 29,507 |
|  |  | 58.05\% |
| Voting Age | 38,402 | 21,175 |
|  |  | 55.14\% |
| County: Spalding GA |  |  |
| Total: | 5,393 | 1,188 |
|  |  | 22.03\% |
| Voting Age | 4,727 | 1,006 |
|  |  | 21.28\% |
| District 116 Total |  |  |
| Total: | 60,380 | 33,236 |
|  |  | 55.04\% |
| Voting Age | 46,449 | 24,131 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
|  |  | 51.95\% |
| District 117 |  |  |
| County: Henry GA |  |  |
| Total: | 60,142 | 32,458 |
|  |  | 53.97\% |
| Voting Age | 44,089 | 22,732 |
|  |  | 51.56\% |
| District 117 Total |  |  |
| Total: | 60,142 | 32,458 |
|  |  | 53.97\% |
| Voting Age | 44,089 | 22,732 |
|  |  | 51.56\% |
| District 118 |  |  |
| County: Butts GA |  |  |
| Total: | 25,434 | 7,212 |
|  |  | 28.36\% |
| Voting Age | 20,360 | 5,660 |
|  |  | 27.80\% |
| County: Henry GA |  |  |
| Total: | 12,229 | 2,311 |
|  |  | 18.90\% |
| Voting Age | 8,628 | 1,612 |
|  |  | 18.68\% |
| County: Jasper GA |  |  |
| Total: | 11,733 | 2,282 |
|  |  | 19.45\% |
| Voting Age | 8,950 | 1,664 |
|  |  | 18.59\% |
| County: Putnam GA |  |  |
| Total: | 10,591 | 2,690 |
|  |  | 25.40\% |
| Voting Age | 8,404 | 2,001 |
|  |  | 23.81\% |
| District 118 Total |  |  |
| Total: | 59,987 | 14,495 |
|  |  | 24.16\% |
| Voting Age | 46,342 | 10,937 |
|  |  | 23.60\% |
| District 119 |  |  |
| County: Barrow GA |  |  |
| Total: | 54,736 | 8,054 |
|  |  | 14.71\% |
| Voting Age | 40,949 | 5,601 |
|  |  | 13.68\% |
| County: Jackson GA |  |  |
| Total: | 4,211 | 476 |
|  |  | 11.30\% |
| Voting Age | 3,056 | 334 |
|  |  | 10.93\% |
| District 119 Total |  |  |
| Total: | 58,947 | 8,530 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 44,005 | $\begin{array}{r} 14.47 \% \\ 5,935 \\ 13.49 \% \end{array}$ |
| District 120 |  |  |
| County: Barrow GA |  |  |
| Total: | 4,524 | $\begin{array}{r} 794 \\ 17.55 \% \end{array}$ |
| Voting Age | 3,397 | $\begin{array}{r} 585 \\ 17.22 \% \end{array}$ |
| County: Clarke GA |  |  |
| Total: | 30,095 | $\begin{array}{r} 6,316 \\ 20.99 \% \end{array}$ |
| Voting Age | 25,090 | $\begin{array}{r} 4,861 \\ 19.37 \% \end{array}$ |
| County: Jackson GA |  |  |
| Total: | 15,213 | 1,258 |
| Voting Age | 11,666 | $\begin{array}{r} 8.27 \% \\ 903 \\ 7.74 \% \end{array}$ |
| County: Oconee GA |  |  |
| Total: | 9,150 | 500 |
| Voting Age | 6,614 | $5.46 \%$ 330 |
|  |  | 4.99\% |
| District 120 Total |  |  |
| Total: | 58,982 | $\begin{array}{r} 8,868 \\ 15.04 \% \end{array}$ |
| Voting Age | 46,767 | $\begin{array}{r} 6,679 \\ 14.28 \% \end{array}$ |
| District 121 |  |  |
| County: Clarke GA |  |  |
| Total: | 26,478 | $\begin{array}{r} 4,108 \\ 15.51 \% \end{array}$ |
| Voting Age | 22,991 | $\begin{array}{r} 3,124 \\ 13.59 \% \end{array}$ |
| County: Oconee GA |  |  |
| Total: | 32,649 | $\begin{array}{r} 1,780 \\ 5.45 \% \end{array}$ |
| Voting Age | 23,607 | $\begin{array}{r} 1,330 \\ 5.63 \% \end{array}$ |
| District 121 Total |  |  |
| Total: | 59,127 | 5,888 |
| Voting Age | 46,598 | 9.96\% 4,454 |
|  |  | 9.56\% |
| District 122 |  |  |
| County: Clarke GA |  |  |
| Total: | 59,632 | $\begin{array}{r} 19,281 \\ 32.33 \% \end{array}$ |
| Voting Age | 48,840 | $\begin{array}{r} 13,878 \\ 28.42 \% \end{array}$ |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 122 Total |  |  |
| Total: | 59,632 | 19,281 |
|  |  | 32.33\% |
| Voting Age | 48,840 | 13,878 |
|  |  | 28.42\% |
| District 123 |  |  |
| County: Columbia GA |  |  |
| Total: | 2,205 | 478 |
|  |  | 21.68\% |
| Voting Age | 1,801 | 398 |
|  |  | 22.10\% |
| County: Elbert GA |  |  |
| Total: | 19,637 | 5,520 |
|  |  | 28.11\% |
| Voting Age | 15,493 | 4,122 |
|  |  | 26.61\% |
| County: Lincoln GA |  |  |
| Total: | 7,690 | 2,212 |
|  |  | 28.76\% |
| Voting Age | 6,270 | 1,728 |
|  |  | 27.56\% |
| County: Madison GA |  |  |
| Total: | 20,185 | 2,813 |
|  |  | 13.94\% |
| Voting Age | 15,357 | 1,988 |
|  |  | 12.95\% |
| County: Wilkes GA |  |  |
| Total: | 9,565 | 3,989 |
|  |  | 41.70\% |
| Voting Age | 7,651 | 3,071 |
|  |  | 40.14\% |
| District 123 Total |  |  |
| Total: | 59,282 | 15,012 |
|  |  | 25.32\% |
| Voting Age | 46,572 | 11,307 |
|  |  | 24.28\% |
| District 124 |  |  |
| County: Clarke GA |  |  |
| Total: | 12,466 | 3,967 |
|  |  | 31.82\% |
| Voting Age | 9,909 | 2,913 |
|  |  | 29.40\% |
| County: Greene GA |  |  |
| Total: | 18,915 | 6,027 |
|  |  | 31.86\% |
| Voting Age | 15,358 | 4,470 |
|  |  | 29.11\% |
| County: Oglethorpe GA |  |  |
| Total: | 14,825 | 2,468 |
|  |  | 16.65\% |
| Voting Age | 11,639 | 1,853 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 15.92\% |
| County: Putnam GA |  |  |
| Total: | 11,456 | 3,011 |
|  |  | 26.28\% |
| Voting Age | 9,443 | 2,228 |
|  |  | 23.59\% |
| County: Taliaferro GA |  |  |
| Total: | 1,559 | 876 |
|  |  | 56.19\% |
| Voting Age | 1,289 | 722 |
|  |  | 56.01\% |
| District 124 Total |  |  |
| Total: | 59,221 | 16,349 |
|  |  | 27.61\% |
| Voting Age | 47,638 | 12,186 |
|  |  | 25.58\% |
| District 125 |  |  |
| County: Columbia GA |  |  |
| Total: | 55,389 | 14,661 |
|  |  | 26.47\% |
| Voting Age | 40,007 | 9,920 |
|  |  | 24.80\% |
| County: McDuffie GA |  |  |
| Total: | 4,748 | 594 |
|  |  | 12.51\% |
| Voting Age | 3,805 | 456 |
|  |  | 11.98\% |
| District 125 Total |  |  |
| Total: | 60,137 | 15,255 |
|  |  | 25.37\% |
| Voting Age | 43,812 | 10,376 |
|  |  | 23.68\% |
| District 126 |  |  |
| County: Burke GA |  |  |
| Total: | 24,596 | 11,430 |
|  |  | 46.47\% |
| Voting Age | 18,778 | 8,362 |
|  |  | 44.53\% |
| County: Jenkins GA |  |  |
| Total: | 8,674 | 3,638 |
|  |  | 41.94\% |
| Voting Age | 7,005 | 2,843 |
|  |  | 40.59\% |
| County: Richmond GA |  |  |
| Total: | 25,990 | 18,384 |
|  |  | 70.73\% |
| Voting Age | 19,714 | 13,577 |
|  |  | 68.87\% |
| District 126 Total |  |  |
| Total: | 59,260 | 33,452 |
|  |  | 56.45\% |



|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 46,488 | 52.50\% 23,434 <br> 50.41\% |
| District 129 |  |  |
| County: Richmond GA |  |  |
| Total: | 58,829 | $\begin{array}{r} 34,245 \\ 58.21 \% \end{array}$ |
| Voting Age | 46,873 | $\begin{array}{r} 25,717 \\ 54.87 \% \end{array}$ |
| District 129 Total |  |  |
| Total: | 58,829 | 34,245 |
| Voting Age | 46,873 | 58.21\% 25,717 <br> 54.87\% |
| District 130 |  |  |
| County: Richmond GA |  |  |
| Total: | 59,203 | $\begin{array}{r} 37,564 \\ 63.45 \% \end{array}$ |
| Voting Age | 44,019 | $\begin{array}{r} 26,372 \\ 59.91 \% \end{array}$ |
| District 130 Total |  |  |
| Total: | 59,203 | $\begin{array}{r} 37,564 \\ 63.45 \% \end{array}$ |
| Voting Age | 44,019 | $\begin{array}{r} 26,372 \\ 59.91 \% \end{array}$ |
| District 131 |  |  |
| County: Columbia GA |  |  |
| Total: | 58,890 | $\begin{array}{r} 11,142 \\ 18.92 \% \end{array}$ |
| Voting Age | 42,968 | $\begin{array}{r} 7,572 \\ 17.62 \% \\ \hline \end{array}$ |
| District 131 Total |  |  |
| Total: | 58,890 | $\begin{array}{r} 11,142 \\ 18.92 \% \end{array}$ |
| Voting Age | 42,968 | $\begin{array}{r} 7,572 \\ 17.62 \% \\ \hline \end{array}$ |
| District 132 |  |  |
| County: Jefferson GA |  |  |
| Total: | 15,709 | $\begin{array}{r} 8,208 \\ 52.25 \% \end{array}$ |
| Voting Age | 12,301 | $\begin{array}{r} 6,324 \\ 51.41 \% \end{array}$ |
| County: Richmond GA |  |  |
| Total: | 43,433 | $\begin{array}{r} 24,472 \\ 56.34 \% \end{array}$ |
| Voting Age | 34,451 | $\begin{array}{r} 18,147 \\ 52.67 \% \end{array}$ |
| District 132 Total |  |  |
| Total: Voting Age | 59,142 46,752 | $\begin{array}{r} 32,680 \\ 55.26 \% \\ 24,471 \end{array}$ |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
|  |  | 52.34\% |
| District 133 |  |  |
| County: Baldwin GA |  |  |
| Total: | 12,336 | 3,533 |
|  |  | 28.64\% |
| Voting Age | 9,995 | 2,704 |
|  |  | 27.05\% |
| County: Jones GA |  |  |
| Total: | 28,347 | 7,114 |
|  |  | 25.10\% |
| Voting Age | 21,575 | 5,341 |
|  |  | 24.76\% |
| County: Monroe GA |  |  |
| Total: | 19,085 | 5,241 |
|  |  | 27.46\% |
| Voting Age | 14,826 | 4,069 |
|  |  | 27.45\% |
| District 133 Total |  |  |
| Total: | 59,768 | 15,888 |
|  |  | 26.58\% |
| Voting Age | 46,396 | 12,114 |
|  |  | 26.11\% |
| District 134 |  |  |
| County: Lamar GA |  |  |
| Total: | 13,948 | 3,951 |
|  |  | 28.33\% |
| Voting Age | 10,728 | 2,916 |
|  |  | 27.18\% |
| County: Spalding GA |  |  |
| Total: | 45,098 | 19,689 |
|  |  | 43.66\% |
| Voting Age | 34,120 | 13,863 |
|  |  | 40.63\% |
| District 134 Total |  |  |
| Total: | 59,046 | 23,640 |
|  |  | 40.04\% |
| Voting Age | 44,848 | 16,779 |
|  |  | 37.41\% |
| District 135 |  |  |
| County: Lamar GA |  |  |
| Total: | 4,552 | 1,269 |
|  |  | 27.88\% |
| Voting Age | 3,813 | 1,101 |
|  |  | 28.87\% |
| County: Monroe GA |  |  |
| Total: | 8,872 | 1,203 |
|  |  | 13.56\% |
| Voting Age | 7,087 | 999 |
|  |  | 14.10\% |
| County: Pike GA |  |  |
| Total: | 18,889 | 1,613 |



## County: Troup GA

|  | Total | AP_BIk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 16,144 | 6,765 |
|  |  | 41.90\% |
| Voting Age | 12,084 | 4,802 |
|  |  | 39.74\% |
| District 137 Total |  |  |
| Total: | 59,551 | 32,252 |
|  |  | 54.16\% |
| Voting Age | 45,358 | 23,647 |
|  |  | 52.13\% |
| District 138 |  |  |
| County: Harris GA |  |  |
| Total: | 21,634 | 3,615 |
|  |  | 16.71\% |
| Voting Age | 16,816 | 2,768 |
|  |  | 16.46\% |
| County: Muscogee GA |  |  |
| Total: | 12,190 | 1,636 |
|  |  | 13.42\% |
| Voting Age | 9,628 | 1,178 |
|  |  | 12.24\% |
| County: Troup GA |  |  |
| Total: | 25,088 | 6,821 |
|  |  | 27.19\% |
| Voting Age | 19,240 | 4,878 |
|  |  | 25.35\% |
| District 138 Total |  |  |
| Total: | 58,912 | 12,072 |
|  |  | 20.49\% |
| Voting Age | 45,684 | 8,824 |
|  |  | 19.32\% |
| District 139 |  |  |
| County: Harris GA |  |  |
| Total: | 13,034 | 2,127 |
|  |  | 16.32\% |
| Voting Age | 9,983 | 1,663 |
|  |  | 16.66\% |
| County: Muscogee GA |  |  |
| Total: | 45,976 | 10,719 |
|  |  | 23.31\% |
| Voting Age | 35,539 | 7,564 |
|  |  | 21.28\% |
| District 139 Total |  |  |
| Total: | 59,010 | 12,846 |
|  |  | 21.77\% |
| Voting Age | 45,522 | 9,227 |
|  |  | 20.27\% |
| District 140 |  |  |
| County: Muscogee GA |  |  |
| Total: | 59,294 | 35,460 |
|  |  | 59.80\% |
| Voting Age | 44,411 | 25,596 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 57.63\% |
| District 140 Total |  |  |
| Total: | 59,294 | 35,460 |
|  |  | 59.80\% |
| Voting Age | 44,411 | 25,596 |
|  |  | 57.63\% |
| District 141 |  |  |
| County: Muscogee GA |  |  |
| Total: | 59,019 | 34,760 |
|  |  | 58.90\% |
| Voting Age | 44,677 | 25,672 |
|  |  | 57.46\% |
| District 141 Total |  |  |
| Total: | 59,019 | 34,760 |
|  |  | 58.90\% |
| Voting Age | 44,677 | 25,672 |
|  |  | 57.46\% |
| District 142 |  |  |
| County: Bibb GA |  |  |
| Total: | 59,320 | 31,749 |
|  |  | 53.52\% |
| Voting Age | 45,212 | 22,669 |
|  |  | 50.14\% |
| District 142 Total |  |  |
| Total: | 59,320 | 31,749 |
|  |  | 53.52\% |
| Voting Age | 45,212 | 22,669 |
|  |  | 50.14\% |
| District 143 |  |  |
| County: Bibb GA |  |  |
| Total: | 59,122 | 32,016 |
|  |  | 54.15\% |
| Voting Age | 45,811 | 23,200 |
|  |  | 50.64\% |
| District 143 Total |  |  |
| Total: | 59,122 | 32,016 |
|  |  | 54.15\% |
| Voting Age | 45,811 | 23,200 |
|  |  | 50.64\% |
| District 144 |  |  |
| County: Crawford GA |  |  |
| Total: | 12,130 | 2,455 |
|  |  | 20.24\% |
| Voting Age | 9,606 | 1,938 |
|  |  | 20.17\% |
| County: Houston GA |  |  |
| Total: | 32,310 | 9,506 |
|  |  | 29.42\% |
| Voting Age | 24,049 | 6,774 |
|  |  | 28.17\% |

[^16]|  | Total | AP_Blk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 14,093 | 3,312 |
|  |  | 23.50\% |
| Voting Age | 11,209 | 2,478 |
|  |  | 22.11\% |
| District 144 Total |  |  |
| Total: | 58,533 | 15,273 |
|  |  | 26.09\% |
| Voting Age | 44,864 | 11,190 |
|  |  | 24.94\% |
| District 145 |  |  |
| County: Bibb GA |  |  |
| Total: | 22,716 | 12,851 |
|  |  | 56.57\% |
| Voting Age | 17,174 | 9,172 |
|  |  | 53.41\% |
| County: Houston GA |  |  |
| Total: | 36,952 | 19,227 |
|  |  | 52.03\% |
| Voting Age | 27,373 | 13,271 |
|  |  | 48.48\% |
| District 145 Total |  |  |
| Total: | 59,668 | 32,078 |
|  |  | 53.76\% |
| Voting Age | 44,547 | 22,443 |
|  |  | 50.38\% |
| District 146 |  |  |
| County: Bleckley GA |  |  |
| Total: | 12,583 | 2,951 |
|  |  | 23.45\% |
| Voting Age | 9,613 | 2,036 |
|  |  | 21.18\% |
| County: Houston GA |  |  |
| Total: | 35,804 | 8,390 |
|  |  | 23.43\% |
| Voting Age | 26,273 | 5,991 |
|  |  | 22.80\% |
| County: Pulaski GA |  |  |
| Total: | 9,855 | 3,250 |
|  |  | 32.98\% |
| Voting Age | 8,012 | 2,564 |
|  |  | 32.00\% |
| County: Wilcox GA |  |  |
| Total: | 955 | 365 |
|  |  | 38.22\% |
| Voting Age | 779 | 300 |
|  |  | 38.51\% |
| District 146 Total |  |  |
| Total: | 59,197 | 14,956 |
|  |  | 25.26\% |
| Voting Age | 44,677 | 10,891 |
|  |  | 24.38\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| District 147 |  |  |
| County: Houston GA |  |  |
| Total: | 58,567 | 19,397 |
|  |  | 33.12\% |
| Voting Age | 44,423 | 13,569 |
|  |  | 30.54\% |
| District 147 Total |  |  |
| Total: | 58,567 | 19,397 |
|  |  | 33.12\% |
| Voting Age | 44,423 | 13,569 |
|  |  | 30.54\% |
| District 148 |  |  |
| County: Ben Hill GA |  |  |
| Total: | 5,115 | 1,601 |
|  |  | 31.30\% |
| Voting Age | 3,873 | 1,069 |
|  |  | 27.60\% |
| County: Crisp GA |  |  |
| Total: | 20,128 | 9,194 |
|  |  | 45.68\% |
| Voting Age | 15,570 | 6,603 |
|  |  | 42.41\% |
| County: Dodge GA |  |  |
| Total: | 18,550 | 6,010 |
|  |  | 32.40\% |
| Voting Age | 14,621 | 4,625 |
|  |  | 31.63\% |
| County: Telfair GA |  |  |
| Total: | 8,283 | 3,698 |
|  |  | 44.65\% |
| Voting Age | 6,955 | 3,013 |
|  |  | 43.32\% |
| County: Wilcox GA |  |  |
| Total: | 7,811 | 2,796 |
|  |  | 35.80\% |
| Voting Age | 6,439 | 2,393 |
|  |  | 37.16\% |
| District 148 Total |  |  |
| Total: | 59,887 | 23,299 |
|  |  | 38.90\% |
| Voting Age | 47,458 | 17,703 |
|  |  | 37.30\% |
| District 149 |  |  |
| County: Baldwin GA |  |  |
| Total: | 26,305 | 13,453 |
|  |  | 51.14\% |
| Voting Age | 21,650 | 10,314 |
|  |  | 47.64\% |
| County: Bibb GA |  |  |
| Total: | 16,188 | 12,249 |
|  |  | 75.67\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 12,705 | 9,229 |
|  |  | 72.64\% |
| County: Twiggs GA |  |  |
| Total: | 8,022 | 3,226 |
|  |  | 40.21\% |
| Voting Age | 6,589 | 2,627 |
|  |  | 39.87\% |
| County: Wilkinson GA |  |  |
| Total: | 8,877 | 3,330 |
|  |  | 37.51\% |
| Voting Age | 7,026 | 2,549 |
|  |  | 36.28\% |
| District 149 Total |  |  |
| Total: | 59,392 | 32,258 |
|  |  | 54.31\% |
| Voting Age | 47,970 | 24,719 |
|  |  | 51.53\% |
| District 150 |  |  |
| County: Dooly GA |  |  |
| Total: | 11,208 | 5,652 |
|  |  | 50.43\% |
| Voting Age | 9,187 | 4,526 |
|  |  | 49.27\% |
| County: Macon GA |  |  |
| Total: | 12,082 | 7,296 |
|  |  | 60.39\% |
| Voting Age | 9,938 | 6,021 |
|  |  | 60.59\% |
| County: Peach GA |  |  |
| Total: | 13,888 | 9,333 |
|  |  | 67.20\% |
| Voting Age | 10,902 | 7,242 |
|  |  | 66.43\% |
| County: Sumter GA |  |  |
| Total: | 14,282 | 7,237 |
|  |  | 50.67\% |
| Voting Age | 10,903 | 5,178 |
|  |  | 47.49\% |
| County: Taylor GA |  |  |
| Total: | 7,816 | 2,946 |
|  |  | 37.69\% |
| Voting Age | 6,120 | 2,235 |
|  |  | 36.52\% |
| District 150 Total |  |  |
| Total: | 59,276 | 32,464 |
|  |  | 54.77\% |
| Voting Age | 47,050 | 25,202 |
|  |  | 53.56\% |
| District 151 |  |  |
| County: Chattahoochee GA |  |  |
| Total: | 9,565 | 1,825 |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Voting Age | 7.199 | $\begin{array}{r} 19.08 \% \\ 1,287 \end{array}$ |
|  |  | 17.88\% |
| County: Dougherty GA |  |  |
| Total: | 6,268 | 3,885 |
|  |  | 61.98\% |
| Voting Age | 4,791 | 2,835 |
|  |  | 59.17\% |
| County: Marion GA |  |  |
| Total: | 7,498 | 2,223 |
|  |  | 29.65\% |
| Voting Age | 5,854 | 1,687 |
|  |  | 28.82\% |
| County: Schley GA |  |  |
| Total: | 4,547 | 933 |
|  |  | 20.52\% |
| Voting Age | 3,328 | 644 |
|  |  | 19.35\% |
| County: Stewart GA |  |  |
| Total: | 5,314 | 2,538 |
|  |  | 47.76\% |
| Voting Age | 4,617 | 2,048 |
|  |  | 44.36\% |
| County: Sumter GA |  |  |
| Total: | 15,334 | 8,309 |
|  |  | 54.19\% |
| Voting Age | 12,133 | 6,301 |
|  |  | 51.93\% |
| County: Terrell GA |  |  |
| Total: | 9,185 | 5,707 |
|  |  | 62.13\% |
| Voting Age | 7,204 | 4,274 |
|  |  | 59.33\% |
| County: Webster GA |  |  |
| Total: | 2,348 | 1,107 |
|  |  | 47.15\% |
| Voting Age | 1,847 | 844 |
|  |  | 45.70\% |
| District 151 Total |  |  |
| Total: | 60,059 | 26,527 |
|  |  | 44.17\% |
| Voting Age | 46,973 | 19,920 |
|  |  | 42.41\% |
| District 152 |  |  |
| County: Dougherty GA |  |  |
| Total: | 6,187 | 3,082 |
|  |  | 49.81\% |
| Voting Age | 4,906 | 2,382 |
|  |  | 48.55\% |
| County: Lee GA |  |  |
| Total: | 33,163 | 7,755 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 24,676 | $23.38 \%$ 5,503 |
|  |  | 22.30\% |
| County: Worth GA |  |  |
| Total: | 20,784 | 5,517 |
|  |  | 26.54\% |
| Voting Age | 16,444 | 4,108 |
|  |  | 24.98\% |
| District 152 Total |  |  |
| Total: | 60,134 | 16,354 |
|  |  | 27.20\% |
| Voting Age | 46,026 | 11,993 |
|  |  | 26.06\% |
| District 153 |  |  |
| County: Dougherty GA |  |  |
| Total: | 59,299 | 42,183 |
|  |  | 71.14\% |
| Voting Age | 45,692 | 31,047 |
|  |  | 67.95\% |
| District 153 Total |  |  |
| Total: | 59,299 | 42,183 |
|  |  | 71.14\% |
| Voting Age | 45,692 | 31,047 |
|  |  | 67.95\% |
| District 154 |  |  |
| County: Baker GA |  |  |
| Total: | 2,876 | 1,178 |
|  |  | 40.96\% |
| Voting Age | 2,275 | 932 |
|  |  | 40.97\% |
| County: Calhoun GA |  |  |
| Total: | 5,573 | 3,629 |
|  |  | 65.12\% |
| Voting Age | 4,687 | 2,998 |
|  |  | 63.96\% |
| County: Clay GA |  |  |
| Total: | 2,848 | 1,634 |
|  |  | 57.37\% |
| Voting Age | 2,246 | 1,231 |
|  |  | 54.81\% |
| County: Dougherty GA |  |  |
| Total: | 14,036 | 12,307 |
|  |  | 87.68\% |
| Voting Age | 10,877 | 9,367 |
|  |  | 86.12\% |
| County: Early GA |  |  |
| Total: | 10,854 | 5,688 |
|  |  | 52.40\% |
| Voting Age | 8,315 | 4,075 |
|  |  | 49.01\% |

## County: Miller GA

|  | Total | AP_BIk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 6,000 | 1,831 |
|  |  | 30.52\% |
| Voting Age | 4,749 | 1,358 |
|  |  | 28.60\% |
| County: Quitman GA |  |  |
| Total: | 2,235 | 965 |
|  |  | 43.18\% |
| Voting Age | 1,870 | 765 |
|  |  | 40.91\% |
| County: Randolph GA |  |  |
| Total: | 6,425 | 3,947 |
|  |  | 61.43\% |
| Voting Age | 4,977 | 2,913 |
|  |  | 58.53\% |
| County: Seminole GA |  |  |
| Total: | 9,147 | 3,093 |
|  |  | 33.81\% |
| Voting Age | 7,277 | 2,275 |
|  |  | 31.26\% |
| District 154 Total |  |  |
| Total: | 59,994 | 34,272 |
|  |  | 57.13\% |
| Voting Age | 47,273 | 25,914 |
|  |  | 54.82\% |
| District 155 |  |  |
| County: Dodge GA |  |  |
| Total: | 1,375 | 138 |
|  |  | 10.04\% |
| Voting Age | 1,088 | 100 |
|  |  | 9.19\% |
| County: Johnson GA |  |  |
| Total: | 9,189 | 3,124 |
|  |  | 34.00\% |
| Voting Age | 7,474 | 2,513 |
|  |  | 33.62\% |
| County: Laurens GA |  |  |
| Total: | 49,570 | 19,132 |
|  |  | 38.60\% |
| Voting Age | 37,734 | 13,695 |
|  |  | 36.29\% |
| District 155 Total |  |  |
| Total: | 60,134 | 22,394 |
|  |  | 37.24\% |
| Voting Age | 46,296 | 16,308 |
|  |  | 35.23\% |
| District 156 |  |  |
| County: Ben Hill GA |  |  |
| Total: | 12,079 | 4,936 |
|  |  | 40.86\% |
| Voting Age | 9,292 | 3,676 |
|  |  | 39.56\% |


|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| County: Montgomery GA |  |  |
| Total: | 8,610 | 2,224 |
|  |  | 25.83\% |
| Voting Age | 6,792 | 1,781 |
|  |  | 26.22\% |
| County: Tattnall GA |  |  |
| Total: | 1,263 | 168 |
|  |  | 13.30\% |
| Voting Age | 999 | 129 |
|  |  | 12.91\% |
| County: Telfair GA |  |  |
| Total: | 4,194 | 1,056 |
|  |  | 25.18\% |
| Voting Age | 3,235 | 793 |
|  |  | 24.51\% |
| County: Toombs GA |  |  |
| Total: | 27,030 | 7,402 |
|  |  | 27.38\% |
| Voting Age | 20,261 | 5,036 |
|  |  | 24.86\% |
| County: Wheeler GA |  |  |
| Total: | 7,471 | 2,949 |
|  |  | 39.47\% |
| Voting Age | 6,217 | 2,561 |
|  |  | 41.19\% |
| District 156 Total |  |  |
| Total: | 60,647 | 18,735 |
|  |  | 30.89\% |
| Voting Age | 46,796 | 13,976 |
|  |  | 29.87\% |
| District 157 |  |  |
| County: Appling GA |  |  |
| Total: | 12,825 | 3,189 |
|  |  | 24.87\% |
| Voting Age | 9,673 | 2,257 |
|  |  | 23.33\% |
| County: Evans GA |  |  |
| Total: | 10,774 | 3,273 |
|  |  | 30.38\% |
| Voting Age | 8,127 | 2,410 |
|  |  | 29.65\% |
| County: Jeff Davis GA |  |  |
| Total: | 14,779 | 2,493 |
|  |  | 16.87\% |
| Voting Age | 10,856 | 1,752 |
|  |  | 16.14\% |
| County: Tattnall GA |  |  |
| Total: | 21,579 | 6,163 |
|  |  | 28.56\% |
| Voting Age | 16,655 | 4,757 |
|  |  | 28.56\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| District 157 Total |  |  |
| Total: | 59,957 | 15,118 |
|  |  | 25.21\% |
| Voting Age | 45,311 | 11,176 |
|  |  | 24.67\% |
| District 158 |  |  |
| County: Bulloch GA |  |  |
| Total: | 19,285 | 7,179 |
|  |  | 37.23\% |
| Voting Age | 15,054 | 5,282 |
|  |  | 35.09\% |
| County: Candler GA |  |  |
| Total: | 10,981 | 2,807 |
|  |  | 25.56\% |
| Voting Age | 8,241 | 2,009 |
|  |  | 24.38\% |
| County: Emanuel GA |  |  |
| Total: | 22,768 | 7,556 |
|  |  | 33.19\% |
| Voting Age | 17,320 | 5,404 |
|  |  | 31.20\% |
| County: Treutlen GA |  |  |
| Total: | 6,406 | 2,114 |
|  |  | 33.00\% |
| Voting Age | 4,934 | 1,514 |
|  |  | 30.69\% |
| District 158 Total |  |  |
| Total: | 59,440 | 19,656 |
|  |  | 33.07\% |
| Voting Age | 45,549 | 14,209 |
|  |  | 31.19\% |
| District 159 |  |  |
| County: Bulloch GA |  |  |
| Total: | 12,887 | 5,071 |
|  |  | 39.35\% |
| Voting Age | 9,695 | 3,543 |
|  |  | 36.54\% |
| County: Effingham GA |  |  |
| Total: | 32,941 | 4,709 |
|  |  | 14.30\% |
| Voting Age | 24,283 | 3,308 |
|  |  | 13.62\% |
| County: Screven GA |  |  |
| Total: | 14,067 | 5,527 |
|  |  | 39.29\% |
| Voting Age | 10,893 | 4,144 |
|  |  | 38.04\% |
| District 159 Total |  |  |
| Total: | 59,895 | 15,307 |
|  |  | 25.56\% |
| Voting Age | 44,871 | 10,995 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 24.50\% |
| District 160 |  |  |
| County: Bryan GA |  |  |
| Total: | 11,008 | 2,045 |
|  |  | 18.58\% |
| Voting Age | 8,312 | 1,464 |
|  |  | 17.61\% |
| County: Bulloch GA |  |  |
| Total: | 48,927 | 12,125 |
|  |  | 24.78\% |
| Voting Age | 39,745 | 9,395 |
|  |  | 23.64\% |
| District 160 Total |  |  |
| Total: | 59,935 | 14,170 |
|  |  | 23.64\% |
| Voting Age | 48,057 | 10,859 |
|  |  | 22.60\% |
| District 161 |  |  |
| County: Chatham GA |  |  |
| Total: | 28,269 | 12,024 |
|  |  | 42.53\% |
| Voting Age | 21,359 | 8,519 |
|  |  | 39.88\% |
| County: Effingham GA |  |  |
| Total: | 31,828 | 5,326 |
|  |  | 16.73\% |
| Voting Age | 23,012 | 3,523 |
|  |  | 15.31\% |
| District 161 Total |  |  |
| Total: | 60,097 | 17,350 |
|  |  | 28.87\% |
| Voting Age | 44,371 | 12,042 |
|  |  | 27.14\% |
| District 162 |  |  |
| County: Chatham GA |  |  |
| Total: | 60,308 | 28,142 |
|  |  | 46.66\% |
| Voting Age | 46,733 | 20,435 |
|  |  | 43.73\% |
| District 162 Total |  |  |
| Total: | 60,308 | 28,142 |
|  |  | 46.66\% |
| Voting Age | 46,733 | 20,435 |
|  |  | 43.73\% |
| District 163 |  |  |
| County: Chatham GA |  |  |
| Total: | 60,123 | 29,099 |
|  |  | 48.40\% |
| Voting Age | 48,461 | 22,045 |
|  |  | 45.49\% |


|  | Total | AP_Blk |
| :---: | :---: | :---: |
|  | Population |  |
| Total: | 60,123 | 29,099 |
|  |  | 48.40\% |
| Voting Age | 48,461 | 22,045 |
|  |  | 45.49\% |
| District 164 |  |  |
| County: Bryan GA |  |  |
| Total: | 21,420 | 4,209 |
|  |  | 19.65\% |
| Voting Age | 15,119 | 2,747 |
|  |  | 18.17\% |
| County: Chatham GA |  |  |
| Total: | 38,681 | 10,858 |
|  |  | 28.07\% |
| Voting Age | 30,732 | 8,013 |
|  |  | 26.07\% |
| District 164 Total |  |  |
| Total: | 60,101 | 15,067 |
|  |  | 25.07\% |
| Voting Age | 45,851 | 10,760 |
|  |  | 23.47\% |
| District 165 |  |  |
| County: Chatham GA |  |  |
| Total: | 59,978 | 32,897 |
|  |  | 54.85\% |
| Voting Age | 48,247 | 24,282 |
|  |  | 50.33\% |
| District 165 Total |  |  |
| Total: | 59,978 | 32,897 |
|  |  | 54.85\% |
| Voting Age | 48,247 | 24,282 |
|  |  | 50.33\% |
| District 166 |  |  |
| County: Bryan GA |  |  |
| Total: | 12,310 | 1,209 |
|  |  | 9.82\% |
| Voting Age | 8,397 | 814 |
|  |  | 9.69\% |
| County: Chatham GA |  |  |
| Total: | 47,932 | 2,438 |
|  |  | 5.09\% |
| Voting Age | 39,183 | 1,884 |
|  |  | 4.81\% |
| District 166 Total |  |  |
| Total: | 60,242 | 3,647 |
|  |  | 6.05\% |
| Voting Age | 47,580 | 2,698 |
|  |  | 5.67\% |
| District 167 |  |  |
| County: Glynn GA |  |  |
| Total: | 20,499 | 3,402 |
|  |  | 16.60\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 15,758 | 2,442 |
|  |  | 15.50\% |
| County: Liberty GA |  |  |
| Total: | 5,109 | 1,606 |
|  |  | 31.43\% |
| Voting Age | 3,147 | 943 |
|  |  | 29.97\% |
| County: Long GA |  |  |
| Total: | 16,168 | 4,734 |
|  |  | 29.28\% |
| Voting Age | 11,234 | 3,107 |
|  |  | 27.66\% |
| County: McIntosh GA |  |  |
| Total: | 10,975 | 3,400 |
|  |  | 30.98\% |
| Voting Age | 9,040 | 2,641 |
|  |  | 29.21\% |
| County: Wayne GA |  |  |
| Total: | 6,742 | 1,094 |
|  |  | 16.23\% |
| Voting Age | 4,961 | 702 |
|  |  | 14.15\% |
| District 167 Total |  |  |
| Total: | 59,493 | 14,236 |
|  |  | 23.93\% |
| Voting Age | 44,140 | 9,835 |
|  |  | 22.28\% |
| District 168 |  |  |
| County: Liberty GA |  |  |
| Total: | 60,147 | 29,540 |
|  |  | 49.11\% |
| Voting Age | 44,867 | 20,757 |
|  |  | 46.26\% |
| District 168 Total |  |  |
| Total: | 60,147 | 29,540 |
|  |  | 49.11\% |
| Voting Age | 44,867 | 20,757 |
|  |  | 46.26\% |
| District 169 |  |  |
| County: Coffee GA |  |  |
| Total: | 33,736 | 11,051 |
|  |  | 32.76\% |
| Voting Age | 25,541 | 8,086 |
|  |  | 31.66\% |
| County: Irwin GA |  |  |
| Total: | 9,666 | 2,333 |
|  |  | 24.14\% |
| Voting Age | 7,547 | 1,720 |
|  |  | 22.79\% |
| County: Tift GA |  |  |
| Total: | 6,730 | 767 |



|  | Total Population | AP_Blk |
| :---: | :---: | :---: |
| Total: | 59,237 | 24,411 |
|  |  | 41.21\% |
| Voting Age | 45,969 | 18,202 |
|  |  | 39.60\% |
| District 172 |  |  |
| County: Colquitt GA |  |  |
| Total: | 45,898 | 10,648 |
|  |  | 23.20\% |
| Voting Age | 34,193 | 7,461 |
|  |  | 21.82\% |
| County: Cook GA |  |  |
| Total: | 9,887 | 3,521 |
|  |  | 35.61\% |
| Voting Age | 7,317 | 2,492 |
|  |  | 34.06\% |
| County: Thomas GA |  |  |
| Total: | 4,176 | 625 |
|  |  | 14.97\% |
| Voting Age | 3,246 | 486 |
|  |  | 14.97\% |
| District 172 Total |  |  |
| Total: | 59,961 | 14,794 |
|  |  | 24.67\% |
| Voting Age | 44,756 | 10,439 |
|  |  | 23.32\% |
| District 173 |  |  |
| County: Grady GA |  |  |
| Total: | 18,121 | 6,259 |
|  |  | 34.54\% |
| Voting Age | 13,501 | 4,582 |
|  |  | 33.94\% |
| County: Thomas GA |  |  |
| Total: | 41,622 | 16,350 |
|  |  | 39.28\% |
| Voting Age | 31,791 | 11,846 |
|  |  | 37.26\% |
| District 173 Total |  |  |
| Total: | 59,743 | 22,609 |
|  |  | 37.84\% |
| Voting Age | 45,292 | 16,428 |
|  |  | 36.27\% |
| District 174 |  |  |
| County: Brantley GA |  |  |
| Total: | 18,021 | 733 |
|  |  | 4.07\% |
| Voting Age | 13,692 | 470 |
|  |  | 3.43\% |
| County: Charlton GA |  |  |
| Total: | 12,518 | 2,798 |
|  |  | 22.35\% |
| Voting Age | 10,135 | 2,147 |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
|  |  | 21.18\% |
| County: Clinch GA |  |  |
| Total: | 6,749 | 2,096 |
|  |  | 31.06\% |
| Voting Age | 5,034 | 1,406 |
|  |  | 27.93\% |
| County: Echols GA |  |  |
| Total: | 3,697 | 193 |
|  |  | 5.22\% |
| Voting Age | 2,709 | 121 |
|  |  | 4.47\% |
| County: Lowndes GA |  |  |
| Total: | 9,770 | 1,486 |
|  |  | 15.21\% |
| Voting Age | 7,472 | 1,086 |
|  |  | 14.53\% |
| County: Ware GA |  |  |
| Total: | 9,097 | 3,954 |
|  |  | 43.46\% |
| Voting Age | 6,718 | 2,720 |
|  |  | 40.49\% |
| District 174 Total |  |  |
| Total: | 59,852 | 11,260 |
|  |  | 18.81\% |
| Voting Age | 45,760 | 7,950 |
|  |  | 17.37\% |
| District 175 |  |  |
| County: Brooks GA |  |  |
| Total: | 16,301 | 5,958 |
|  |  | 36.55\% |
| Voting Age | 12,747 | 4,357 |
|  |  | 34.18\% |
| County: Lowndes GA |  |  |
| Total: | 43,692 | 9,375 |
|  |  | 21.46\% |
| Voting Age | 31,957 | 6,448 |
|  |  | 20.18\% |
| District 175 Total |  |  |
| Total: | 59,993 | 15,333 |
|  |  | 25.56\% |
| Voting Age | 44,704 | 10,805 |
|  |  | 24.17\% |
| District 176 |  |  |
| County: Atkinson GA |  |  |
| Total: | 8,286 | 1,284 |
|  |  | 15.50\% |
| Voting Age | 6,129 | 937 |
|  |  | 15.29\% |
| County: Coffee GA |  |  |
| Total: | 9,356 | 1,524 |
|  |  | 16.29\% |


|  | Total Population | AP_BIk |
| :---: | :---: | :---: |
| Voting Age | 6,878 | 1,105 |
|  |  | 16.07\% |
| County: Lanier GA |  |  |
| Total: | 9,877 | 2,369 |
|  |  | 23.99\% |
| Voting Age | 7,326 | 1,683 |
|  |  | 22.97\% |
| County: Lowndes GA |  |  |
| Total: | 4,797 | 1,387 |
|  |  | 28.91\% |
| Voting Age | 3,588 | 975 |
|  |  | 27.17\% |
| County: Ware GA |  |  |
| Total: | 27,154 | 7,467 |
|  |  | 27.50\% |
| Voting Age | 21,070 | 5,506 |
|  |  | 26.13\% |
| District 176 Total |  |  |
| Total: | 59,470 | 14,031 |
|  |  | 23.59\% |
| Voting Age | 44,991 | 10,206 |
|  |  | 22.68\% |
| District 177 |  |  |
| County: Lowndes GA |  |  |
| Total: | 59,992 | 34,510 |
|  |  | 57.52\% |
| Voting Age | 46,014 | 24,793 |
|  |  | 53.88\% |
| District 177 Total |  |  |
| Total: | 59,992 | 34,510 |
|  |  | 57.52\% |
| Voting Age | 46,014 | 24,793 |
|  |  | 53.88\% |
| District 178 |  |  |
| County: Appling GA |  |  |
| Total: | 5,619 | 458 |
|  |  | 8.15\% |
| Voting Age | 4,285 | 283 |
|  |  | 6.60\% |
| County: Bacon GA |  |  |
| Total: | 11,140 | 1,970 |
|  |  | 17.68\% |
| Voting Age | 8,310 | 1,245 |
|  |  | 14.98\% |
| County: Pierce GA |  |  |
| Total: | 19,716 | 1,801 |
|  |  | 9.13\% |
| Voting Age | 14,899 | 1,262 |
|  |  | 8.47\% |
| County: Wayne GA |  |  |
| Total: | 23,402 | 5,296 |



## EXHIBIT 14

User:
Plan Name: Grant_Esselstyn_Hse_illustrative12_05
Plan Type:

## Core Constituencies

## Core Constituencies

From Plan: GA_House illus-Grant

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,666 Total Population
1 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 1 | $59,666(100.00 \%)$ | $2,350(100.00 \%)$ | $46,801(100.00 \%)$ | $1,966(100.00 \%)$ |
| Total and \% Population |  | $2,350(3.94 \%)$ | $46,801(78.44 \%)$ | $1,966(3.30 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,519 Total Population 10 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 10 | $59,519(100.00 \%)$ | $1,804(100.00 \%)$ | $47,164(100.00 \%)$ | $1,757(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,030 Total Population 100 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 100 | $60,030(100.00 \%)$ | $5,517(100.00 \%)$ | $42,669(100.00 \%)$ | $4,273(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,938 Total Population 101 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 101 | $59,938(100.00 \%)$ | $13,724(100.00 \%)$ | $46,584(100.00 \%)$ | $11,269(100.00 \%)$ |
| Total and \% Population |  | $13,724(22.90 \%)$ | $46,584(77.72 \%)$ | $11,269(18.80 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,959 Total Population 102 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 102 | $58,959(100.00 \%)$ | $21,911(100.00 \%)$ | $42,968(100.00 \%)$ | $16,164(100.00 \%)$ |
| Total and \% Population |  | $21,911(37.16 \%)$ | $42,968(72.88 \%)$ | $16,164(27.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,197 Total Population 103 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 103 | $60,197(100.00 \%)$ | $9,341(100.00 \%)$ | $44,399(100.00 \%)$ | $7,454(100.00 \%)$ |
| Total and \% Population |  | $9,341(15.52 \%)$ | $44,399(73.76 \%)$ | $7,454(12.38 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,362 Total Population 104 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 104 | $59,362(100.00 \%)$ | $9,477(100.00 \%)$ | $43,306(100.00 \%)$ | $7,373(100.00 \%)$ |
| Total and \% Population |  | $9,477(15.96 \%)$ | $43,306(72.95 \%)$ | $7,373(12.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,344 Total Population 105 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 105 | $59,344(100.00 \%)$ | $16,883(100.00 \%)$ | $43,474(100.00 \%)$ | $12,628(100.00 \%)$ |
| Total and \% Population |  | $16,883(28.45 \%)$ | $43,474(73.26 \%)$ | $12,628(21.28 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,112 Total Population 106 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 106 | $59,112(100.00 \%)$ | $21,440(100.00 \%)$ | $43,890(100.00 \%)$ | $15,918(100.00 \%)$ |
| Total and \% Population |  | $21,440(36.27 \%)$ | $43,890(74.25 \%)$ | $15,918(26.93 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,702 Total Population 107 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 107 | $59,702(100.00 \%)$ | $16,810(100.00 \%)$ | $44,509(100.00 \%)$ | $13,186(100.00 \%)$ |
| Total and \% Population |  | $16,810(28.16 \%)$ | $44,509(74.55 \%)$ | $13,186(22.09 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,577 Total Population 108 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 108 | $59,577(100.00 \%)$ | $10,549(100.00 \%)$ | $44,308(100.00 \%)$ | $8,132(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,630 Total Population 109 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 109 | $59,630(100.00 \%)$ | $17,986(100.00 \%)$ | $44,140(100.00 \%)$ | $14,352(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,792 Total Population 11 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 11 | $58,792(100.00 \%)$ | $949(100.00 \%)$ | $45,396(100.00 \%)$ | $839(100.00 \%)$ |
| Total and \% Population |  | $949(1.61 \%)$ | $45,396(77.21 \%)$ | $839(1.43 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,951 Total Population 110 --

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 110 | $59,951(100.00 \%)$ | $27,925(100.00 \%)$ | $43,226(100.00 \%)$ | $20,400(100.00 \%)$ |
| Total and \% Population |  | $27,925(46.58 \%)$ | $43,226(72.10 \%)$ | $20,400(34.03 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,009 Total Population 111 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 111 | $60,009(100.00 \%)$ | $13,248(100.00 \%)$ | $44,096(100.00 \%)$ | $9,828(100.00 \%)$ |
| Total and \% Population |  | $13,248(22.08 \%)$ | $44,096(73.48 \%)$ | $9,828(16.38 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,349 Total Population 112 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 112 | $59,349(100.00 \%)$ | $11,312(100.00 \%)$ | $45,120(100.00 \%)$ | $8,667(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
$\mathbf{6 0 , 0 5 3}$ Total Population 113 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 113 | $60,053(100.00 \%)$ | $35,006(100.00 \%)$ | $44,538(100.00 \%)$ | $26,515(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,867 Total Population 114 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 114 | $59,867(100.00 \%)$ | $14,465(100.00 \%)$ | $45,872(100.00 \%)$ | $11,347(100.00 \%)$ |
| Total and \% Population |  | $14,465(24.16 \%)$ | $45,872(76.62 \%)$ | $11,347(18.95 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,789 Total Population 115 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :--- | :---: |
| Dist. 115 | $59,789(100.00 \%)$ | $31,769(100.00 \%)$ | $45,207(100.00 \%)$ | $24,310(100.00 \%)$ |
| Total and \% Population |  | $31,769(53.14 \%)$ | $45,207(75.61 \%)$ | $24,310(40.66 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 116 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 116 | $60,380(100.00 \%)$ | $31,410(100.00 \%)$ | $46,449(100.00 \%)$ | $24,131(100.00 \%)$ |
| Total and \% Population |  | $31,410(52.02 \%)$ | $46,449(76.93 \%)$ | $24,131(39.97 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
$\mathbf{6 0 , 1 4 2}$ Total Population 117 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 117 | $60,142(100.00 \%)$ | $30,626(100.00 \%)$ | $44,089(100.00 \%)$ | $22,732(100.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,987 Total Population 118 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 118 | $59,987(100.00 \%)$ | $13,629(100.00 \%)$ | $46,342(100.00 \%)$ | $10,937(100.00 \%)$ |
| Total and \% Population |  | $13,629(22.72 \%)$ | $46,342(77.25 \%)$ | $10,937(18.23 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,947 Total Population 119 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 119 | $58,947(100.00 \%)$ | $7,502(100.00 \%)$ | $44,005(100.00 \%)$ | $5,935(100.00 \%)$ |
| Total and \% Population |  | $7,502(12.73 \%)$ | $44,005(74.65 \%)$ | $5,935(10.07 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,300 Total Population 12 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 12 | $59,300(100.00 \%)$ | $5,148(100.00 \%)$ | $46,487(100.00 \%)$ | $4,498(100.00 \%)$ |
| Total and \% Population |  | $5,148(8.68 \%)$ | $46,487(78.39 \%)$ | $4,498(7.59 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,982 Total Population 120 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 120 | $58,982(100.00 \%)$ | $8,053(100.00 \%)$ | $46,767(100.00 \%)$ | $6,679(100.00 \%)$ |
| Total and \% Population |  | $8,053(13.65 \%)$ | $46,767(79.29 \%)$ | $6,679(11.32 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59, 127 Total Population 121 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 121 | $59,127(100.00 \%)$ | $5,205(100.00 \%)$ | $46,598(100.00 \%)$ | $4,454(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,632 Total Population 122 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 122 | $59,632(100.00 \%)$ | $18,394(100.00 \%)$ | $48,840(100.00 \%)$ | $13,878(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,282 Total Population 123 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 123 | $59,282(100.00 \%)$ | $14,175(100.00 \%)$ | $46,572(100.00 \%)$ | $11,307(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,221 Total Population

Core Constituencies
124 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 124 | $59,221(100.00 \%)$ | $15,507(100.00 \%)$ | $47,638(100.00 \%)$ | $12,186(100.00 \%)$ |
| Total and \% Population |  | $15,507(26.18 \%)$ | $47,638(80.44 \%)$ | $12,186(20.58 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 1 3 7}$ Total Population 125 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 125 | $60,137(100.00 \%)$ | $13,377(100.00 \%)$ | $43,812(100.00 \%)$ | $10,376(100.00 \%)$ |
| Total and \% Population |  | $13,377(22.24 \%)$ | $43,812(72.85 \%)$ | $10,376(17.25 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad 59,260$ Total Population 126 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 126 | $59,260(100.00 \%)$ | $32,178(100.00 \%)$ | $45,497(100.00 \%)$ | $24,782(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,678 Total Population 127 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 127 | $58,678(100.00 \%)$ | $10,247(100.00 \%)$ | $45,889(100.00 \%)$ | $8,500(100.00 \%)$ |
| Total and \% Population |  | $10,247(17.46 \%)$ | $45,889(78.20 \%)$ | $8,500(14.49 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,864 Total Population 128 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 128 | $58,864(100.00 \%)$ | $30,088(100.00 \%)$ | $46,488(100.00 \%)$ | $23,434(100.00 \%)$ |
| Total and \% Population |  | $30,088(51.11 \%)$ | $46,488(78.98 \%)$ | $23,434(39.81 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,829 Total Population 129 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 129 | $58,829(100.00 \%)$ | $32,650(100.00 \%)$ | $46,873(100.00 \%)$ | $25,717(100.00 \%)$ |
| Total and \% Population |  | $32,650(55.50 \%)$ | $46,873(79.68 \%)$ | $25,717(43.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,150 Total Population 13 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 13 | $59,150(100.00 \%)$ | $11,189(100.00 \%)$ | $45,176(100.00 \%)$ | $8,665(100.00 \%)$ |
| Total and \% Population |  | $11,189(18.92 \%)$ | $45,176(76.38 \%)$ | $8,665(14.65 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,203 Total Population 130 --
Population Black [18+_Pop] [18+_AP_BIk]

Core Constituencies
Grant_Esselstyn_Hse_illustrative12_05

| Dist. 130 | 59,203 (100.00\%) | 36,019 (100.00\%) | 44,019 (100.00\%) | 26,372 (100.00\%) |
| :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | 36,019 (60.84\%) | 44,019 (74.35\%) | 26,372 (44.55\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 131-- |  |  | 58,890 Total | pulation |
|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| Dist. 131 | 58,890 (100.00\%) | 9,645 (100.00\%) | 42,968 (100.00\%) | 7,572 (100.00\%) |
| Total and \% Population |  | 9,645 (16.38\%) | 42,968 (72.96\%) | 7,572 (12.86\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,142 Total Population 132 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 132 | $59,142(100.00 \%)$ | $31,039(100.00 \%)$ | $46,752(100.00 \%)$ | $24,471(100.00 \%)$ |
| Total and \% Population |  | $31,039(52.48 \%)$ | $46,752(79.05 \%)$ | $24,471(41.38 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,768 Total Population 133 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | :---: | :---: | :---: |
| Dist. 133 | $53,043(88.75 \%)$ | $13,816(91.30 \%)$ | $41,023(88.42 \%)$ | $11,119(91.79 \%)$ |
| Dist. 149 | $6,725(11.25 \%)$ | $1,316(8.70 \%)$ | $5,373(11.58 \%)$ | $995(8.21 \%)$ |
| Total and \% Population |  | $15,132(25.32 \%)$ | $46,396(77.63 \%)$ | $12,114(20.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,046 Total Population 134--

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 134 | $59,046(100.00 \%)$ | $22,556(100.00 \%)$ | $44,848(100.00 \%)$ | $16,779(100.00 \%)$ |
| Total and \% Population |  | $22,556(38.20 \%)$ | $44,848(75.95 \%)$ | $16,779(28.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,013 Total Population 135 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 135 | $60,013(100.00 \%)$ | $11,671(100.00 \%)$ | $46,948(100.00 \%)$ | $9,556(100.00 \%)$ |
| Total and \% Population |  | $11,671(19.45 \%)$ | $46,948(78.23 \%)$ | $9,556(15.92 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,298 Total Population 136 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 136 | $59,298(100.00 \%)$ | $16,690(100.00 \%)$ | $45,367(100.00 \%)$ | $13,005(100.00 \%)$ |
| Total and \% Population |  | $16,690(28.15 \%)$ | $45,367(76.51 \%)$ | $13,005(21.93 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,551 Total Population 137 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 137 | $59,551(100.00 \%)$ | $30,916(100.00 \%)$ | $45,358(100.00 \%)$ | $23,647(100.00 \%)$ |
| Total and \% Population |  | $30,916(51.92 \%)$ | $45,358(76.17 \%)$ | $23,647(39.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 58,912 Total Population 138 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 138 | $58,912(100.00 \%)$ | $11,148(100.00 \%)$ | $45,684(100.00 \%)$ | $8,824(100.00 \%)$ |
| Total and \% Population |  | $11,148(18.92 \%)$ | $45,684(77.55 \%)$ | $8,824(14.98 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,010 Total Population 139 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 139 | $59,010(100.00 \%)$ | $11,584(100.00 \%)$ | $45,522(100.00 \%)$ | $9,227(100.00 \%)$ |
| Total and \% Population |  | $11,584(19.63 \%)$ | $45,522(77.14 \%)$ | $9,227(15.64 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,135 Total Population 14 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 14 | $59,135(100.00 \%)$ | $3,534(100.00 \%)$ | $45,511(100.00 \%)$ | $3,117(100.00 \%)$ |
| Total and \% Population |  | $3,534(5.98 \%)$ | $45,511(76.96 \%)$ | $3,117(5.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,294 Total Population 140 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 140 | $59,294(100.00 \%)$ | $33,539(100.00 \%)$ | $44,411(100.00 \%)$ | $25,596(100.00 \%)$ |
| Total and \% Population |  | $33,539(56.56 \%)$ | $44,411(74.90 \%)$ | $25,596(43.17 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,019 Total Population 141 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 141 | $59,019(100.00 \%)$ | $32,812(100.00 \%)$ | $44,677(100.00 \%)$ | $25,672(100.00 \%)$ |
| Total and \% Population |  | $32,812(55.60 \%)$ | $44,677(75.70 \%)$ | $25,672(43.50 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,320 Total Population 142 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 142 | $59,320(100.00 \%)$ | $30,779(100.00 \%)$ | $45,212(100.00 \%)$ | $22,669(100.00 \%)$ |
| Total and \% Population |  | $30,779(51.89 \%)$ | $45,212(76.22 \%)$ | $22,669(38.21 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,122 Total Population 143 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 143 | $59,122(100.00 \%)$ | $30,792(100.00 \%)$ | $45,811(100.00 \%)$ | $23,200(100.00 \%)$ |
| Total and \% Population |  | $30,792(52.08 \%)$ | $45,811(77.49 \%)$ | $23,200(39.24 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,533 Total Population
144 --

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 144 | $58,367(99.72 \%)$ | $14,210(99.67 \%)$ | $44,754(99.75 \%)$ | $11,162(99.75 \%)$ |
| Dist. 147 | $166(0.28 \%)$ | $47(0.33 \%)$ | $110(0.25 \%)$ | $28(0.25 \%)$ |
| Total and \% Population |  | $14,257(24.36 \%)$ | $44,864(76.65 \%)$ | $11,190(19.12 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 6 6 8}$ Total Population |  |  |  |
| $\mathbf{1 4 5} \mathbf{- -}$ |  | Black | [18+_Pop] | [18+_AP_Blk] |
|  | Population | $59,668(100.00 \%)$ | $30,525(100.00 \%)$ | $44,547(100.00 \%)$ |
| Dist. 145 |  | $30,525(51.16 \%)$ | $44,547(74.66 \%)$ | $22,443(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,197 Total Population 146 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 146 | $59,197(100.00 \%)$ | $14,039(100.00 \%)$ | $44,677(100.00 \%)$ | $10,891(100.00 \%)$ |
| Total and \% Population |  | $14,039(23.72 \%)$ | $44,677(75.47 \%)$ | $10,891(18.40 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad 58,567$ Total Population
147 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 144 | $275(0.47 \%)$ | $89(0.50 \%)$ | $206(0.46 \%)$ | $77(0.57 \%)$ |
| Dist. 147 | $58,292(99.53 \%)$ | $17,853(99.50 \%)$ | $44,217(99.54 \%)$ | $13,492(99.43 \%)$ |
| Total and \% Population |  | $17,942(30.64 \%)$ | $44,423(75.85 \%)$ | $13,569(23.17 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,887 Total Population 148 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 148 | $59,887(100.00 \%)$ | $22,518(100.00 \%)$ | $47,458(100.00 \%)$ | $17,703(100.00 \%)$ |
| Total and \% Population |  | $22,518(37.60 \%)$ | $47,458(79.25 \%)$ | $17,703(29.56 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,392 Total Population 149 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 128 | $5(0.01 \%)$ | $0(0.00 \%)$ | $5(0.01 \%)$ | $(0.00 \%)$ |
| Dist. 133 | $6,652(11.20 \%)$ | $2,247(7.19 \%)$ | $5,303(11.05 \%)$ | $1,686(6.82 \%)$ |
| Dist. 149 | $52,735(88.79 \%)$ | $29,015(92.81 \%)$ | $42,662(88.93 \%)$ | $23,033(93.18 \%)$ |
| Total and \% Population |  | $31,262(52.64 \%)$ | $47,970(80.77 \%)$ | $24,719(41.62 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,213 Total Population 15 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 15 | $59,213(100.00 \%)$ | $8,202(100.00 \%)$ | $45,791(100.00 \%)$ | $6,500(100.00 \%)$ |
| Total and \% Population |  | $8,202(13.85 \%)$ | $45,791(77.33 \%)$ | $6,500(10.98 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,276 Total Population

 150 --Core Constituencies

| Dist. 150 | $59,276(100.00 \%)$ | $31,715(100.00 \%)$ | $47,050(100.00 \%)$ | $25,202(100.00 \%)$ |
| :--- | :---: | :---: | :---: | :---: |
| Total and \% Population | $31,715(53.50 \%)$ | $47,050(79.37 \%)$ | $25,202(42.52 \%)$ |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{6 0 , 0 5 9}$ Total Population |  |  |  |
| $\mathbf{1 5 1 ~ - - ~}$ |  |  |  |  |
|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| Dist. 151 | $60,059(100.00 \%)$ | $25,497(100.00 \%)$ | $46,973(100.00 \%)$ | $19,920(100.00 \%)$ |
| Total and \% Population |  | $25,497(42.45 \%)$ | $46,973(78.21 \%)$ | $19,920(33.17 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 1 3 4}$ Total Population 152 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 152 | $60,134(100.00 \%)$ | $15,624(100.00 \%)$ | $46,026(100.00 \%)$ | $11,993(100.00 \%)$ |
| Total and \% Population |  | $15,624(25.98 \%)$ | $46,026(76.54 \%)$ | $11,993(19.94 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad 59,299$ Total Population 153 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 153 | $59,299(100.00 \%)$ | $41,175(100.00 \%)$ | $45,692(100.00 \%)$ | $31,047(100.00 \%)$ |
| Total and \% Population |  | $41,175(69.44 \%)$ | $45,692(77.05 \%)$ | $31,047(52.36 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,994 Total Population 154 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 154 | $59,994(100.00 \%)$ | $33,457(100.00 \%)$ | $47,273(100.00 \%)$ | $25,914(100.00 \%)$ |
| Total and \% Population |  | $33,457(55.77 \%)$ | $47,273(78.80 \%)$ | $25,914(43.19 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 1 3 4}$ Total Population 155--

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 155 | $60,134(100.00 \%)$ | $21,488(100.00 \%)$ | $46,296(100.00 \%)$ | $16,308(100.00 \%)$ |
| Total and \% Population |  | $21,488(35.73 \%)$ | $46,296(76.99 \%)$ | $16,308(27.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,647 Total Population 156 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 156 | $60,647(100.00 \%)$ | $17,931(100.00 \%)$ | $46,796(100.00 \%)$ | $13,976(100.00 \%)$ |
| Total and \% Population |  | $17,931(29.57 \%)$ | $46,796(77.16 \%)$ | $13,976(23.04 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,957 Total Population 157 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 157 | $59,957(100.00 \%)$ | $14,283(100.00 \%)$ | $45,311(100.00 \%)$ | $11,176(100.00 \%)$ |
| Total and \% Population |  | $14,283(23.82 \%)$ | $45,311(75.57 \%)$ | $11,176(18.64 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad 59,440$ Total Population 158 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 158 | $59,440(100.00 \%)$ | $18,823(100.00 \%)$ | $45,549(100.00 \%)$ | $14,209(100.00 \%)$ |
| Total and \% Population |  | $18,823(31.67 \%)$ | $45,549(76.63 \%)$ | $14,209(23.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,895 Total Population 159 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 159 | $59,895(100.00 \%)$ | $14,389(100.00 \%)$ | $44,871(100.00 \%)$ | $10,995(100.00 \%)$ |
| Total and \% Population |  | $14,389(24.02 \%)$ | $44,871(74.92 \%)$ | $10,995(18.36 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,402 Total Population 16 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 16 | $59,402(100.00 \%)$ | $6,746(100.00 \%)$ | $44,009(100.00 \%)$ | $5,146(100.00 \%)$ |
| Total and \% Population |  | $6,746(11.36 \%)$ | $44,009(74.09 \%)$ | $5,146(8.66 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,935 Total Population 160 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 160 | $59,935(100.00 \%)$ | $13,210(100.00 \%)$ | $48,057(100.00 \%)$ | $10,859(100.00 \%)$ |
| Total and \% Population |  | $13,210(22.04 \%)$ | $48,057(80.18 \%)$ | $10,859(18.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,097 Total Population 161 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 161 | $60,097(100.00 \%)$ | $15,788(100.00 \%)$ | $44,371(100.00 \%)$ | $12,042(100.00 \%)$ |
| Total and \% Population |  | $15,788(26.27 \%)$ | $44,371(73.83 \%)$ | $12,042(20.04 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,308 Total Population 162 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 162 | $60,308(100.00 \%)$ | $26,504(100.00 \%)$ | $46,733(100.00 \%)$ | $20,435(100.00 \%)$ |
| Total and \% Population |  | $26,504(43.95 \%)$ | $46,733(77.49 \%)$ | $20,435(33.88 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,123 Total Population 163 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 163 | $60,123(100.00 \%)$ | $27,983(100.00 \%)$ | $48,461(100.00 \%)$ | $22,045(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,101 Total Population

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 164 | $60,101(100.00 \%)$ | $13,550(100.00 \%)$ | $45,851(100.00 \%)$ | $10,760(100.00 \%)$ |
| Total and \% Population |  | $13,550(22.55 \%)$ | $45,851(76.29 \%)$ | $10,760(17.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,978 Total Population 165 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 165 | $59,978(100.00 \%)$ | $31,706(100.00 \%)$ | $48,247(100.00 \%)$ | $24,282(100.00 \%)$ |
| Total and \% Population |  | $31,706(52.86 \%)$ | $48,247(80.44 \%)$ | $24,282(40.48 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,242 Total Population 166 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 166 | $60,242(100.00 \%)$ | $3,034(100.00 \%)$ | $47,580(100.00 \%)$ | $2,698(100.00 \%)$ |
| Total and \% Population |  | $3,034(5.04 \%)$ | $47,580(78.98 \%)$ | $2,698(4.48 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,493 Total Population 167 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 167 | $59,493(100.00 \%)$ | $12,729(100.00 \%)$ | $44,140(100.00 \%)$ | $9,835(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
$\mathbf{6 0 , 1 4 7}$ Total Population 168 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 168 | $60,147(100.00 \%)$ | $26,762(100.00 \%)$ | $44,867(100.00 \%)$ | $20,757(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,138 Total Population 169 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 169 | $59,138(100.00 \%)$ | $17,176(100.00 \%)$ | $45,267(100.00 \%)$ | $13,147(100.00 \%)$ |
| Total and \% Population |  | $17,176(29.04 \%)$ | $45,267(76.54 \%)$ | $13,147(22.23 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,120 Total Population
17 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 17 | $59,120(100.00 \%)$ | $13,323(100.00 \%)$ | $42,761(100.00 \%)$ | $9,843(100.00 \%)$ |
| Total and \% Population |  | $13,323(22.54 \%)$ | $42,761(72.33 \%)$ | $9,843(16.65 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,116 Total Population 170 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 170 | $60,116(100.00 \%)$ | $14,767(100.00 \%)$ | $45,316(100.00 \%)$ | $10,976(100.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,237 Total Population 171 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 171 | $59,237(100.00 \%)$ | $23,696(100.00 \%)$ | $45,969(100.00 \%)$ | $18,202(100.00 \%)$ |
| Total and \% Population |  | $23,696(40.00 \%)$ | $45,969(77.60 \%)$ | $18,202(30.73 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,961 Total Population 172 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 172 | $59,961(100.00 \%)$ | $14,034(100.00 \%)$ | $44,756(100.00 \%)$ | $10,439(100.00 \%)$ |
| Total and \% Population |  | $14,034(23.41 \%)$ | $44,756(74.64 \%)$ | $10,439(17.41 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,743 Total Population 173 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 173 | $59,743(100.00 \%)$ | $21,746(100.00 \%)$ | $45,292(100.00 \%)$ | $16,428(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,852 Total Population 174 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 174 | $59,852(100.00 \%)$ | $10,428(100.00 \%)$ | $45,760(100.00 \%)$ | $7,950(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,993 Total Population 175 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 175 | $59,993(100.00 \%)$ | $14,386(100.00 \%)$ | $44,704(100.00 \%)$ | $10,805(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,470 Total Population 176 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 176 | $59,470(100.00 \%)$ | $13,059(100.00 \%)$ | $44,991(100.00 \%)$ | $10,206(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,992 Total Population 177 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 177 | $59,992(100.00 \%)$ | $33,153(100.00 \%)$ | $46,014(100.00 \%)$ | $24,793(100.00 \%)$ |
| Total and \% Population |  | $33,153(55.26 \%)$ | $46,014(76.70 \%)$ | $24,793(41.33 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,877 Total Population

Core Constituencies
178 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 178 | $59,877(100.00 \%)$ | $8,736(100.00 \%)$ | $45,638(100.00 \%)$ | $6,750(100.00 \%)$ |
| Total and \% Population |  | $8,736(14.59 \%)$ | $45,638(76.22 \%)$ | $6,750(11.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,356 Total Population 179 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 179 | $59,356(100.00 \%)$ | $17,013(100.00 \%)$ | $47,156(100.00 \%)$ | $12,745(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,335 Total Population 18 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 18 | $59,335(100.00 \%)$ | $4,265(100.00 \%)$ | $45,159(100.00 \%)$ | $3,604(100.00 \%)$ |
| Total and \% Population |  | $4,265(7.19 \%)$ | $45,159(76.11 \%)$ | $3,604(6.07 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,412 Total Population 180 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 180 | $59,412(100.00 \%)$ | $10,284(100.00 \%)$ | $45,362(100.00 \%)$ | $8,261(100.00 \%)$ |
| Total and \% Population |  | $10,284(17.31 \%)$ | $45,362(76.35 \%)$ | $8,261(13.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,955 Total Population 19 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 19 | $58,955(100.00 \%)$ | $14,117(100.00 \%)$ | $44,299(100.00 \%)$ | $10,697(100.00 \%)$ |
| Total and \% Population |  | $14,117(23.95 \%)$ | $44,299(75.14 \%)$ | $10,697(18.14 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,773 Total Population 2 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 2 | $59,773(100.00 \%)$ | $1,601(100.00 \%)$ | $46,159(100.00 \%)$ | $1,456(100.00 \%)$ |
| Total and \% Population |  | $1,601(2.68 \%)$ | $46,159(77.22 \%)$ | $1,456(2.44 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,107 Total Population 20 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 20 | $60,107(100.00 \%)$ | $5,011(100.00 \%)$ | $45,725(100.00 \%)$ | $4,230(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,529 Total Population
21 --
Population $\quad$ Black $\quad$ [18+_Pop] AP_BIk]

Core Constituencies

| Dist. 21 | 59,529 (100.00\%) | 2,603 (100.00\%) | 44,931 (100.00\%) | 2,272 (100.00\%) |
| :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | 2,603 (4.37\%) | 44,931 (75.48\%) | 2,272 (3.82\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District |  |  | 59,460 Total Population |  |
| 22-- |  |  |  |  |
|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| Dist. 22 | 59,460 (100.00\%) | 8,506 (100.00\%) | 45,815 (100.00\%) | 6,918 (100.00\%) |
| Total and \% Population |  | 8,506 (14.31\%) | 45,815 (77.05\%) | 6,918 (11.63\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,048 Total Population 23 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 23 | $59,048(100.00 \%)$ | $3,432(100.00 \%)$ | $44,254(100.00 \%)$ | $2,878(100.00 \%)$ |
| Total and \% Population |  | $3,432(5.81 \%)$ | $44,254(74.95 \%)$ | $2,878(4.87 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,011 Total Population 24 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 24 | $59,011(100.00 \%)$ | $3,624(100.00 \%)$ | $41,814(100.00 \%)$ | $2,926(100.00 \%)$ |
| Total and \% Population |  | $3,624(6.14 \%)$ | $41,814(70.86 \%)$ | $2,926(4.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,414 Total Population
25 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 25 | $59,414(100.00 \%)$ | $3,004(100.00 \%)$ | $42,520(100.00 \%)$ | $2,507(100.00 \%)$ |
| Total and \% Population |  | $3,004(5.06 \%)$ | $42,520(71.57 \%)$ | $2,507(4.22 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,248 Total Population 26 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 26 | $59,248(100.00 \%)$ | $2,022(100.00 \%)$ | $44,081(100.00 \%)$ | $1,767(100.00 \%)$ |
| Total and \% Population |  | $2,022(3.41 \%)$ | $44,081(74.40 \%)$ | $1,767(2.98 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,795 Total Population 27 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 27 | $58,795(100.00 \%)$ | $1,946(100.00 \%)$ | $46,004(100.00 \%)$ | $1,698(100.00 \%)$ |
| Total and \% Population |  | $1,946(3.31 \%)$ | $46,004(78.24 \%)$ | $1,698(2.89 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,972 Total Population 28 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 28 | $58,972(100.00 \%)$ | $2,060(100.00 \%)$ | $44,444(100.00 \%)$ | $1,747(100.00 \%)$ |
| Total and \% Population |  | $2,060(3.49 \%)$ | $44,444(75.36 \%)$ | $1,747(2.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,200 Total Population 29 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 29 | $59,200(100.00 \%)$ | $7,373(100.00 \%)$ | $43,131(100.00 \%)$ | $5,861(100.00 \%)$ |
| Total and \% Population |  | $7,373(12.45 \%)$ | $43,131(72.86 \%)$ | $5,861(9.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,199 Total Population 3 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 3 | $60,199(100.00 \%)$ | $1,744(100.00 \%)$ | $46,716(100.00 \%)$ | $1,565(100.00 \%)$ |
| Total and \% Population |  | $1,744(2.90 \%)$ | $46,716(77.60 \%)$ | $1,565(2.60 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,266 Total Population 30 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 30 | $59,266(100.00 \%)$ | $4,478(100.00 \%)$ | $45,414(100.00 \%)$ | $3,678(100.00 \%)$ |
| Total and \% Population |  | $4,478(7.56 \%)$ | $45,414(76.63 \%)$ | $3,678(6.21 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,901 Total Population 31 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 31 | $59,901(100.00 \%)$ | $4,092(100.00 \%)$ | $43,120(100.00 \%)$ | $3,265(100.00 \%)$ |
| Total and \% Population |  | $4,092(6.83 \%)$ | $43,120(71.99 \%)$ | $3,265(5.45 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,145 Total Population 32 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 32 | $59,145(100.00 \%)$ | $4,337(100.00 \%)$ | $45,942(100.00 \%)$ | $3,659(100.00 \%)$ |
| Total and \% Population |  | $4,337(7.33 \%)$ | $45,942(77.68 \%)$ | $3,659(6.19 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,187 Total Population

 33 --|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 33 | $59,187(100.00 \%)$ | $6,524(100.00 \%)$ | $46,498(100.00 \%)$ | $5,207(100.00 \%)$ |
| Total and \% Population |  | $6,524(11.02 \%)$ | $46,498(78.56 \%)$ | $5,207(8.80 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,875 Total Population
34 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 34 | $59,875(100.00 \%)$ | $8,817(100.00 \%)$ | $45,758(100.00 \%)$ | $7,169(100.00 \%)$ |
| Total and \% Population |  | $8,817(14.73 \%)$ | $45,758(76.42 \%)$ | $7,169(11.97 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,889 Total Population
35 --

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 35 | 59,889 (100.00\%) | 16,250 (100.00\%) | 48,312 (100.00\%) | 13,722 (100.00\%) |
| Total and \% Population |  | 16,250 (27.13\%) | 48,312 (80.67\%) | 13,722 (22.91\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 36 -- |  |  | 59,994 Total Population |  |
|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| Dist. 36 | 59,994 (100.00\%) | 9,753 (100.00\%) | 44,911 (100.00\%) | 7,626 (100.00\%) |
| Total and \% Population |  | 9,753 (16.26\%) | 44,911 (74.86\%) | 7,626 (12.71\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric$37--$ |  |  | 59,176 Total Population |  |
|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| Dist. 37 | 59,176 (100.00\%) | 15,723 (100.00\%) | 46,223 (100.00\%) | 13,027 (100.00\%) |
| Total and \% Population |  | 15,723 (26.57\%) | 46,223 (78.11\%) | 13,027 (22.01\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 38 -- |  |  | 59,317 Total Population |  |
|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| Dist. 38 | 59,317 (100.00\%) | 31,840 (100.00\%) | 44,839 (100.00\%) | 24,318 (100.00\%) |
| Total and \% Population |  | 31,840 (53.68\%) | 44,839 (75.59\%) | 24,318 (41.00\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,381 Total Population 39 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 39 | $59,381(100.00 \%)$ | $31,375(100.00 \%)$ | $44,436(100.00 \%)$ | $24,569(100.00 \%)$ |
| Total and \% Population |  | $31,375(52.84 \%)$ | $44,436(74.83 \%)$ | $24,569(41.38 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,070 Total Population
4 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 4 | $59,070(100.00 \%)$ | $2,606(100.00 \%)$ | $42,798(100.00 \%)$ | $2,303(100.00 \%)$ |
| Total and \% Population |  | $2,606(4.41 \%)$ | $42,798(72.45 \%)$ | $2,303(3.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,044 Total Population
40 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 40 | $59,044(100.00 \%)$ | $18,536(100.00 \%)$ | $47,976(100.00 \%)$ | $15,821(100.00 \%)$ |
| Total and \% Population |  | $18,536(31.39 \%)$ | $47,976(81.25 \%)$ | $15,821(26.80 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,122 Total Population
41 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 41 | $60,122(100.00 \%)$ | $22,247(100.00 \%)$ | $45,271(100.00 \%)$ | $17,816(100.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,620 Total Population
42 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 42 | $59,620(100.00 \%)$ | $19,001(100.00 \%)$ | $48,525(100.00 \%)$ | $16,353(100.00 \%)$ |
| Total and \% Population |  | $19,001(31.87 \%)$ | $48,525(81.39 \%)$ | $16,353(27.43 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,464 Total Population 43 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 43 | $59,464(100.00 \%)$ | $14,766(100.00 \%)$ | $47,033(100.00 \%)$ | $12,476(100.00 \%)$ |
| Total and \% Population |  | $14,766(24.83 \%)$ | $47,033(79.09 \%)$ | $12,476(20.98 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,002 Total Population 44 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 44 | $60,002(100.00 \%)$ | $6,740(100.00 \%)$ | $46,773(100.00 \%)$ | $5,635(100.00 \%)$ |
| Total and \% Population |  | $6,740(11.23 \%)$ | $46,773(77.95 \%)$ | $5,635(9.39 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,738 Total Population 45 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 45 | $59,738(100.00 \%)$ | $2,532(100.00 \%)$ | $44,023(100.00 \%)$ | $2,324(100.00 \%)$ |
| Total and \% Population |  | $2,532(4.24 \%)$ | $44,023(73.69 \%)$ | $2,324(3.89 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,108 Total Population
46 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 46 | $59,108(100.00 \%)$ | $4,096(100.00 \%)$ | $44,132(100.00 \%)$ | $3,560(100.00 \%)$ |
| Total and \% Population |  | $4,096(6.93 \%)$ | $44,132(74.66 \%)$ | $3,560(6.02 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,126 Total Population
47 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 47 | $59,126(100.00 \%)$ | $5,672(100.00 \%)$ | $43,932(100.00 \%)$ | $4,709(100.00 \%)$ |
| Total and \% Population |  | $5,672(9.59 \%)$ | $43,932(74.30 \%)$ | $4,709(7.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,003 Total Population 48 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 48 | $59,003(100.00 \%)$ | $6,124(100.00 \%)$ | $44,779(100.00 \%)$ | $5,279(100.00 \%)$ |
| Total and \% Population |  | $6,124(10.38 \%)$ | $44,779(75.89 \%)$ | $5,279(8.95 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,153 Total Population

Core Constituencies
49 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 49 | $59,153(100.00 \%)$ | $4,333(100.00 \%)$ | $45,263(100.00 \%)$ | $3,813(100.00 \%)$ |
| Total and \% Population |  | $4,333(7.33 \%)$ | $45,263(76.52 \%)$ | $3,813(6.45 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,837 Total Population
5 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 5 | $58,837(100.00 \%)$ | $2,281(100.00 \%)$ | $44,623(100.00 \%)$ | $2,051(100.00 \%)$ |
| Total and \% Population |  | $2,281(3.88 \%)$ | $44,623(75.84 \%)$ | $2,051(3.49 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,523 Total Population 50 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 50 | $59,523(100.00 \%)$ | $6,726(100.00 \%)$ | $43,940(100.00 \%)$ | $5,450(100.00 \%)$ |
| Total and \% Population |  | $6,726(11.30 \%)$ | $43,940(73.82 \%)$ | $5,450(9.16 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 58,952 Total Population 51 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 51 | $58,952(100.00 \%)$ | $13,218(100.00 \%)$ | $47,262(100.00 \%)$ | $11,193(100.00 \%)$ |
| Total and \% Population |  | $13,218(22.42 \%)$ | $47,262(80.17 \%)$ | $11,193(18.99 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,811 Total Population 52 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 52 | $59,811(100.00 \%)$ | $8,339(100.00 \%)$ | $48,525(100.00 \%)$ | $7,758(100.00 \%)$ |
| Total and \% Population |  | $8,339(13.94 \%)$ | $48,525(81.13 \%)$ | $7,758(12.97 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,953 Total Population 53 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 53 | $59,953(100.00 \%)$ | $7,548(100.00 \%)$ | $46,944(100.00 \%)$ | $6,819(100.00 \%)$ |
| Total and \% Population |  | $7,548(12.59 \%)$ | $46,944(78.30 \%)$ | $6,819(11.37 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,083 Total Population 54 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 54 | $60,083(100.00 \%)$ | $7,959(100.00 \%)$ | $50,338(100.00 \%)$ | $7,789(100.00 \%)$ |
| Total and \% Population |  | $7,959(13.25 \%)$ | $50,338(83.78 \%)$ | $7,789(12.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,971 Total Population 55 --
Population Black [18+_Pop] [18+_AP_BIk]

Core Constituencies
Grant_Esselstyn_Hse_illustrative12_05

| Dist. 55 | 59,971 (100.00\%) | 33,004 (100.00\%) | 49,255 (100.00\%) | 27,279 (100.00\%) |
| :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | 33,004 (55.03\%) | 49,255 (82.13\%) | 27,279 (45.49\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District |  |  | 58,929 Total Population |  |
| 56-- |  |  |  |  |
|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| Dist. 56 | 58,929 (100.00\%) | 27,608 (100.00\%) | 52,757 (100.00\%) | 23,993 (100.00\%) |
| Total and \% Population |  | 27,608 (46.85\%) | 52,757 (89.53\%) | 23,993 (40.72\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,969 Total Population
57 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 57 | $59,969(100.00 \%)$ | $9,529(100.00 \%)$ | $52,097(100.00 \%)$ | $9,411(100.00 \%)$ |
| Total and \% Population |  | $9,529(15.89 \%)$ | $52,097(86.87 \%)$ | $9,411(15.69 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,057 Total Population
58 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 58 | $59,057(100.00 \%)$ | $37,623(100.00 \%)$ | $50,514(100.00 \%)$ | $31,845(100.00 \%)$ |
| Total and \% Population |  | $37,623(63.71 \%)$ | $50,514(85.53 \%)$ | $31,845(53.92 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,434 Total Population 59 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 59 | $59,434(100.00 \%)$ | $41,763(100.00 \%)$ | $49,179(100.00 \%)$ | $34,470(100.00 \%)$ |
| Total and \% Population |  | $41,763(70.27 \%)$ | $49,179(82.75 \%)$ | $34,470(58.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,712 Total Population
6 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 6 | $59,712(100.00 \%)$ | $641(100.00 \%)$ | $45,152(100.00 \%)$ | $682(100.00 \%)$ |
| Total and \% Population |  | $641(1.07 \%)$ | $45,152(75.62 \%)$ | $682(1.14 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,709 Total Population
60 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 60 | $59,709(100.00 \%)$ | $37,176(100.00 \%)$ | $45,490(100.00 \%)$ | $29,061(100.00 \%)$ |
| Total and \% Population |  | $37,176(62.26 \%)$ | $45,490(76.19 \%)$ | $29,061(48.67 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,950 Total Population 61 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 61 | $35,273(59.84 \%)$ | $17,608(56.93 \%)$ | $26,456(59.84 \%)$ | $13,464(56.93 \%)$ |
| Dist. 65 | $18,084(30.68 \%)$ | $11,790(38.12 \%)$ | $13,448(30.42 \%)$ | $9,005(38.07 \%)$ |
| Dist. 66 | $5,593(9.49 \%)$ | $1,531(4.95 \%)$ | $4,308(9.74 \%)$ | $1,182(5.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,450 Total Population

 62 --|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 62 | $59,450(100.00 \%)$ | $42,125(100.00 \%)$ | $46,426(100.00 \%)$ | $33,548(100.00 \%)$ |
| Total and \% Population |  | $42,125(70.86 \%)$ | $46,426(78.09 \%)$ | $33,548(56.43 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,381 Total Population 63 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 63 | $59,381(100.00 \%)$ | $40,762(100.00 \%)$ | $45,043(100.00 \%)$ | $31,229(100.00 \%)$ |
| Total and \% Population |  | $40,762(68.64 \%)$ | $45,043(75.85 \%)$ | $31,229(52.59 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,648 Total Population 64 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 64 | $59,648(100.00 \%)$ | $28,870(100.00 \%)$ | $45,279(100.00 \%)$ | $22,748(100.00 \%)$ |
| Total and \% Population |  | $28,870(48.40 \%)$ | $45,279(75.91 \%)$ | $22,748(38.14 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,240 Total Population 65 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 61 | $18,248(30.80 \%)$ | $16,410(44.92 \%)$ | $13,883(30.92 \%)$ | $12,845(45.16 \%)$ |
| Dist. 65 | $40,992(69.20 \%)$ | $20,124(55.08 \%)$ | $31,019(69.08 \%)$ | $15,596(54.84 \%)$ |
| Total and \% Population |  | $36,534(61.67 \%)$ | $44,902(75.80 \%)$ | $28,441(48.01 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,961 Total Population
66 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 61 | $5,407(9.17 \%)$ | $3,267(10.37 \%)$ | $3,980(9.06 \%)$ | $2,440(10.31 \%)$ |
| Dist. 66 | $53,554(90.83 \%)$ | $28,252(89.63 \%)$ | $39,927(90.94 \%)$ | $21,217(89.69 \%)$ |
| Total and \% Population |  | $31,519(53.46 \%)$ | $43,907(74.47 \%)$ | $23,657(40.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,135 Total Population 67 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 67 | $59,135(100.00 \%)$ | $34,126(100.00 \%)$ | $44,299(100.00 \%)$ | $26,099(100.00 \%)$ |
| Total and \% Population |  | $34,126(57.71 \%)$ | $44,299(74.91 \%)$ | $26,099(44.13 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,477 Total Population 68 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 68 | $59,477(100.00 \%)$ | $32,830(100.00 \%)$ | $44,835(100.00 \%)$ | $24,994(100.00 \%)$ |
| Total and \% Population |  | $32,830(55.20 \%)$ | $44,835(75.38 \%)$ | $24,994(42.02 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,358 Total Population

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 69 | $58,358(100.00 \%)$ | $36,035(100.00 \%)$ | $45,310(100.00 \%)$ | $28,424(100.00 \%)$ |
| Total and \% Population |  | $36,035(61.75 \%)$ | $45,310(77.64 \%)$ | $28,424(48.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,081 Total Population 7 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 7 | $59,081(100.00 \%)$ | $239(100.00 \%)$ | $48,771(100.00 \%)$ | $302(100.00 \%)$ |
| Total and \% Population |  | $239(0.40 \%)$ | $48,771(82.55 \%)$ | $302(0.51 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,121 Total Population 70 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 70 | $59,121(100.00 \%)$ | $16,546(100.00 \%)$ | $45,249(100.00 \%)$ | $12,591(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,538 Total Population 71 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 71 | $59,538(100.00 \%)$ | $11,406(100.00 \%)$ | $44,582(100.00 \%)$ | $8,879(100.00 \%)$ |
| Total and \% Population |  | $11,406(19.16 \%)$ | $44,582(74.88 \%)$ | $8,879(14.91 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative 12_05, District
59,660 Total Population 72 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 72 | $59,660(100.00 \%)$ | $11,715(100.00 \%)$ | $46,229(100.00 \%)$ | $9,642(100.00 \%)$ |
| Total and \% Population |  | $11,715(19.64 \%)$ | $46,229(77.49 \%)$ | $9,642(16.16 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,036 Total Population 73 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 73 | $60,036(100.00 \%)$ | $6,889(100.00 \%)$ | $45,736(100.00 \%)$ | $5,538(100.00 \%)$ |
| Total and \% Population |  | $6,889(11.47 \%)$ | $45,736(76.18 \%)$ | $5,538(9.22 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,418 Total Population
74 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 74 | $58,418(100.00 \%)$ | $30,562(100.00 \%)$ | $43,602(100.00 \%)$ | $23,521(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,759 Total Population 75 --
Population $\quad$ [18+_Pop] [18+_AP_BIk]

Core Constituencies

| Dist. 75 | $59,759(100.00 \%)$ | $39,105(100.00 \%)$ | $44,983(100.00 \%)$ | $30,090(100.00 \%)$ |
| :--- | :---: | :---: | :---: | :---: |
| Total and \% Population | $39,105(65.44 \%)$ | $44,983(75.27 \%)$ | $30,090(50.35 \%)$ |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 7 5 9}$ Total Population |  |  |  |
| $\mathbf{7 6 - -}$ | Population | Black | [18+_Pop] | [18+_AP_Blk] |
|  | $59,759(100.00 \%)$ | $38,838(100.00 \%)$ | $44,371(100.00 \%)$ | $29,832(100.00 \%)$ |
| Dist. 76 |  | $38,838(64.99 \%)$ | $44,371(74.25 \%)$ | $29,832(49.92 \%)$ |

## Plan: Grant_Esselstyn_Hse_illustrative12_05, District <br> 59,242 Total Population

77 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 77 | $59,242(100.00 \%)$ | $43,478(100.00 \%)$ | $44,207(100.00 \%)$ | $33,655(100.00 \%)$ |
| Total and \% Population |  | $43,478(73.39 \%)$ | $44,207(74.62 \%)$ | $33,655(56.81 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,890 Total Population
78 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 78 | $59,890(100.00 \%)$ | $30,741(100.00 \%)$ | $44,771(100.00 \%)$ | $22,848(100.00 \%)$ |
| Total and \% Population |  | $30,741(51.33 \%)$ | $44,771(74.76 \%)$ | $22,848(38.15 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,500 Total Population 79 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 79 | $59,500(100.00 \%)$ | $41,105(100.00 \%)$ | $43,223(100.00 \%)$ | $30,942(100.00 \%)$ |
| Total and \% Population |  | $41,105(69.08 \%)$ | $43,223(72.64 \%)$ | $30,942(52.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,244 Total Population
8 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | :--- | ---: | ---: |
| Dist. 8 | $59,244(100.00 \%)$ | $687(100.00 \%)$ | $49,612(100.00 \%)$ | $708(100.00 \%)$ |
| Total and \% Population |  | $687(1.16 \%)$ | $49,612(83.74 \%)$ | $708(1.20 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,461 Total Population

 80 --|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 80 | $59,461(100.00 \%)$ | $7,136(100.00 \%)$ | $44,784(100.00 \%)$ | $6,350(100.00 \%)$ |
| Total and \% Population |  | $7,136(12.00 \%)$ | $44,784(75.32 \%)$ | $6,350(10.68 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,007 Total Population 81 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 81 | $59,007(100.00 \%)$ | $11,262(100.00 \%)$ | $46,259(100.00 \%)$ | $10,099(100.00 \%)$ |
| Total and \% Population |  | $11,262(19.09 \%)$ | $46,259(78.40 \%)$ | $10,099(17.11 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,724 Total Population 82 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 82 | $59,724(100.00 \%)$ | $8,754(100.00 \%)$ | $50,238(100.00 \%)$ | $8,455(100.00 \%)$ |
| Total and \% Population |  | $8,754(14.66 \%)$ | $50,238(84.12 \%)$ | $8,455(14.16 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,416 Total Population 83 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 83 | $59,416(100.00 \%)$ | $7,395(100.00 \%)$ | $46,581(100.00 \%)$ | $7,044(100.00 \%)$ |
| Total and \% Population |  | $7,395(12.45 \%)$ | $46,581(78.40 \%)$ | $7,044(11.86 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,862 Total Population 84 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 84 | $59,862(100.00 \%)$ | $42,177(100.00 \%)$ | $47,350(100.00 \%)$ | $34,877(100.00 \%)$ |
| Total and \% Population |  | $42,177(70.46 \%)$ | $47,350(79.10 \%)$ | $34,877(58.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,373 Total Population 85 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 85 | $59,373(100.00 \%)$ | $36,156(100.00 \%)$ | $46,308(100.00 \%)$ | $29,041(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,205 Total Population 86 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 86 | $59,205(100.00 \%)$ | $42,888(100.00 \%)$ | $44,614(100.00 \%)$ | $33,485(100.00 \%)$ |
| Total and \% Population |  | $42,888(72.44 \%)$ | $44,614(75.36 \%)$ | $33,485(56.56 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,709 Total Population 87 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 87 | $59,709(100.00 \%)$ | $42,343(100.00 \%)$ | $45,615(100.00 \%)$ | $33,336(100.00 \%)$ |
| Total and \% Population |  | $42,343(70.92 \%)$ | $45,615(76.40 \%)$ | $33,336(55.83 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,689 Total Population 88 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 88 | $59,689(100.00 \%)$ | $36,654(100.00 \%)$ | $46,073(100.00 \%)$ | $29,187(100.00 \%)$ |
| Total and \% Population |  | $36,654(61.41 \%)$ | $46,073(77.19 \%)$ | $29,187(48.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,866 Total Population
89 --

Core Constituencies

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 89 | $59,866(100.00 \%)$ | $36,081(100.00 \%)$ | $46,198(100.00 \%)$ | $28,890(100.00 \%)$ |
| Total and \% Population |  | $36,081(60.27 \%)$ | $46,198(77.17 \%)$ | $28,890(48.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,474 Total Population
9 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 9 | $59,474(100.00 \%)$ | $626(100.00 \%)$ | $48,273(100.00 \%)$ | $759(100.00 \%)$ |
| Total and \% Population |  | $626(1.05 \%)$ | $48,273(81.17 \%)$ | $759(1.28 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,812 Total Population
90 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 90 | $59,812(100.00 \%)$ | $34,506(100.00 \%)$ | $48,015(100.00 \%)$ | $28,082(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,956 Total Population 91 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 91 | $59,956(100.00 \%)$ | $35,179(100.00 \%)$ | $45,999(100.00 \%)$ | $27,604(100.00 \%)$ |
| Total and \% Population |  | $35,179(58.67 \%)$ | $45,999(76.72 \%)$ | $27,604(46.04 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,273 Total Population
92 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 92 | $60,273(100.00 \%)$ | $41,170(100.00 \%)$ | $46,551(100.00 \%)$ | $32,022(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,118 Total Population
93 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 93 | $60,118(100.00 \%)$ | $38,497(100.00 \%)$ | $44,734(100.00 \%)$ | $29,239(100.00 \%)$ |
| Total and \% Population |  | $38,497(64.04 \%)$ | $44,734(74.41 \%)$ | $29,239(48.64 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,211 Total Population
94 --

|  | Population | Black | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 94 | $59,211(100.00 \%)$ | $39,560(100.00 \%)$ | $44,809(100.00 \%)$ | $30,935(100.00 \%)$ |
| Total and \% Population |  | $39,560(66.81 \%)$ | $44,809(75.68 \%)$ | $30,935(52.25 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,030 Total Population 95 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :--- | :---: | ---: |
| Dist. 95 | $60,030(100.00 \%)$ | $39,566(100.00 \%)$ | $44,948(100.00 \%)$ | $30,183(100.00 \%)$ |

## Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,515 Total Population

 96--|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 96 | $59,515(100.00 \%)$ | $12,683(100.00 \%)$ | $44,671(100.00 \%)$ | $10,273(100.00 \%)$ |
| Total and \% Population |  | $12,683(21.31 \%)$ | $44,671(75.06 \%)$ | $10,273(17.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,072 Total Population
97--

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 97 | $59,072(100.00 \%)$ | $15,237(100.00 \%)$ | $46,339(100.00 \%)$ | $12,405(100.00 \%)$ |
| Total and \% Population |  | $15,237(25.79 \%)$ | $46,339(78.44 \%)$ | $12,405(21.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,998 Total Population
98 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 98 | $59,998(100.00 \%)$ | $12,140(100.00 \%)$ | $42,734(100.00 \%)$ | $9,934(100.00 \%)$ |
| Total and \% Population |  | $12,140(20.23 \%)$ | $42,734(71.23 \%)$ | $9,934(16.56 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,850 Total Population
99 --

|  | Population | Black | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 99 | $59,850(100.00 \%)$ | $8,257(100.00 \%)$ | $45,004(100.00 \%)$ | $6,622(100.00 \%)$ |
| Total and \% Population |  | $8,257(13.80 \%)$ | $45,004(75.19 \%)$ | $6,622(11.06 \%)$ |

## EXHIBIT 15

User:
Plan Name: Grant_Esselstyn_Hse_illustrative12_05
Plan Type:

## Core Constituencies

## Core Constituencies

From Plan: GA_House2021

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,666 Total Population
1 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 001 | $59,666(100.00 \%)$ | $3,034(100.00 \%)$ | $46,801(100.00 \%)$ | $1,966(100.00 \%)$ |
| Total and \% Population |  | $3,034(5.08 \%)$ | $46,801(78.44 \%)$ | $1,966(3.30 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,519 Total Population
10 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 010 | $59,519(100.00 \%)$ | $2,287(100.00 \%)$ | $47,164(100.00 \%)$ | $1,757(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,030 Total Population 100 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 100 | $60,030(100.00 \%)$ | $6,398(100.00 \%)$ | $42,669(100.00 \%)$ | $4,273(100.00 \%)$ |
| Total and \% Population |  | $6,398(10.66 \%)$ | $42,669(71.08 \%)$ | $4,273(7.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,938 Total Population
101 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 101 | $59,938(100.00 \%)$ | $15,380(100.00 \%)$ | $46,584(100.00 \%)$ | $11,269(100.00 \%)$ |
| Total and \% Population |  | $15,380(25.66 \%)$ | $46,584(77.72 \%)$ | $11,269(18.80 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,959 Total Population 102 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 102 | $58,959(100.00 \%)$ | $23,702(100.00 \%)$ | $42,968(100.00 \%)$ | $16,164(100.00 \%)$ |
| Total and \% Population |  | $23,702(40.20 \%)$ | $42,968(72.88 \%)$ | $16,164(27.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,197 Total Population 103 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 103 | $60,197(100.00 \%)$ | $10,628(100.00 \%)$ | $44,399(100.00 \%)$ | $7,454(100.00 \%)$ |
| Total and \% Population |  | $10,628(17.66 \%)$ | $44,399(73.76 \%)$ | $7,454(12.38 \%)$ |

Core Constituencies

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,362 Total Population

104 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 104 | $59,362(100.00 \%)$ | $10,743(100.00 \%)$ | $43,306(100.00 \%)$ | $7,373(100.00 \%)$ |
| Total and \% Population |  | $10,743(18.10 \%)$ | $43,306(72.95 \%)$ | $7,373(12.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,344 Total Population
105 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 105 | $59,344(100.00 \%)$ | $18,444(100.00 \%)$ | $43,474(100.00 \%)$ | $12,628(100.00 \%)$ |
| Total and \% Population |  | $18,444(31.08 \%)$ | $43,474(73.26 \%)$ | $12,628(21.28 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,112 Total Population
106 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 106 | $59,112(100.00 \%)$ | $23,221(100.00 \%)$ | $43,890(100.00 \%)$ | $15,918(100.00 \%)$ |
| Total and \% Population |  | $23,221(39.28 \%)$ | $43,890(74.25 \%)$ | $15,918(26.93 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,702 Total Population
107 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 107 | $59,702(100.00 \%)$ | $18,372(100.00 \%)$ | $44,509(100.00 \%)$ | $13,186(100.00 \%)$ |
| Total and \% Population |  | $18,372(30.77 \%)$ | $44,509(74.55 \%)$ | $13,186(22.09 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,577 Total Population
108 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 108 | $59,577(100.00 \%)$ | $11,946(100.00 \%)$ | $44,308(100.00 \%)$ | $8,132(100.00 \%)$ |
| Total and \% Population |  | $11,946(20.05 \%)$ | $44,308(74.37 \%)$ | $8,132(13.65 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,630 Total Population
109 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 109 | $59,630(100.00 \%)$ | $19,592(100.00 \%)$ | $44,140(100.00 \%)$ | $14,352(100.00 \%)$ |
| Total and \% Population |  | $19,592(32.86 \%)$ | $44,140(74.02 \%)$ | $14,352(24.07 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,792 Total Population 11 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 011 | $58,792(100.00 \%)$ | $1,380(100.00 \%)$ | $45,396(100.00 \%)$ | $839(100.00 \%)$ |
| Total and \% Population | $1,380(2.35 \%)$ | $45,396(77.21 \%)$ | $839(1.43 \%)$ |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 9 5 1}$ Total Population |  |  |  |
| $\mathbf{1 1 0} \boldsymbol{- -}$ |  |  |  |  |

Core Constituencies

|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 110 | 59,951 (100.00\%) | 30,042 (100.00\%) | 43,226 (100.00\%) | 20,400 (100.00\%) |
| Total and \% Population |  | 30,042 (50.11\%) | 43,226 (72.10\%) | 20,400 (34.03\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 111 -- |  |  | 60,009 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 111 | 60,009 (100.00\%) | 14,572 (100.00\%) | 44,096 (100.00\%) | 9,828 (100.00\%) |
| Total and \% Population |  | 14,572 (24.28\%) | 44,096 (73.48\%) | 9,828 (16.38\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 112 -- |  |  | 59,349 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 112 | 59,349 (100.00\%) | 12,163 (100.00\%) | 45,120 (100.00\%) | 8,667 (100.00\%) |
| Total and \% Population |  | 12,163 (20.49\%) | 45,120 (76.02\%) | 8,667 (14.60\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 113 -- |  |  | 60,053 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 113 | 60,053 (100.00\%) | 37,002 (100.00\%) | 44,538 (100.00\%) | 26,515 (100.00\%) |
| Total and \% Population |  | 37,002 (61.62\%) | 44,538 (74.16\%) | 26,515 (44.15\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 114-- |  |  | 59,867 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 114 | 59,867 (100.00\%) | 15,438 (100.00\%) | 45,872 (100.00\%) | 11,347 (100.00\%) |
| Total and \% Population |  | 15,438 (25.79\%) | 45,872 (76.62\%) | 11,347 (18.95\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 115-- |  |  | 59,789 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 078 | 0 (0.00\%) | 0 (0.00\%) | (0.00\%) | (0.00\%) |
| Dist. 091 | 24,083 (40.28\%) | 14,148 (42.08\%) | 18,236 (40.34\%) | 10,357 (42.60\%) |
| Dist. 115 | 13,110 (21.93\%) | 5,752 (17.11\%) | 9,710 (21.48\%) | 3,916 (16.11\%) |
| Dist. 116 | 22,596 (37.79\%) | 13,718 (40.81\%) | 17,261 (38.18\%) | 10,037 (41.29\%) |
| Total and \% Population | 连 | 33,618 (56.23\%) | 45,207 (75.61\%) | 24,310 (40.66\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 116 -- |  |  | 60,380 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 115 | 4,546 (7.53\%) | 1,729 (5.20\%) | 3,472 (7.47\%) | 1,186 (4.91\%) |
| Dist. 116 | 37,317 (61.80\%) | 22,748 (68.44\%) | 28,530 (61.42\%) | 16,579 (68.70\%) |
| Dist. 117 | 18,517 (30.67\%) | 8,759 (26.35\%) | 14,447 (31.10\%) | 6,366 (26.38\%) |
| Total and \% Population |  | 33,236 (55.04\%) | 46,449 (76.93\%) | 24,131 (39.97\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District |  |  | 60,142 Total Population |  |

Core Constituencies

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 115 | 32,945 (54.78\%) | 22,227 (68.48\%) | 24,279 (55.07\%) | 15,691 (69.03\%) |
| Dist. 117 | 27,197 (45.22\%) | 10,231 (31.52\%) | 19,810 (44.93\%) | 7,041 (30.97\%) |
| Total and \% Population |  | 32,458 (53.97\%) | 44,089 (73.31\%) | 22,732 (37.80\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 118 -- |  |  | 59,987 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 118 | 59,987 (100.00\%) | 14,495 (100.00\%) | 46,342 (100.00\%) | 10,937 (100.00\%) |
| Total and \% Population |  | 14,495 (24.16\%) | 46,342 (77.25\%) | 10,937 (18.23\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 119-- |  |  | 58,947 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 119 | 58,947 (100.00\%) | 8,530 (100.00\%) | 44,005 (100.00\%) | 5,935 (100.00\%) |
| Total and \% Population |  | 8,530 (14.47\%) | 44,005 (74.65\%) | 5,935 (10.07\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District$12--$ |  |  | 59,300 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 012 | 59,300 (100.00\%) | 6,046 (100.00\%) | 46,487 (100.00\%) | 4,498 (100.00\%) |
| Total and \% Population |  | 6,046 (10.20\%) | 46,487 (78.39\%) | 4,498 (7.59\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 120 -- |  |  | 58,982 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 120 | 58,982 (100.00\%) | 8,868 (100.00\%) | 46,767 (100.00\%) | 6,679 (100.00\%) |
| Total and \% Population |  | 8,868 (15.04\%) | 46,767 (79.29\%) | 6,679 (11.32\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District$121 \text {-- }$ |  |  | 59,127 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 121 | 59,127 (100.00\%) | 5,888 (100.00\%) | 46,598 (100.00\%) | 4,454 (100.00\%) |
| Total and \% Population |  | 5,888 (9.96\%) | 46,598 (78.81\%) | 4,454 (7.53\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 122 -- |  |  | 59,632 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 122 | 59,632 (100.00\%) | 19,281 (100.00\%) | 48,840 (100.00\%) | 13,878 (100.00\%) |
| Total and \% Population |  | 19,281 (32.33\%) | 48,840 (81.90\%) | 13,878 (23.27\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 123 -- |  |  | 59,282 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |

Core Constituencies
Grant_Esselstyn_Hse_illustrative12_05

| Dist. 123 | $59,282(100.00 \%)$ | $15,012(100.00 \%)$ | $46,572(100.00 \%)$ | $11,307(100.00 \%)$ |
| :--- | :--- | :--- | :--- | :--- |
| Total and \% Population |  | $15,012(25.32 \%)$ | $46,572(78.56 \%)$ | $11,307(19.07 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,221 Total Population
124 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 124 | $59,221(100.00 \%)$ | $16,349(100.00 \%)$ | $47,638(100.00 \%)$ | $12,186(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,137 Total Population 125 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 125 | $60,137(100.00 \%)$ | $15,255(100.00 \%)$ | $43,812(100.00 \%)$ | $10,376(100.00 \%)$ |
| Total and \% Population |  | $15,255(25.37 \%)$ | $43,812(72.85 \%)$ | $10,376(17.25 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,260 Total Population
126 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 126 | $59,260(100.00 \%)$ | $33,452(100.00 \%)$ | $45,497(100.00 \%)$ | $24,782(100.00 \%)$ |
| Total and \% Population |  | $33,452(56.45 \%)$ | $45,497(76.78 \%)$ | $24,782(41.82 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 58,678 Total Population

 127 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 127 | $58,678(100.00 \%)$ | $11,540(100.00 \%)$ | $45,889(100.00 \%)$ | $8,500(100.00 \%)$ |
| Total and \% Population |  | $11,540(19.67 \%)$ | $45,889(78.20 \%)$ | $8,500(14.49 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 58,864 Total Population

128 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 128 | $58,864(100.00 \%)$ | $30,904(100.00 \%)$ | $46,488(100.00 \%)$ | $23,434(100.00 \%)$ |
| Total and \% Population |  | $30,904(52.50 \%)$ | $46,488(78.98 \%)$ | $23,434(39.81 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,829 Total Population 129 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 129 | $58,829(100.00 \%)$ | $34,245(100.00 \%)$ | $46,873(100.00 \%)$ | $25,717(100.00 \%)$ |
| Total and \% Population |  | $34,245(58.21 \%)$ | $46,873(79.68 \%)$ | $25,717(43.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,150 Total Population 13 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 013 | $59,150(100.00 \%)$ | $12,212(100.00 \%)$ | $45,176(100.00 \%)$ | $8,665(100.00 \%)$ |
| Total and \% Population |  | $12,212(20.65 \%)$ | $45,176(76.38 \%)$ | $8,665(14.65 \%)$ |

Core Constituencies
Plan: Grant_Esselstyn_Hse_illustrative12_05, District
130 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 130 | $59,203(100.00 \%)$ | $37,564(100.00 \%)$ | $44,019(100.00 \%)$ | $26,372(100.00 \%)$ |
| Total and \% Population |  | $37,564(63.45 \%)$ | $44,019(74.35 \%)$ | $26,372(44.55 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 8 , 8 9 0}$ Total Population |  |  |  |
| $\mathbf{1 3 1}$-- |  |  |  |  |


|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | :---: | :---: | :---: |
| Dist. 131 | $58,890(100.00 \%)$ | $11,142(100.00 \%)$ | $42,968(100.00 \%)$ | $7,572(100.00 \%)$ |
| Total and \% Population |  | $11,142(18.92 \%)$ | $42,968(72.96 \%)$ | $7,572(12.86 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,142 Total Population

 132 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 132 | $59,142(100.00 \%)$ | $32,680(100.00 \%)$ | $46,752(100.00 \%)$ | $24,471(100.00 \%)$ |
| Total and \% Population |  | $32,680(55.26 \%)$ | $46,752(79.05 \%)$ | $24,471(41.38 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,768 Total Population 133 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 133 | $32,897(55.04 \%)$ | $9,360(58.91 \%)$ | $25,572(55.12 \%)$ | $7,044(58.15 \%)$ |
| Dist. 134 | $9,272(15.51 \%)$ | $1,222(7.69 \%)$ | $7,126(15.36 \%)$ | $905(7.47 \%)$ |
| Dist. 144 | $17,599(29.45 \%)$ | $5,306(33.40 \%)$ | $13,698(29.52 \%)$ | $4,165(34.38 \%)$ |
| Total and \% Population |  | $15,888(26.58 \%)$ | $46,396(77.63 \%)$ | $12,114(20.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,046 Total Population
134 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | ---: | ---: | ---: |
| Dist. 134 | $50,124(84.89 \%)$ | $20,212(85.50 \%)$ | $37,984(84.69 \%)$ | $14,238(84.86 \%)$ |
| Dist. 135 | $8,922(15.11 \%)$ | $3,428(14.50 \%)$ | $6,864(15.31 \%)$ | $2,541(15.14 \%)$ |
| Total and \% Population |  | $23,640(40.04 \%)$ | $44,848(75.95 \%)$ | $16,779(28.42 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,013 Total Population
135 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 135 | $51,141(85.22 \%)$ | $11,206(90.31 \%)$ | $39,861(84.90 \%)$ | $8,557(89.55 \%)$ |
| Dist. 144 | $7,685(12.81 \%)$ | $930(7.49 \%)$ | $6,125(13.05 \%)$ | $771(8.07 \%)$ |
| Dist. 145 | $1,187(1.98 \%)$ | $273(2.20 \%)$ | $962(2.05 \%)$ | $228(2.39 \%)$ |
| Total and \% Population |  | $12,409(20.68 \%)$ | $46,948(78.23 \%)$ | $9,556(15.92 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,298 Total Population
136 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 136 | $59,298(100.00 \%)$ | $17,530(100.00 \%)$ | $45,367(100.00 \%)$ | $13,005(100.00 \%)$ |
| Total and \% Population |  | $17,530(29.56 \%)$ | $45,367(76.51 \%)$ | $13,005(21.93 \%)$ |

Core Constituencies
Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,551 Total Population 137 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 137 | $59,551(100.00 \%)$ | $32,252(100.00 \%)$ | $45,358(100.00 \%)$ | $23,647(100.00 \%)$ |
| Total and \% Population |  | $32,252(54.16 \%)$ | $45,358(76.17 \%)$ | $23,647(39.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,912 Total Population 138 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 138 | $58,912(100.00 \%)$ | $12,072(100.00 \%)$ | $45,684(100.00 \%)$ | $8,824(100.00 \%)$ |
| Total and \% Population |  | $12,072(20.49 \%)$ | $45,684(77.55 \%)$ | $8,824(14.98 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,010 Total Population
139 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 139 | $59,010(100.00 \%)$ | $12,846(100.00 \%)$ | $45,522(100.00 \%)$ | $9,227(100.00 \%)$ |
| Total and \% Population |  | $12,846(21.77 \%)$ | $45,522(77.14 \%)$ | $9,227(15.64 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,135 Total Population
14 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 014 | $59,135(100.00 \%)$ | $4,338(100.00 \%)$ | $45,511(100.00 \%)$ | $3,117(100.00 \%)$ |
| Total and \% Population |  | $4,338(7.34 \%)$ | $45,511(76.96 \%)$ | $3,117(5.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,294 Total Population
140 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 140 | $59,294(100.00 \%)$ | $35,460(100.00 \%)$ | $44,411(100.00 \%)$ | $25,596(100.00 \%)$ |
| Total and \% Population |  | $35,460(59.80 \%)$ | $44,411(74.90 \%)$ | $25,596(43.17 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 0 1 9}$ Total Population |  |  |  |
| 141 -- |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 141 | $59,019(100.00 \%)$ | $34,760(100.00 \%)$ | $44,677(100.00 \%)$ | $25,672(100.00 \%)$ |
| Total and \% Population |  | $34,760(58.90 \%)$ | $44,677(75.70 \%)$ | $25,672(43.50 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,320 Total Population
142 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 142 | $31,394(52.92 \%)$ | $19,847(62.51 \%)$ | $23,393(51.74 \%)$ | $13,910(61.36 \%)$ |
| Dist. 143 | $6,131(10.34 \%)$ | $4,549(14.33 \%)$ | $4,681(10.35 \%)$ | $3,405(15.02 \%)$ |
| Dist. 144 | $17,474(29.46 \%)$ | $6,231(19.63 \%)$ | $13,757(30.43 \%)$ | $4,483(19.78 \%)$ |
| Dist. 145 | $4,321(7.28 \%)$ | $1,122(3.53 \%)$ | $3,381(7.48 \%)$ | $871(3.84 \%)$ |
| Total and \% Population |  | $31,749(53.52 \%)$ | $45,212(76.22 \%)$ | $22,669(38.21 \%)$ |

## Core Constituencies

## Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,122 Total Population

143 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | ---: | ---: | ---: |
| Dist. 142 | $23,599(39.92 \%)$ | $13,835(43.21 \%)$ | $17,877(39.02 \%)$ | $9,850(42.46 \%)$ |
| Dist. 143 | $19,049(32.22 \%)$ | $12,329(38.51 \%)$ | $15,144(33.06 \%)$ | $9,171(39.53 \%)$ |
| Dist. 144 | $16,474(27.86 \%)$ | $5,852(18.28 \%)$ | $12,790(27.92 \%)$ | $4,179(18.01 \%)$ |
| Total and \% Population |  | $32,016(54.15 \%)$ | $45,811(77.49 \%)$ | $23,200(39.24 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 58,533 Total Population

 144 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | ---: | :---: | ---: | :---: |
| Dist. 145 | $26,223(44.80 \%)$ | $5,767(37.76 \%)$ | $20,815(46.40 \%)$ | $4,416(39.46 \%)$ |
| Dist. 146 | $24,398(41.68 \%)$ | $7,604(49.79 \%)$ | $18,486(41.20 \%)$ | $5,419(48.43 \%)$ |
| Dist. 147 | $7,912(13.52 \%)$ | $1,902(12.45 \%)$ | $5,563(12.40 \%)$ | $1,355(12.11 \%)$ |
| Total and \% Population |  | $15,273(26.09 \%)$ | $44,864(76.65 \%)$ | $11,190(19.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,668 Total Population

 145 --|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 142 | $4,615(7.73 \%)$ | $3,933(12.26 \%)$ | $3,314(7.44 \%)$ | $2,776(12.37 \%)$ |
| Dist. 143 | $18,101(30.34 \%)$ | $8,918(27.80 \%)$ | $13,860(31.11 \%)$ | $6,396(28.50 \%)$ |
| Dist. 145 | $28,132(47.15 \%)$ | $15,749(49.10 \%)$ | $20,686(46.44 \%)$ | $10,838(48.29 \%)$ |
| Dist. 146 | $0(0.00 \%)$ | $0(0.00 \%)$ | $(0.00 \%)$ | $(0.00 \%)$ |
| Dist. 147 | $8,820(14.78 \%)$ | $3,478(10.84 \%)$ | $6,687(15.01 \%)$ | $2,433(10.84 \%)$ |
| Total and \% Population |  | $32,078(53.76 \%)$ | $44,547(74.66 \%)$ | $22,443(37.61 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,197 Total Population
146 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 146 | $19,684(33.25 \%)$ | $4,395(29.39 \%)$ | $14,332(32.08 \%)$ | $3,062(28.11 \%)$ |
| Dist. 148 | $26,930(45.49 \%)$ | $7,610(50.88 \%)$ | $20,732(46.40 \%)$ | $5,793(53.19 \%)$ |
| Dist. 149 | $12,583(21.26 \%)$ | $2,951(19.73 \%)$ | $9,613(21.52 \%)$ | $2,036(18.69 \%)$ |
| Total and \% Population |  | $14,956(25.26 \%)$ | $44,677(75.47 \%)$ | $10,891(18.40 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,567 Total Population 147 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 146 | $16,121(27.53 \%)$ | $5,691(29.34 \%)$ | $11,771(26.50 \%)$ | $3,831(28.23 \%)$ |
| Dist. 147 | $42,446(72.47 \%)$ | $13,706(70.66 \%)$ | $32,652(73.50 \%)$ | $9,738(71.77 \%)$ |
| Total and \% Population |  | $19,397(33.12 \%)$ | $44,423(75.85 \%)$ | $13,569(23.17 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,887 Total Population
148 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 148 | $33,054(55.19 \%)$ | $13,591(58.33 \%)$ | $25,882(54.54 \%)$ | $10,065(56.85 \%)$ |
| Dist. 149 | $26,833(44.81 \%)$ | $9,708(41.67 \%)$ | $21,576(45.46 \%)$ | $7,638(43.15 \%)$ |
| Total and \% Population |  | $23,299(38.90 \%)$ | $47,458(79.25 \%)$ | $17,703(29.56 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,392 Total Population 149 --

Core Constituencies

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 133 | 26,305 (44.29\%) | 13,453 (41.70\%) | 21,650 (45.13\%) | 10,314 (41.72\%) |
| Dist. 143 | 16,188 (27.26\%) | 12,249 (37.97\%) | 12,705 (26.49\%) | 9,229 (37.34\%) |
| Dist. 149 | 16,899 (28.45\%) | 6,556 (20.32\%) | 13,615 (28.38\%) | 5,176 (20.94\%) |
| Total and \% Population |  | 32,258 (54.31\%) | 47,970 (80.77\%) | 24,719 (41.62\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 15 -- |  |  | 59,213 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 015 | 59,213 (100.00\%) | 9,352 (100.00\%) | 45,791 (100.00\%) | 6,500 (100.00\%) |
| Total and \% Population |  | 9,352 (15.79\%) | 45,791 (77.33\%) | 6,500 (10.98\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 150 -- |  |  | 59,276 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 150 | 59,276 (100.00\%) | 32,464 (100.00\%) | 47,050 (100.00\%) | 25,202 (100.00\%) |
| Total and \% Population |  | 32,464 (54.77\%) | 47,050 (79.37\%) | 25,202 (42.52\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric 151 -- |  |  | 60,059 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 151 | 60,059 (100.00\%) | 26,527 (100.00\%) | 46,973 (100.00\%) | 19,920 (100.00\%) |
| Total and \% Population |  | 26,527 (44.17\%) | 46,973 (78.21\%) | 19,920 (33.17\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 1 3 4}$ Total Population 152 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 152 | $60,134(100.00 \%)$ | $16,354(100.00 \%)$ | $46,026(100.00 \%)$ | $11,993(100.00 \%)$ |
| Total and \% Population |  | $16,354(27.20 \%)$ | $46,026(76.54 \%)$ | $11,993(19.94 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,299 Total Population 153 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 153 | $59,299(100.00 \%)$ | $42,183(100.00 \%)$ | $45,692(100.00 \%)$ | $31,047(100.00 \%)$ |
| Total and \% Population |  | $42,183(71.14 \%)$ | $45,692(77.05 \%)$ | $31,047(52.36 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,994 Total Population 154 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 154 | $59,994(100.00 \%)$ | $34,272(100.00 \%)$ | $47,273(100.00 \%)$ | $25,914(100.00 \%)$ |
| Total and \% Population |  | $34,272(57.13 \%)$ | $47,273(78.80 \%)$ | $25,914(43.19 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,134 Total Population 155 --

Core Constituencies

| Dist. 149 | 1,375 (2.29\%) | 138 (0.62\%) | 1,088 (2.35\%) | 100 (0.61\%) |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 155 | 58,759 (97.71\%) | 22,256 (99.38\%) | 45,208 (97.65\%) | 16,208 (99.39\%) |
| Total and \% Population |  | 22,394 (37.24\%) | 46,296 (76.99\%) | 16,308 (27.12\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 156 -- |  |  | 60,647 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 149 | 1,203 (1.98\%) | 135 (0.72\%) | 929 (1.99\%) | 101 (0.72\%) |
| Dist. 156 | 59,444 (98.02\%) | 18,600 (99.28\%) | 45,867 (98.01\%) | 13,875 (99.28\%) |
| Total and \% Population |  | 18,735 (30.89\%) | 46,796 (77.16\%) | 13,976 (23.04\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 157 -- |  |  | 59,957 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 157 | 59,957 (100.00\%) | 15,118 (100.00\%) | 45,311 (100.00\%) | 11,176 (100.00\%) |
| Total and \% Population |  | 15,118 (25.21\%) | 45,311 (75.57\%) | 11,176 (18.64\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,440 Total Population 158 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 158 | $59,440(100.00 \%)$ | $19,656(100.00 \%)$ | $45,549(100.00 \%)$ | $14,209(100.00 \%)$ |
| Total and \% Population |  | $19,656(33.07 \%)$ | $45,549(76.63 \%)$ | $14,209(23.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,895 Total Population 159 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 159 | $59,895(100.00 \%)$ | $15,307(100.00 \%)$ | $44,871(100.00 \%)$ | $10,995(100.00 \%)$ |
| Total and \% Population |  |  |  | $45,871(74.92 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 16 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 016 | $59,402(100.00 \%)$ | $7,581(100.00 \%)$ | $44,009(100.00 \%)$ | $5,146(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 160 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 160 | $59,935(100.00 \%)$ | $14,170(100.00 \%)$ | $48,057(100.00 \%)$ | $10,859(100.00 \%)$ |
| Total and \% Population |  | $14,170(23.64 \%)$ | $48,057(80.18 \%)$ | $10,859(18.12 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{6 0 , 0 9 7}$ Total Population |  |  |  |
| $\mathbf{1 6 1} \mathbf{- -}$ |  | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
|  | Population | $60,097(100.00 \%)$ | $17,350(100.00 \%)$ | $44,371(100.00 \%)$ |
| Dist. 161 |  | $17,350(28.87 \%)$ | $44,371(73.83 \%)$ | $12,042(20.04 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 3 0 8}$ Total Population 162 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 162 | $60,308(100.00 \%)$ | $28,142(100.00 \%)$ | $46,733(100.00 \%)$ | $20,435(100.00 \%)$ |
| Total and \% Population |  | $28,142(46.66 \%)$ | $46,733(77.49 \%)$ | $20,435(33.88 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,123 Total Population 163 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 163 | $60,123(100.00 \%)$ | $29,099(100.00 \%)$ | $48,461(100.00 \%)$ | $22,045(100.00 \%)$ |
| Total and \% Population |  | $29,099(48.40 \%)$ | $48,461(80.60 \%)$ | $22,045(36.67 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{6 0 , 1 0 1}$ Total Population |  |  |  |
| $\mathbf{1 6 4 ~ - - ~}$ |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 164 | $60,101(100.00 \%)$ | $15,067(100.00 \%)$ | $45,851(100.00 \%)$ | $10,760(100.00 \%)$ |
| Total and \% Population |  | $15,067(25.07 \%)$ | $45,851(76.29 \%)$ | $10,760(17.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,978 Total Population
165 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 165 | $59,978(100.00 \%)$ | $32,897(100.00 \%)$ | $48,247(100.00 \%)$ | $24,282(100.00 \%)$ |
| Total and \% Population |  | $32,897(54.85 \%)$ | $48,247(80.44 \%)$ | $24,282(40.48 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,242 Total Population 166 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 166 | $60,242(100.00 \%)$ | $3,647(100.00 \%)$ | $47,580(100.00 \%)$ | $2,698(100.00 \%)$ |
| Total and \% Population |  | $3,647(6.05 \%)$ | $47,580(78.98 \%)$ | $2,698(4.48 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,493 Total Population
167 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 167 | $59,493(100.00 \%)$ | $14,236(100.00 \%)$ | $44,140(100.00 \%)$ | $9,835(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,147 Total Population 168 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 168 | $60,147(100.00 \%)$ | $29,540(100.00 \%)$ | $44,867(100.00 \%)$ | $20,757(100.00 \%)$ |
| Total and \% Population |  | $29,540(49.11 \%)$ | $44,867(74.60 \%)$ | $20,757(34.51 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,138 Total Population 169 --

Core Constituencies

|  | Population | AP_Blk | [18+_Pop] | [18+_A |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 169 | 59,138 (100.00\%) | 17,964 (100.00\%) | 45,267 (100.00\%) | 13,147 (100.00\%) |
| Total and \% Population |  | 17,964 (30.38\%) | 45,267 (76.54\%) | 13,147 (22.23\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 17 -- |  |  | 59,120 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_A |
| Dist. 017 | 59,120 (100.00\%) | 14,783 (100.00\%) | 42,761 (100.00\%) | 9,843 (100.00\%) |
| Total and \% Population |  | 14,783 (25.01\%) | 42,761 (72.33\%) | 9,843 (16.65\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 170 -- |  |  | 60,116 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 170 | 60,116 (100.00\%) | 15,658 (100.00\%) | 45,316 (100.00\%) | 10,976 (100.00\%) |
| Total and \% Population |  | 15,658 (26.05\%) | 45,316 (75.38\%) | 10,976 (18.26\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric$171 \text {-- }$ |  |  | 59,237 Total Population | ulation |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 171 | 59,237 (100.00\%) | 24,411 (100.00\%) | 45,969 (100.00\%) | 18,202 (100.00\%) |
| Total and \% Population |  | 24,411 (41.21\%) | 45,969 (77.60\%) | 18,202 (30.73\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric$172--$ |  |  | 59,961 Total | ulation |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 172 | 59,961 (100.00\%) | 14,794 (100.00\%) | 44,756 (100.00\%) | 10,439 (100.00\%) |
| Total and \% Population |  | 14,794 (24.67\%) | 44,756 (74.64\%) | 10,439 (17.41\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, Distric$173 \text {-- }$ |  |  | 59,743 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 173 | 59,743 (100.00\%) | 22,609 (100.00\%) | 45,292 (100.00\%) | 16,428 (100.00\%) |
| Total and \% Population | - | 22,609 (37.84\%) | 45,292 (75.81\%) | 16,428 (27.50\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District |  |  | 59,852 Total Population |  |
| $174 \text {-- }$ | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 174 | 59,852 (100.00\%) | 11,260 (100.00\%) | 45,760 (100.00\%) | 7,950 (100.00\%) |
| Total and \% Population |  | 11,260 (18.81\%) | 45,760 (76.46\%) | 7,950 (13.28\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 175 -- |  |  | 59,993 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 175 | 59,993 (100.00\%) | 15,333 (100.00\%) | 44,704 (100.00\%) | 10,805 (100.00\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,470 Total Population 176 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 176 | $59,470(100.00 \%)$ | $14,031(100.00 \%)$ | $44,991(100.00 \%)$ | $10,206(100.00 \%)$ |
| Total and \% Population |  | $14,031(23.59 \%)$ | $44,991(75.65 \%)$ | $10,206(17.16 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,992 Total Population 177 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 177 | $59,992(100.00 \%)$ | $34,510(100.00 \%)$ | $46,014(100.00 \%)$ | $24,793(100.00 \%)$ |
| Total and \% Population |  | $34,510(57.52 \%)$ | $46,014(76.70 \%)$ | $24,793(41.33 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,877 Total Population 178 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :--- | :---: | :--- |
| Dist. 178 | $59,877(100.00 \%)$ | $9,525(100.00 \%)$ | $45,638(100.00 \%)$ | $6,750(100.00 \%)$ |
| Total and \% Population |  | $9,525(15.91 \%)$ | $45,638(76.22 \%)$ | $6,750(11.27 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,356 Total Population 179 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 179 | $59,356(100.00 \%)$ | $18,047(100.00 \%)$ | $47,156(100.00 \%)$ | $12,745(100.00 \%)$ |
| Total and \% Population |  | $18,047(30.40 \%)$ | $47,156(79.45 \%)$ | $12,745(21.47 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,335 Total Population 18 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 018 | $59,335(100.00 \%)$ | $5,118(100.00 \%)$ | $45,159(100.00 \%)$ | $3,604(100.00 \%)$ |
| Total and \% Population |  | $5,118(8.63 \%)$ | $45,159(76.11 \%)$ | $3,604(6.07 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,412 Total Population 180 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 180 | $59,412(100.00 \%)$ | $11,721(100.00 \%)$ | $45,362(100.00 \%)$ | $8,261(100.00 \%)$ |
| Total and \% Population |  | $11,721(19.73 \%)$ | $45,362(76.35 \%)$ | $8,261(13.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 58,955 Total Population 19 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
|  | $58,955(100.00 \%)$ | $15,550(100.00 \%)$ | $44,299(100.00 \%)$ | $10,697(100.00 \%)$ |
| Dist. 019 |  | $15,550(26.38 \%)$ | $44,299(75.14 \%)$ | $10,697(18.14 \%)$ |
| Total and \% Population |  |  |  |  |

Core Constituencies

| $\mathbf{2 - -}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 002 | $59,773(100.00 \%)$ | $2,173(100.00 \%)$ | $46,159(100.00 \%)$ | $1,456(100.00 \%)$ |
| Total and \% Population |  | $2,173(3.64 \%)$ | $46,159(77.22 \%)$ | $1,456(2.44 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 1 0 7}$ Total Population 20 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 020 | $60,107(100.00 \%)$ | $5,973(100.00 \%)$ | $45,725(100.00 \%)$ | $4,230(100.00 \%)$ |
| Total and \% Population |  | $5,973(9.94 \%)$ | $45,725(76.07 \%)$ | $4,230(7.04 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,529 Total Population 21 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 021 | $59,529(100.00 \%)$ | $3,350(100.00 \%)$ | $44,931(100.00 \%)$ | $2,272(100.00 \%)$ |
| Total and \% Population |  | $3,350(5.63 \%)$ | $44,931(75.48 \%)$ | $2,272(3.82 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,460 Total Population 22 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 022 | $59,460(100.00 \%)$ | $9,890(100.00 \%)$ | $45,815(100.00 \%)$ | $6,918(100.00 \%)$ |
| Total and \% Population |  | $9,890(16.63 \%)$ | $45,815(77.05 \%)$ | $6,918(11.63 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,048 Total Population 23 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 023 | $59,048(100.00 \%)$ | $4,250(100.00 \%)$ | $44,254(100.00 \%)$ | $2,878(100.00 \%)$ |
| Total and \% Population |  | $4,250(7.20 \%)$ | $44,254(74.95 \%)$ | $2,878(4.87 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 0 1 1}$ Total Population |  |  |  |
| 24 -- | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
|  | $59,011(100.00 \%)$ | $4,313(100.00 \%)$ | $41,814(100.00 \%)$ | $2,926(100.00 \%)$ |
| Dist. 024 |  | $4,313(7.31 \%)$ | $41,814(70.86 \%)$ | $2,926(4.96 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,414 Total Population 25 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 025 | $59,414(100.00 \%)$ | $3,606(100.00 \%)$ | $42,520(100.00 \%)$ | $2,507(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,248 Total Population 26 --
Population $\quad$ AP_Blk [18+_Pop] [18+_AP_Blk]

Core Constituencies


|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :--- | :---: | :---: |
| Dist. 029 | $59,200(100.00 \%)$ | $8,132(100.00 \%)$ | $43,131(100.00 \%)$ | $5,861(100.00 \%)$ |
| Total and \% Population |  | $8,132(13.74 \%)$ | $43,131(72.86 \%)$ | $5,861(9.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 60,199 Total Population

3 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 003 | $60,199(100.00 \%)$ | $2,463(100.00 \%)$ | $46,716(100.00 \%)$ | $1,565(100.00 \%)$ |
| Total and \% Population |  | $2,463(4.09 \%)$ | $46,716(77.60 \%)$ | $1,565(2.60 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,266 Total Population
30 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 030 | $59,266(100.00 \%)$ | $5,186(100.00 \%)$ | $45,414(100.00 \%)$ | $3,678(100.00 \%)$ |
| Total and \% Population |  | $5,186(8.75 \%)$ | $45,414(76.63 \%)$ | $3,678(6.21 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,901 Total Population
31 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 031 | $59,901(100.00 \%)$ | $4,770(100.00 \%)$ | $43,120(100.00 \%)$ | $3,265(100.00 \%)$ |
| Total and \% Population |  | $4,770(7.96 \%)$ | $43,120(71.99 \%)$ | $3,265(5.45 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,145 Total Population
32 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 032 | $59,145(100.00 \%)$ | $5,252(100.00 \%)$ | $45,942(100.00 \%)$ | $3,659(100.00 \%)$ |
| Total and \% Population |  | $5,252(8.88 \%)$ | $45,942(77.68 \%)$ | $3,659(6.19 \%)$ |

Core Constituencies
Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,187 Total Population 33 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 033 | $59,187(100.00 \%)$ | $7,322(100.00 \%)$ | $46,498(100.00 \%)$ | $5,207(100.00 \%)$ |
| Total and \% Population |  | $7,322(12.37 \%)$ | $46,498(78.56 \%)$ | $5,207(8.80 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 8 7 5}$ Total Population |  |  |  |
| $\mathbf{3 4}$-- | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
|  | $59,875(100.00 \%)$ | $10,102(100.00 \%)$ | $45,758(100.00 \%)$ | $7,169(100.00 \%)$ |
| Dist. 034 |  | $10,102(16.87 \%)$ | $45,758(76.42 \%)$ | $7,169(11.97 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,889 Total Population 35 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 035 | $59,889(100.00 \%)$ | $18,210(100.00 \%)$ | $48,312(100.00 \%)$ | $13,722(100.00 \%)$ |
| Total and \% Population |  | $18,210(30.41 \%)$ | $48,312(80.67 \%)$ | $13,722(22.91 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,994 Total Population 36 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 036 | $59,994(100.00 \%)$ | $11,055(100.00 \%)$ | $44,911(100.00 \%)$ | $7,626(100.00 \%)$ |
| Total and \% Population |  | $11,055(18.43 \%)$ | $44,911(74.86 \%)$ | $7,626(12.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,176 Total Population
37 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 037 | $59,176(100.00 \%)$ | $17,171(100.00 \%)$ | $46,223(100.00 \%)$ | $13,027(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,317 Total Population 38 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 038 | $59,317(100.00 \%)$ | $33,760(100.00 \%)$ | $44,839(100.00 \%)$ | $24,318(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,381 Total Population 39 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 039 | $59,381(100.00 \%)$ | $33,016(100.00 \%)$ | $44,436(100.00 \%)$ | $24,569(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,070 Total Population
4 --

Core Constituencies

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 004 | 59,070 (100.00\%) | 3,264 (100.00\%) | 42,798 (100.00\%) | 2,303 (100.00\%) |
| Total and \% Population |  | 3,264 (5.53\%) | 42,798 (72.45\%) | 2,303 (3.90\%) |
|  |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 040 | 59,044 (100.00\%) | 20,179 (100.00\%) | 47,976 (100.00\%) | 15,821 (100.00\%) |
| Total and \% Population |  | 20,179 (34.18\%) | 47,976 (81.25\%) | 15,821 (26.80\%) |
|  |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 041 | 60,122 (100.00\%) | 23,846 (100.00\%) | 45,271 (100.00\%) | 17,816 (100.00\%) |
| Total and \% Population |  | 23,846 (39.66\%) | 45,271 (75.30\%) | 17,816 (29.63\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District <br> 59,620 Total Population 42 -- |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 042 | 59,620 (100.00\%) | 20,726 (100.00\%) | 48,525 (100.00\%) | 16,353 (100.00\%) |
| Total and \% Population |  | 20,726 (34.76\%) | 48,525 (81.39\%) | 16,353 (27.43\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District <br> 59,464 Total Population 43 -- |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 043 | 59,464 (100.00\%) | 16,346 (100.00\%) | 47,033 (100.00\%) | 12,476 (100.00\%) |
| Total and \% Population |  | 16,346 (27.49\%) | 47,033 (79.09\%) | 12,476 (20.98\%) |
| $\qquad$ |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 044 | 60,002 (100.00\%) | 7,990 (100.00\%) | 46,773 (100.00\%) | 5,635 (100.00\%) |
| Total and \% Population |  | 7,990 (13.32\%) | 46,773 (77.95\%) | 5,635 (9.39\%) |
|  |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 045 | 59,738 (100.00\%) | 3,303 (100.00\%) | 44,023 (100.00\%) | 2,324 (100.00\%) |
| Total and \% Population |  | 3,303 (5.53\%) | 44,023 (73.69\%) | 2,324 (3.89\%) |
|  |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 046 | 59,108 (100.00\%) | 5,077 (100.00\%) | 44,132 (100.00\%) | 3,560 (100.00\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,126 Total Population
47 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 047 | $59,126(100.00 \%)$ | $6,590(100.00 \%)$ | $43,932(100.00 \%)$ | $4,709(100.00 \%)$ |
| Total and \% Population |  | $6,590(11.15 \%)$ | $43,932(74.30 \%)$ | $4,709(7.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,003 Total Population 48 --


Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,523 Total Population
50 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 050 | $59,523(100.00 \%)$ | $7,763(100.00 \%)$ | $43,940(100.00 \%)$ | $5,450(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,952 Total Population
51 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 051 | $58,952(100.00 \%)$ | $14,766(100.00 \%)$ | $47,262(100.00 \%)$ | $11,193(100.00 \%)$ |
| Total and \% Population |  | $14,766(25.05 \%)$ | $47,262(80.17 \%)$ | $11,193(18.99 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,811 Total Population 52 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 052 | $59,811(100.00 \%)$ | $9,461(100.00 \%)$ | $48,525(100.00 \%)$ | $7,758(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,953 Total Population

Core Constituencies

| $\mathbf{5 3 - -}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| Dist. 053 | $59,953(100.00 \%)$ | $8,685(100.00 \%)$ | $46,944(100.00 \%)$ | $6,819(100.00 \%)$ |
| Total and \% Population |  | $8,685(14.49 \%)$ | $46,944(78.30 \%)$ | $6,819(11.37 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,083 Total Population
54 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 054 | $60,083(100.00 \%)$ | $9,048(100.00 \%)$ | $50,338(100.00 \%)$ | $7,789(100.00 \%)$ |
| Total and \% Population |  | $9,048(15.06 \%)$ | $50,338(83.78 \%)$ | $7,789(12.96 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,971 Total Population 55 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 055 | $59,971(100.00 \%)$ | $34,374(100.00 \%)$ | $49,255(100.00 \%)$ | $27,279(100.00 \%)$ |
| Total and \% Population |  | $34,374(57.32 \%)$ | $49,255(82.13 \%)$ | $27,279(45.49 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,929 Total Population
56 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 056 | $58,929(100.00 \%)$ | $29,016(100.00 \%)$ | $52,757(100.00 \%)$ | $23,993(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,969 Total Population 57 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 057 | $59,969(100.00 \%)$ | $10,691(100.00 \%)$ | $52,097(100.00 \%)$ | $9,411(100.00 \%)$ |
| Total and \% Population |  | $10,691(17.83 \%)$ | $52,097(86.87 \%)$ | $9,411(15.69 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,057 Total Population 58 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 058 | $59,057(100.00 \%)$ | $39,036(100.00 \%)$ | $50,514(100.00 \%)$ | $31,845(100.00 \%)$ |
| Total and \% Population |  | $39,036(66.10 \%)$ | $50,514(85.53 \%)$ | $31,845(53.92 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,434 Total Population
59 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 059 | $59,434(100.00 \%)$ | $43,468(100.00 \%)$ | $49,179(100.00 \%)$ | $34,470(100.00 \%)$ |
| Total and \% Population | $43,468(73.14 \%)$ | $49,179(82.75 \%)$ | $34,470(58.00 \%)$ |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 7 1 2}$ Total Population |  |  |  |
| $\mathbf{6} \boldsymbol{- -}$ |  |  |  |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |

Core Constituencies

| Dist. 006 | 59,712 (100.00\%) | 1,125 (100.00\%) | 45,152 (100.00\%) | 682 (100.00\%) |
| :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | 1,125 (1.88\%) | 45,152 (75.62\%) | 682 (1.14\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 60 -- |  |  | 59,709 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 060 | 59,709 (100.00\%) | 38,562 (100.00\%) | 45,490 (100.00\%) | 29,061 (100.00\%) |
| Total and \% Population |  | 38,562 (64.58\%) | 45,490 (76.19\%) | 29,061 (48.67\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 61 -- |  |  | 58,950 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 061 | 535 (0.91\%) | 524 (1.60\%) | 427 (0.97\%) | 419 (1.77\%) |
| Dist. 064 | 19,083 (32.37\%) | 6,415 (19.61\%) | 14,390 (32.55\%) | 4,491 (18.99\%) |
| Dist. 065 | 23,652 (40.12\%) | 18,848 (57.60\%) | 17,339 (39.22\%) | 13,637 (57.66\%) |
| Dist. 066 | 15,680 (26.60\%) | 6,934 (21.19\%) | 12,056 (27.27\%) | 5,104 (21.58\%) |
| Total and \% Population | - | 32,721 (55.51\%) | 44,212 (75.00\%) | 23,651 (40.12\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,450 Total Population 62 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 062 | $59,450(100.00 \%)$ | $43,732(100.00 \%)$ | $46,426(100.00 \%)$ | $33,548(100.00 \%)$ |
| Total and \% Population |  | $43,732(73.56 \%)$ | $46,426(78.09 \%)$ | $33,548(56.43 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,381 Total Population 63 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 063 | $59,381(100.00 \%)$ | $42,146(100.00 \%)$ | $45,043(100.00 \%)$ | $31,229(100.00 \%)$ |
| Total and \% Population |  | $42,146(70.98 \%)$ | $45,043(75.85 \%)$ | $31,229(52.59 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,648 Total Population
64 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | ---: | ---: | ---: |
| Dist. 061 | $36,238(60.75 \%)$ | $22,486(73.84 \%)$ | $27,950(61.73 \%)$ | $17,117(75.25 \%)$ |
| Dist. 064 | $23,410(39.25 \%)$ | $7,965(26.16 \%)$ | $17,329(38.27 \%)$ | $5,631(24.75 \%)$ |
| Total and \% Population |  | $30,451(51.05 \%)$ | $45,279(75.91 \%)$ | $22,748(38.14 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,240 Total Population
65 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 061 | $22,529(38.03 \%)$ | $21,525(56.68 \%)$ | $17,070(38.02 \%)$ | $16,226(57.05 \%)$ |
| Dist. 064 | $6,306(10.64 \%)$ | $1,076(2.83 \%)$ | $4,765(10.61 \%)$ | $781(2.75 \%)$ |
| Dist. 065 | $30,405(51.33 \%)$ | $15,374(40.48 \%)$ | $23,067(51.37 \%)$ | $11,434(40.20 \%)$ |
| Total and \% Population |  | $37,975(64.10 \%)$ | $44,902(75.80 \%)$ | $28,441(48.01 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,961 Total Population 66 --

Core Constituencies

| Dist. 064 | $10,187(17.28 \%)$ | $3,744(11.18 \%)$ | $7,705(17.55 \%)$ | $2,674(11.30 \%)$ |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 065 | $5,407(9.17 \%)$ | $3,480(10.39 \%)$ | $3,980(9.06 \%)$ | $2,440(10.31 \%)$ |
| Dist. 066 | $43,367(73.55 \%)$ | $26,276(78.44 \%)$ | $32,222(73.39 \%)$ | $18,543(78.38 \%)$ |
| Total and \% Population |  | $33,500(56.82 \%)$ | $43,907(74.47 \%)$ | $23,657(40.12 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,135 Total Population 67 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 067 | $59,135(100.00 \%)$ | $35,438(100.00 \%)$ | $44,299(100.00 \%)$ | $26,099(100.00 \%)$ |
| Total and \% Population |  | $35,438(59.93 \%)$ | $44,299(74.91 \%)$ | $26,099(44.13 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,477 Total Population 68 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 068 | $59,477(100.00 \%)$ | $34,189(100.00 \%)$ | $44,835(100.00 \%)$ | $24,994(100.00 \%)$ |
| Total and \% Population |  | $34,189(57.48 \%)$ | $44,835(75.38 \%)$ | $24,994(42.02 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
58,358 Total Population
69 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 069 | $56,280(96.44 \%)$ | $37,167(98.65 \%)$ | $43,665(96.37 \%)$ | $28,030(98.61 \%)$ |
| Dist. 074 | $2,078(3.56 \%)$ | $510(1.35 \%)$ | $1,645(3.63 \%)$ | $394(1.39 \%)$ |
| Total and \% Population |  | $37,677(64.56 \%)$ | $45,310(77.64 \%)$ | $28,424(48.71 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,081 Total Population
7 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 007 | $59,081(100.00 \%)$ | $513(100.00 \%)$ | $48,771(100.00 \%)$ | $302(100.00 \%)$ |
| Total and \% Population |  | $513(0.87 \%)$ | $48,771(82.55 \%)$ | $302(0.51 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,121 Total Population
70 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 070 | $59,121(100.00 \%)$ | $17,750(100.00 \%)$ | $45,249(100.00 \%)$ | $12,591(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,538 Total Population
71 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 071 | $59,538(100.00 \%)$ | $12,792(100.00 \%)$ | $44,582(100.00 \%)$ | $8,879(100.00 \%)$ |
| Total and \% Population |  | $12,792(21.49 \%)$ | $44,582(74.88 \%)$ | $8,879(14.91 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,660 Total Population
72 --
Population $\quad$ AP_Blk [18+_Pop] $\quad$ [18+_AP_BIk]

Core Constituencies

| Dist. 072 | 59,660 (100.00\%) | 12,788 (100.00\%) | 46,229 (100.00\%) | 9,642 (100.00\%) |
| :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | 12,788 (21.43\%) | 46,229 (77.49\%) | 9,642 (16.16\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 73 -- |  |  | 60,036 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 073 | 60,036 (100.00\%) | 7,865 (100.00\%) | 45,736 (100.00\%) | 5,538 (100.00\%) |
| Total and \% Population |  | 7,865 (13.10\%) | 45,736 (76.18\%) | 5,538 (9.22\%) |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 74 -- |  |  | 58,418 Total Population |  |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP |
| Dist. 069 | 2,402 (4.11\%) | 1,225 (3.82\%) | 1,883 (4.32\%) | 920 (3.91\%) |
| Dist. 074 | 21,666 (37.09\%) | 2,852 (8.89\%) | 16,334 (37.46\%) | 1,996 (8.49\%) |
| Dist. 075 | 25,599 (43.82\%) | 20,590 (64.19\%) | 18,685 (42.85\%) | 14,984 (63.70\%) |
| Dist. 078 | 8,751 (14.98\%) | 7,412 (23.11\%) | 6,700 (15.37\%) | 5,621 (23.90\%) |
| Total and \% Population |  | 32,079 (54.91\%) | 43,602 (74.64\%) | 23,521 (40.26\%) |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,759 Total Population 75 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 075 | $34,144(57.14 \%)$ | $24,426(59.73 \%)$ | $25,165(55.94 \%)$ | $17,639(58.62 \%)$ |
| Dist. 078 | $25,615(42.86 \%)$ | $16,470(40.27 \%)$ | $19,818(44.06 \%)$ | $12,451(41.38 \%)$ |
| Total and \% Population |  | $40,896(68.43 \%)$ | $44,983(75.27 \%)$ | $30,090(50.35 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District 59,759 Total Population 76 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 076 | $59,759(100.00 \%)$ | $40,461(100.00 \%)$ | $44,371(100.00 \%)$ | $29,832(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,242 Total Population 77 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 077 | $59,242(100.00 \%)$ | $44,963(100.00 \%)$ | $44,207(100.00 \%)$ | $33,655(100.00 \%)$ |
| Total and \% Population |  | $44,963(75.90 \%)$ | $44,207(74.62 \%)$ | $33,655(56.81 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,890 Total Population 78 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 074 | $35,212(58.79 \%)$ | $12,879(39.81 \%)$ | $26,717(59.67 \%)$ | $9,016(39.46 \%)$ |
| Dist. 078 | $24,678(41.21 \%)$ | $19,469(60.19 \%)$ | $18,054(40.33 \%)$ | $13,832(60.54 \%)$ |
| Total and \% Population |  | $32,348(54.01 \%)$ | $44,771(74.76 \%)$ | $22,848(38.15 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,500 Total Population 79 --
Population $\quad$ AP_BIk $\quad$ [18+_Pop] AP_Blk]

Core Constituencies

| $\begin{array}{lll}\text { Dist. } 079 & 59,500 \\ (100.00 \%) & 42,713 \\ (100.00 \%)\end{array}$ | 43,223 (100.00\%) 30,942 (100.00\%) |  |
| :---: | :---: | :---: |
| Total and \% Population 42,713 (71.79\%) | 43,223 (72.64\%) 30,942 (52.00\%) |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 8 -- | 59,244 Total Population |  |
| Population AP_Blk | [18+_Pop] [18+_AP_Blk] |  |
| Dist. 008 59,244 (100.00\%) 1,025 (100.00\%) | 49,612 (100.00\%) 708 (100.00\%) |  |
| Total and \% Population 1,025 (1.73\%) | 49,612 (83.74\%) 708 (1.20\%) |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 80 -- | 59,461 Total Population |  |
| Population AP_BIk | [18+_Pop] [18+_AP_Blk] |  |
| $\begin{array}{lll}\text { Dist. } 080 & 59,461(100.00 \%) & 8,128 \\ \text { (100.00\%) }\end{array}$ | 44,784 (100.00\%) 6,350 (100.00\%) |  |
| Total and \% Population 8,128 (13.67\%) | 44,784 (75.32\%) $\quad 6,350$ (10.68\%) |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 81 -- | 59,007 Total Population |  |
| Population AP_Blk | [18+_Pop] [18+_AP_Blk] |  |
| $\begin{array}{lll}\text { Dist. } 081 & 59,007(100.00 \%) & 12,487(100.00 \%)\end{array}$ | 46,259 (100.00\%) 10,099 (100.00\%) |  |
| Total and \% Population 12,487 (21.16\%) | 46,259 (78.40\%) 10,099 (17.11\%) |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 82 -- | 59,724 Total Population |  |
| Population AP_Blk | [18+_Pop] [18+_AP_Blk] |  |
| $\begin{array}{lll}\text { Dist. } 082 & 59,724(100.00 \%) & 9,763 \text { (100.00\%) }\end{array}$ | $50,238(100.00 \%) \quad 8,455$ (100.00\%) |  |
| Total and \% Population 9,763 (16.35\%) | 50,238 (84.12\%) 8,455 (14.16\%) |  |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District 83 -- | 59,416 Total Population |  |


|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 083 | $59,416(100.00 \%)$ | $8,327(100.00 \%)$ | $46,581(100.00 \%)$ | $7,044(100.00 \%)$ |
| Total and \% Population |  | $8,327(14.01 \%)$ | $46,581(78.40 \%)$ | $7,044(11.86 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District

## 59,862 Total Population

 84 --|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 084 | $59,862(100.00 \%)$ | $43,909(100.00 \%)$ | $47,350(100.00 \%)$ | $34,877(100.00 \%)$ |
| Total and \% Population |  | $43,909(73.35 \%)$ | $47,350(79.10 \%)$ | $34,877(58.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,373 Total Population 85 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 085 | $59,373(100.00 \%)$ | $37,650(100.00 \%)$ | $46,308(100.00 \%)$ | $29,041(100.00 \%)$ |
| Total and \% Population |  | $37,650(63.41 \%)$ | $46,308(78.00 \%)$ | $29,041(48.91 \%)$ |

Core Constituencies
Plan: Grant_Esselstyn_Hse_illustrative12_05, District
86 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 086 | $59,205(100.00 \%)$ | $44,458(100.00 \%)$ | $44,614(100.00 \%)$ | $33,485(100.00 \%)$ |
| Total and \% Population |  | $44,458(75.09 \%)$ | $44,614(75.36 \%)$ | $33,485(56.56 \%)$ |
| Plan: Grant_Esselstyn_Hse_illustrative12_05, District | $\mathbf{5 9 , 7 0 9}$ Total Population |  |  |  |
| $\mathbf{8 7}$-- |  |  |  |  |


|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 087 | $59,709(100.00 \%)$ | $44,195(100.00 \%)$ | $45,615(100.00 \%)$ | $33,336(100.00 \%)$ |
| Total and \% Population |  | $44,195(74.02 \%)$ | $45,615(76.40 \%)$ | $33,336(55.83 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,689 Total Population
88 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 088 | $59,689(100.00 \%)$ | $38,515(100.00 \%)$ | $46,073(100.00 \%)$ | $29,187(100.00 \%)$ |
| Total and \% Population |  | $38,515(64.53 \%)$ | $46,073(77.19 \%)$ | $29,187(48.90 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,866 Total Population
89 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 089 | $59,866(100.00 \%)$ | $37,494(100.00 \%)$ | $46,198(100.00 \%)$ | $28,890(100.00 \%)$ |
| Total and \% Population |  | $37,494(62.63 \%)$ | $46,198(77.17 \%)$ | $28,890(48.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,474 Total Population
9 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 009 | $59,474(100.00 \%)$ | $1,066(100.00 \%)$ | $48,273(100.00 \%)$ | $759(100.00 \%)$ |
| Total and \% Population |  | $1,066(1.79 \%)$ | $48,273(81.17 \%)$ | $759(1.28 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,812 Total Population 90 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 090 | $59,812(100.00 \%)$ | $35,965(100.00 \%)$ | $48,015(100.00 \%)$ | $28,082(100.00 \%)$ |
| Total and \% Population |  |  |  |  |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,956 Total Population 91 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 091 | $35,967(59.99 \%)$ | $28,749(78.31 \%)$ | $27,937(60.73 \%)$ | $21,984(79.64 \%)$ |
| Dist. 115 | $9,573(15.97 \%)$ | $3,588(9.77 \%)$ | $7,346(15.97 \%)$ | $2,564(9.29 \%)$ |
| Dist. 117 | $14,416(24.04 \%)$ | $4,377(11.92 \%)$ | $10,716(23.30 \%)$ | $3,056(11.07 \%)$ |
| Total and \% Population |  | $36,714(61.23 \%)$ | $45,999(76.72 \%)$ | $27,604(46.04 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,273 Total Population

Core Constituencies

| 92 -- |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| Dist. 092 | $60,273(100.00 \%)$ | $42,978(100.00 \%)$ | $46,551(100.00 \%)$ | $32,022(100.00 \%)$ |
| Total and \% Population |  | $42,978(71.31 \%)$ | $46,551(77.23 \%)$ | $32,022(53.13 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
60,118 Total Population
93 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 093 | $60,118(100.00 \%)$ | $40,249(100.00 \%)$ | $44,734(100.00 \%)$ | $29,239(100.00 \%)$ |
| Total and \% Population |  | $40,249(66.95 \%)$ | $44,734(74.41 \%)$ | $29,239(48.64 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,211 Total Population 94 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 094 | $59,211(100.00 \%)$ | $41,397(100.00 \%)$ | $44,809(100.00 \%)$ | $30,935(100.00 \%)$ |
| Total and \% Population |  | $41,397(69.91 \%)$ | $44,809(75.68 \%)$ | $30,935(52.25 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District $\quad \mathbf{6 0 , 0 3 0}$ Total Population 95 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 095 | $60,030(100.00 \%)$ | $41,682(100.00 \%)$ | $44,948(100.00 \%)$ | $30,183(100.00 \%)$ |
| Total and \% Population |  | $41,682(69.44 \%)$ | $44,948(74.88 \%)$ | $30,183(50.28 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,515 Total Population
96 --

|  | Population | AP_BIk | [18+_Pop] | [18+_AP_BIk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 096 | $59,515(100.00 \%)$ | $13,970(100.00 \%)$ | $44,671(100.00 \%)$ | $10,273(100.00 \%)$ |
| Total and \% Population |  | $13,970(23.47 \%)$ | $44,671(75.06 \%)$ | $10,273(17.26 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,072 Total Population
97 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 097 | $59,072(100.00 \%)$ | $16,869(100.00 \%)$ | $46,339(100.00 \%)$ | $12,405(100.00 \%)$ |
| Total and \% Population |  | $16,869(28.56 \%)$ | $46,339(78.44 \%)$ | $12,405(21.00 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,998 Total Population
98 --

|  | Population | AP_Blk | [18+_Pop] | [18+_AP_Blk] |
| :--- | :---: | :---: | :---: | :---: |
| Dist. 098 | $59,998(100.00 \%)$ | $13,286(100.00 \%)$ | $42,734(100.00 \%)$ | $9,934(100.00 \%)$ |
| Total and \% Population |  | $13,286(22.14 \%)$ | $42,734(71.23 \%)$ | $9,934(16.56 \%)$ |

Plan: Grant_Esselstyn_Hse_illustrative12_05, District
59,850 Total Population
99 --
Population $\quad$ AP_Blk [18+_Pop] [18+_AP_Blk]

## Core Constituencies

| Dist. 099 | $59,850(100.00 \%)$ | $9,514(100.00 \%)$ | $45,004(100.00 \%)$ | $6,622(100.00 \%)$ |
| :--- | :--- | :--- | :--- | :--- |
| Total and \% Population | $9,514(15.90 \%)$ | $45,004(75.19 \%)$ | $6,622(11.06 \%)$ |  |

## EXHIBIT 16



## EXHIBIT 17



## EXHIBIT 18



## EXHIBIT 19



## EXHIBIT 20



## EXHIBIT 21



## EXHIBIT 22



## EXHIBIT 23

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## EXHIBIT 24



## EXHIBIT 25



## EXHIBIT 26

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## EXHIBIT 27



## EXHIBIT 28



## EXHIBIT 29



## EXHIBIT 30



## EXHIBIT 31



## EXHIBIT 32



## EXHIBIT 33



## EXHIBIT 34



## EXHIBIT 35



## EXHIBIT 36



## EXHIBIT 37



## EXHIBIT 38



## EXHIBIT 39



## EXHIBIT 40



## EXHIBIT 41



## EXHIBIT 42



## EXHIBIT 43



## EXHIBIT 44



## EXHIBIT 45



## EXHIBIT 46




## IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

ALPHA PHI ALPHA FRATERNITY INC., et al.,

Plaintiffs,
vs.
BRAD RAFFENSPERGER, in his official capacity as Secretary of State of Georgia.

## Defendant.

## DECLARATION OF WILLIAM S. COOPER

WILLIAM S. COOPER, acting in accordance with 28 U.S.C. § 1746,
Federal Rule of Civil Procedure 26(a)(2)(B), and Federal Rules of Evidence 702
and 703 , does hereby declare and say:

## I. INTRODUCTION

1. My name is William S. Cooper. I have a B.A. in Economics from Davidson College. As a private consultant, I serve as a demographic and redistricting expert for the Plaintiffs.
2. I have testified at trial as an expert witness on redistricting and demographics in federal courts in about 50 voting rights cases since the late 1980 s. Over 25 of the cases led to changes in local election district plans. Five of the cases
resulted in changes to statewide legislative boundaries: Rural West Tennessee African-American Affairs Council, Inc. v. McWherter, No. 92-cv-2407 (W.D. Tenn. 1995); Old Person v. Brown, No. 96-cv-0004 (D. Mont. 2002); Bone Shirt v. Hazeltine, No. 01-cv-3032 (D.S.D. 2004); Alabama Legislative Black Caucus v. Alabama, No. 12-cv-691 (M.D. Ala. 2017), and Thomas v. Reeves (S.D. Miss. 2019). In Bone Shirt v. Hazeltine, the court adopted the remedial plan I developed.
3. I served as the Gingles 1 expert for two post-2010 local-level Section 2 cases in Georgia, NAACP v. Fayette County and NAACP v. Emanuel County. In both cases, the parties settled on redistricting plans that I developed (with input from the respective defendants). In the latter part of the decade, I served as the Gingles 1 expert in three additional Section 2 cases in Georgia, which were all voluntarily dismissed after the 2018 elections: Georgia NAACP v. Gwinnett County), No. 1:16-cv-02852-AT; Thompson v. Kemp, No. 1:17-cv-01427 (N.D. Ga. 2018); and Dwight v. Kemp, No. 1:18-cv-2869 (N.D. Ga. 2018).
4. In 2022, I have testified as an expert in redistricting and demographics in six cases challenging district boundaries under Section 2 of the Voting Rights Act: Caster v. Merrill, No. 21-1356-AMM (N.D. Ala.), Pendergrass v. Raffensperger, No. 21-05337-SCJ (N.D. Ga.), Alpha Phi Alpha Fraternity v. Raffensperger, No. 21-05339-SCJ (N.D. Ga.), NAACP v Baltimore County, No.21-cv-03232-LKG (Md.), Christian Ministerial Alliance v. Hutchinson No. 4:19-cv-402-JM (E.D.

Ark.), and Robinson v Ardoin, No. 3:22-cv-00211-SDD-SDJ (M.D. La.). I also testified at trial this year as an expert on demographics in NAACP v. Lee, No. 4:21-cv-187-MW/MAF (N.D. Fla.), a case involving recent changes to Florida election law.
5. Since the release of the 2020 Census, three county commission-level plans I developed as a private consultant have been adopted by local governments in San Juan County, Utah, Bolivar County, Mississippi, and Washington County, Mississippi. In addition, a school board plan I developed was adopted by the Jefferson County, Alabama Board of Education subsequent to my expert work in the long-running case of Stout v. Jefferson County Board of Education, No. 2:65-cv-00396-MHH (N.D. Ala.).
6. My redistricting experience is further documented in my curriculum vitae, which is attached as Exhibit A.

## A. Purpose of Declaration

7. The attorneys for the Plaintiffs in this case asked me to determine whether the African-American ${ }^{1}$ population in Georgia is "sufficiently large and

[^17]geographically compact" to allow for the creation, consistent with traditional redistricting principles, of additional majority-Black Senate and House districts beyond those created in the legislative plans that were signed into law by Governor Kemp on December 30, 2021-in other words, districts that meet the first Gingles precondition ("Gingles 1"). ${ }^{2}$
8. For purposes of the Gingles 1 analysis in this report, and unless otherwise noted, I define majority-Black districts as those that are majority-Black voting age ("BVAP"). I also report whether districts are majority-Black citizen voting age ("BCVAP"). ${ }^{3}$
in Georgia v. Ashcroft, 539 U.S. 461 (2003), the "Any Part" definition is an appropriate Census
classification to use in most Section 2 cases.
Throughout this report, I refer to the two legislative plans signed into law by Governor Kemp as the "2021 Senate Plan" and the "2021 House Plan," respectively.
${ }^{2}$ See Thornburg v. Gingles, 478 U.S. 30, 50 (1986).
${ }^{3}$ The CVAP levels reported herein are estimates based on block group level information published by the U.S. Census Bureau's American Communities Survey (ACS). Unless noted otherwise, the CVAP estimates I report here count only persons who are non-Hispanic ("NH") SR Black - and are therefore the most conservative measure of Black citizenship. In the summary population exhibits that I have prepared for each plan, I also report the NH DOJ Black CVAP metric. The NH DOJ Black CVAP category includes voting age citizens who are either NH SR Black or NH Black and White. An "Any Part Black CVAP" category which would include Black Hispanics cannot be calculated from the 5-Year ACS Census Bureau Special Tabulation.

The most current ACS data available is from the 2016-2020 ACS Special Tabulation, with a survey midpoint of July, 1 2018. https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html. The 2016-2020 estimates reflect Census 2020 population distribution. The 2017-2021 Special Tabulation will be released by the Census Bureau in early 2023, which could require updates to the number of majority-BCVAP districts by plan.
9. The two illustrative plans that I have prepared (one for the State House and one for the State Senate) demonstrate that Georgia's Black population is sufficiently numerous and geographically compact to allow for the creation of at least three additional majority-Black Senate districts and at least five additional majority-Black House districts.
10. The illustrative plans comply with traditional redistricting principles, including population equality, compactness, contiguity, respect for communities of interest, and the non-dilution of minority voting strength.
11. The illustrative plans are drawn to follow, to the extent possible, county and VTD ${ }^{4}$ boundaries. Where counties are split to comply with one-person one-vote requirements or to avoid pairing incumbents, I have generally used whole 2020 Census VTDs as sub-county components. Where VTDs are split, I have followed census block boundaries that are aligned with roads, natural features, census block groups, municipal boundaries, and/or current county commission districts.
12. Exhibit B describes the sources and methodology I have employed in the preparation of this report and the illustrative plans. Briefly, I used the Maptitude software program as well as data and shapefiles from the U.S. Census Bureau and the Georgia Legislative and Congressional Reapportionment Office, among other

[^18]sources. I also used official incumbent address information supplied to Plaintiffs' attorneys by Defendants in January 2022, as well as another potential database of incumbent address information following the November 2022 General Election using the 2021 Plans, which I understand is largely based on the address information contained in the candidate qualifying materials of successful State House and State Senate candidates.

## B. Summary of Expert Conclusions

13. Based on my Gingles 1 analysis, I conclude the following:

## State Senate

- The 2021 Senate Plan contains 14 majority-Black districts that are BVAP majority (15 are BCVAP majority).
- As shown in the Plaintiffs' Illustrative Senate Plan, a statewide Senate plan can be drawn with 18 majority-Black districts, including two additional majority-Black districts in south Metro Atlanta and an additional majorityBlack district anchored in the eastern portion of Georgia's Black Belt (encompassing part of Augusta-Richmond County and extending west to Twiggs County). ${ }^{5}$

[^19]- The Black population in south Metro Atlanta is sufficiently numerous and geographically compact to allow for the creation of at least two additional compact majority-Black Senate districts, while adhering to traditional redistricting principles.
- The Black population in and around Georgia's eastern Black Belt counties is sufficiently numerous and geographically compact to form an additional majority-Black Senate district, while adhering to traditional redistricting principles.


## State House

- The 2021 House Plan contains 49 majority-Black districts (47 of which are also majority BCVAP).
- As shown in the Plaintiffs' Illustrative House Plan, a statewide House Plan can be drawn with at least 54 majority-Black districts (53 that are both BVAP and BCVAP majority), including five additional majority-Black districts. Two of the additional majority Black districts are anchored in south Metro Atlanta, two are in Georgia's Black Belt (one in the eastern end of the Black Belt and one in the western end, in Southwest Georgia), and one is in metropolitan Macon.
- The Black population in south Metro Atlanta is sufficiently numerous and geographically compact to allow for the creation of at least two additional majority-Black House districts in Metro Atlanta, while adhering to traditional redistricting principles.
- The Black population in and around the eastern Black Belt counties is sufficiently numerous and geographically compact to form an additional majority-Black House district, while adhering to traditional redistricting principles.
- The Black population in and around the western Black Belt counties is sufficiently numerous and geographically compact to form an additional majority-Black House district, while adhering to traditional redistricting principles.
- The Black population in metropolitan Macon is sufficiently numerous and geographically compact to form an additional majority-Black district, while adhering to traditional redistricting principles.


## C. Gingles 1 Analysis - Focus Areas

14. According to the data collected in the 2020 Census, and as discussed in further detail below, Georgia's Black population has grown significantly since 2010. The State's Black population is up by 484,848 persons, the equivalent of 2.5
$100 \%$ Black State Senate districts or eight $100 \%$ Black State House districts. By contrast, the State's non-Hispanic ("NH") White population actually declined during that same period. Yet despite the significant growth in Georgia's Black population since 2010, almost no additional majority-Black districts are created in Georgia's 2021 Senate and House Plans. ${ }^{6}$
15. The 2021 Senate Plan merely maintains the status quo, with 14 majorityBlack districts, the same number as in the previous plan which was enacted in 2012 and first used in 2014 during mid-decade redistricting (the "2014 Benchmark Senate Plan"). ${ }^{7}$
16. The 2021 House Plan has two more majority-Black districts than the previous plan, which was enacted in 2015 (the "2015 Benchmark House Plan") (and which in turn incorporated a discrete set of changes to the plan enacted in

[^20]2012). ${ }^{8}$ That small increase is nowhere near commensurate with the significant growth of Georgia's Black population during that period.
17. Under the 2021 Senate Plan, 10 of the 14 majority-Black districts are in Metro Atlanta. Under the 2021 House Plan, 33 of the 49 majority-Black districts are in Metro Atlanta. ${ }^{9}$
18. To determine where additional majority-Black districts could be drawn, I focused on areas with substantial Black populations, in particular:
(1) Metro Atlanta counties (as defined by the Atlanta-Sandy SpringsAlpharetta Metropolitan Statistical Area ("MSA") boundaries) shown in the Census Bureau's map in Exhibit C;
(2) Georgia's Black Belt, as illustrated by the Georgia Budget and Policy

[^21]Institute ("GBPI") map in Figure 1.10 Exhibit D is an excerpt from the GBPI report (Appendix A) identifying the Black Belt counties and school districts depicted in

## Figure 1.

Figure 1

## Georgia's Black Belt School Districts


19. More broadly, and as the GBPI report explains, the term "Black Belt" refers to a swath of the American South that historically had large numbers of enslaved Black persons, and that today continues to have substantial Black populations. In Georgia, the area comprising the Black Belt extends roughly
${ }^{10}$ For a current and historical analysis of Georgia's Black Belt, see Stephen Owens, Education in Georgia's Black Belt: Policy Solutions to Help Overcome a History of Exclusion (GBPI October 10, 2019), https://gbpi.org/education-in-georgias-black-belt.
southwest from the area around Augusta through Macon and Middle Georgia and on to the southwest corner of the State.
20. Upon review, I narrowed my focus to four regions within those larger areas (as illustrated by the maps in Exhibit E and Figure 4, infra):
21. (Region A) South Metro Atlanta: suburban /exurban counties in a significantly Black, racially diverse, and geographically compact region that has emerged over the past quarter of a century-specifically, the counties of Fayette, Spalding, Henry, Rockdale, and Newton.
22. The Georgia Governor's Office of Planning and Budget projects that this 5-county region will have 725,000 residents by the time of the 2030 Census up by about 92,000 persons over the Census 2020 enumeration, of whom $61 \%$ will be non-White. African-Americans are projected to account for about $60 \%$ of the non-White population increase. ${ }^{11}$
23. Under the 2021 Senate Plan, parts of three majority-Black districts are in the south Metro counties-Senate Districts 10, 34, and 43.
24. Under the 2021 House Plan, parts of seven majority-Black House districts are in these five south Metro counties.
${ }^{11}$ Georgia Governor's Office of Planning and Budget, "Population Projections," https://opb.georgia.gov/census-data/population-projections.
25. (Region B) Eastern Black Belt: urban Black Belt Richmond County (Augusta) plus a group of rural Black Belt counties in a geographically compact area. Several of the rural counties are home to long-standing Black communities that have not been in a majority-Black Senate district since the passage of the 1965 Voting Rights Act.
26. All of the Region B counties are part of the Central Savannah River Area Regional Commission, as shown in Exhibit F on the regional commission map prepared by the Georgia Department of Community Affairs ("GDCA"). Georgia's Regional Commissions are "public agencies created and established by the Georgia Planning Act (O.C.G.A. 50-8-32) in order to assist local governments on a regional basis and to develop, promote and assist in establishing coordinated and comprehensive planning in the state." ${ }^{12}$
27. Region B encompasses the following Central Savannah River Area Regional Commission counties: (counter clockwise from east to west) Jenkins, Burke, Richmond, Jefferson, McDuffie, Wilkes, Taliaferro, Glascock, Warren, Washington, and Hancock. Ten of these 11 contiguous counties-excluding Glascock (pop. 2,884)—are identified as part of Georgia's Black Belt by GBPI.

[^22]Moreover, additional adjacent counties, such as Baldwin County, lie outside the Central Savannah River Area Regional Commission area but are also identified as part of the Black Belt by GBPI and have substantial Black populations.
28. The 2021 Senate Plan includes one majority-Black district in Region B-Senate District 22 (56.5\% BVAP)—in Augusta-Richmond County, and a small part of another majority Black district-Senate District 26 ( $56.99 \%$ BVAP)— anchored in Macon-Bibb County.
29. The 2021 House Plan contains five majority-Black districts in the Region B area.
30. (Region C) Western Black Belt: urban Black Belt Dougherty County (Albany) plus a group of southwest Georgia rural Black Belt counties in a geographically compact area, implicitly identified in the area encompassed by majority-Black Senate District 12 ( $57.97 \%$ BVAP) in the 2021 Senate Plan. Region C encompasses part of the Southwest Georgia and Valley River Area Regional Commission areas depicted on the GDCA map in Exhibit F.
31. The 2021 House Plan contains just two majority-Black House districts in Region C, even though there is obviously sufficient Black population to create three districts in an area generally circumscribed by majority-Black Senate District

12 in the 2021 Senate Plan. (This is obvious because Senate Districts are just over three times the size of House Districts.)
32. Senate District 12 encompasses 13 counties: (counter clockwise from north to south on the GDCA map) Sumter, Webster, Stewart, Quitman, Randolph, Terrell, Clay, Calhoun, Dougherty, Early, Miller, Baker, and Mitchell. Twelve of the 13 counties-excluding Miller (pop. 6,000)-are identified by GBPI as Black Belt counties. ${ }^{13}$ Moreover, additional adjacent counties, such as Thomas County, lie outside of Senate District 12 in the 2021 Senate Plan but are also identified as part of the Black Belt by GBPI and have substantial Black populations.
33. (Region D): Metropolitan Macon: a seven-county region in Middle Georgia defined by the combined MSAs of Macon-Bibb and Warner Robins. Three of the Macon area counties are identified as part of Georgia's Black Belt by

[^23]GBPI-Macon-Bibb, Peach, and Twiggs, encompassing about 59\% of the Black population $(177,269)$ in the seven-county region. ${ }^{14}$
34. As shown in the map in Exhibit F, these seven MSA counties form the core of the Middle Georgia Regional Commission.
35. As is the case with Region C, the 2021 House Plan contains just two majority-Black House districts in Region D, even though there is obviously sufficient Black population to create three House districts in an area generally circumscribed by the Macon-Bibb Warner Robins portion of majority-Black Senate District 26 in the 2021 Senate Plan. ${ }^{15}$

## D. Organization of Declaration

36. The remainder of this report is organized as follows: Section II reviews state and regional demographics since 1990. Section III reviews the benchmark 2014 Senate Plan and the 2021 Senate Plan. Section IV presents the Illustrative Senate Plan that I have prepared, containing 18 majority-Black districts. Section V reviews the benchmark 2015 House Plan and the enacted 2021 House Plan. Section
[^24]VI presents the Illustrative House Plan that I have prepared, containing 54 majorityBlack districts.
37. An Appendix at the end of my report contains maps and population summaries overlaying the challenged districts in the 2021 House and Senate Plans onto historical plans that were in effect from the late 1990s to 2021. I prepared the maps and population summaries in the Appendix at the request of the attorneys for the Plaintiffs. The maps and accompanying population data show how the population living in the area of the challenged districts has been divided and distributed into historical districts under legislative plans from the 1990s to the present day.

## II. DEMOGRAPHIC PROFILE - STATEWIDE AND REGIONAL

38. This section provides current and historical population summaries for Georgia, Metro Atlanta, and for the four distinct areas where additional majorityBlack legislative districts can be created-generally defined by (Region A) the 5county south Metro Atlanta area, (Region B) the 11-county area in the eastern Black Belt within the Augusta/Central Savannah River Regional Commission area, (Region C) the 13-county western Black Belt around Albany and Southwest Georgia, and (Region D) the 7-county combined Macon-Bibb Warner Robins MSAs within the larger geographic area defined by the Middle Georgia Regional Commission.

## A. 2010 to 2020: A Decade of Minority Population Growth in Georgia

39. According to the 2020 Census, Georgia has a total population of $10,711,908$ - up by 1.02 million since 2010. Georgia's population growth since 2010 can be attributed entirely to gains in the overall minority population.
40. Between 2010 and 2020, nearly half ( $47.26 \%$ ) of the State's population gain is attributed to Black population growth.
41. Figure 2 reveals that Georgia's Black population, as a share of the overall statewide population, increased between 2010 and 2020 from 31.53\% Black in 2010 to $\mathbf{3 3 . 0 3 \%}$ in 2020. Over the 2010 to 2020 decade, the Black population in Georgia increased by 484,048 persons-an increase of nearly $16 \%$ from the 2010 baseline. By contrast, between 2010 and 2020, the NH White population fell by 51,764 persons.

Figure 2
Georgia - 2010 Census to 2020 Census
Population by Race and Ethnicity

|  | $\begin{gathered} 2010 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2020 \\ \text { Number } \\ \hline \end{gathered}$ | Percent | $\begin{gathered} \hline 2010- \\ 2020 \\ \text { Change } \end{gathered}$ | $\begin{array}{\|c\|} \hline \% 2010- \\ 2020 \\ \text { Change } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 9,687,653 | 100.0\% | 10,711,908 | 100.00\% | 1,024,255 | 9.56\% |
| NH White* | 5,413,920 | 55.88\% | 5,362,156 | 50.06\% | -51,764 | -0.48\% |
| Total Minority Pop. | 4,273,733 | 44.12\% | 5,349,752 | 49.94\% | 1,076,019 | 10.05\% |
| Latino | 853,689 | 8.81\% | 1,123,457 | 10.49\% | 269,768 | 2.52\% |
| NH Black* | 2,910,800 | 30.05\% | 3,278,119 | 30.60\% | 367,319 | 3.43\% |
| NH Asian* | 311,692 | 3.22\% | 475,680 | 4.44\% | 163,988 | 1.53\% |
| NH Hawaiian and PI* | 5,152 | 0.05\% | 6,101 | 0.06\% | 949 | 0.01\% |
| NH American Indian and Alaska Native* | 21,279 | 0.22\% | 20,375 | 0.19\% | -904 | -0.01\% |
| NH Other* | 19,141 | 0.20\% | 55,887 | 0.52\% | 36,746 | 0.34\% |
| NH Two or More Races | 151,980 | 1.57\% | 390,133 | 3.65\% | 238,153 | 2.22\% |
| SR Black <br> (Single-race Black) | 2,950,435 | 30.46\% | 3,320,513 | 31.00\% | 370,078 | 3.45\% |
| AP Black <br> (Any Part Black) | 3,054,098 | 31.53\% | 3,538,146 | 33.03\% | 484,048 | 4.52\% |
| NH Any Part Black | 2,997,627 | 30.94\% | 3,455,484 | 32.26\% | 457,857 | 4.27\% |

* Single-race, non-Hispanic.

42. Non-Hispanic Whites are a razor-thin majority of the 2020 population (50.06\%). Black Georgians account for one-third (33.03\%) of the population and comprise the largest minority population, followed by Latinos (10.49\%).

## B. Voting Age and Citizen Voting Age Populations in Georgia

43. As shown in Figure 3, African Americans in Georgia constitute a slightly smaller percentage of the voting age population (VAP) than the total population. According to the 2020 Census, Georgia has a total VAP of 8,220,274of whom 2,607,986 (31.73\%) are AP Black. The NH White VAP is 4,342,333 (52.82\%).

## Figure 3

## Georgia - 2020 Voting Age Population \& 2021 Estimated Citizen Voting Age Population by Race and Ethnicity ${ }^{16}$

|  |  | 2020 <br> VAP <br> Percent | 2021 <br> CVAP <br> Percent |
| :--- | ---: | ---: | ---: |
| Total | $8,220,274$ | $100.00 \%$ | $100.00 \%$ |
| NH White 18+ | $4,342,333$ | $52.82 \%$ | $55.7 \%$ |
| Total Minority 18+ | $3,877,941$ | $47.18 \%$ | $44.3 \%$ |
| Latino 18+ | 742,918 | $9.04 \%$ | $5.9 \%$ |
| Single-race Black (Including <br> Black Hispanics)18+ | $2,488,419$ | $30.27 \%$ | $31.4 \%$ |
| Any Part Black (Including | $2,607,986$ | $31.73 \%$ | $33.3 \%$ |

44. The rightmost column in Figure 3 reveals that both the Black and NH

White population comprise a higher percentage of CVAP than the corresponding
VAP, owing to higher non-citizenship rates among other minority populations.
45. According to estimates from the 2021 1-year American Community

Survey ("ACS"), African Americans represent 33.3\% of the statewide CVAPabout 1.5 percentage points higher than the 2020 AP Black VAP. The NH White CVAP is $55.7 \%$, nearly 3 points higher than NH White VAP in the 2020 Census.

[^25]46. The Black CVAP in Georgia is poised to go up this decade. According to the 2021 1-year ACS, Black citizens of all ages represent $34.45 \%$ of all citizens. ${ }^{17}$

## C. 2020 Census Spatial Distribution of Georgia's Black Population

47. The map in Figure $\mathbf{4}$ below depicts the 2020 Black population percentage for Georgia's 159 counties. 67 are in the $20 \%$ to $40 \%$ range, 33 are $40 \%$ to $60 \%$, and 8 are between $60 \%$ and $73 \%$. The bold black boundary identifies the Atlanta MSA.
48. Color lines on the Figure $\mathbf{4}$ map demarcate the areas I focused on in considering prospects for additional majority-Black House districts: Region A (blue outline), which is south Metro Atlanta; Region B (red outline), a group of Black Belt counties around Augusta (Richmond County); Region C (green outline), a group of Black Belt counties around Albany (Dougherty County) comprising 2021 Senate District 12; and Region D (purple outline), the seven counties in Middle Georgia (Macon-Warner Robins MSAs). A high-resolution version of the Figure 4 map is in Exhibit E.
${ }^{17}$ Source:
2021 ACS 1-Year Estimates Public Use Microdata Sample
https://data.census.gov/mdat/\#/search?ds=ACSPUMS1Y2021\&vv=AGEP\&cv=RACBLK\(1 \%29\&rv=ucgid,CIT\%281,2,3,4\%29\&wt=PWGTP\&g=0400000US13

Figure 4

# 2020 Census -- Black Population by County 


49. Exhibit G-1 is a table showing 2010 and 2020 county populations by race and ethnicity, with the population change between 2010 and 2020. Exhibit G-

2 is a table 2000 and 2010 county populations by race and ethnicity, with population change between 2000 and 2010. Exhibit G-3 is a table showing 1990 and 2000 county populations by race and ethnicity, with population change between 1990 and 2000. Exhibit G-4 is a table showing the percentage BVAP by county between 1990 and 2020.

## D. Black Population as a Component of Total Population from 1990 to 2020

(1) Georgia - Statewide
50. As shown in Figure 5, Georgia's Black population has increased
significantly in absolute and percentage terms since 1990, from about $27 \%$ in 1990
to $33 \%$ in 2020 . Over the same time period, the percentage of the population identifying as NH White has dropped from $70 \%$ to $50 \%$.

Figure 5

> Georgia - 1990 Census to 2020 Census
> Population by Race and Ethnicity

|  | $\begin{gathered} 1990 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2000 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2010 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2020 \\ \text { Number } \end{gathered}$ | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 6,478,216 | 100.00\% | 8,186,453 | 100.00\% | 9,687,653 | 100.0\% | 10,711,908 | 100.00\% |
| NH White | 4,543,425 | 70.13\% | 5,128,661 | 62.65\% | 5,413,920 | 55.88\% | 5,362,156 | 50.06\% |
| Total Minority Pop. | 1,934,791 | 29.87\% | 3,057,792 | 37.35\% | 4,273,733 | 44.12\% | 5,349,752 | $49.94 \%$ |
| Latino | 108,922 | 1.68\% | 435,227 | 5.32\% | 853,689 | 8.81\% | 1,123,457 | 10.49\% |
| Black* | 1,746,565 | 26.96\% | 2,393,425 | 29.24\% | 3,054,098 | 31.53\% | 3,538,146 | 33.03\% |

* SR Black in 1990 -- AP Black 2000-2020


## (2) Metro Atlanta - 29-County MSA

51. Figure 6 summarizes the obvious. The key driver of population growth
in Georgia this century has been Metro Atlanta, led in no small measure by a large
increase in the Black population in the area. (See Exhibit C depicting the 29-county
MSA area with bold green lines).

Figure 6

## 29-County MSA - Metro Atlanta - 1990 to 2020 Population by Race and Ethnicity

|  | 1990 Number | Percent | 2000 Number | Percent | $\begin{gathered} 2010 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2020 \\ \text { Number } \end{gathered}$ | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 3,082,308 | 100.00\% | 4,263,438 | 100.00\% | 5,286,728 | 100.00 | 6,089,815 | 100.00\% |
| NH White | 2,190,859 | 71.08\% | 2,576,109 | 60.42\% | 2,684,571 | 50.78\% | 2,661,835 | 43.71\% |
| Total Minority Pop. | 891,449 | 28.92\% | 1,687,329 | 39.58\% | 2,602,157 | 49.22\% | 3,427,980 | 56.29\% |
| Latino | 58,917 | 1.91\% | 270,655 | 6.35\% | 547,894 | 10.36\% | 730,470 | 11.99\% |
| Black* | 779,134 | 25.28\% | 1,248,809 | 29.29\% | 1,776,888 | 33.61\% | 2,186,815 | 35.91\% |

* SR Black in 1990, AP Black 2000-2020

52. Under the 1990 Census, today's 29 county-MSA was $25.28 \%$ Black, increasing to $35.91 \%$ in 2020. Since 2000, the Black population in Metro Atlanta has climbed by $75 \%$, from $1,248,809$ to $2,186,815$ in 2020.
53. According to the 2020 Census, $56.29 \%$ of Metro Atlanta residents are non-White-a major shift compared to the previous decade. In 2010, NH Whites represented $50.78 \%$ of the population.
54. According to the 2020 Census, the 11 core counties comprising the Atlanta Regional Commission ("ARC") area ${ }^{18}$ account for more than half ( $54.7 \%$ ) of the statewide Black population. After expanding the Metro Atlanta area to include the 29 counties in the Atlanta MSA (including the 11 ARC counties), Metro Atlanta encompasses $61.81 \%$ of the state's Black population.
[^26]
## (3) Region A - 5-County South Metro Atlanta

55. The table in Figure 7 presents similar 1990 to 2020 population details for the five south Metro Atlanta counties (Region A), where I have determined that two additional majority-Black Senate districts and at least two additional majorityBlack House districts can be drawn.

Figure 7

## Region A - 5-County South Metro Atlanta - 1990 to 2020 <br> Population by Race and Ethnicity

|  | $1990$ <br> Number | Percent | $2000$ <br> Number | Percent | 2010 <br> Number | Percent | $2020$ <br> Number | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 271,512 | 100.00\% | 401,133 | 100.00\% | 559,735 | 100.00\% | 633,265 | 100.00\% |
| NH White | 227,297 | 83.72\% | 305,779 | 76.23\% | 305,092 | 54.51\% | 262,792 | 41.50\% |
| Total Minority Pop. | 44,215 | 16.28\% | 95,354 | 23.77\% | 254,643 | 45.49\% | 370,473 | 58.50\% |
| Latino | 2,757 | 1.02\% | 11,560 | 2.88\% | 33,722 | 6.02\% | 48,287 | 7.63\% |
| Black* | 38,945 | 14.34\% | 74,249 | 18.51\% | 205,426 | 36.70\% | 294,914 | 46.57\% |

* SR Black in 1990, AP Black 2000-2020

56. As is readily apparent from the Figure 7 timeline, south Metro Atlanta (comprising Fayette, Henry, Spalding, Newton, and Rockdale Counties) has undergone a dramatic demographic transformation over the past 30 years. In 1990, just $14.34 \%$ of the population in the 5-county south Metro Atlanta area was Black. By 2010, the Black population had more than doubled to reach $36.70 \%$ of the overall population, then climbing to $46.57 \%$ in 2020.
57. Between 2000 and 2020, the Black population in the 5-county south Metro Atlanta region quadrupled, from 74,249 to 294,914. The NH White population in the region actually decreased during the same period.

## (4) Region B - Eastern Black Belt

58. In contrast to south Metro Atlanta, the Black Belt counties in and around the Augusta area have experienced a slight overall population decline since 1990, from 331,615 to 325,164 in 2020. However, the Black population in the region has grown. Figure 8 reveals that a 19\% increase in the Black population since 1990 has been offset by a $28.7 \%$ decline in the NH White population.

Figure 8
Region B - Eastern Black Belt Area-1990 to 2020 Population by Race and Ethnicity

|  | $\begin{gathered} 1990 \\ \text { Number } \end{gathered}$ | Percent | $\begin{gathered} 2000 \\ \text { Number } \end{gathered}$ | Percent | 2010 <br> Number | Percent | 2020 Number | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 331,615 | 100.00\% | 321,998 | 100.00\% | 322,852 | 100.00 | 325,164 | 100.00\% |
| NH White | 174,163 | 52.52\% | 146,870 | 45.61\% | 133,467 | 41.34\% | 124,115 | 38.17\% |
| Total Minority Pop. | 157,452 | 47.48\% | 175,128 | 54.39\% | 189,385 | 58.66\% | 201,049 | 61.83\% |
| Latino | 4,412 | 1.33\% | 7,173 | 2.23\% | 11,179 | 3.46\% | 14,751 | 4.54\% |
| Black* | 149,307 | 45.02\% | 163,130 | 50.66\% | 173,238 | 53.66\% | 177,610 | 54.62\% |

* SR Black in 1990, AP Black 2000-2020

59. In 1990, the Black population in Region B represented $45.02 \%$ of the
total population, climbing to $54.62 \%$ in 2020.
60. The total 2020 population in the 11 -county area that I identified as

Region B is sufficient to form about 1.7 Senate districts or 5.5 House districts, which is below what would be necessary to create a second majority-Black Senate
district or a sixth majority-Black House district. However, as shown in the Illustrative Senate and House Plans discussed in this report, this population deficit can be overcome, and additional majority-Black Senate and House districts can be drawn, by including contiguous, demographically similar Black Belt counties such as Baldwin, Twiggs, and Wilkinson in the additional districts.

## (5) Region C - Western Black Belt

61. As shown in Figure 9, the western Black Belt has experienced a population decline since 2010, after holding relatively stable between 1990 and 2010. All of the population loss can be attributed to a steady decline in the NH White population over the past several decades

Figure 9

## Region C - Western Black Belt Area - 1990 to 2020 <br> Population by Race and Ethnicity

|  | 1990 Number | Percent | 2000 Number | Percent | $2010$ <br> Number | Percent | 2020 Number | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 205,742 | 100.00\% | 214,686 | 100.00\% | 209,747 | 100.00 | 190,819 | 100.00\% |
| NH White | 100,751 | 48.97\% | 90,946 | 42.36\% | 76,748 | 36.59\% | 64,553 | $33.83 \%$ |
| Total Minority Pop. | 104,991 | 51.03\% | 123,740 | 57.64\% | 132,999 | 63.41\% | 126,266 | 66.17\% |
| Latino | 1,485 | 0.72\% | 3,588 | 1.67\% | 7,377 | 3.52\% | 7,429 | 3.89\% |
| Black* | 102,728 | 49.93\% | 118,786 | 55.33\% | 123,663 | 58.96\% | 115,621 | 60.59\% |

* SR Black in 1990, AP Black 2000-2020

62. In 1990, NH Whites constituted about half of the overall population. By 2020, NH Whites comprised only about one-third. Over the same time period, the Black population grew in absolute terms from 102,728 to 115,621 , representing just under half the population in 1990 , but $60.6 \%$ of the population by 2020.
63. There is insufficient population to create an additional majority-Black Senate district in Region C and the counties immediately adjacent to Region C in the western Black Belt. However, as shown in the Illustrative House Plan discussed in this report, an additional House district can be drawn in the area.
(6) Region D - Metropolitan Macon (Macon-Bibb Warner Robins MSAs)
64. As shown in Figure 10, metropolitan Macon has experienced steady population growth over the past 30 years. Almost all of the growth is attributed to a near-doubling in the non-White population from 113,653 in 1990 to 216,918 in 2020 (+90.86\%).

Figure 10

> Region D - Metropolitan Macon - 1990 to 2020
> Population by Race and Ethnicity

|  | $1990$ <br> Number | Percent | $2000$ <br> Number | Percent | $\begin{gathered} 2010 \\ \text { Number } \end{gathered}$ | Percent | $2020$ <br> Number | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Population | 317,013 | 100.00\% | 356,801 | 100.00\% | 399,888 | 100.00\% | 425,416 | 100.00\% |
| NH White | 203,360 | 64.15\% | 211,927 | 59.40\% | 216,968 | 54.26\% | 208,498 | $49.01 \%$ |
| Total Minority Pop. | 113,653 | 35.85\% | 144,874 | 40.60\% | 182,920 | 45.74\% | 216,918 | 50.99\% |
| Latino | 3,123 | 0.99\% | 7,247 | 2.03\% | 16,069 | 4.02\% | 22,820 | 5.36\% |
| Black* | 109,958 | 34.69\% | 131,627 | 36.89\% | 157,470 | 39.38\% | 177,269 | 41.67\% |

* SR Black in 1990, AP Black 2000-2020

65. The Black population comprised about one-third of the population in the Macon area in 1990 (34.69\%), climbing to $41.67 \%$ in 2020. Non-Hispanic Whites represented $64.15 \%$ of the regional population in 1990, slipping to $49.01 \%$ in 2020.
66. The seven counties in the combined Macon-Bibb Warner Robins MSAs are Macon-Bibb, Crawford, Houston, Jones, Monroe, Peach, and Twiggs. According to the GBPI analysis (Exhibit D), three of the seven counties in metropolitan Macon are part of the contemporary Black Belt-Macon-Bibb, Peach, and Twiggs.
67. Based on the 2020 Census, about seven House districts (7.15) can be drawn in metropolitan Macon. With a Black population of 177,269 according to the 2020 Census, there is clearly sufficient Black population in the 7 -county Macon area to encompass three majority-Black House districts rather than just two as under the 2021 Enacted House Plan.

## E. County and Municipal Socioeconomic Characteristics

68. For background on socioeconomic characteristics by race and ethnicity at the county, municipal, and community levels in Georgia, I have prepared charts based on the 5-year 2015-2019 ACS. That data is available online ${ }^{19}$ and has also been included in a compact-disk as Exhibit CD.
69. In addition, Exhibit CD contains charts and statistical summaries of socioeconomic characteristics from the 1-Year 2021 ACS for Georgia, the two most

[^27]populous MSAs in the state-Atlanta and Augusta-Richmond County ${ }^{20}$, and the four most populous counties of the Atlanta MSA - Cobb, Dekalb, Fulton, and Gwinnett. Statistics for other less populous counties are not available in the S0201 series. ${ }^{21}$

## III. SENATE - HISTORICAL BENCHMARK PLANS AND 2021 PLAN

## A. Majority-Black Senate Districts - 1990s Plan to 2021 Plan

70. As shown in Figure 11, despite the significant growth in Georgia's Black population since 2000-climbing by 1.2 million persons-the number of majority-Black Senate districts has only inched up to 14 from 13 in the 2006 Plan, and has remained static for the last decade.

## Figure 11

Number of Majority-Black Senate Districts by Plan - 2000 to 2021

[^28]|  | Statewide <br> Majority- <br> Black <br> Senate Plans ${ }^{22}$ | Metro Atlanta <br> Majority- <br> Black <br> Districts |
| :--- | :---: | :---: |
| Districts |  |  |$|$

71. As Figure 12 reveals, despite the major changes in the composition of the State's population, the percentage of Black Georgians of voting age in majorityBlack Senate districts has hovered around $50 \%$ since the mid-2000s, while the percentage of the NH White VAP in majority-White districts has stayed above $80 \%$ over the same timeframe-indicating that Black populations are disproportionately "cracked" or divided into majority-White districts rather than placed in majorityBlack districts. ${ }^{23}$

## Figure 12

## Same Race VAP in Majority-Black and Majority NH White Districts 2000 to 2021

22 As discussed supra n.7, I am including Senate District 41 (Dekalb County) as majority-Black under the 2014 Benchmark Senate Plan, even though it had fallen to $49.76 \%$ BVAP by the 2020 Census. Notably, when the 2014 Benchmark Senate Plan was drawn, it had 15 total BVAPmajority districts under the 2010 Census, including both Senate District 41 and Senate District 2 in Savannah. In that sense, the 2021 Senate Plan actually represents a diminution of one majority-Black district from the last districting effort.

23 "Packing" describes election districts where a minority population is unnecessarily concentrated, resulting in an overall dilution of minority voting strength in the voting plan. "Cracking" describes election plans with one or more districts that fragment or divide the minority population, also resulting in an overall dilution of minority voting strength in the voting plan.

|  | Statewide \% <br> Black VAP in <br> Majority- <br> Black <br> Senate Plans | Statewide <br> \%NH White <br> VAP in <br> Majority- <br> White Districts |
| :--- | :---: | ---: |
| 1990s Plan - 2000 Census | $43.51 \%$ | $90.51 \%$ |
| 2006 Plan - 2010 Census | $53.84 \%$ | $83.88 \%$ |
| 2014 Plan - 2020 Census | $52.29 \%$ | $80.64 \%$ |
| 2021 Plan - 2020 Census | $52.45 \%$ | $80.54 \%$ |

* including Senate District 2 for all years and Senate District 41 for 2014 and 2021


## B. 2014 Benchmark Senate Plan

72. The map in Figure 13 displays 2014 Benchmark Senate Plan districts in south Metro Atlanta (Region A), the eastern Black Belt (Region B) and metropolitan Macon (Region D.) Labels on the map display the district number. Green labels identify majority-Black districts. Exhibit H is a higher resolution version of the Figure 13 map.

Figure 13

2014 Benchmark Senate Plan - Regions A, B, and D

73. Exhibit I-1 contains a map packet depicting the 2014 Benchmark

Senate Plan, with corresponding Census 2010 statistics, prepared by the Georgia
Legislative \& Congressional Reapportionment Office ("GLCRO"). Exhibit I-2
shows the map for the prior 2011-enacted Senate plan, and Exhibit I-3 shows the map for the Senate plan enacted in 2006.
74. Exhibit J-1 is a table reporting Census 2020 population statistics for the 56 districts in the 2014 Benchmark Senate Plan, as well as CVAP estimates from
the 5-year 2015-2019 Special Tabulation. ${ }^{24}$ Exhibits J-2 and J-3 provide similar population data for the prior 2011-enacted and 2006-enacted plans.
75. As a result of the dramatic population shifts in Georgia since 2010, the 2014 Benchmark Senate Plan was severely malapportioned upon release of the 2020 Census, with an overall deviation of $47.75 \%$.
76. Including Senate District 41 in Metro Atlanta (see supra nn. 7 \& 22), the 2014 Benchmark Senate Plan contained 14 majority-Black districts. Fifteen districts in the 2014 Benchmark Plan were BCVAP-majority (the 14 BVAP majority ones plus Senate District 2 in Chatham County). Seventeen were majority NH Black + Latino + NH Asian ("B+L+A") CVAP (i.e., majority minority by CVAP).
77. Additional 2014 Benchmark Senate Plan information regarding compactness scores and jurisdictional splits is reported infra for comparison with the 2021 Senate Plan and Illustrative Senate Plan metrics.

## C. 2021 Senate Plan

78. The map in Figure 14 displays 2021 Senate Plan districts in south Metro Atlanta (Region A) and in the eastern Black Belt (Region B). Green labels identify majority-Black districts. Exhibit K is a higher resolution version of the Figure 14 map.
[^29]Figure 14
2021 Senate Plan - Regions A, B, and D

79. Exhibit L contains a map packet depicting the 2021 Senate Plan, with corresponding Census 2020 statistics, prepared by GLCRO.
80. Exhibit M-1 is a table reporting Census 2020 population statistics for the 56 districts in the 2021 Plan, as well as CVAP estimates from the 5-year 20162020 Special Tabulation.
81. Exhibit M-2 breaks out the county population components for the 56 districts in the 2021 Senate Plan.
82. Exhibit M-3 is a set of 12 sub-state maps of the 2021 Plan organized by regional commission areas.
83. The 2021 Senate Plan contains 14 majority-Black districts (BVAP). Fifteen are BCVAP majority (the 14 BVAP-majority districts plus Senate District 2 in Chatham County). Eighteen districts in the 2021 Senate Plan are majority $B+L+A C V A P$.
84. Supplemental 2021 Senate Plan information regarding compactness scores, VTD splits, county splits, municipal splits, and regional splits is reported infra for comparison with the Illustrative Senate Plan.

## IV. ILLUSTRATIVE SENATE PLAN

## A. State-level Perspective

85. The map in Figure 15 displays Illustrative Senate Plan districts, with the map zoomed to identify the three additional majority-Black districts (large green labels) in south Metro Atlanta (Region A) and in the eastern Black Belt (Region B). Exhibit $\mathbf{N}$ is a higher resolution version of the Figure 15 map.

Figure 15
Additional Majority-Black Senate Districts - 17, 23, and 28

86. The additional majority-Black Senate districts are:

## Region A -South Metro Atlanta

District 17: in the Counties of Clayton (part), Fayette (part), and Spalding (part)
District 28: in the Counties of Clayton (part) and Henry (part)

## Region B - Eastern Black Belt/Central Savannah River Area

District 23: in the Counties of Augusta-Richmond (part), Jenkins, Burke, Jefferson, Washington, Taliaferro, Hancock, Wilkes (part), Baldwin, Wilkinson, and Twiggs.
87. The Illustrative Senate Plan contains 18 majority-Black (BVAP)
districts. As with the 2014 Benchmark Senate and 2021 Senate Plans, District 2
(45.44\% BVAP) in Chatham County is majority-BCVAP. Nineteen districts in the Illustrative Senate Plan are majority-NH DOJ BCVAP. 25 Twenty-two districts in the Illustrative Senate Plan are majority $\mathrm{B}+\mathrm{L}+\mathrm{ACVAP}$.
88. Exhibit O-1 is a table reporting Census 2020 population statistics for the 56 districts in the Illustrative Senate Plan, as well as CVAP estimates from the 5-year 2016-2020 Special Tabulation.
89. Exhibit O-2 breaks out the county population components for the 56 districts in the Illustrative Senate Plan.
90. Exhibit O-3 is a set of 12 sub-state maps of the Illustrative Plan organized by regional commission areas.
91. Exhibit O-4 is a statewide map showing the 18 majority Black Senate districts (green) under the Illustrative Plan, with the three additional majority-Black districts shaded light green.
92. Exhibit O-5 zooms on each of the three additional majority-Black districts in the Illustrative Senate Plan.
93. Exhibit O-6 is a core constituencies report, showing population shifts by district from the 2021 Senate Plan to the Illustrative Senate Plan.

[^30]94. The text descriptions of the additional majority-Black Senate districts in the Illustrative Senate Plan set forth below are illustrated with side-by-side comparison maps, depicting the Illustrative Senate Plan and 2021 Senate Plan at the same scale. Higher resolution versions of these side-by-side pairings are also included in exhibits in the Exhibit P, Exhibit Q, and Exhibit R series, as marked below. The county-level population change data discussed below is reflected in Exhibits G-1, G-2, and G-4.
95. The side-by-side maps are occasionally interspersed with maps depicting Illustrative Senate Plan boundaries in counties that are split in the process of creating the additional majority Black districts-e.g., Spalding and Wilkes Counties, which are not split in the 2021 Plan. The county-level maps reveal that the splits are reasonable, and especially so within the context of Georgia's oftentimes irregularly shaped municipal and VTD boundaries. Notably, the Illustrative Senate Plan overall splits fewer counties than the 2021 Senate Plan, as reported infra.

## B. District-by-District Analysis

## (1) South Metro Atlanta (Region A)

## (a) 2021 Senate District 16 (Exhibit P-1)

96. As shown in Figure 16, District 16 in the 2021 Senate Plan lies in the south and southwestern part of the Atlanta Metro area. It includes part of Fayette

County, extending south to encompass Spalding, Lamar and Pike Counties (partially displayed on the map).

Figure 16

## 2021 Senate District 16 and vicinity


97. Both Fayette and Spalding Counties have seen significant, double-digit growth in their Black populations over the last decade. The Black VAP in Fayette County increased by $54.5 \%$ between 2010 and 2020 (from 15,355 to 23,728) even as the NH White VAP fell slightly. Spalding County saw its Black VAP grow by $18.5 \%$ over the decade, with virtually no change in the White VAP.
98. Neighboring Clayton County, which borders Fayette and Spalding Counties, is majority-Black, and also has increasing Black population (30\% increase since 2010). Senate District 16 is nevertheless drawn with a BVAP of $23 \%$ by packing majority-Black neighborhoods in northeast Fayette County into Senate District 34 (a neighboring, 69.54\% BVAP district anchored in Clayton County), and then joining the remaining areas of Fayette County with Spalding County and Pike and Lamar Counties on the outer ring of Metro Atlanta.

## (b) Illustrative Senate District 28 (Exhibit P-2)

99. As Figure 17A reveals, a majority-Black District 28 (51.32\% BVAP) can be drawn in the vicinity of 2021 Senate District 16 by joining adjacent portions of Fayette, Spalding, and Clayton Counties, and unpacking some of the Black population in neighboring Senate District 34 (parts of Clayton and Fayette Counties) as well as Senate District 44 (which also stretches into the adjacent portion of Clayton County). In the 2021 Senate Plan, the BVAP in these two packed neighboring districts stands at about $70 \%$.

Figure 17A
Illustrative Senate District 28 and vicinity

100. Figure 17B zooms in on the City of Griffin (pop. 23,470) in Spalding

County, displaying municipal and VTD boundaries. The majority-Black City of Griffin is placed in Illustrative District 28, with Griffin's municipal lines serving as a border between District 28 and District 16 .

Figure 17B
Griffin/Spalding County Detail - Illustrative Districts 28 and 16

101. To recap, unpacking 2021 Plan District 34 and District 44 allows a majority-Black Illustrative Senate District 28 to be drawn in Fayette, Spalding, and a neighboring part of majority-Black Clayton County, while "uncracking" the surrounding Black population that is drawn into 2021 Senate District 16.

## (c) 2021 Senate District 17 (Exhibit Q-1)

102. As shown in Figure 17C, Senate District 17, as drawn in the 2021 Senate Plan, includes parts of Henry, Newton, and Walton Counties, and all of Morgan County. Of the counties in 2021 Senate District 17: Henry County's

BVAP increased by almost $75 \%$ in the last decade (to reach almost $50 \%$ of the county VAP) and Newton County's BVAP increased by more than $45 \%$ to reach almost $50 \%$ of the total VAP of the county.

Figure 17C

## 2021 Senate District 17 and vicinity


103. Neighboring Dekalb and Rockdale Counties, which border Henry and Newton Counties, also have substantial Black populations. For example, Rockdale County is majority Black ( $58.6 \%$ BVAP) and the county's BVAP increased by $53 \%$ over the last decade. Senate District 17 is nevertheless drawn in the 2021 Plan with a BVAP under 34\%, cracking the Black population in central and eastern Henry

County as well as in parts of Newton County by extending the district out into predominantly white and more rural Walton and Morgan counties outside the South Metro area, splitting multiple counties in the process. Meanwhile, the 2021 Senate Plan packs the Black population in Senate Districts 10 and 43 (which include parts of Henry, Rockdale, and Newton Counties), drawing those districts with BVAPs of over $70 \%$ and almost $65 \%$, respectively.

## (d) Illustrative Senate District 17 (Exhibit Q-2)

104. As shown in Figure 17D, a majority-Black Senate District 17 can be drawn in the vicinity of 2021 Senate District 17 by unpacking the Black population in a number of neighboring districts, including 2021 Senate Districts 10 and $43 .{ }^{26}$
[^31]Figure 17D
Illustrative Senate District 17 and vicinity

105. By unpacking 2021 Senate Districts 10 and 43 and uncracking the Black population in central and eastern Henry County (which the 2021 Senate Plan places in majority-White Senate District 17), a majority-Black Illustrative Senate District

17 can be drawn in Henry, Rockdale, and Dekalb Counties. As Figure 17C and Figure 17D make clear, Illustrative Senate District 17 is much more compact than the sprawling 2021 District 17.
106. Figures 17E and 17F (Exhibits P-3 and P-4) show the broader South Metro Region under both the 2021 Senate Plan and the Illustrative Senate Plan. As
shown in those figures, the 2021 Senate Plan repeatedly cracks the growing and diversifying South Metro Region by submerging it in districts that stretch out into more rural outlying counties in the outer ring of the Atlanta MSA and beyond. By contrast, the Illustrative Plan includes districts that are firmly anchored in the South Metro and are combined with similarly growing and diverse counties closer to the urban core.

Figure 17E
South Metro Region under the 2021 Senate Plan


Figure 17F
South Metro Region under the Illustrative Senate Plan

(2) Eastern Black Belt (Region B)
(a) 2021 District 23 (Exhibit R-1)
107. Senate District 23 under the 2021 Plan is drawn with a BVAP under 36\%. As shown in Figure 18, 2021 Senate District 23 lies around Augusta, including outlying parts of Augusta-Richmond County and a number of surrounding Black Belt counties in the larger Central Savannah River region, including Burke, Jefferson, Warren, and Taliaferro Counties.

Figure 18

## 2021 Senate District 23 and Vicinity



## (b) Illustrative District 23 (Exhibit R-2)

108. As shown in Figure 19A, an additional majority-Black Senate district can be drawn in the eastern Black Belt region by unpacking the Black population in both 2021 Senate District 22 (central Augusta-Richmond County) and 2021 Senate

District 26 (which includes Black Belt counties to the west, such as Hancock
County), and by uncracking the Black populations in 2021 Senate District 23 and in 2021 Senate District 25 (which include additional contiguous Black Belt counties such as Baldwin County).

Figure 19A
Illustrative Senate District 23 and Vicinity

109. Apart from Augusta-Richmond County, Wilkes County is the only other split county in Illustrative District 23. As shown in Figure 19B, Illustrative Senate

District 23 divides Wilkes County along current administrative boundaries, following county commission lines (green) north into the City of Washington where it follows the western city limits of Washington before returning to east-west commission boundaries in the center of the city.

Figure 19B

## Washington/Wilkes County Detail


110. To recap, an east-west configuration of counties across the eastern Black

Belt allows a majority-Black Illustrative Senate District 23 to be drawn in an area that includes part of Augusta-Richmond County and most of the Black Belt area counties between Augusta and Macon.

## C. Supplemental Plan Information

## (1) Population Equality

111. As demonstrated by the district-by-district population statistics in

Exhibits O-1 and M-1, the Illustrative Senate Plan matches the 2021 Senate Plan
by staying within a stringent $1 \%$ population deviation limit for each district (i.e., no district is more than $1 \%$ away from ideal population size).

## (2) Compactness

112. Compactness scores for the Illustrative Senate Plan are within the norm for a typical legislative Plan. Exhibit S-1 contains district-by-district compactness scores generated by Maptitude for all districts in the Illustrative Senate Plan, alongside scores for the 2014 Benchmark Senate Plan (Exhibit S-2) and the 2021

## Senate Plan (Exhibit S-3).

113. The table in Figure 20 (condensed from the Exhibit S series) reports mean and minimum Reock ${ }^{27}$ and Polsby-Popper ${ }^{28}$ scores for the Illustrative Senate Plan, the 2014 Benchmark Senate Plan, and the 2021 Senate Plan.
114. On balance, the Illustrative Senate Plan and 2021 Senate Plan score about the same on the widely referenced Reock and Polsby-Popper measures. If

27 "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 Reock test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan." Caliper Corporation, Maptitude For Redistricting Software Documentation.

28 The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: 4pArea/(Perimeter2). The measure is always between 0 and 1, with 1 being the most compact. The Polsby-Popper test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan. See Caliper Corporation, Maptitude For Redistricting Software Documentation.
anything, the Illustrative Plan scores better inasmuch as its least compact district by Reock scores .22, compared to .17 for the 2021 Senate Plan.

Figure 20

## Compactness Scores

Illustrative Senate Plan and 2014 Benchmark and 2021 Senate Plans

|  | Reock |  |  | Polsby-Popper |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Mean | Low |  | Mean | Low |
| Illustrative Senate Plan | .43 | .22 |  | .28 | .14 |
| 2014 Benchmark Senate Plan | .43 | .14 |  | .27 | .11 |
| 2021 Senate Plan | .42 | .17 |  | .29 | .13 |

## (3) Jurisdictional Splits

115. The Exhibit T series contains Maptitude generated reports for splits of key geographic areas in Georgia-from VTDs to regional commissions-under the Illustrative Senate Plan, the 2014 Benchmark Plan, and the 2021 Senate Plan.
116. The table in Figure 21 summarizes split counts for counties, 2020

VTDs, and municipalities. The Illustrative Senate Plan scores better than the 2021
Plan across all six categories.

## Figure 21

## County and VTD Splits/Whole Municipalities -

 Illustrative Plan versus 2014 Benchmark and 2021 Senate Plans|  | Split Counties | Total County Splits* | $\begin{gathered} 2020 \\ \text { VTD } \\ \text { Splits* } \end{gathered}$ | SingleCounty Whole City/Towns (478)\# | Single and Multi County Whole City/ Towns (531\#) | Total <br> City/ <br> Town <br> Splits* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Illustrative Senate | 28 | 57 | 38 | 437 | 464 | 166 |
| 2014 Benchmark | 38 | 65 | 86 | 422 | 448 | 198 |
| 2021 Senate | 29 | 60 | 40 | 434 | 463 | 169 |

*Populated splits only
\# Higher is better
117. Exhibit T-1 contains a county and VTD split report for the Illustrative Senate Plan. Exhibit T-2 reports on the 2014 Benchmark Senate Plan and Exhibit T-3 reports on the 2021 Senate Plan.
118. Exhibit T-4 contains a split report for all 531 municipalities (including the 53 cities and towns that spill over into another county) for the Illustrative Senate Plan. Exhibit T-5 reports on the 2014 Benchmark Senate Plan and Exhibit T-6 reports on the 2021 Senate Plan.

## (4) Regional Splits

119. The table in Figure 22 shows regional splits, defined by the 12 statedesignated regional commissions and the 39 federally-designated core-based statistical areas ("CBSAs"), which include MSAs and micropolitan statistical areas. ${ }^{29}$

29 As the Census Bureau has explained "Micropolitan statistical areas consist of the county or counties (or equivalent entities) associated with at least one urban cluster of at least 10,000 but less than 50,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties." See also supra n.9.

Figure 22
Split Regional Commissions and CBSAs
Illustrative Plan versus 2014 Benchmark and 2021 Senate Plans

|  | Regional <br> Commission <br> Splits | Whole <br> CBSAs | CBSA <br> Splits |
| :--- | ---: | ---: | ---: |
| Illustrative Senate | 83 | 23 | 72 |
| 2014 Benchmark Senate | 84 | 21 | 78 |
| 2021 Senate | 89 | 20 | 79 |

120. Again, the Illustrative Senate Plan scores higher than the 2021 Senate Plan across the three categories.

## (5) Incumbents

121. The Illustrative Senate Plan modifies 35 of the 56 districts as drawn in the 2021 Senate Plan.
122. Based on January 2022 incumbent address information given to Plaintiffs' attorneys by the Defendants in the form of a geocoded shapefile, Illustrative Senate District 4 has an incumbent conflict. Also, as in the 2021 Plan, Senate Districts 13 and 52 have paired incumbents. Based on the preliminary analysis of incumbent address information following the November 2022 general election pursuant to the 2021 House Plan, three districts in the Illustrative Senate Plan may have incumbent conflicts: 4, 5, and 35 .

## D. Comparative Socioeconomic Analysis

123. This section of my report briefly highlights charts and tables that I prepared from the 2015-2019 American Community Survey found on Exhibit CD or via: http://www.fairdata2000.com/ACS_2015_19/Georgia/.
124. The datasets available in these ACS-based documents facilitate comparisons by race/ethnicity and other socioeconomic measurements across counties that are included in relevant districts in the Illustrative Senate Plan and the 2021 Senate Plan, which can help identify commonalities and communities of interest in the relevant areas.
125. For example, the counties within Illustrative Senate District 28 share socioeconomic characteristics that make them similar to one another. A relatively high proportion of Black residents are in the labor force in Fayette, Spalding, and Clayton Counties ( $64.3 \%, 58.2 \%$, and $69.5 \%$ respectively).(See Exhibit CD Reports for Fayette, Spalding, and Clayton Counties at pp. 53-55.) ${ }^{30}$
126. By comparison, the labor force participation rates for Black residents in Pike and Lamar Counties (which are contained within 2021 Senate District 16 along with Spalding County and part of Fayette County) are lower than the

[^32]counties contained within Illustrative Senate District 28. The Black labor force participation rates in Pike and Lamar Counties are $51.3 \%$ and $48.0 \%$ respectively. (See Exhibit CD Reports for Pike and Lamar Counties at pp. 53-55.)
127. The counties within Illustrative Senate District 17 share socioeconomic characteristics that make them similar to one another. For example, the counties that comprise Illustrative Senate District 17 are similar when educational attainment rates among Black residents are compared across the counties. A significant proportion of Black residents in Henry, Rockdale, and Dekalb Counties have received a bachelor's degree or higher ( $34.5 \%, 29.2 \%$, and $29.2 \%$ respectively). (See Exhibit CD Reports for Henry, Rockdale, and Dekalb Counties at pp. 21-22.)
128. On the other hand, the counties that comprise 2021 Senate District 17 do not share these commonalities with respect to educational attainment characteristics. Walton and Morgan Counties are especially different. White residents in Walton and Morgan Counties ( $77.5 \%$ and $74.0 \%$ White) are less likely to have received a bachelor's degree or higher than Black residents in majority-non-White Henry County ( $14.1 \%$ in Walton County and $7.0 \%$ in Morgan County, compared to $34.5 \%$ in Henry County). (See Exhibit CD Reports for Walton and Morgan Counties at pp. 21-22.)
129. The counties within Illustrative Senate District 23 also share certain socioeconomic characteristics that make them similar to one another. For example, a significant proportion of Black residents across the Illustrative Senate District 23 counties had incomes that fell below the poverty line (ranging from $20.1 \%$ of the Black population to $38.4 \%$ of the Black population) (See Exhibit CD Reports for relevant counties at pp. 25-29.)

## E. Online Interactive Maps

130. The Illustrative Senate Plan can also be viewed online in detail on the Dave's Redistricting Application (DRA) website via this link:
https://davesredistricting.org/maps\#viewmap::fe5932c5-df77-4a66-b2421112a9666e60.
131. For comparison, the 2021 Senate Plan can be viewed via this link: https://davesredistricting.org/join/52efcc99-481d-4b95-8e17-daddf279a59e.

## V. HOUSE - HISTORICAL BENCHMARK PLANS AND 2021 PLAN A. Majority-Black House Districts - 1990s Plan to 2021 Plan

132. As shown in Figure 23, and despite the significant growth in Georgia's Black population over the past two decades discussed earlier in this report, the number of majority-Black House districts has climbed by just four districts from 45 ( $25 \%$ of districts) in the 2006 plan to 49 (27.2\%) in the 2021 Plan, and has remained more or less static for the last decade.

## Figure 23

Number of Majority- Black House Districts by Plan -2000 to 2021

|  | Statewide <br> Majority- <br> Black <br> Districts | Metro Atlanta <br> Majority- <br> Black <br> Districts |
| :--- | :---: | :---: |
| 1990s Plan -- 2000 Census | 37 | 22 |
| 2006 Plan -- 2010 Census | 45 | 30 |
| 2012 Plan - 2010 Census | 48 | 32 |
| 2015 Plan -- 2020 Census | 47 | 31 |
| 2021 Plan -- 2020 Census | 49 | 33 |

133. Since the enactment of the 2006 Plan, just three majority-Black districts have been added in Metro Atlanta, even as the Black population in the 29-county area has climbed by over 400,00 persons - the equivalent of nearly entire seven House districts based on the 2020 ideal district size.
134. Despite the nominal increase in majority-Black House districts since 2006, Figure 24 reveals that the percentage of Black Georgians of voting age in majority-Black House districts is only slightly higher than in the 1990s (52\% versus $45 \%)$. Under the 2021 Plan, the percentage of the NH White population in majorityWhite districts is down from the 1990s ( $76 \%$ versus $90 \%$ ). Still, as with the Senate, the 25-point Black-White gap demonstrates that Black populations are disproportionately "cracked" or divided into majority-White districts in the House.

Figure 24
Same Race VAP in Majority-Black and Majority NH White Districts 2000 to 2021

|  | Statewide \% <br> Black VAP in <br> Majority- <br> Black <br> Districts* | Statewide <br> \%NH White <br> VAP in <br> Majority-White <br> Districts |
| :--- | :---: | :---: |
| 1990s Plan - 2000 Census | $44.81 \%$ | $90.49 \%$ |
| 2006 Plan - 2010 Census | $44.61 \%$ | $83.73 \%$ |
| 2015 Plan - 2020 Census | $47.94 \%$ | $77.6 \%$ |
| 2021 Plan - 2020 Census | $51.65 \%$ | $76.16 \%$ |

* including Districts that are BVAP- and/or BCVAP-majority


## B. 2015 Benchmark House Plan

135. The map in Figure 25 displays 2015 Benchmark House Plan districts in south Metro Atlanta (Region A) and in the eastern and western Black Belt (Regions B and C) and metropolitan Macon (Region D). Labels on the map display the district number. Green labels identify majority-Black districts.

Figure 25

136. The map depicted in Figure 25 is also included as Exhibit U.
137. Exhibit V-1 contains a map packet depicting the Benchmark 2015

House Plan, with corresponding Census 2010 statistics, prepared by GLCRO.
Exhibit V-2 shows the map for the prior 2012-enacted House plan, and Exhibit V-
3 shows the map for the House plan enacted in 2006.
138. Exhibit W-1 is a table reporting Census 2020 population statistics for the 180 districts in the 2015 Benchmark House Plan, as well as CVAP estimates
from the 5-year 2015-2019 Special Tabulation. ${ }^{31}$ Exhibits W-2 and W-3 provide similar population information for the prior, 2012-enacted and 2006-enacted plans.
139. As a result of the dramatic population shifts in Georgia since 2010, the 2015 Benchmark House Plan was severely malapportioned, with an overall deviation of $56.66 \%$, according to the 2020 Census.
140. The 2015 Benchmark House Plan contains 47 majority-Black districts, with 48 BCVAP-majority districts and 62 districts that are $\mathrm{B}+\mathrm{L}+\mathrm{ACVAP}$ majority.
141. For comparison, additional 2015 Benchmark House Plan information regarding compactness scores, county splits, VTD splits, and municipal splits is reported infra.

## C. 2021 House Plan

142. The map in Figure 26 displays 2021 House Plan districts in south Metro Atlanta (Region A), in the eastern and western Black Belt (Regions B and C) and metropolitan Macon (Region D). Green labels identify majority-Black districts. Exhibit X is a higher resolution version of the Figure 26 map.
143. For comparison, additional 2021 House Plan information regarding compactness scores, county splits, VTD splits, and municipal splits is reported infra.
[^33]Figure 26
2021 House Plan - Regions A, B, C, and D

144. Exhibit Y contains a map packet depicting the 2021 House Plan, with corresponding Census 2020 statistics, prepared by GLCRO.
145. Exhibit Z-1 is a table reporting Census 2020 population statistics for the 180 districts in the 2021 House Plan, as well as CVAP estimates from the 5-year 2016-2020 Special Tabulation.
146. Exhibit Z-2 breaks out the county population components for the 180 districts in the 2021 House Plan.
147. Exhibit Z-3 is a set of 12 sub-state maps of the 2021 House Plan organized by regional commission areas.
148. A higher resolution version of Figure 26 is included as Exhibit Z-4.
149. The 2021 House Plan contains 49 majority-Black districts, with 49 BCVAP-majority districts. Sixty-two districts in the 2021 House Plan are majority $\mathrm{B}+\mathrm{L}+\mathrm{ACVAP}$.
150. Supplemental 2021 House Plan information regarding compactness scores, VTD splits, county splits, municipal splits, and regional splits is reported infra for comparison with the Illustrative House Plan.

## VI. ILLUSTRATIVE HOUSE PLAN

## A. State-level Perspective

151. The map in Figure 27 displays Illustrative House Plan districts, identifying five additional majority Black districts (large green labels) in south Metro Atlanta (Region A), in the Black Belt (Regions B and C), and in metropolitan Macon (Region D). Exhibit AA is a higher resolution version of the Figure 27 map.

Figure 27
Illustrative House - New Majority-Black Districts -74, 117, 133, 145, and 171

152. The Illustrative House Plan contains 54 majority-Black districts (BVAP), with 54 majority-BCVAP districts and 53 that are both BVAP and BCVAP-majority. Sixty-seven districts in the Illustrative House Plan are majority B+L+ACVAP.
153. The five additional majority-Black House districts are:

## Region A -South Metro Atlanta

District 74: in the Counties of Clayton (part), Henry (part), and Spalding (part)
District 117: in the Counties of Henry (part) and Spalding (part)

## Region B - Eastern Black Belt/Central Savannah River Area

District 133: (north to south) in the Counties of Wilkes (part), Taliaferro, Warren,

Hancock, Baldwin (part), and Wilkinson

## Region C - Western Black Belt

District 171: in the Counties of Dougherty (part), Mitchell, and Thomas (part)

## Region D - Metropolitan Macon

District 145: in the Counties of Macon-Bibb (part) and Monroe (part)
154. Exhibit AA-1 is a table reporting Census 2020 population statistics for the 180 districts in the Illustrative House Plan, as well as CVAP estimates from the 5-year 2016-2020 Special Tabulation.
155. Exhibit AA-2 breaks out the county population components for the 180 districts in the Illustrative House Plan.
156. Exhibit AA-3 is a set of 12 sub-state maps of the Illustrative House Plan organized by regional commission areas.
157. Exhibit AA-4 is a statewide map showing the 54 majority Black House districts (green) under the Illustrative Plan, with the five additional majority-Black districts shaded light green.
158. Exhibit AA-5 zooms on each of the five additional majority-Black districts in the Illustrative House Plan
159. Exhibit AA-6 is a core constituencies report, showing population shifts by district from the 2021 House Plan to the Illustrative House Plan.
160. The text descriptions of the five additional majority-Black districts in the Illustrative House Plan set forth below are illustrated with paired comparison
map exhibits, depicting the Illustrative House Plan and 2021 House Plan at the same scale. Higher resolution versions of these side-by-side pairings are also included in exhibits in the Exhibit AB, Exhibit AC, Exhibit AD, Exhibit AE, and Exhibit AF series, as marked below. The county-level population change data discussed below is reflected in Exhibits G-1, G-2, and G-4.
161. The side-by-side maps are occasionally interspersed with maps depicting Illustrative House Plan boundaries in a few counties that are split in the process of creating the additional majority Black districts-e.g., Spalding and Wilkes-but are not split in the 2021 Plan. These county-level maps reveal that the splits are reasonable, especially within the context of Georgia's oftentimes irregularly shaped municipal and VTD boundaries. Notably, the Illustrative House Plan overall splits fewer counties than the 2021 Senate Plan, as reported infra.

## B. District-by-District Analysis

## (1) South Metro Atlanta (Region A)

## (a) 2021 House District 74 (Exhibit AB-1)

162. As shown in Figure 28, District 74 in the 2021 House Plan lies in the south Metro Atlanta area and combines parts of Fayette, Spalding, and Henry Counties. The BVAP of the district as drawn is under $26 \%$.

Figure 28
2021 House Plan District 74 and vicinity


## (b) Illustrative District 74 (Exhibit AB-2)

163. An additional majority-Black House District can be drawn in this area by unpacking the Black population in adjacent 2021 House District 78 (which is anchored in neighboring Clayton County, and is $71.58 \%$ BVAP under the 2021 House Plan) and uncracking the Black population in House District 74, which includes areas in Henry County and Spalding County that have experienced substantial Black population growth over the past two decades, as shown in the Exhibit G series and associated discussion supra.
164. As shown in Figure 29, unpacking those districts allows a majorityBlack Illustrative House District 74 to be drawn in Henry, Spalding, and the neighboring part of Clayton County.

Figure 29

$$
\text { Illustrative Plan District } 74 \text { and vicinity }
$$



## (c) 2021 House District 117 (Exhibit AC-1)

165. In the same general area, another additional majority-Black House district can be drawn around where District 117 in the 2021 House Plan is drawn.

As shown in zoomed-in Figure 29A, displaying municipal boundaries, House
District 117 in the 2021 House Plan lies in the south Metro Atlanta area and
includes parts of Henry and Spalding Counties. The BVAP of the district as drawn is just under 37\%, and the BVAP of the neighboring district that includes the rest of Spalding County, District 134, is about 34\%.

Figure 29A

## 2021 House Plan District 117 and vicinity



## (d) Illustrative District 117 (Exhibit AC-2)

166. At least one additional majority-Black House District can be drawn in the area around 2021 House District 117 by unpacking the Black population in 2021 House District 116 (which includes part of Henry County just to the north, closer in to the center of the Metro Atlanta area) and uncracking the Black
populations in House Districts 117 and 134, bringing more of the growing Black populations in Henry and Spalding Counties into majority-Black districts. As demonstrated in Figure 29B, unpacking those districts allows for a majority-Black Illustrative House District 117 to be drawn in Henry and Spalding Counties.

Figure 29A
2021 House Plan District 117 and vicinity

167. Figures 29B and 29C (Exhibits AC-3 and AC-4) show the broader

South Metro Region, including House Districts 74 and 117, in both the 2021 House
Plan and the Illustrative Plan.

Figure 29B
South Metro Region under the 2021 House Plan


Figure 29C
South Metro Region under the Illustrative House Plan


## (2) Eastern Black Belt (Region B)

## (a) 2021 Plan Eastern Black Belt Districts (Exhibit AD-1)

168. As shown in Figure 30, an additional majority-Black House

District can also be drawn in the area in and around Augusta, including a number of Black Belt-area counties such as Baldwin, Wilkinson, and

Taliaferro that are not within majority-Black districts under the 2021 House Plan.

Figure 30
2021 House Plan District 133 and the eastern Black Belt

(b) Illustrative Plan District 133 (Exhibit AD-2)
169. As shown in Figure 31, in the 2021 House Plan, the area in and around

Augusta includes five majority-Black districts: Districts 129 and 130 (entirely within Richmond County), as well as Districts 128, 131, and 132. An additional majority-Black district can be drawn in the outlying area by unpacking the Black populations of those five majority-Black districts in the 2021 House Plan.

Figure 31

## Illustrative House Plan District 133 and vicinity


170. Looking at the Augusta region as a whole (Region B, outlined in red, plus adjacent counties), a sixth majority-Black district (Illustrative District 133) can be drawn in an area extending south-to-north from Wilkinson County to Baldwin County and on to Wilkes County.
171. Baldwin County is already split in the 2021 House Plan, but most of the

Black population in the county lives in Milledgeville and is submerged in majorityWhite 2021 House District 133.
172. The map in zoomed-in Figure 31B demonstrates that Baldwin County can be split in a reasonable fashion along VTD and municipal lines to include most of oddly-shaped Milledgeville in Illustrative District 133. (The municipal boundary of Milledgeville is shaded in the Figure 31B. As shown below, there are unincorporated parts of Baldwin County contained within the Milledgeville city limits, some which are not contiguous or barely contiguous with the rest of the municipality.)

Figure 31B
Illustrative House Plan Baldwin County Detail

173. The map in Figure 31C shows that Wilkes County can be divided following county commission and municipal lines in forming Illustrative House District 133. A single VTD that is partly in the City of Washington forms the remainder of the perimeter. All of the City of Washington is in Illustrative District 133.

Figure 31

## Illustrative House Plan Wilkes County Detail


174. To recap, the Illustrative Plan draws six majority-Black House districts in the Eastern Black Belt—House Districts 124, 125, 126, 127, 128, and 133where there are just five in the 2021 Plan.

## (3) Western Black Belt (Region C)

## (a) 2021 Plan District 171 (Exhibit AE-1)

175. An additional majority-Black House District can also be drawn in the area along the historic U.S. Highway 19 corridor between Albany and Thomasville-unpacking and uncracking the Black population in and around the two cities. As shown in Figure 32, the 2021 House Plan includes only two majority-Black House Districts in the same general area as 2021 Senate District 12 in the southwest corner of the state (depicted with black lines as Region C).

Figure 32
2021 Plan: District 151, 153, 171, 173 and Vicinity

176. The BVAP of 2021 House District 171, which contains Mitchell County, is about 40\%. In addition, the BVAP of neighboring 2021 House District 173, which includes Thomas County, is just over 36\%. And nearby Dougherty County, which contains the majority-Black City of Albany, is split among four districts in the 2021 House Plan-including 2021 House District 153, which is packed with Black voters (68\% BVAP).

## (b) Illustrative District 171 (Exhibit AE-2)

177. As shown in Figure 33, an additional majority-Black House District can be drawn in southwest Georgia by unpacking the Black population in 2021 House District 153 and uncracking the Black populations in 2021 House Districts 171 and 173. Unpacking those districts allows a majority-Black Illustrative House District 171 to be drawn in part of Dougherty, Mitchell, and Thomas Counties around where majority-Black 2021 Senate District 12 is drawn.

Figure 33
Illustrative House Plan District 171 and vicinity

178. In addition to creating an additional majority-Black House district in the western Black Belt, the district unites the areas that comprise the AlbanyThomasville corridor. This economic, cultural, and historical transportation corridor runs along the western division of the historic Dixie Highway from

Albany to Thomasville, and has been recognized by the Southwest Georgia Regional Commission. ${ }^{32}$
179. Moreover, the inclusion of Thomas County in majority-Black

Illustrative House District 171 adds part of a second majority-Black district to the band of Black Belt counties in Southwest Georgia that extend as far east as the City of Valdosta and Lowndes County, as depicted in the GBPI map in Figure 4, supra.

Majority-Black 2021 House District 177 in Valdosta is unchanged in the Illustrative Plan.
180. To recap, the Illustrative House Plan includes a third majority-Black district in the same general area as 2021 Senate District 12 in the southwest corner of the state, whereas the 2021 House Plan only includes two such districts.
(4) Metropolitan Macon (Region D)
(a) 2021 Plan (Exhibit AF-1)
181. An additional majority-Black district can also be drawn in the Macon area by unpacking the Black population in the two majority-Black districts-2021 House District 142 (59.5\% BVAP) and 2021 House District 143 (60.79\% BVAP).

[^34]182. As illustrated in Figure 34, under the 2021 House Plan, House District 145 includes parts of five different counties (Houston, Peach, Macon-Bibb, Crawford, and Monroe). The BVAP of 2021 House District 145 is $35.67 \%$. Under the 2021 House Plan, there are two majority-Black districts in counties comprising the combined Macon-Bibb Warner Robins MSAs, even though the Black population there is more than sufficient to support a third.

Figure 34
2021 House Plan Districts 142,143, 145 and vicinity


## (b) Illustrative House District 145 (Exhibit AF-2)

183. Under the Illustrative Plan, majority-Black House District 145 (50.2\%

BVAP) is anchored in Macon and combined with the southern part of Monroe
County, which is also split in the same general area in the 2021 House Plan.
Figure 35
Illustrative House District 145 and Vicinity


## C. Supplemental Plan Information

(1) Population Equality
184. As demonstrated by the district-by-district population statistics in

Exhibits AA-1 and Z-1, the Illustrative House Plan matches the 2021 Senate Plan
by staying within a stringent $1.5 \%$ population deviation limit for each district (i.e., no district is more than $1.5 \%$ away from ideal population size).

## (2) Compactness

185. Compactness scores for the Illustrative House Plan are within the norm.

Exhibit AG-1 contains compactness scores generated by Maptitude for all districts in the Illustrative House Plan, alongside scores for the 2015 Benchmark House Plan (Exhibit AG-2) and the 2021 House Plan (Exhibit AG-3).
186. The table in Figure 37 (condensed from the Exhibit AG series) reports Reock and Polsby-Popper scores for the Illustrative House Plan, alongside scores for the 2015 Benchmark House Plan and the 2021 House Plan.

Figure 36

> Compactness Scores Illustrative House Plan versus 2015 Benchmark and 2021 House Plans

|  | Reock |  |  | Polsby-Popper |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Mean | Low |  | Mean | Low |
| Illustrative House Plan | .39 | .16 |  | .27 | .11 |
| 2015 Benchmark House Plan | .39 | .13 |  | .27 | .09 |
| 2021 House Plan | .39 | .12 |  | .28 | .10 |

187. On balance, the Illustrative House Plan and 2021 House Plan score about the same on the widely referenced Reock and Polsby-Popper measures. If anything, the Illustrative Plan scores better inasmuch as its least compact district by Reock scores .16, compared to .12 for the 2021 House Plan.

## (3) Jurisdictional Splits

188. The Exhibit AH series contains Maptitude-generated reports for splits of key geographic areas in Georgia-from VTDs to regional commissions-under the Illustrative House Plan, the 2015 Benchmark Plan, and the 2021 House Plan.
189. The table in Figure 38 summarizes split counts for counties, 2020 VTDs, and municipalities. On balance, the Illustrative House Plan and the 2021 House Plan score about the same on county and VTD splits. The 2021 House Plan has a slight edge on municipal splits (although the Illustrative House Plan keeps more single-county municipalities whole).

Figure 37

## County and VTD splits/Whole Municipalities <br> Illustrative House Plan versus <br> 2015 Benchmark and 2021 House Plans

|  | Split Counties | Total County Splits* | $\begin{gathered} 2020 \\ \text { VTD } \\ \text { Splits* }^{*} \\ \hline \end{gathered}$ | SingleCounty Whole City/Towns (478)\# | Single and Multi County Whole City/ Towns (538)\# | Total <br> City/ <br> Town <br> Splits* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Illustrative House | 68 | 209 | 179 | 393 | 402 | 361 |
| 2015 Benchmark | 73 | 215 | 268 | 381 | 402 | 378 |
| 2021 House | 69 | 209 | 179 | 384 | 412 | 344 |

*Populated splits only
\# Higher is better
190. Exhibit AH-1 contains a county and VTD split report generated by

Maptitude for all districts in the Illustrative House Plan. Exhibit AH-2 reports for
the 2015 Benchmark House Plan and Exhibit AH-3 reports for the 2021 House Plan.
191. Exhibit AH-4 contains a split report for all 531 municipalities, including the 43 cities and towns that spill over into another county. See also Exhibit AH-5 reports for the 2015 Benchmark House Plan and Exhibit AH-6 reports for the 2021 House Plan.

## (4) Regional Splits

192. The table in Figure 39 shows summaries of Maptitude-generated regional splits, defined by the 12 state-designated regional commissions and the 39 federally-designated ("CBSAs"), which include MSAs and micropolitan areas.

Figure 38
Split Regional Commissions and CBSAs Illustrative House Plan versus 2014 Benchmark and 2021 House Plans

|  | Regional <br> Commission <br> Splits | Whole <br> CBSAs | CBSA <br> Splits |
| :--- | ---: | ---: | ---: |
| Illustrative House Plan | 223 | 10 | 218 |
| 2014 Benchmark House Plan | 220 | 8 | 217 |
| 2021 House Plan | 225 | 10 | 214 |

193. On balance, the Illustrative House Plan and 2021 Plan score about the same across the three regional categories.

## (5) Incumbents

194. The Illustrative House Plan modifies about half (92) of the districts as drawn in the 2021 House Plan.
195. Based on January 2022 incumbent address information given to Plaintiffs' attorneys by the Defendants in the form of a geocoded shapefile, the following seven districts in the Illustrative House Plan may have incumbent conflicts: $106,134,154,155,167,172$, and 176 . Based on the preliminary analysis of incumbent address information following the November 2022 general election pursuant to the 2021 House Plan, eight districts in the Illustrative House Plan may have incumbent conflicts: $65,118,134,147,155,167,171,172$.

## E. Comparative Socioeconomic Analysis

196. This section of my report briefly highlights charts and tables that I prepared from the 2015-2019 American Community Survey found on Exhibit CD or via: http://www.fairdata2000.com/ACS_2015_19/Georgia/.
197. The datasets available in these ACS-based documents facilitate comparisons by race/ethnicity across counties and communities under the Illustrative House Plan and the 2021 House Plan, which can help identify commonalities and communities of interest in the relevant areas.
198. For example, Illustrative House District 74 includes parts of Henry, Spalding, and Clayton Counties and Illustrative House District 117 includes parts of

Henry and Spalding Counties. The counties within Illustrative House Districts 74 and 117 share socioeconomic characteristics that make them similar to one another. As one example, and as noted supra with respect to Illustrative Senate District 28, a similar proportion of Black residents in Henry, Spalding, and Clayton counties are in the labor force ( $71.0 \%, 58.2 \%$, and $69.5 \%$ respectively). (See Exhibit CD Reports for Henry, Spalding, and Clayton Counties at pp. 53-55. ${ }^{33}$
199. In addition to being part of the eastern Black Belt region as discussed supra, counties within Illustrative House District 133 share socioeconomic characteristics that make them similar to one another. For example, a comparatively low proportion of Black residents in Illustrative District 133 counties have received a bachelor's degree or higher (ranging from $5.7 \%$ to $12.7 \%$ of the Black population ages 25 and over). (See Exhibit CD Reports for relevant counties at pp. 21-22.)
200. Illustrative House District 171 includes parts of Dougherty and Thomas Counties, and all of Mitchell County. Poverty rates are comparatively high for the Black population in all three counties. (See Exhibit CD Reports for Dougherty, Thomas, and Mitchell Counties at pp. 25-29.)

[^35]201. Illustrative House District 145 is in Macon-Bibb County and Monroe County. About $91 \%$ of all persons and $96 \%$ of Black persons in Illustrative House District 145 are Macon-Bibb residents. With the creation of a third Macon-centric district, Black voters in the consolidated city would potentially have a stronger voice in the State House to address shared socio-economic issues. For example, one-third of the Black population and nearly half (47.5\%) of Black children in Macon-Bibb live in poverty. By contrast, $11.6 \%$ of the White population in Macon-Bibb and $14.1 \%$ of White children in live in poverty. (See Exhibit CD Report for Macon-Bibb County at pp. 25-29.)

## E. Online Interactive Maps

202. The Illustrative House Plan can also be viewed online in detail on the Dave's Redistricting Application (DRA) website via the link below. https://davesredistricting.org/maps\#viewmap::b9272e37-d718-49e8-b07941f8331c9fa7.
203. For comparison, the 2021 House Plan can be viewed via this link. https://davesredistricting.org/join/40c422df-0e13-4933-b3bb-5c661a9fc565
\#\#\#

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

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

Executed on December 5, 2022.

$$
\frac{\text { Nilliand. Corpes }}{\text { WILLIAM S. COOPER }}
$$



$\square$ Page 54
(Recess.)
Q (By Mr. Tyson) All right.
A I remember one question that $I$ had meant to ask at the beginning. I'm just curious. It his being recorded other than the -- by the court reporter.
(Off-record discussion.)
Q (By Mr. Tyson) All right, Mr. Esselstyn, let's turn from your background into your work on this case. So $I$ wanted to ask you first, how first hear about the Grant case?

A I don't -- I'm not sure honestly. I'm not -- I'm not sure.

Q Do you recall who first reached out to you about participating in this case?

A Counsel.
Q Mr. Hawley or somebody else?
A I think the first contact may have been from somebody else.

Q Okay. And do you recall who that was?
A Olivia, I believe, is her first name.
Q And do you recall --
A I should -- I should remember her last name. But I'm sorry. I -- I'm blanking on the last name. Sedgwick. Sedgwick? Something like that. I
think Olivia Sedgwick.
Q Do you recall approximately when Ms.
Sedgwick reached out to you?
A The fall of 2021, I think.
Q Do you know if it was before or after the General Assembly had completed drawing its redistricting plans for the State House and State Senate?

A I believe it was before.
Q And do you recall when you were officially retained to serve as an expert in this case?

A I think also in the fall of 2021.
Q Was it shortly after Ms. Sedgwick reached out to you?

A I'm -- so I'm not -- I'm not sure. I -I think -- I don't know if this is -- I had had conversations with Ms. Sedgwick about other cases, and so $I$ think the time between our talking about this case and my having been retained may be --

When you say -- your question was relatively short time?

Q Yes.
A Yeah. Less than a month.
Q If you were just to put into your own
enacted plans.
A Yes.
Q Now, the -- just also to kind of cabin where we are, as I count you've drawn two illustrative State House plans and two illustrative State Senate plans. One House and Senate plan each were included with your PI report, and then one each of the illustrative plans for House and Senate were included with your December 5th report, is that right?

A Yes.
Q In terms of the maps that you've drawn for this case, is it fair to say that your goal for all of the plans you draw was to increase the name of majority Black districts over the number drawn by the General Assembly in Georgia?

A I would say I would not characterize it that way.

Q Okay. What would you characterize as your goal then in drawing the illustrative plans in this case?

A I would say it was to ascertain whether additional majority Black districts could be drawn while also keeping -- complying with the traditional redistricting guidelines, principles,
criterial.
Q Were the three additional State Senate districts that are majority Black on the illustrative plan the most additional majority Black districts you drew for Georgia State Senate plans?

MR. HAWLEY: Objection to the extent that this implicates protected draft maps and draft reports. Mr. Esselstyn, you can respond to the extent that it doesn't implicate any draft reports or maps you prepared in this litigation.

A The answer is no.
Q And you have not submitted any plans in this case that draws more than three additional majority Black districts for the State Senate in Georgia, right?

A Correct.
Q And so the same caveat Mr. Hawley mentioned for State House. Have you drawn any plans for the State House in Georgia that have more than five additional majority Black districts over that enacted by the General Assembly?

A No.
Q And in this case you have not submitted any plans that draw more majority Black districts on
the State House than five, correct?
A Correct.
Q Prior to your work in this case, had you ever drawn statewide legislative plans for any state?

A Probably not.
Q You don't recall today?
A Not that $I$ recall. No, I don't think so.

Q So just a few more things before we get into some maps, which $I$ know is the main reason why we're here today. I just wanted to get some additional terminology down. You've used the term majority Black district in your work in redistricting, right?

A (Nodding.)
Q Is that a yes?
A I'm sorry. Yes. Yes.
Q And what is the definition that you use of a majority Black district?

A I'm going to reference my report because I believe it's spelled out in either the text of the body of the report or in footnotes. There are kind of two pieces of it, and one is -- I'm looking at Page 8.
to for majority black. So majority Black on total population, majority Black on voting age population, majority black on non-Hispanic black population or any part black population. Do you recall that?

A Yes.
Q But in all of those cases the black population being referenced, whichever particular field it is, is over 50 percent, right?

A If I were referring to a majority black instance.

Q What about the term -- I'm sorry.
A I -- I would say yes in -- if there were a majority black instance, $I$ agree.

Q And so next $I$ want to ask you about the term majority minority district. Is that a term that you use in your redistricting work?

A I imagine that $I$ have. I -- I, you know, earlier today it was in one of the blog posts that we looked at.

Q So is my majority minority district the same definition in your mind as a majority black district?

A No.
Q And what is the -- what is a majority minority district in your usage then?

A Typically $I$ would say it is taking count of the population that does not identify as single race, non-Hispanic white and classifying those persons as minority.

And so a majority minority district or administrative region, census region, whatever collection of people that I might be characterizing as majority minority would be over 50 percent coming from that group $I$ described earlier.

Q So it would be fair to say that a majority minority district in your reference would be a district where the single race non-Hispanic white number is 50 percent, is that right?

A Yes. And now that we've talked about this a little more, $I$ know there -- because of the different ways that the Census Bureau classifies folks and the way that some software works or just the way that some clients, some audiences think more about race than ethnicity, and historically ethnicity wasn't consider as much of this picture, there are some times when is it just considering race and not ethnicity.

So that would be a slightly
different take on a similar situation.
Q And I understand what you mean by that,
drawing a plan, right?
A I would say at some level, yes.
Q When you're drawing redistricting plans for jurisdictions like the 16 North Carolina earlier, do you use the features of the software that you referenced to display racial information while you're drawing those maps.

A I'm literally thinking back to my process. Not certainly. Not always. I can think of some where $I$ did not or at least -- yeah, at least one where I didn't. The -- and there's sort of a distinction that -- in the software $I$ was using.

The columns you specify at the beginning of the process are going to be the columns that get exported when you provide a table -- a summary table of the demographics.

So -- but I -- I am quite certain that there are multiple cases where $I$ was not looking at race when $I$ was drawing the redistricting plans.

Q And when you were drawing the
illustrative plans in this case, at any point did you display racial information of the underlying geography on your screen?

A Yes.

Q And what kind of racial information would you display while you were drawing the illustrative plans?

A For the underlying geography, I would -it would be the black percentage of the population meaning the -- any part black voting age percent.

Q And did you use a theme or a shading of precincts or counties to look at that any part black population while you were drawing?

A I think so. I think that I -- I think that I may have. I'm not a hundred percent sure, but $I$ think that $I$ may have, yes.

Q And did you utilize that display of racial information about the underlying geography while you were drawing the illustrative plans for House and Senate?

A The shading?
Q Yes.
A I'm not totally sure.
Q Did you utilize any of the racial information that you displayed on the screen while you were drawing the illustrative plans to inform the decisions you made about which parts of districts went in and out of a particular districts?

A Yes.

Q Did you turn on racial shading or features to determine where black voters were located as part of your initial process of deciding where to begin?

A I don't recall. Maybe.
Q I'm assuming you focused on areas where were higher concentrations of black voters in terms of looking for where new districts could be drawn, right?

A Yes.
Q So at the end of Paragraph 13 you have this phrase, in accordance with traditional redistricting principles. What does that phrase mean in the context of Paragraph 13?

A That phrase is mostly referencing the other guidelines that were adopted by the two chambers in the General Assembly. And I would say that the guidelines that the chambers adopted are fairly typical of the types of guidelines that are used traditionally in other jurisdictions.

Q So when you're using the phrase traditional redistricting principles there, you're referring to the principles outlined in the Georgia General Assembly's guidelines involving redistricting?
example, in Paragraph 15 -- yes. Yes. I think the answer to your question is yes.

Q Okay. And in Footnote 4 of the last part of that you say that you -- it is your understanding that the alone or in combination designation is the appropriate measure for most Voting Rights Act Section 2 consideration. Do you see that?

A Yes.
Q What is the basis for that understanding that you have?

A Conversations with attorneys over the years and probably sessions at conferences and things like that and stuff $I$ read just -- things I've learned, as $I$ said, either from conversations, presentations, reading. I can't point to one specific source.

Q Great. And in Paragraph 17 you note that the any part black voting age population in Georgia went up by 2 percentage points from 2010 to 2020, right?

A Could you repeat the question, please?
Q Yes. In Paragraph 17 --
A Yep.
Q -- you note that the black voting age
population in Georgia increased by 2 points between 2010 and 2020 , right?

A The percentage, yes. The proportion of the population, yes.

Q So moving to the next section. You talk about the geographic distribution of the black population in Georgia. And the way $I$-- the way $I$ read this, and $I$ want to make sure $I$ have this right is, it sounds like you're saying that are generally two primary location for black individuals in Georgia. One is metro Atlanta and the other is the, as you call it, the so-called Black Belt, right?

A Correct.
Q So why do you have so-called in front of Black Belt in Paragraph 19?

A That's a good question. I'm just re-reading the sentence with those two words or that hyphenated expression removed.

I guess I just used that modifier to indicate that this is a term that people use. It may not be familiar to every reader of the document and sort of to say that this is a -- I think it has been given a name that is sort of fairly common in people talking about geography or demography of the state.
$\square$ Page 141

A And, yeah, if you can just be able to refer back to that wording as we -- as we go to another exhibit because, again, $I$ just wanted to make sure $I$ understand the just kind of mathematical relationship you're describing.

Q Certainly. We're going to look at a chart.

A Okay.
Q I just introduced Exhibit Number 9, which is Mr. Morgan's report in this case.

A Yep.
Q And I'd like for us to go to Page number
17. Let me know when you're there.

A 17, yes.
Q And I believe you said you reviewed Mr. Morgan's report as part of your preparation for this deposition.

A Yes.
Q So on page 17 there's a chart for -that has each of the five-county split with a portion in District 23 and outside of District 23. Do you see that?

A Yes.
Q And in each case the portion of the county in District Senate 23 has a higher AP Black

VAP percentage in the portion outside of Senate District 23 on the illustrative plan, right?

A Yes.
Q And were you aware that -- I think you said you weren't -- that every county split you made in Senate District 23 had this type of racial differentiation on the population?

A Okay. I misunderstood your question. I thought you were talking about the -- you said something about the highest concentration, and $I$ thought you were saying that $I$ had somehow selected the highest concentration possible in isolating one section of a county from the other section.

You used that superlative term highest, and I thought you were saying that I had taken -like if $I$ was taking precincts, that there's no other combination of precincts that $I$ could have taken that would have been higher than what $I$ took.

So that's what I understood. And that's why $I$ wanted to maybe refer back to the way you had asked the question.

So, yes, I have looked at this chart. There is something that $I$ don't agree with in terms of Mr. Morgan's characterization here. In the preceding paragraph he says that $I$ took the lion's
illustrative plan, is that right?
A The discussion of the communities in Columbia County that were largely inhabited by people with a connection to Fort Gordon is something I partially learned from the public comment from the -- I believe it was actually in Columbia County. That hearing was held in Columbia County, I think. If not, it was northern Richmond County.

That's more to do, I guess you could say, with the configuration of District 22 than 23. So I did learn about some of the concerns in that area, but $I$ did not -- I don't remember hearing a comment that specifically would have, you know, been consistent with the choice $I$ made in drawing Senate District 23.

And you -- the other one you said was 17?

Q Yes.
A Yeah. I don't remember one related to 17 as well. I'm just looking at it on Figure 5 now to see if jobs my memory.

I'm sorry. That was a no, I don't.
Q And again, you didn't watch videos of public comment or read transcripts of it -- of those comments until you had drawn the illustrative plan,
is that right?
A So -- after I'd drawn the first
illustrative plan. So the area in Bibb County did not change from the PI plan to the December '22 plan. Baldwin County did change a little bit. So my review of the comments and such was in late 2022 .

Q Thank you. We've been going about an hour and half and I'm going to move to District 25. Do you want to take a break at this point, Mr. Esselstyn?

A Sure. Sounds good. MR. TYSON: We can go off the record. (Recess.)

Q (By Mr. Tyson) All right, Mr. Esselstyn. I want to turn next to Senate District 25 , which is on Figure 6, Page 13 of your report. Do you see that?

A Yes.
Q And looking at Senate District 25 as drawn on the illustrative plan, it includes portions of Clayton County and portions of Henry County, right?

A That's correct.
Q So in terms of the decision to connect this part of Clayton with Henry County, can you tell
me what factors went into putting those two counties together in District 25?

A I'm trying to recall. Again, this is one that $I$ did not -- I altered part of Fayette County for the December 2022 plan but did not change the orientation or the alignment of District 25.

Let me look back at what it looked like under the enacted plan.

Yeah, I don't recall specific reasons other than the kind of trial and error, as I mentioned, that a lot of this is kind of iterative in. I would have maybe looked at different possibilities, and this one seemed to be the best combination.

Q Okay. And creating District 25 where you have -- I know we talked earlier about District 10 that runs down that eastern side of Henry County to Butts County.

A Yes.
Q Do you see that? Are you aware of the racial makeup of the components of Districts 10 , the different counties that you included in District 10?

A I'm sorry. Could you ask the -- repeat the question? And I aware --

Q Sure.
what the plan components report is for Maptitude?
A Yes. So this goes district by district, and for each district it provides the portions of, in this case, counties that comprise that district and some statistics related to that.

Q So if we go down to Page 24. That's the beginning at the bottom of the page there, District 10 onto Page 25. Do you see that?

A Yes.
Q And looking at the voting age -- the black voting age population percentage of the portion of each county included in Districts 10, you'd agree that on Black voting age population only DeKalb County is a majority black voting population for the portion in Districts 10 , right?

A I'm just -- so this column says AP black which $I$ presume means any part black. And it's not clear whether it is the --

Oh, I see. You've got -- and then -- my bad. The voting age population is indicated there. So I need to look at that part.

Yes. So Rockdale -- the total population is majority any part black but not a voting age population.

Q And so you'd agree that the only county
portion on this report with a majority black voting age population is DeKalb County in District 10, right?

A Yes.
Q And from our conversation earlier, you're not able to identify any communities of interest between south DeKalb County and Butts County in Districts 10 , right?

A Correct.
Q Let's move on your report over to District 28. And that's on Page 14 of your report. And this is an additional district in southwestern metro Atlanta that you included as a new majority black district, correct?

A I'm just getting there. Yes. Correct.
Q And this district connects parts of Clayton County with north Fayette, south Fulton and Coweta County down into Newnan, right?

A Yes.
Q Would you consider Coweta County to be a more rural or a more urban county?

A More -- it's more rural than the other three counties that you mentioned.

Q And Clayton County is a fairly urban county, isn't it?

A I believe so.
Q So can you tell me about anything the geography encompassed on this Senate District 28 has in common besides the racial makeup of the people in it?

A So again, when I'm looking at communities of interest and the communities of interest principle, I'm not trying to make sure that every piece of a district has some unifying factor. So I will say $I$ remember, for example, that the shape of the part that goes down into Coweta is trying to keep most of -- it's either Newton or Newman.

Q Newnan, yes.
A Newnan. Thank you.
-- keep most of that in one district.
So that was an example. That's kind of the -- in thinking about communities of interest trying not to, you know, cut that community in half. So that was a consideration.

But as far as trying to ensure that every -- every corner has something in common with every other corner, that was not part of my calculous.

Q And you'd agree that Newnan was whole on
the enacted Senate plan in 28 as well, right, because Coweta was whole as a county?

A I think that's right. Just let me quickly check Figure 3.

Yes. But $I$ think that Douglas County was divided. I may be getting this confused with the House plan. But $I$ believe that Douglas County was divided in the enacted plan but is made whole in the illustrative plan.

Q Which one? Douglas County?
A I think so.
Q Okay. And in the illustrative plan, District 35 you know makes Douglas whole but it also connects portions of Fulton County with parts of south Paulding County, right?

A Right.
Q Do you know the racial makeup of that part of south Paulding County?

A No. I mean do $I$ know? I don't know it off the top of my head. There are -- probably one of the exhibits we could look at would give me a clue but -- or a better informed answer.

Q Okay. Were you aware of any connections between Paulding County and Fulton County when you configured illustrative District 35 this way?
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A I believe that some of the definitions of metro Atlanta include Paulding County. And so in that sense they would be considered generally part of metro Atlanta. I think there was one of the witnesses at the PI stage kind of testified about how, you know, parts of southwest metro Atlanta or western metro Atlanta would have shared concerns, be they about traffic or development or that kind of thing.

That is reasonable to think of that as being a community -- the metro Atlanta community and, you know, some slice of the metro Atlanta community.

Q Let's move to the comparative characteristics for the Senate plan. I know we've talked about some of this already. What I want to do is go through a little bit more detail on some of these specifically. So first on the population equality number.

A Yes.
Q You would agree with me that the deviation range on the illustrative plan -- or rather $I$ should say the total deviation on the illustrative plan is almost double the deviation range used on the enacted Senate plan, right?



56 districts, not just the ones that were changed, right?

A Right.
Q And you didn't run a compactness score report only for the districts that were changed to compare those with the enacted plan; correct?

A Correct.
Q Do you know if the districts that you changed on the illustrative plan from the enacted plan are more or less compact as a whole than the enacted plan?

A So compactness depends on which metric you just. You know, some -- some districts can be more compact based on one metric and less compact on another. So, again, repeating the question was whether $I$ know whether the districts $I$ changed were on the whole more compact or less compact?

Q Yes.
A I don't -- I don't know. I can guess, but $I$ don't think $I$ can say with certainty.

Q So let's look at Figure 8. Can you just explain to me what Figure 8 shows?

A Yes. So Figure 8 is a series of sorted bar charts basically, and for the four measures, compactness measures, that can be applied to
individual districts, the four that $I$ reference in the previous page, Reock, Schwartzberg, Polsby-Popper and Area/Convex Hull, what it does is take the compactness scores for the enacted plan and put them in order from most compact to least compact, left to right.

And then specifically for the districts that are additional majority black districts in the illustrative plan, it places those basically within this sorted order so that you can see how the compactness -- the various compactness stores for those three districts kind of compares to the distribution of compactness scores for the entirety of the enacted plan.

Q So the only illustrative plan districts that are included on Figure 8 are the colored lines, the white or the grayish lines are enacted plan districts, is that right?

A That's write.
Q So you didn't score, for example, Senate Districts 20 or Senate District 17 on the illustrative plan as part of Figure 8, right?

A Right.
Q Let's like next at Paragraph 39, county splits. And you'd agree that the illustrative plan
splits more counties than the enacted plan; correct?
A Correct.
Q And it splits more precincts than the enacted plan, right?

A Correct. Yes.
Q And so how did you determine the illustrative plan complies with the legislative principle about boundaries of counties and precincts it splits more counties and VTDs than the enacted plan?

A So the -- so the language of the guideline adopted in this case by the Senate is not explicit. It just says that the boundaries of counties and precincts should be considered. And I mentioned that in the first sentence of Paragraph 39. The following sentence says that typically that's taken to mean that counties should be kept intact to the extent possible.

Another consideration that $I$ have seen and sometimes one of the -- one of the reports that you can generate in Maptitude shows not only the county divisions but the number of people in each portion of the county in a split county.

So one thing -- and this came up, I think, during our conversation in the PI phase was
offering any opinions about whether these particular districts will elect candidates of choice in the black community. You're just drawing the districts as majority black districts; right?

A Correct.
Q And looking at District 77 and District 86 on Table 5, those districts are 76.13 percent and 75.05 percent black VAP respectively. Do you consider those districts to be packed districts with Black voters?

A Again, you know, $I$ probably spend a couple of minutes answering the question when you asked a similar question about one of the Senate districts in the metro Atlanta area.

And again, I'll say that in my -- the way that $I$ would typically define packed has to do with trying to disadvantage a group or focusing on one aspect of the demographics or the political makeup while ignoring other considerations.

That was not my -- how $I$ was operating. So I hesitate to characterize these as packed. If someone wanted to say that they were accidentally configured so as to have high concentrations of the black voting age population, yeah. They're just -packed is a loaded term.

Q And not to keep beating a dead horse on this one, but when you say packed is a loaded term, what do you mean, loaded term? I'm not sure I've heard you use that up to this point.

A It's often used in conjunction with maps that have been found to be gerrymandering, racial gerrymandering or partisan gerrymandering.

So I hesitate to characterize districts in a plan that $I$ drew as packed because, as I said, that often has associations with plans that were drawn to disadvantage a group or to focus exclusively or primarily on, you know, one -- one factor at the expense of others.

Q So looking back at Figure 13, the locations of the new majority black districts you've drawn --

A Yeah.
Q -- you didn't draw any new majority black districts in southwest Georgia, right?

A That's right.
Q And you didn't draw any new majority black districts for the House plan over in east Georgia toward Augusta, right?

A That's right.
Q So in terms of where these districts are

A Yeah.
Q And in the House plan here Douglas County is divided to allow District 64 to connect these pieces of Fulton and south Paulding, right?

A Yeah. I mean, if we were to look back at how it was -- it's hard to see in Figure 12. But I might say that there is a portion of Douglas County included in the district which serves as a connection between Fulton and Paulding Counties, the portions in Fulton and Paulding Counties.

And this is an example of -- the smaller population size of these districts means that $I$ don't think $I$ could have kept Douglas County whole because, as I recall, its population is around 145,000 people and these districts are 60,000 , so --

Q And aside from being in the Atlanta metro area, as you identified, for connecting parts of Fulton and Paulding in the Senate plan, is there anything else you can identify -- a community that's kept whole in Senate District -- I mean, House District 64?

A Not that $I$ can recall. There -- not that $I$ can recall.

Q So let's move over to south Metro, Paragraph 50. And here we have two districts.

First District 74 that connects portions of Clayton with portions of Fayette, is that right?

A Yes.
Q Do you know if the portion of Fayette in that district is majority black?

A I don't.
Q Would it surprise you if it was 16.01 AP black VAP in Fayette County in District 74?

A That's lower than $I$ would expect. But I -- I don't know that it wouldn't surprise me.

Q Do you consider the south part of Fayette County to be a rural area?

A I don't have an opinion on that.
Q Okay. And so can you identify any communities that are kept whole in House District $74 ?$

A None that $I$ can recall there. I think -- is this the one where we talked about Irondale? I -- I believe there were -- in the area in Clayton County, I believe it was a census-designated place, maybe not an incorporated one, but $I$ have a, again, somewhat hazy recollection that there is a community that this was drawn to keep mostly intact.

Q Okay. Do you recall if that census-designated place was in Clayton or Fayette

County?
A Not with certainty.
Q Are you aware of any other reason to connect Clayton and Fayette Counties the way District 74 does on the illustrative plan?

A I'm just seeing if looking at the enacted arrangement will jog my memory. Yeah, it's been -- it's been a while since I -- this is not one of the areas that I changed for the December 2022 plan, so it's far enough back that $I$ don't have a recollection.

Q Okay. And moving over, you also changed House District 78 on the way to 116 and 117 , right?

A Are you just saying on the way to 116 and 117 as a -- just sort of a geographic --

Q I'm sorry. I'm moving from west to east. So the next district to the east is District 78, is that right?

A Yes, and 78 changed. I just wasn't sure if you were saying that $I$ changed it on the way, if it -- if "on the way" was modifying my action of changing it.

Okay. I'm -- yes, I'm pretty certain that 78 was changed as well.

Q Okay. And do you have an opinion about
whether the part of 78 that's in Spalding County is a rural of Georgia?

A I would have to look to say with any kind of confidence. I -- and there's no one definition of rural, but -- so I'm -- I don't have an opinion.

Q And it appears from the boundaries here that the city of Griffin is not in District 78. Do you recall whether you included the city of Griffin in that district or not?

A I don't recall.
Q And District 117 -- or actually, I'm sorry. Let's do District 116, the next district to the east. And it crosses over the interstate. Do you recall the conversation we had at the $P I$ hearing about 116 crossing the interstate?

A I do, yes. Not super clearly, but I do remember that was a topic of conversation.

Q And District 116 includes a small portion of Clayton County in that district, right?

A Yes.
Q And then one more district to the west, District 117, the new district and you've identified as whole in Henry County, right?

A That's right.

Q And you don't know because you didn't look at political data if Districts 117 and 74 currently have Republican incumbents?

A I did not.
Q Is there any community you can identify in District 117 that is being kept whole in its configuration on the illustrative plan?

A Not with the information $I$ have in front of me or based on memory, but there may be some. I just -- I don't have -- as I said, not based on what I have in my mind or in front of me.

Q Who would you need to have to determine that?

A Maps of things like incorporated areas or census-designated places, other campus-type things, whether they are educational institutions or military facilities, that sort of thing, other parks, those -- those kinds of communities of interest that have clearly defined boundaries as opposed to the kind that --

Well, that would be a layer, if they were also a layer of kind of community -- defined communities, that would be another thing I could look at and specify.

Perhaps minority groups, if -- sometimes
there might be a smaller pocket of one of the less populous minority groups, for example, major employers. There are a lot of things that people consider communities of interest.

Q But you didn't list any communities that you considered to keep whole in District 117 in your report, right?

A That's correct.
Q Let move down to Macon and take a look at this area.

A Okay.
Q So in Paragraph 51 you reference a comment from Ms. Wright, the director of the General Assembly's reapportionment office -- excuse me -about this area being a community of interest. Do you see that?

A Yes.
Q And specifically were you referring to the connection between Macon-Bibb and counties surrounding it or Macon-Bibb and Twiggs and Wilkinson particularly?

A The -- Twiggs and Wilkinson Counties are what she identified as a -- constituting a single community of interest.

Q And that was in reference to the way
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Q And was this also a public comment that you located after you drawn Districts 145 and 149 in at least the PI plan in 2021?

A Yes.
Q You say in the language --
A Again, I'm sorry -- yes, that particular comment was identified after -- afterwards, yes.

Q In Paragraph 51 you also state the orientation of Districts 142 and 143 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 McGriff, right?

A Yes.
Q And District 149, as you've configured it, puts portions of south Macon into a district within more rural neighboring counties like Twiggs and Wilkinson, right?

A Yes.
Q What was the basis for choosing to push south Macon districts into more rural neighboring counties while -- and not placing northern Macon districts into more rural neighboring counties?

A Can you say the final part of your question again? What was the decision? What was
the --
Q What was the reason for why you followed this public comment that you've cited for Districts 142 and 143 but not for District 149?

A So the public, as I recall, was specifically about northern Macon-Bibb County and specifically mentioned, $I$ believe, Monroe County. So that -- in that sense, this person was specifically talking about that portion of Macon-Bibb County.

And then -- so you could say that it didn't really apply to south Macon-Bibb County. That's -- that's not what the commenter was talking about.

And then as far as the reason, I think I gave a similar answer before and it's -- I don't feel comfortable specifying a reason for any decision. There are a multitude of reasons, and it's a part of this multi-layered puzzle with lots of considerations and so on.

Q And just so I understand, I mean, these -- you'd agree all these districts centered on Macon are all very close to 50 percent majority black, right?

A They're all close to 50 percent, yes.
adjust the split in Baldwin County, is that right?
A I apologize. But if you could repeat the question.

Q Sure. Looking at Figure 13 of your PI report, which had District 149 --

A Yeah.
Q -- and comparing that to Figure 16 of your $12 / 5$ report, it appears to pierce me the only change in this area was adjusting the split of Baldwin County in District 149 in the $12 / 5$ plan. I that correct?

A There's actually a tiny change or two changes really between Districts 145 and 147. So when you say "in this area," the area shown in Figure 13 does include a small change between 145 and 147, which was done to prevent the pairing of incumbents.

Q Okay. But you agree that you changed the split of Baldwin County between the PI plan and the $12 / 5$ report in District 149 , right?

A Yes. Yes. Yes. But it's not the only -- yeah. And just to be clear, there were -when you say "the split," there are three districts that were affected. One in a very tiny way. It was a change of five people, but it actually meant that
the -- I think that's District 128 to the northeast of 149 -- was not changed.

So -- well, when $I$ say was not changed, it was changed from my PI plan to my December 2022 plan in such a way that the district in the December 2022 plan is identical to the way it is in the enacted plan.

I probably could have described that more succinctly. But -- and that would be very hard to see in Figure 13 or comparing Figure 13 in the older document versus the Figure 16.

Q And you identify the connection between Milledgeville and Macon as -- or, actually, I'm sorry. You identify District 149 as generally following the orientation of the Georgia fall line geological feature, is that right? In paragraph 52.

A So I'm going back. That sounds right. I just want to see it before agreeing.

Yes.
Q You'd agree that Augusta is also part of the Georgia fall line, right?

A Yes.
Q And the Columbus is also on the fall line?

A Yes.
division, that -- those relationships, if you will.
Q Looking at District 145, did you make any changes aside from the change to -- between 145 and 147 between the PI plan and the December 5th report?

A I did not.
Q So let's move to the comparative characteristics of the House plan. And you'd agree that the total deviation of the illustrative House plan is higher than the total deviation on the enacted House plan, is that right?

A So the total deviation $I$ would need to look at the -- I'm pretty sure it's the case, but I don't want to reply with certainty.

Q Attachment L?
A Okay. Thank you.
Q I think it's Page 134.
A Yes. Okay. Total deviation, yes.
Q So you'd agree the illustrative plan total deviation is higher than the enacted plan?

A Yes.
Q And it's more than a point higher from 2.74 to 3.85 , right?

A That's right.
Q And you didn't include that total
deviation number in your written report, just in the exhibits, right?

A That's right.
Q Is the way that you determined that the illustrative plan complied with the traditional principle of population equality for the House the same as the methods you used for making that determination for the Senate illustrative plan?

A I think generally, yes.
Q In paragraph 57 you talk about compactness. And we, again, have the average scores for four of the five metrics and then a cut edge score. Would you expect average compaction scores to be the same if 155 of the 180 districts on a plan are the same?

A No. I mean, it could be. But --
Q Okay.
A -- that's saying that --
Q Okay. So you didn't break out the compactness scores for the 25 districts that you changed. You only reported here in Table 6 the average for all 180 districts for four of those five measures, and then over on Table 7 the scores for just the new majority black districts, right?

A That's right. In the text of the
report. But the -- the attachments include compactness scores for all the districts in both enacted and illustrative as well as other summary and metrics.

Q And was your method of determining that the plan complied with the traditional principle of compactness generally the same process for the House illustrative plan as for the Senate Illustrative plan?

A Yes.
Q And for Figure 17, like the Senate, these charts -- the only districts on these four charts that are from the illustrative plan are the colored lines. And the gray lines are districts on the enacted plan, right?

A That's right.
I'm sorry. If you -- if you wouldn't mind repeating that question again. I just tuned out for a moment.

Q Sure. In Figure 17, the --
A Yes.
Q -- in all four charts the only districts from the illustrative plan on those charts are the colored lines. The gray lines refer or are districts on the enacted plan, right?

A That's right.
Q And in Table 7 when you reported the various compactness scores for the new majority black districts, you didn't show the compactness scores for the enacted plan districts that correspond to those districts, right?

A That's right.
Q And in Paragraph 59, Table 8, you'd agree that the illustrative plan -- I'm sorry.

A Just a second. When you say the districts that correspond, meaning the districts that have the same number?

Q Either the districts that have the same number or that are in the same general geographic area. You didn't report either of those compactness scores, right?

A Yes. Right.
Q In Paragraph 59, Table 8, you'd agree that the illustrative plan splits one more county and one more VTD in the enacted plan, right?

A Yes.
Q Then in Paragraph 60 we get to communities of interest, and $I$ see again a reference to the two campuses of Georgia College and the central community of Milledgeville. Are there are


A That's correct.
Q And did you -- I'm sorry?
A When I say available, I mean, I could have downloaded it. It's not like it's unavailable data. I did not use it. I didn't have it installed on my computer. I didn't consider it at all.

Q Thank you. Did you ever use Maptitude features or labels that would display racial data about different levels of geography in Georgia when you were working on your illustrative plans?

A Yes.
Q Mr. Hawley asked you about sacrificing traditional redistricting principles for packing. Do you recall those questions?

A Yes.
Q What -- what do you mean by packing would involve sacrificing traditional redistricting principles. I'm not sure I followed that conversation.

A Okay. And I think I said something about typically or generally. A lot of the famous examples of packed districts or cracked districts -so we talked about North Carolina 12 before. That was not a compact district. It split all kinds of political subdivisions.

point, but $I$ don't recall a specific e-mail with him.
Q The same reasons why you didn't really e-mail the Congressional map?

A Yes.

Q Okay. Do you -- did -- I think you told me that Chairman Kennedy provided you with specific instructions about how the lines of the map should be drawn?

A Say that one more time. I'm sorry.
Q Sure.

Did Chairman Kennedy provide you with specific instructions about how the lines of the state senate map should be drawn?

A No.

Q Did you receive any specific instructions about how the lines of the State Senate map should be drawn?

A Initially, no.
Q How did you make a determination about how to draw the lines for the state Senate map?

A That was a -- basically a -- call it a blind map, but it was a map, just a starting point map to address the population changes in the state and make adjustments to the districts as they were, to try and have a starting point, a discussion map to -- to start with.
you about Mr. Tyson's role?
A I believe so.
Q So Mr. Kennedy -- pardon me. Chairman Kennedy sees the blind map, and then what happens? Does he direct you to make changes to it?

A That being a starting point map, then yes, we began to work within it to make adjustments for whatever requests people wanted to try and modify the map, however he wanted to try to best accommodate requests and things that were brought to him.

Q And you had a lot of conversations with him?
A Yes.
Q A lot of conversations about modifying the blind map?

A We did have conversations about modifying it, yes.

Q Were those conversations ever in person?
A Yes.
Q Were they mostly in person?
A Yes.
Q When you had those conversations, was the map projected onto a screen?

A Not necessarily.
Q But sometimes?
A Sometimes.

Q When you had the conversations when the map was projected onto the screen, was it within Maptitude?

A If I'm looking at the map, it would have been in Maptitude.

Q Okay. And you know how to use Maptitude?
A Yes.
Q Was data projected onto the screen?
A Sometimes it may have been. Not all the time.
Q Why would you look at a map without any data related to it?

A You are just reviewing the geography. You wouldn't necessarily be looking at the data. You are looking at the composition of districts, the counties, precincts and things.

Q When data was projected onto the screen, what type of data was it?

A Typically, our data would include the total population, the deviation, the percent deviation, voting age population. Most of the fields that you see on our population summary reports would be also included on there, as well as political data.

Q I recall that there's data related to the race of the population on those summary reports.

A Correct.
Q Was data related to the race of the populations
projected onto the screen?

A It could have been sometimes.

Q Most of the time?

A Most of the time. We usually projected all the race data that we would use on the reports, as well as the political data that they were reviewing. So both together.

Q Was that data relevant to you making -- I'll rephrase.

Did Chairman Kennedy consider that data when making instructions about how to draw the lines?

A I would assume he did. I don't know what Chairman Kennedy considered.

Q Was it sort of a collaborative conversation or was it really just Chairman Kennedy giving you instructions and you following them?

A Can you explain what you mean by that?
Q Yeah. I can imagine that Chairman Kennedy told you you need to move this line in southeast Georgia and then you did it. Or Chairman Kennedy could say, what would happen if $I$ moved -- you moved this line in southeast Georgia? You could say, well, Chairman, this or that.

A I'd say it's more like the second scenario.
Q Okay. What type of questions did he ask you?

Kennedy, Mr. Tyson and Ms. Paradise and other senators?
A The changes, $I$ think, came at the request of the senator, and then Chairman Kennedy authorized to try and see if we could do what he had requested.

Q At the request of the senator, what senator are you referring to?

A Senator Rhett.
Q So there was the map that was published first?
A Uh-huh.

Q And then Senator Rhett requested changes?
A Uh-huh.

Q And as a consequence of that, you made changes?

A Yes.

Q And then another map was published?

A Yes.

Q Were there any other changes requested?
A I cannot recall. That one stands out. I
remember doing that one. I don't recall if there were others in that draft.

Q Why does it stand out?

A I have drawn a lot of maps, so...
Q Yeah. So why does that one stand out?

A Because in committee, I remember there was discussion over the change, that that was in the committee meeting, so that one sticks out. That may have
been the only one that went into that final version because other -- other changes might have gone into the other version, the first presented version before we got to that, but there were members, you know, putting changes in.

That one just jumps out at me. That may have been the only one that went into that last version.

Q Did you speak with anyone else in addition to the people you referred to for any reason about the state Senate map?

A I probably spoke with a lot of senators regarding that map.

Q Right. Right. Okay.

A So I don't want to list all 56 of the members --

Q Yeah.

A -- that were here then, but I spoke with a lot of members at that point, from the time -- especially when the map was made public, those that requested things.

Q Did you speak with anyone in the House about drawing the State Senate map?

A I don't think so.

Q Did you speak with anyone outside of the General Assembly about drawing the State Senate map?
look like?

A There was a lot of input everywhere.
Q And it was hard to look at all of it?

A Yes.
Q Right. You weren't able to look at all of it?
A I looked at a lot of it but not all of it.
Q Yeah. There was a lot you didn't look at?
A I don't know that I'd say there was a lot $I$ didn't look at.

Q Okay.
A But $I$ did watch or attend every public hearing.
Q Okay. We have just been talking about the State Senate map, and you described a blind -- I'm going to call it a blind map process. Does that make sense if I said it that way?

A Sure.

Q Yeah. I should back up. What was your role in drawing the State House map which Governor Kemp signed into law?

A It was the same as the House, or as the Senate and Congressional.

Q Okay. And did you use the same blind map process to draw the State House map?

A Yes.
Q Was Brian Knight involved at all in drawing the

Q Well, so -- sure. Let me rephrase.
You referred to having a working session with Chairman Kennedy, Mr. Tyson, Ms. Paradise about the State Senate map. Am I recalling that?

A Right. Well, we would have had several
meetings where we discussed the map. There wasn't one session where we had other multiple senators involved at the same time that $I$ recall. So the Senate was a little different in that respect.

Q You met with Chairman Rich regarding the State Senate map?

A Yes.

Q Was it the same type of process that you had with Senator Kennedy, where you had a blind map and then you reviewed it with her?

A Yes.

Q And then she, as the sponsor of the map, would either direct you to make changes or bring in other members of the House who would make directions for changes?

A Yes. It was my understanding both chairmen were meeting with members and had opened up office time and meeting time to take input from the members about the map and their districts. And I don't know how many members each of them met with, but they did have those

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meetings and that frame of reference. So that when we
met together, they could use those meetings and the input
they received from members to make adjustments if the --
if the draft didn't look -- if they felt like this member
had requested this and we weren't -- if we could
accommodate things, we would try to accommodate those
things.
    Q But you weren't involved in those meetings?
    A I was not.
    Q Was anyone in your office involved in those
meetings?
    A No.
    Q You just knew they existed?
    A Right.
    Q Would Chairman Rich mention them to you?
    A Yes.
    Q Sometimes specific meetings?
    A Maybe.
    Q Yeah.
        We've been going about an hour, I think. Would
this be a good time to maybe take a 15-minute break?
    A I'm -- whatever.
        THE WITNESS: Patrick?
        MR. JAUGSTETTER: Sure.
        MR. CANTER: Thank you.
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received directions from -- sorry, I'll rephrase.
You mentioned earlier that with regards to the Senate map, you received directions on how to draw the lines from -- either directly from Chairman Kennedy or through Chairman Kennedy from other senators. Is that basically right?

A Yes.
Q And it was the same process with the state House map but with Chairman Rich, not Chairman Kennedy?

A Yes.

Q What was your process for receiving directions on how to change the lines with regards to the Congressional map?

A Well, I think we talked about the meeting, jointly meeting with them, so same type of thing. Input from whatever they had, conversations or whatnot. There were also considerations, of course, from things we had heard from public hearings and other things to try and incorporate into those maps, so those decisions were made in coordination with all of that together.

Q Did you use a blind map for the Congressional map -- sorry, let me rephrase.

A Yeah.
Q You mentioned -- that's fair.

You had mentioned creating a blind Senate map
same thing?
A Right. The fewer the splits, the easier it would be for them to assign voters, especially under a compressed time frame.

Q Got it. I understand that's especially the case with precinct splits?

A Yes.
Q As part of your analysis of the maps, what did you do to confirm that they were in compliance with the Voting Rights Act?

A So compliance with the Voting Rights Act is a legal opinion, so my work on drawing the map would create -- try and maintain districts that we had previously had that were districts that had been majority-minority population districts. We try not to reduce the number that we had before, and $I$ would try to make sure that what we were drawing, to the best of my ability, continued that, if possible, but then $I$ would also ask them to have those reviewed by counsel for that compliance.

Q So would it be fair to say that as a nonlawyer, you tried your best to ensure compliance, but ultimately that wasn't a determination you were making?

A True.
Q Okay. And the way you tried your best was to

Q So is there racial data at the block level?
A Yes.
Q All right. Is there any other type of demo -data at the block level?

A So when we build our precinct layer, we do allocate the election data to the block level, so we have that political data at that level. It's estimating, based on the demographics in there, based on registered voter demographics kind of corresponds the two and allocates down to that level. So we do have estimate political data at the block level when we do this.

Q When you are drawing a map and you are looking at the block level --

A Uh-huh.

Q -- is data reflected on the screen?
A Yes.

Q And is the estimated election data on the screen with the other data?

A Yes.
Q You agree that the line we're looking at here splits through the precinct, right?

A At the time, Newton County was considering precinct changes. We were working with several -- their elections office, and we had a draft precinct layer that they were considering, so it's possible that $I$ referred

Q Yeah. Okay.
And then Chairman Rich came and provided direction, either directly to you, or Chairman Rich spoke to other members of the House and they provided direction to you through Chairman Rich?

A Yes.

Q Am I missing anything about people who provided direction to you about how to draw this House district?

A I'm not sure what you mean.

Q Are there other people that directed you on how to draw the House plan that $I$ haven't mentioned already?

A Counsel was involved in consulting on -- on the drawing of the maps as well.

Q Anyone else other than your counsel or those that I've mentioned?

A Not that $I$ can recall.
Q When you are drawing at the House level, are you more often looking at the block layer?

A It would depend on which part of the state you were in. In the more rural parts of the state, as you can see on the map, the districts are larger --

Q Sure.
A -- and made up of whole counties. So in those cases, it's probably more county and precinct based in terms of what you use.

Census data until the time when all three of the final maps were published, so the maps that ultimately were passed by Governor Kemp became public. So this is after you --

A Can $I$ ask you to clarify what you mean by a "block equivalency file" to make sure we're on the same page?

Q Yeah. So it's a spreadsheet that request -that reflects block data.

A Like block with a district assignment?

Q Correct.

A Okay. Just making sure we're talking about the same thing.

So during the process of the draft maps coming out and being made available, yes, I did receive requests for block equivalency files.

Q From whom?

A I know that Shalamar Parham asked for them.

And there -- I don't know if there were other people who did, but those -- $I$ know she communicated directly with me. So I don't know if there were others. There may have been, but $I$ know she did.

Q Do you know why?
A Do I know why she wanted them?

Q Yeah.

A I figured she was going to re-create those in her software or their office. She worked for the House Democratic Caucus, so I figured that's what they would be using them for.

Q Did anyone else ask for block equivalency files?

A I don't recollect anyone else, but that could have gone to other staff as well.

Q Other staff you mean in the LCRO?

A Yes.

Q So Mr. Knight?

A It could have -- any requests would come through our office manager, and then she would hand them or give them to staff --

Q Okay.
A -- to handle.

Q So it could have gone to Mr. Knight?

A Could have.

Q Could have gone to Mr. O'Connor?

A Could have. I would think if it was an
e-mailed request, it would have been provided already in the documents.

Q What do you mean by that? Sorry.
A The way the -- all the information that was discovery, all those documents, if there was a request

Q And when you answer that, is that just within the redistricting period or is that even after the maps were published?

A Even after. I mean, requests don't come to me and then to them, so they -- like I said, they come through our office manager. If someone asks for some information, it could have been fielded out to anyone in our office to provide the answer to that.

Q You mentioned that Ms. Shalamar?
A Shalamar Parham.

Q Yeah, Ms. Shalamar asked for block equivalency data?

A Yes.

Q Did you give it to her?
A Yes.

Q Did she have any follow-up questions?
A No.

Q Can you recall providing block equivalency data to anyone else?

A She's the only particular individual I recall providing that or asking for that file.

Q So generally, do you recall other people asking for block equivalency data?

A What is the distinction in the question?
Q Because you said particularly, and so I'm

A Well, as I mentioned earlier, the inclusion of an educational video, that was actually my idea. I wanted to provide the people who cared enough to come out to the public hearings the opportunity to learn a little bit about the process, rather than just come up and talk about things without knowing some of the detail or the reasons why we do this. So that video was a new feature to add.

I also -- I don't know if related to the hearings, per se, the Zoom platform is new. We didn't have that before. We have two public hearings on Zoom at this time. That was definitely not something we did ten years before. To allow people to not just watch but also participate from -- from that platform.

I think all of the public hearings were streamed at this time, and $I$ don't know that they were in 2011. They may have been recorded, but $I$ don't know that they were streamed to be able to watch it live as it was taking place. So that was new this time.

And the comment portal we had on the website was also a new feature at this time, to allow people to submit comments, and those comments are actually posted so that they were viewable throughout the whole process. I think the comment portal was left up until through the end of the year, even following the adoption of the maps.

And it actually might still be there now. I'm not even a hundred percent sure if it's still active, but it might be still active now, not to submit, but to at least review comments.

So all of those things were new in 2021 that we did not do or have the ability to do in 2011.

Q Do you recall if the special session timeline was similar in 2011 to 2021 , the actual time in special session?

A 2011, the special session was in the summer. It was August, I believe. It was around maybe two, two and a half weeks. It was a relatively short time period. I mean, it was, like I said, in the summer. So 2021, we were in session. Maybe -- I don't know if it was exact. Maybe a little longer than that or around that time period, but it was in November as opposed to August, so much later in the year.

Q Okay. What was generally your role in the redistricting process in 2011?

A Similar to what it was this time. I worked on drawing those maps, worked with the legislators to draw the -- the statewide maps for the senate and Congressional and a large portion of the House map in 2011.

Q Did you follow a similar process in drawing the

A Traditionally, we renumber the House plan following finalizing a map. And it follows a pattern from the top left, moving towards the bottom right, trying to, number one, if $I$ can maintain the same district numbers that were there previously, that does help with a lot of things in the counties for the elections, and also for the members. But $I$ renumber to try and keep delegations in similar numbering patterns and things like that as it moves through. It's not a perfect science, but that is traditionally what we do in the House.

Q So is it unusual for House District numbers to change for Georgia voters following a Census and a redraw of the maps?

A No, that's not unusual.

Q You talked to Mr. Canter a little bit about the political data that you had available and the process of, I guess, disaggregating or imputing that data to blocks. Do you recall that?

A Yes.

Q And so is it correct then that if you were looking at Census block data, each Census block has political data in it even though it's an estimate, right?

A Right. As you move blocks, you would see a change in not just demographic data but also in political
data as you move those blocks.
Q And when drawing the maps, you talked about different meetings with groups. Let's start with the -the Senate groups that you met with. Was the political data for each district an important consideration for the members when they were drawing the maps?

A Yes.

Q And for the House maps, was that also -- was political data also an important consideration?

A Yes.

Q And for the congressional maps in that leadership meeting, was political data an important consideration?

A Yes.

Q Mr. Canter talked with you about the -- the different factors of redistricting that the committee adopted.

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Do you recall that?
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A Yes.

Q Can you just describe briefly, as a map drawer, how do you go about trying to balance -- because I'm assuming there is a competing interest between a lot of those different factors. How do you go about approaching balancing those different factors?

A It's very difficult, and in certain situations

data that she had, but $I$-- I can't tell you the software she was using or, you know, that level of detail of what she -- what she sourced her information from.

Q Okay. Was it -- did you tell Gina Wright that it was important that she try to protect incumbents in the first draft of the congressional map?

A We certainly may have. I'm just trying to recall. I don't recall the specifics of any conversation about -- about that issue. I don't think anybody got drawn out of their district, so to speak, though, so that's why I'm telling you that, yeah.

Q Did you tell Gina Wright that she should consider demographic data when drafting the first congressional map?

A What do you mean "demographic data"?
Q Let's start with racial demographic data.
A Again, your -- your question presupposes. It kind of puts the cart before the horse in the sense of as though I walked in and said, here's what I want you to do and here is the consideration. She was the expert. She knew that. She -- she was steeped in the requirements of what one would have to do to do this correctly, legally, and be compliant going forward.

And I would say it was something that was just inherent in her process as she went forward. She knew

Q Were the Senate Committee guidelines approved on August 30, 2021?

A I don't remember the date, but that sounds about right.

Q What role did you have in creating the redistricting guidelines?

A If I remember correctly, these are the same principles that were utilized in the last redistricting cycle. So I would have lifted them, if you will, from that and utilized them and placed them with our materials for presentation to the committee for consideration of what the plans, or the principles for drafting plans should be for our current cycle.

Q What is your understanding of -- sorry, could you read the principle number 3, please?

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

Q And what is your understanding of this principle?

A I would have relied upon counsel to advise us as to what, one, we should do to make sure we're in compliance.

Q How did you ensure the Senate Committee complied with this principle?
passed -- excuse me. I don't have the map that was passed committed to memory, so I can't answer that.

Q When did you first see -- let's just assume that this is S.B. 2EX, which was enacted.

A Okay.
Q When did you first see this proposed map?
A I don't remember.
Q To your knowledge, who drew this map?
A I believe it would be Gina Wright.
Q Do you know whether this map took into account submission -- into account public feedback?

A I couldn't --

Q Do you know whether this map took into account public feedback?

A The mapping process included a lot of feedback from the public, including the town hall meetings, the receipt of information, the committee hearings which were public in which the public was invited to. All of that process fed into what was ultimately this map, so I would answer your question that way.

Q Did you have any role in drawing any part of this map?

A And by way of reminder, this is the one that we passed?

Q Correct.
(Deposition Exhibit 13 was marked for identification.)

THE WITNESS: So tab 11, Exhibit 13?
Q BY MR. GENBERG: Yes.
A Okay.
Q What does this appear to be after you read it?
A It appears to be a press release sent out on behalf of or, presumably, at the request of myself as chair of the Senate Redistricting Committee and Representative Bonnie Rich, chair of the House Redistricting Committee, identifying the dates and locations of town hall meetings and that we would have such meetings for the public for the purpose of receiving public input on the redistricting process.

And my exhibit behind tab 11 is two pages, but the second page is -- is blank except for just some small print text at the top, so $I$ don't know if I'm supposed to have more on that page or not.

Q Do you see that the date, Monday, August 30, 2021, is crossed out for the Augusta hearing, and then in parentheses it says, "Rescheduled to an earlier date August 11th"?

A Yes.
Q Do you have an understanding why that town hall was changed from August 30 th to August 11th?

A No, except $I$ do remember one of the -- the hearing dates and the town hall meetings were impacted, I believe by a storm that came through and necessitated the cancellation of one of our town hall meetings, and that may have had -- have impacted, caused in whole or in part this reshuffling that you are seeing on that. I just don't remember enough about the specific dates.

That's the only thing that comes to mind as to why some things had to be rescheduled. It could have been other reasons, though.

Q Okay. We can take a break.
A Okay.
THE VIDEOGRAPHER: The time is 4:28 p.m. We are now off the record.
(The deposition was at recess from 4:28 p.m. to 4:49 p.m.)

THE VIDEOGRAPHER: The time is 4:49 p.m., and we are back on the record.

Q BY MR. GENBERG: Senator Kennedy, do you have anything else to say that bears on the topics noticed in the Senate Committee subpoena that we have not discussed?

A Well, I think I came here to answer your questions, is how $I$ would answer that, and nothing comes to mind. I'm happy to answer questions that you pose. I think that's the only way $I$ can answer that. I'm happy


A. I did.
Q. And I believe you said earlier, the Democratic members except for a handful of them didn't show up for meetings or try to meet with you.
A. Correct.
Q. And there was a portal that was made to receive public comments as well?
A. Yes, that's correct.
Q. And you received, I guess, hundreds of comments at that portal?
A. I think at last count it was in the 900 s and I thought it went over 1,000.
Q. And all those were made available to members to review; right?
A. Yes.
Q. And you -- you reviewed those comments, as you said?
A. Yes, I did.
Q. And we had some discussion about the education data the committees hold.

Do you recall inviting a variety of different groups interested in redistricting?
A. I did.
Q. In both political parties?
A. Yes, both parties.
Q. And the National Conference of State Legislatures?
A. That is correct.
Q. And the guidelines for the committee were adopted after that educational process; is that right?
A. That is correct.
Q. In the map drawing process, I know you talked about you primarily did that in the Reapportionment Office with Ms. Wright or with Mr. Knight; right?
A. Correct.
Q. Was political data generally displayed as you looked at different districts?
A. The political data, if you mean the election results, yes.
Q. And so it's fair to say you were aware of the partisan impact of district lines and you looked at various drafts?
A. Yes.
Q. When you held the committee meetings during the special session, did you generally receive public comment at those meetings as well?
A. I -- I did not at the very first meeting where Leader Beverly and I both presented our maps



Reported by LeShaunda Cass-Byrd, CSR, RPR
were a member of the Georgia House of Representatives during the 2021 special session for redistricting, right?
A. That is correct.
Q. Was that the first time you were a member of the legislature during a special session for redistricting?
A. That is also correct.
Q. Okay. And, again, I'm not asking you what was said, but did the Democratic caucus in the House have its own lawyers during the special session?
A. That is correct.
Q. And do you recall who those lawyers were?
A. I can't recall the name of the law firm.
Q. And do you know if the democratic caucus in the House during the special session had its own map drawers as well?
A. Yes.
Q. And did the democratic caucus in the House have its own map drawers?
A. Yes.
Q. Now, you were not on the redistricting committee during the special session, correct?
A. That is correct. I was not on the committee.


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|  | Page 1 |
| :---: | :---: |
| 1 | IN THE UNITED STATES DISTRICT COURT |
|  | NORTHERN DISTRICT OF GEORGIA |
| 2 | ATLANTA DIVISION |
| 3 | ANNIE LOIS GRANT, et al., ) |
|  | ) |
| 4 | Plaintiffs, ) |
|  | ) |
| 5 | V. ) CIVIL ACTION FILE NO. |
|  | ) 1:22-CV-00122-SCJ |
| 6 | BRAD RAFFENSPERGER, in his ) |
|  | official capacity as the ) |
| 7 | Georgia Secretary of State, ) |
|  | et al., ) |
| 8 | ) |
|  | Defendants. ) |
| 9 |  |
| 10 | * * * |
| 11 | Remote Videoconference Deposition of |
| 12 | ANNIE LOIS GRANT |
| 1 |  |
| 14 |  |
| 15 | December 14, 2022 |
| 16 | 4:27 p.m. |
| 17 |  |
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| 21 | By Marcia Arberman, CCR B-1059 |
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located, giving your deposition today?
A Yes.
Q Is there anyone else in the room with you right now?

A No, no.
Q And you mentioned that your address -- I think you said that it's in Union Point. Do I have that correct?

A Yes.
Q And, ma'am, is that in Greene County?
A Yes.
Q How long have you lived at that address?
A Ooh. 49 years.
Q Are you originally from Georgia?
MS. LAROSS: We've lost her video.
THE WITNESS: Yeah. Sure did. It went out.

MS. LAROSS: Oh, boy.
THE WITNESS: Yeah, it went out.
THE REPORTER: Do you want to go off the record of...

MS. LAROSS: Let's just go off the
record just for a moment.
(Off the record.)
(The record was read.)

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in the Democratic Party?
A Yes.
Q And what are those, ma'am?
A First $I$ was voted in as an executive member, and now I'm the chair of our Greene County Democratic Party.

Q How long have you been the chair of the Greene County Democratic Party?

A I'm thinking 11 years.
Q Other than being chair, have you served in any other positions in the Greene County Democratic Party?

A I was elected a state committee member.
Q Anything else other than what you've told us about in terms of your work with the Greene County Democratic Party?

A $\quad$ No.
Q Have you worked with the Democratic Party of Georgia?

A As a state committee member, yes.
Q Okay. And when were you a state committee member?

A I'll be going into my third term, I think. I can't remember when $I$ was elected.

Q Okay. And that was an elected position, I

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Was that candidate -- was that candidate white or black?

A He was white.
Q And it was a male, I think you said?
A Yes. The mayor. The seat for the mayor of Atlanta. Fulton County.

Q Okay. And did the mayor -- sorry. Let's strike that.

The candidate that you voted for for mayor that you just described, did he win the election for mayor?

A $\quad \mathrm{He}$ did.
Q I think you mentioned that you voted for him when you were in college. Do you remember what school you were attending?

A At that time $I$ think $I$ was at Demorest Junior College -- Business College.

Q Okay. Have you voted for any other Republican candidates since --

A No.
Q -- you've been voting in Georgia?
A No.
Q Thank you. And have you worked on any political campaigns?

A No, other than local, for local candidates.

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Not really working. Just -- I don't know what you mean by working because $I$ go door-to-door. I do educational information. So when you say working, most of the time people think you're getting paid, so I don't know what you mean by that.

Q Okay, yeah. So I do mean either paid or unpaid, you know, as a volunteer.

Let me ask this question, if I may. You mentioned activities that you've done. You've gone door-to-door, and you mentioned a couple other activities. Were those in connection with your -- the positions that you've held with the Democratic Party, or were those activities in connection with a specific candidate's campaign?

A It was volunteering for candidates during the election.

Q Okay. And what candidates have you volunteered for?

A Well, each time that we have a Democratic candidate running -- of course, there are those of us who are Democratics. And I, as one, go out, educate people on who the person is, their platform. And that's what we do. That's what I do.

Q And how many candidates would you -- sorry. Go ahead.

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A Mainly just doing what everybody does: Volunteering to get the word out to people and get them ready to vote or giving them educational information about whatever candidate they want to know about. It doesn't have to be a Democrat. I share (audio broke up) of what's going on.

THE REPORTER: My screen froze. I don't know if anybody else's did. Did anybody else's screen freeze?

Okay. "I share" -- something -- "of what's going on." That's what $I$ have.

MS. LAROSS: "I try to stay abreast of what's going on."

THE REPORTER: Okay.
MS. LAROSS: I believe that was actually the last sentence that she said.

THE REPORTER: Okay. Thank you. BY MS. LAROSS:

Q So you mentioned that you've given -- you give folks information about the candidates and that you have given information concerning Republican candidates. How often have you done that?

A Ma'am, I have no idea. If anyone asks me, I try to stay abreast of what's going on, where it's with a Democratic candidate or with a Republican
candidate because you have people who want to ask and they want to know. If they don't know, they ask. And if $I$ have information or a website they can go to, I give it to them. I don't discriminate when it comes to that.

Q Okay. How long have you been doing that, going out and educating folks about candidates?

A All $I$ can tell you, I've been doing it a long time. I don't know how many years it's been. I just can't keep up with how many years I've done certain work because I'm constantly educating people of anything that $I$ learn, anything they want to know about that $I$ know about, or where $I$ can tell them to get information. So when it comes to how long, I have no idea. I've been doing it a long time.

Q Yeah. It sounds like it's the teacher in you that is doing that.

Okay. And so I think you mentioned that that work was for local candidates. Am I correct about that?

A What I told you was we also -- you asked me a question about who had I worked for. And I wanted to clarify. I don't work. I volunteer. But we did have three local candidates running in the last election that $I$ also did the same thing for.

Q Okay, all right. Have you done that for any statewide races?

A Yes. We do it too for them.
Q Okay. And which races? Was that governor or U.S. Senate or president?

A Whatever election is coming up, I begin to learn as much as $I$ can. I stay on conference calls. I search information, and $I$ just share it. I mean, as the chair of the Democratic Party, that's part of my job.

Q Okay. Do you participate in any voter advocacy groups?

A Repeat that.
Q Do you participate with any voter advocacy groups?

A No. I mean, it's depending what you mean by participate. I get information.

Q So you get information from them. Is that what you meant?

A I get information from all candidates, I mean, whether it's by mail or sometimes by phone calls. Sometimes it's through the media. But I think we all get information.

Q Ms. Grant, I'm going to ask you some questions about this lawsuit. When did you first hear


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A Probably about when Obama got elected. So we're looking at '07, '08. I don't know how long it is off the top of my head, though.

Q Do you have any other homes or residences of any kind in Baldwin County? That is Baldwin County, correct?

A Yes, sir.
Q Do you have any --
A Yes, sir.
Q Okay. And where are they located?
A In Baldwin County.
Q No, but $I$ mean, what's the address of those?
A Now, I don't live there. I just own them.
That's what you mean, right?
Q Yes, sir.
A and
Q So you own those properties, but you don't live there? You use them for rentals?

A (Nods head affirmatively.)
Q Yes?
A Oh, yeah. I'm sorry. Yes, yes.
Q From what you've told me, you were living at 215 Stewart in January of this year, correct?

A Yes, sir.
Q And you were also living there in October of

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A 100 Black Men of Milledgeville and Oconee.
You ready for the next one?
Q Yes, sir.
A You might need a long piece of paper now. The Baldwin County Democratic Party.

Q Keep going.
A Georgia Association of Democratic Chairs.
Q What was the last word? Chairs?
A Yes.
Q Keep going.
A African-American Caucus of the Georgia Democratic Party.

Q Next.
A Central Georgia Democratic Coalition.
Q What else?
A The SCLC is two different counties now. You want both counties?

Q Yes, sir.
A Washington County and Baldwin County.
They're the only ones popping in my head now. If $I$ give it five minutes, I probably can think of something else too, though.

Q Well, it's perfectly all right if something pops in your head later. We can go back to it. You can just let me know. That's perfectly fine.

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is that right?
A Yes, sir.
Q Do you know when you first became a member of the Democratic Party?

A You know, in Georgia, you don't -- it's not -- it's like being a Christian: If you say you're one, you're one. It's not one of them things where you actually join. We don't have those laws in Georgia, you know, with this and that. It's just whatever you say you is, you are.

Q Have you ever held any leadership positions within the Democratic Party in Georgia?

A Yes, sir.
Q What are those?
A Chairman. It's on the screen.
Q Okay. Chairman of what?
A All kinds of Democratic committees.
Q How long have you had that position?
A I'm going to estimate ten years. Can I estimate like that?

Q All you can do is give your best...
A Yeah. Right around there, I think.
Q So what's involved in being chairman of a Baldwin County Democratic Committee? What do you do?

A Thankless work. The main thing of the


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employment history all in one.
A. Good.
Q. All right. On to your voter registration history. Are you registered to vote in Georgia?
A. Yes, I am.
Q. Do you remember where you registered to vote?
A. In Bibb County.
Q. Okay. When did you register?
A. In '88.
Q. Okay. Have you ever registered anywhere else?
A. No, I haven't.
Q. Are you registered to vote at your current address?
A. Yes, I am.
Q. And do you know what district you resided in before the recent redistricting took effect?
A. I can't remember right off of my head. 144, something like that.
Q. I think most people don't really know the district numbers off the top of their heads. It's something we can look into.
A. All right.
Q. Have you voted in each election since
A. Do $I$ know where $I$ voted for the runoff?
Q. Yeah, where you voted for the runoff.
A. Where I voted?
Q. Yes, sir.
A. Like I said, one of those churches. Mabel White, or either that other church since $I$ moved out here.
Q. Okay. And $I$ know you said you've only lived in Georgia, but have you ever voted in any other state?
A. No.
Q. Okay. Do you consider yourself to be a member of the Democratic party?
A. Yes, I am.
Q. And since when?
A. Since $I$ started voting.
Q. And have you held any leadership position in that party?
A. No, I haven't.
Q. Have you ever held any position or served on any committee of the Democratic party?
A. No, I haven't.
Q. Have you participated in any activities of the Democratic party?
A. Once.
Q. What would that have been?
A. I helped -- I tried to help register voters.
Q. And when was that?
A. That had to be about at least 12 years ago.
Q. Okay. Have you ever considered yourself to be a member of the Republican party?
A. No.
Q. Is it fair to say you generally support Democratic candidates for election in Georgia?
A. I do.
Q. Have you ever voted for a Republican candidate?
A. Yes, I have.
Q. Do you remember who and when?
A. Yes, it was a governor election, it was -- my mind just went blank then. Governor Purdue.
Q. Okay. Do you remember what year that was?
A. It was in the nineties.
Q. Okay. Have you ever been a member or held a position in any other political party?
A. No, I haven't.


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

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            IN THE UNITED STATES DISTRICT COURT
            FOR THE NORTHERN DISTRICT OF GEORGIA
                        ATLANTA DIVISION
ANNIE LOIS GRANT, et al., )
    Plaintiffs, ) CIVIL ACTION FILE NO.
v. ) 1:22-CV-00122-SCJ
BRAD RAFFENSPERGER, in his )
official capacity as the )
Georgia Secretary of State, )
et al., )
    Defendants. )
COAKLEY PENDERGRASS, et al., )
    Plaintiffs, )
v. ) CIVIL ACTION FILE NO.
BRAD RAFFENSPERGER, et al., ) 1:21-CV-05339-SCJ
            Defendants. )
                        The DEPOSITION of:
                        TRIANA ARNOLD JAMES
            Being taken pursuant to stipulations herein:
            Before Kathryn Taylor, CCR
            WEDNESDAY, DECEMBER 7, 2022 | Commencing at 4:00 p.m.
            All parties, including the court reporter, appeared by
                        videoconference.
Job No. 5609351
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## Page 1

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
keep them in a separate bucket. MR. JONES: That's fine.

BY MR. JACOUTOT:
Q. Ms. James, sorry for that digression there.

Are you registered to vote in Georgia?
A. Yes.
Q. And where did you register to vote?
A. In Douglas County, state of Georgia.
Q. Okay. Were you registered also previously in Cobb County when you lived there?
A. Yes.
Q. Okay. And what district did you reside in for -- well, if you -- if you recall, do you know what the senate district and house district, state house district -- well, let me -- let me keep those separate.

So do you recall what senate district you resided in prior to the recent redistricting?
A. In -- not U.S., but -- but state?
Q. Yes, state senate. Thank you.
A. I was in the 30th.
Q. Okay. And do you recall what house -- state house district you resided in before the recent redistricting?
A. The 67th.
Q. Okay. Have you voted in each election since Page 37

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
you've been registered to vote here in Georgia?
A. Yes.
Q. Okay. Would you include primaries along with the -- with the -- with that answer?
A. Yes.
Q. Okay. Do you recall what precinct you voted in in the November 2022 elections? So that would be the elections that just occurred.
A. I don't know the precinct number, but location --
Q. Yeah, sure. Do you -- do you know the location?
A. Mirror -- Mirror Lake. Mirror Lake Elementary.
Q. Now, I know you -- as a result of your military service, you've lived in different states periodically. Have you ever voted in any other state outside of Georgia?
A. No. Never.
Q. Okay. So do you consider yourself to be a member of the Democratic Party?
A. Yes.
Q. Where would you say you'd be -- would start -- strike that.

When would you say you became a member of the Page 38

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

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                                    Page 40
            Q. Do you remember who that was?
            A. Yes.
            Q. Do you remember when that was?
            A. The -- the last -- this last election, yes.
            Q. Okay. Do you feel comfortable saying who
that Republican was?
A. No.
Q. Okay. Have you ever been a member or held a position in any other political party, apart from the Democratic Party?
A. No.
Q. And have you ever yourself run for office?
A. Yes.
Q. And when was that? Well, let's -- let me rephrase that question. When -- how many times have you run for office?
A. Twice.
Q. And starting with -- I guess we'll just go chronologically back from now. What office did you run for most recently and when was that?
A. I guess, 2021.
Q. 2021?
A. No, no, no, I'm sorry. I -- I guess 2020/2021, I ran for senate.

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
Q. Would that be U.S. senate or state senate?
A. State.
Q. And what district did you run in?
A. 30 .
Q. Okay. Did you run in the Democratic primary?
A. Yes.
Q. Okay. Were you successful in that primary?
A. No.
Q. Okay. And so the -- the office you ran for before Senate 30, what office was that?
A. Lieutenant governor.
Q. Okay. And when was that?
A. 2018 .
Q. Okay. And did you also run in the Democratic primary for that election?
A. Yes.
Q. Were you successful in that primary?
A. No.
Q. Okay. Any other offices? I know you said only two, but just -- you know, if that jogs your memory or anything.
A. No.
Q. Okay. Now, apart from Georgia NOW, are you involved in any voter advocacy groups?
A. No.
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Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.


Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.


Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.
\begin{tabular}{|c|c|}
\hline & Page 11 \\
\hline 1 & A. Yes. \\
\hline 2 & Q. Thank you. So during the time that you've \\
\hline 3 & lived in Georgia, have you ever split your time \\
\hline 4 & between residences? For instance, were you -- did \\
\hline 5 & you have a home here, while you also had a home in \\
\hline 6 & Pennsylvania or -- \\
\hline 7 & A. Can you excuse me for one minute? \\
\hline 8 & Q. Yes, ma'am. \\
\hline 9 & A. I'm sorry. I had the coffee pot on and it \\
\hline 10 & was about to go off. \\
\hline 11 & Q. Oh, that's okay. I'll repeat my question. \\
\hline 12 & A. Okay. \\
\hline 13 & Q. During the time that you've lived at your \\
\hline 14 & residence in Henry County, did you ever split time \\
\hline 15 & between residences, say here and Pennsylvania, or \\
\hline 16 & were you solely here in Georgia? \\
\hline 17 & A. I split time between here and \\
\hline 18 & Pennsylvania -- \\
\hline 19 & Q. Okay. \\
\hline 20 & A. -- for three months. \\
\hline 21 & Q. What was that last bit? \\
\hline 22 & A. For three months. \\
\hline 23 & Q. For three months. And what time period \\
\hline 24 & was that? \\
\hline 25 & A. That was the summer of '06. \\
\hline
\end{tabular}

Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.


Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.


Pendergrass, Coakley, et al. v. Raffensperger, Brad, Et Al.
\begin{tabular}{|c|c|}
\hline & Page 26 \\
\hline 1 & A. No. \\
\hline 2 & Q. Okay. Thank you. All right. Moving on \\
\hline 3 & to your political affiliations. Are you currently \\
\hline 4 & involved in any political or activist organizations? \\
\hline 5 & A. No. \\
\hline 6 & Q. So you have no leadership positions or \\
\hline 7 & anything like that? \\
\hline 8 & A. No. \\
\hline 9 & Q. Okay. Do you consider yourself to be a \\
\hline 10 & member of the Democratic party? \\
\hline 11 & A. Yes. \\
\hline 12 & Q. And since when? \\
\hline 13 & A. All my life. \\
\hline 14 & Q. And have you held any leadership positions \\
\hline 15 & in the Democratic party? \\
\hline 16 & A. No. \\
\hline 17 & Q. Have you served on any committees for the \\
\hline 18 & Democratic party? \\
\hline 19 & A. No. \\
\hline 20 & Q. Have you participated in any activities of \\
\hline 21 & the Democratic party? \\
\hline 22 & A. No. \\
\hline 23 & Q. Have you ever considered yourself to be a \\
\hline 24 & member of the Republican party? \\
\hline 25 & A. No. \\
\hline
\end{tabular}


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
A. Per month.
Q. Per month, okay.

I'm going to ask you about your voting
history and registration. Are you currently registered to vote in Georgia?
A. Yes.
Q. Where did you register to vote?
A. First in Sumter County and, of course, in 2015 when I moved here to Spalding County.
Q. And you're currently registered to vote in Spalding County?
A. Yes.
Q. What congressional district did you reside in before the current redistricting?
A. 16. That's -- 134, I believe, before redistricting.
Q. And now you reside in Senate District 16?
A. No; 117.
Q. Okay.
A. That's congressional senate 16.
Q. Okay. Great.

So 117 is your congressional district. Does
that sound right?
A. Correct. Correct.
Q. And before redistricting what was your

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

Georgia since moving to the state?
A. Yes.
Q. Did you vote in the November -- in the November 2022 election?
A. Yes.
Q. Did you also vote in the runoff this past week?
A. Yes.
Q. Have you voted in any other state?
A. Other than Mississippi when I lived there, no other state.
Q. Okay.
A. Mississippi and Georgia.
Q. Okay. That was a poorly asked question. When you resided in Mississippi, you voted there; is that correct?
A. Yes, that's correct.
Q. Okay. Do you consider yourself a member of the Democratic Party?
A. Yes.
Q. And how long have you been a member, sir?
A. Since \(I\) was 18 years old.
Q. While being a member of the Democratic Party, have you held any leadership positions within the party or associated with the party?

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
kind of events?
A. We have a monthly meeting.
Q. What is your role at the monthly meetings?
A. As an officer I served on the executive committee that actually facilitates the meeting.
Q. Have you worked on any political campaigns?
A. No.
Q. Is it fair to say that you generally support Democratic candidates for election in Georgia?
A. Not only in Georgia.
Q. So did you support Democratic candidates in Mississippi as well as Georgia?
A. Yes.
Q. Have you ever voted for a Republican?
A. Yes.
Q. And who are the Republicans that you voted for?
A. I voted many times because I had to choose between the lesser of two evils. There were no Democrats on the ballot.
Q. And was that in Mississippi or here in Georgia?
A. In Georgia and Mississippi.
Q. Did you say on those occasions that you voted for a Republican there was not a Democrat


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

> IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

ANNIE LOIS GRANT; QUENTIN T.
HOWELL; ELROY TOLBERT; THERON
BROWN; TRIANA ARNOLD JAMES; EUNICE
SYKES; ELBERT SOLOMON; DEXTER
WIMBISH; GARRETT REYNOLDS;
JACQUELINE FAYE ARBUTHNOT;
JACQUELINE BUSH; and
MARY NELL CONNER,
Plaintiffs,
CIVIL ACTION FILE vs.

NO. 1:22-CV-00122-SCJ
BRAD RAFFENSPERGER, in his official capacity as the Georgia Secretary of State; WILLIAM S. DUFFY, JR.,
in his official capacity as chair
of the State Election Board;
MATTHEW MASHBURN, in his official
capacity as a member of the State Election Board; EDWARD LINDSEY, in his official capacity as a member of the State Election Board; and JANICE W. JOHNSTON, in her official capacity as a member of the State Election Board, Defendants.

TAKEN BY REMOTE VIDEO-CONFERENCE DEPOSITION OF DEXTER WIMBISH December 6, 2022, 9:31 a.m.

Carolyn J. Smith, CCR, RPR, RMR, CCR-A-1361

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

A Uh, traffic tickets, minor possession charges, and city ordinances.

Q And how many hours a week would you say you devote to that job?

A Uh, four hours a month.
Q Four hours a month? Okay. Have you run for any political office before?

A In 2021, I ran for the district attorney for the Griffin Judicial Circuit, as a Democrat.

Q Okay, (nodded head affirmatively.) Did you -- is there a primary process for that, or is it a kind of -- a large pool regardless of party?

A It was a special runoff. Uh, it was a special runoff that was held because the governor of Georgia appointed the district attorney after the previous district attorney, uh, moved up to a Superior Court position.

Uh, it was a special -- it was a special runoff that was mandated because of the Gonzales decision in Athens-Clarke County where the governor attempted to appoint a district attorney there beyond, uh, the term, and the Supreme Court declared that law to be unconstitutional.

Therefore, when our district attorney here moved up to a Superior Court judge, a special

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\section*{Page 25}
election was held. I decided to run because I did not want the person who he had already appointed to district attorney to run unopposed, because I feel like every American has the right to participate in the political process, and that district attorneys are elected. And therefore we should have a choice in an election.

Q Okay. Um, so it was -- in that election was it just you and the other candidate who was -let me just ask that way.

Was it just you and the other candidate?
A Republican incumbent was, (inaudible, cutting out) --

THE COURT REPORTER: I'm sorry, can you repeat your response, sir? I couldn't hear you.

A It was the Republican incumbent, Marie Broder, \(B-R-O-D-E-R\). BY MR. JACOUTOT:

Q Thank you. And what -- what was the result of that election?

A I got beat badly.
Q Okay. Any other political offices that you've run for?

A \(\quad\) No.
Q Have you served -- apart from the, uh,

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
and Republicans have two very distinct ideologies. The ideologies -- ideologies of Democrats are more in line, \(I\) believe, with most African-Americans and other minorities because the Democrats promote exclusion [sic], while Republicans promote exclusion.

Q Okay. I'll move on to your voter registration and history.

Um, are you registered to vote in Georgia? Sounds like a silly question, but \(I\) do have to ask you.

A I have been registered to vote since 1987. Um, and in that time, that vote was -- our registration was automatic. Uh, as I graduated -when I turned high school -- turned 18 and graduated high school.

And so I registered in 1987. I've voted in every presidential election since that time. I may missed one or two local elections, but \(I\) never missed a presidential election.

Q Okay. And you -- you said you registered, uh, sort of straight out of high school.

Was it, uh, through something that was done -- it was automatic, but was -- was there any voter fair that you had to attend, or was it your

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
when I came back in 1994.
Q And you -- you said you voted in every presidential election for sure.

Uh, are you registered at your current address, the -- the spalding --

A 420 .
Q -- County -- yeah.
A Yes.
Q Okay. Uh, what district -- actually, before we get to that, hold on one second. I'll save that question. You mentioned you voted in the presidential elections basically since you've -- you were originally registered.

Did you also vote in the primaries of those elections?

A Yes.
Q What about the off year uh, gubernatorial year elections?

A Yes, I voted in every gubernatorial race.
Q Okay. What precinct did you vote in for the November 2022 election?

A I voted here at my precinct at the UGA campus. I'm not sure of the precinct number.

Q Okay. That's -- that's fine. Have you voted in, uh, this -- this current runoff?


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

CIVIL ACTION NUMBER: \(\quad 1: 22-C V-00122-S C J\) ANNIE LOIS GRANT; et al.,

Plaintiff (s),
vs.
BRAD RAFFENSPERGER, in his
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    official capacity as the Georgia
    ```
    Secretary of State, et al.,
                        Defendant (s).
            DEPOSITION TESTIMONY OF:
            GARRETT REYNOLDS
            January 25, 2023
            3 p.m. Eastern Time
            VIA REMOTE VIDEO-CONFERENCE
        COURT REPORTER:
        Angela Smith McGalliard,
        RPR, CRR, CCR

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
Q. Okay. Shifting gears, again, Mr.

Reynolds, can you please state your full name for the Record?
A. Garrett Reynolds.
Q. What is your current address, Mr.

Reynolds?
A. \(\square\) Tyrone, \(\square\) T

Georgia
Q. What county is that in?
A. Fayette.
Q. And how long have you lived at that address?
A. Little more than ten years.
Q. And have you lived anywhere else in the past two years?
A. \(\quad \mathrm{N} \circ\).
Q. And where did you live before moving to your current address?
A. \(\square--\) I cannot
recall if it was a
Atlanta, Georgia
Q. And how long did you live at that address for, to the best of your recollection?
A. Five, six years.

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\section*{Page 19}
discussed, have you received any training in any other area?
A. \(\quad \mathrm{N} \circ\).
Q. Now I'll shift along to talk
about organizations that you're currently involved in. Are you currently a member of any social organizations?
A. No.
Q. How about, are you currently a member of any political organizations?
A. Yes.
Q. And what are those?
A. Fayette County Democratic

Committee.
Q. And how long have you been a member of the Fayette County Democratic Committee?
A. I joined when Donald Trump became president, so that would be six years.
Q. So around 2016, 2017, then?
A. I believe he was elected -- I believe he took office in 2017 .
Q. Yeah.
A. And so that would be five, five and a half years, six years.

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
are in a little bit greater detail?
A. Our organization's goal is to locate and elect democrats to public office.
Q. And since joining that committee, has that always been your role or have you held different roles within that organization?
A. I have had different roles in that organization.
Q. And what are those different roles?
A. I was the former vice chair of -we call it FCDC, Fayette County Democratic Committee. I have also been a chair of the field operations department.
Q. And, again, consistent with your counsel's objection, and taking into account the prior activities that you identified in your present role, are there any other -- Strike that.

Were there any other
responsibilities that you had in those prior roles, that were publicly available, that we haven't already discussed?

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
states in addition to Georgia, those were Florida, California, and New York; is that correct?
A. Yes.
Q. And do you recall what city you voted in in Florida?
A. Key West.
Q. And that was the only one? Were there any others in Florida?
A. \(\quad\) That was the only one.
Q. And then same question for California.
A. Alameda.
Q. That's the one that's close to Oakland and San Francisco; correct?
A. Correct.
Q. And then how about for New York?
A. Rochester - Well, Henrietta, definitely and Henrietta only. I turned eighteen in Henrietta.
Q. Now, we will shift along to political affiliations. Mr. Reynolds, do you consider yourself to be a member of the Democratic Party?
A. Yes.

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
Q. How long have you considered yourself to be a member of the Democratic Party?
A. Since the day Donald Trump became president.
Q. I'm fairly certain of this
answer, based on our prior discussion of organizations you were involved in, but \(I\) just want to confirm, that you've held leadership positions in the Democratic Party; is that correct?
A. Yes.
Q. Those were all the previous positions we discussed earlier; right?
A. Yes.
Q. And with that - The committee we discussed earlier, was that the only committee that you have served on with the Democratic Party?
A. Yes.
Q. Aside from the discussions earlier, and consistent with your counsel's prior objection about only to discuss publicly facing activities, have you participated in any other activities with

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
the Democratic Party, other than those that we've discussed previously?
A. \(\quad \mathrm{No}\).
Q. Have you ever considered yourself to be a member of the Republican Party?
A. \(\quad \mathrm{No}\).
Q. Based on that, is it fair to say that you generally support Democratic candidates for election in Georgia?
A. Yes.
Q. Have you ever voted for a

Republican candidate?
A. Yes.
Q. And who was that?
A. John McCain for president.
Q. And I believe that would have been the 2008 presidential election; correct?
A. He ran twice. The first time.
Q. So that would have been -- So not the time he ran against Barrack Obama, but the time before that; correct?
A. Correct.
Q. Have you ever been a member or held a position in any other political



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this time.
Q. And what do you base that on? Personal experience, reading news sources? What is that based on?
A. Based on reading resources, interacting with friends, members in the community.

MR. WEIGEL: All right. I believe that that covers all of my questions. Mr. Jones, did you have any questions for your client?

MR. JONES: Just very briefly.
MR. WEIGEL: And did you want to take a break at all or just get right into it? I'm good without it.

MR. JONES: Yeah. Let's keep going.

EXAMINATION BY MR. JONES:
Q. Ms. Arbuthnot, did \(I\) hear you correctly say earlier that you tend to support Democrats rather than Republicans?
A. Yes.
Q. And why is that?
A. Well, I -- there seems to be more assistance, more help, more resources that we have been able to


Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.
ANNIE LOIS GRANT, et al., )
                            )
    Plaintiffs, ) CIVIL ACTION FILE
    ) NO. 1:22-CV-00122-SCJ
    V.
        IN THE UNITED STATES DISTRICT COURT
        FOR THE NORTHERN DISTRICT OF GEORGIA
        ATLANTA DIVISION
                                    Page 1
BRAD RAFFENSPERGER, in his )
official capacity as the )
Georgia Secretary of State, )
et al., )
    The deposition of JACQUELYN BUSH taken pursuant to the
stipulations contained herein; all formalities waived, excluding
the reading and signing of the deposition; before Heather D.
Williams, CCR; taken on January 24th, 2023, via Zoom
teleconference, commencing at 11:00 a.m.
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Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

Q Who's older?

A My son.

Q Okay. And when you worked at BellSouth, were you full-time?

A Yes.

Q So would you say about 40 hours a week?

A Yes.

Q Okay. All right. Onto your voter registration and
history. Are you registered to vote in Georgia?

A Yes.

Q And do you remember where you registered to vote?

A Yes. I'm registered in Fayette County. You mean where I went when I registered?

Q Yes, ma'am, where you first, you know, signed up to vote.

A At the registration office in Fayette County.
Q Okay. Is College Park in Fayette County?
A No, it isn't. And I was registered to vote before moving here, but when $I$ moved here, $I$ moved my registration. I don't know where $I$ initially registered in Georgia --

Q Uh-uh.

A -- but I had voted prior to voting in Fayette County.

Q Okay. Do you remember what location you would have voted at that time?

A At that time, no.

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

Q All right. And when did you register in Fayette County?

A I believe it was January of 1988. It was right after I moved here.

Q And were you registered in Florida when you lived there?

A Yes.
Q And are you registered to vote at your current address?

A Yes.

Q Do you know what district you resided in before the recent redistricting took effect?

A District for Senate -- 16, and the other was 74.
Q Okay. Do you know what you are now?
A $\quad$ No.

Q And do you know if you voted in each election in Georgia?

A Yes, as far as $I$ can remember. I don't recall missing any --

Q Okay.
A -- however, when I looked at my voter's record, probably a couple of years ago, it appeared to me that some dates -- that one or two dates were missing.

Q Okay. Do you recall which two dates those would have been?

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

A $\quad$ No.

Q All right. So I asked if you voted in each election. Have you voted in the presidential primaries?

A Yes.

Q Have you voted in general elections?

A Yes.

Q Have you voted in special elections?
A Yes.
Q Okay. And do you know what precinct you voted for -or voted in the November 2022 election?

A I actually voted by absentee ballot.

Q okay.
A I don't know where my precinct is located, but prior to that, $I^{\prime}$ ve been doing early voting. So I would go to the registrar's office.

Q Okay. Where is your physical precinct's location?
A It's about a mile from me at Southside Baptist Church, which is off 92 South.

Q All right. And where did you vote for the runoff -in the runoff?

A I voted absentee.

Q Okay. Onto your political affiliations. Do you consider yourself to be a member of the Democratic Party?

A Yes.
Q And since when?

Grant, Annie Lois, et al.v. Raffensperger, Brad, Et Al.

A Since $I$ initially registered to vote, so always.

Q And have you held any leadership positions in that party?

A $\quad$ No.
Q Have you ever held any position or served on any commission of the Democratic Party?

A No.
Q Have you participated in any activities of the Democratic Party?

A I don't understand.

Q I think -- like voter registration drives, things like
that?

A Yes.

Q Okay. Can you explain what activities and when?

A Yes. In 2008, I did participate in going door-todoor, getting people to register to vote.

Q Is there anything else?
A No.

Q Have you ever considered yourself to be a member of the Republican Party?

A No.

Q Is it fair to say you generally support Democratic candidates for elections in Georgia?

A Yes.

Q Have you ever voted for any Republican candidate?

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A No, not that $I$ recall.

Q Have you ever been a member or held any position in any other political party?

A $\quad$ No.

Q Have you worked on any political campaigns?

A Yes.

Q Okay. Who would that have been?
A I worked on the presidential campaign for President Obama.

Q Was that in 2008?

A Yes.

Q Any other campaigns?

A I worked to support Andrew Young's campaign.
Q And what year would that have been?
A I'm not sure.

Q And what kind of work did you do for President Obama's campaign?

A I did Getting Out to Vote -- did phone banks.
Q That's tough work. Probably get a lot of people hanging up. And then what kind of work did you do for Andrew Young's campaign?

A The same.
Q All right. Are you involved with any voter advocacy groups?

A No.


UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA ATLANTA DIVISION

ANNIE LOIS GRANT, et al.,

Plaintiffs,

vs. | CIVIL ACTION FILE |  |
| :--- | :--- |
|  | NO. 1:22-CV-00122-SCJ |

BRAD RAFFENSPERGER, in
his official capacity as
the Georgia Secretary of State, et al.,

Defendants.

DEPOSITION OF MARY NELL CONNER
Taken by Remote Conference February 9, 2023 2:57 p.m.

Valerie N. Almand, RPR, CRR, CRC
Q. What year did you retire?
A. I retired in 2018 .
Q. Where were you working before you retired?
A. For the State of Georgia in the department of revenue.
Q. What were you doing for them?
A. Reviewing income tax returns.
Q. What kind of training do you need to do that?
A. They train you on the job.
Q. And when did you start there?
A. It was february of -- I'm trying to think -- February of 2015 .
Q. So February of 2015 to 2018 you were working for the Georgia Department of Revenue?
A. Yes.
Q. Okay. And why did you leave that job?
A. I retired.
Q. Just time to be done?
A. Yes.
Q. All right. We'll move onto your voter registration history. Are you registered to vote in Georgia?
A. Yes.
Q. Do you remember where you registered to vote?
A. I registered when $I$ changed my license in Clayton County, Georgia.
Q. Do you remember what year that was?
A. 2005 .
Q. And have you ever registered anywhere else to vote?
A. In Henry County.
Q. Have you registered in any other states?
A. No.
Q. And are you registered to vote at your current address?
A. Yes.
Q. Do you know what district you resided in before the recent redistricting took effect?
A. No, I do not.
Q. And have you voted in each election since you've been registered to vote in Georgia?
A. Yes.
Q. Does that include special elections?
A. Yes. Any election that $I$ can vote in, I vote in it, in that election.
Q. Okay. Great. Do you know what precinct you voted in for the November 2022 election?
A. No, I do not.
Q. Do you know the general location?
A. No. I go to my polling place, which is a library. That's where $I$ vote every time.
Q. Okay. What's the name of the library?
A. Locust Grove Library.
Q. Did you vote in that same location for the runoff?
A. Yes.
Q. And do you consider yourself to be a member of the Democratic party?
A. Yes.
Q. Since when?
A. Since 2005 .
Q. And have you ever held a leadership position in that party?
A. No.
Q. Have you ever held any position or served on any committee of the Democratic party?
A. No.
Q. Have you participated in any activities of the Democratic party?
A. No.
Q. Have you ever considered yourself to be a member of the Republican party?


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Maxwell Palmer, Ph. D,
February 22, 2023
Grant, Annie Lois, et al.v. Raffensperger, Brad, E


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Maxwell Palmer , Ph. D,
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question, for the record.
BY MR. JACOUTOT:
Q. So let me ask you this: What is your standard for determining racial polarization?
A. So determining racial polarization, to me, comes in three parts.

First, I have to see if -- and just to simplify, just for black and white voters as I'm looking for here. If black voters vote cohesively -- that is, do they -- do the large majority of the black voters support the same candidate -- then do white voters vote cohesively, do a large majority of white voters support the same candidate, and then are they different candidates or not. So you first have to have a candidate of choice for each group and then those have to be different candidates.
Q. Okay. And how do you -- how do you define cohesively as used in that standard?
A. I don't have a bright-line test. Here the results are unambiguous regardless of any cutoff you might want to use.
Q. And you didn't examine any primary data in your analysis; right? It was strictly limited to general elections and runoffs, I believe.

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Maxwell Palmer, Ph. D,
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A. That's correct.
Q. Okay. Do you know if there's a -- and this is just for how you operate personally in this area.

But do you know if there is a cutoff, like or a threshold level of support that you need to achieve in order to find -- in order for you to find that a -- a group voted cohesively in a given election?
A. I don't have a bright-line cutoff.
Q. If a group voted 55 percent for the same candidate, would you -- would you find that to be cohesive voting of that group?
A. Generally weakly cohesive or not cohesive.
Q. Okay. And if there's weak cohesion --
A. Sorry. I -- I would say that's not cohesive.
Q. Okay. What about 60 percent?

Have you ever seen a -- examined an election contest where an indiv- -- a group that you were analyzing voted 60 percent for a candidate -- a given candidate, would you -- have you ever said that that was sufficiently cohesive, in your opinion, for your -- for purposes of your racial polarization analysis?

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

Videotaped deposition of DR. JOHN ALFORD, taken remotely in the above-captioned cause, before Rachel F. Gard, CSR, RPR, CRR, commencing at the hour of 11:00 a.m. Eastern on Thursday, February 23, 2023.

|  | Page 29 |
| :---: | :---: |
| 1 | Dr. Palmer's expert report? |
| 2 | A It certainly -- I think it certainly goes |
| 3 | to some part of my discussion of Dr. Palmer's |
| 4 | report, but I would say it is primarily as a sort |
| 5 | of adjunct to the discussion of primaries in |
| 6 | Dr. Handley's report. |
| 7 | Q Okay. So in terms of your analysis of |
| 8 | Dr. Palmer's findings and conclusions, you |
| 9 | primarily relied on the analysis and data that he |
| 10 | himself provided in his report; Is that fair? |
| 11 | A So that's correct. But I'm also making |
| 12 | the point that because he has no primary analysis, |
| 13 | we really don't have anything other than the |
| 14 | general election setting to look at. And so I |
| 15 | think that's important to understand what we know |
| 16 | in that setting, although it's not in his report, |
| 17 | we can get that from, you know, sort of |
| 18 | comparable -- for time frame that's comparable |
| 19 | from Dr. Handley's report and my analysis of the |
| 20 | Republican primary, but it's not analysis that's |
| 21 | in my report as sort of checking his analysis, |
| 22 | something like that, because it's not analysis |


|  | Page 30 |
| :---: | :---: |
| 1 | that he does in his report. |
| 2 | Q Okay. So earlier you had mentioned that |
| 3 | in preparation for working on this case, you -- |
| 4 | I'm not sure if you said, used the verb |
| 5 | "downloaded," but you procured more updated |
| 6 | election data as you -- in preparation for your |
| 7 | work in this case. Do you recall saying something |
| 8 | to that effect? |
| 9 | A Yes. |
| 10 | Q And then here, though, you specify that |
| 11 | you relied on the election and demographic data |
| 12 | provided by Dr. Palmer and Dr. Handley other than |
| 13 | the 2022 Republican primary data; is that right? |
| 14 | A That's correct. |
| 15 | Q So I guess my question is: Did you, in |
| 16 | your response to Dr. Palmer's report in |
| 17 | particular, did you utilize any data other than |
| 18 | the data that Dr. Palmer himself relied on |
| 19 | preparing his report? |
| 20 | A No. |
| 21 | Q Okay. |
| 22 | A The purpose of kind of preloading some of |

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[^0]:    ${ }^{1}$ Thornburg v. Gingles, 478 U.S. 30, 50 (1986).

[^1]:    ${ }^{2}$ 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.

[^2]:    ${ }_{5}^{5}$ See, e.g., Southeastern Geographer article at https://www.jstor.org/stable/26225503.

[^3]:    ${ }^{7}$ Additionally, in the illustrative plan, Macon-Bibb County is no longer divided; the majorityBlack 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 29 ${ }^{\text {th }}$, 2021. Two witnesses at the hearingincluding 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 $26^{\text {th }}, 2021$ ), C. Hargrove (July $30^{\text {th }}$, 2021), and A. Bailey (December $1^{\text {st }}$, 2021) at https:// www.legis.ga.gov/joint-office/reapportionment/public-comments.

[^4]:    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.

[^5]:    ${ }^{9}$ 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.

[^6]:    ${ }^{10}$ 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.

[^7]:    ${ }^{11}$ See Declaration of John B. Morgan, January 18, 2022, p. 8.

[^8]:    ${ }^{12}$ 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 $4^{\text {th }}$, 2022, p. 9.
    ${ }^{13}$ See, e.g., comment at Georgia General Assembly Joint Reapportionment Committee hearing held in Macon, Georgia on July 29 ${ }^{\text {th }}$, 2021, https://www.youtube.com/watch?v=lYkQpSFVerY (video at 33:42).

[^9]:    ${ }^{14}$ 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.

[^10]:    ${ }^{16}$ See, e.g., comment from Georgia General Assembly Joint Reapportionment Committee hearing on June $15^{\text {th }}, 2021$ at https://www.youtube.com/watch? $\mathrm{v}=$ sewqUNTIUxA (video at 49:15).

[^11]:    ${ }^{17}$ Namely Mike Glanton and Kimberly R. New in District 61, El-Mahdi Holly and Regina LewisWard 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 $18^{\text {th }}, 2022$, p. 9.
    ${ }^{19}$ Id.

[^12]:    Total:
    deal District: 191,284

[^13]:    Total:
    10,711,908
    Ideal District: 191,284

[^14]:    District 19

[^15]:    County: Heard GA

[^16]:    County: Peach GA

[^17]:    ${ }^{1}$ In this report, "African-American" refers to persons who are single-race Black or Any Part Black (i.e. persons of two or more races and some part Black), including Hispanic Black. In some instances (e.g. for historical comparisons) numerical or percentage references identify single-race Black as "SR Black" and Any Part Black as "AP Black." Unless noted otherwise, "Black" means AP Black. It is my understanding that following the U.S. Supreme Court decision

[^18]:    4 "VTD" is a Census Bureau term meaning "voting tabulation district." VTDs generally correspond to precincts. Statewide, there are 2,698 2020 VTDs.

[^19]:    5 The Illustrative Senate Plan described infra also creates an additional majority- Black Senate district in the counties of Cobb and Fulton (District 33), for a total of 18 statewide.

[^20]:    ${ }^{6}$ The ideal population size for a Senate district is 191,284 and 59,511 for a House district. Those numbers are derived from the State's total population and the number of seats in each body.

    7 I am counting Senate District 41 (Dekalb County) as majority-Black under the 2014 Benchmark Senate Plan. That district, which was $51.4 \%$ BVAP when drawn under the 2010 Census, slipped to $49.76 \%$ BVAP according to the 2020 Census. It remained a BCVAP-majority district at 57.22\% BCVAP, according to the 2015-19 ACS.

    Notably, Senate District 2 (Chatham County) in the 2014 Benchmark Senate Plan was similarly drawn at $50.94 \%$ BVAP based on 2010 Census data, but had fallen to $47.09 \%$ BVAP under the 2020 Census. District 2 is no longer majority-BVAP ( $46.86 \%$ in the 2021 Senate Plan and $46.33 \%$ under the Illustrative Senate Plan infra) but remains majority-BCVAP in both plans. I am not counting Senate District 2 as majority-Black under the 2014 Benchmark Senate Plan, though I note that doing so would result in the 2021 Senate Plan having one fewer majorityBlack Senate district than its predecessor plan (14 under the 2021 Senate Plan versus 15 under the 2014 Benchmark Senate Plan).

[^21]:    ${ }^{8}$ The Senate and House plans initially enacted after the 2010 Census are included in Exhibits I$\mathbf{2}$ and $\mathbf{V}-\mathbf{2}$, infra. These historical plans are not substantially different than the Benchmark plans with respect to the number of majority-Black districts. The prior Senate and House maps, enacted in 2006, are also included in Exhibits I-3 and V-3, respectively.
    ${ }^{9}$ In this report, Metro Atlanta refers to the 29-county Atlanta Metropolitan Statistical Area ("MSA") defined by the U.S. Office of Management and Budget. It includes the Counties of Barrow, Bartow, Butts, Carroll, Cherokee, Clayton, Cobb, Coweta, Dawson, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Haralson, Heard, Henry, Jasper, Lamar, Meriwether, Morgan, Newton, Paulding, Pickens, Pike, Rockdale, Spalding, and Walton.

    MSA is an abbreviation for "metropolitan statistical area." Metropolitan statistical areas are defined by the U.S. Office of Management and Budget and reported in historical and current census data produced by the Census Bureau. MSAs "consist of the county or counties (or equivalent entities) associated with at least one urbanized area of at least 50,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties." U.S. Census Bureau, "About," https://www.census.gov/programs-surveys/metro-micro/about.html.

[^22]:    12 See Georgia Department of Community Affairs, "Regional Commissions," https://www.dca.ga.gov/local-government-assistance/planning/regional-planning/regionalcommissions; New Georgia Encyclopedia, "Regional Commissions of Georgia," https://www.georgiaencyclopedia.org/articles/government-politics/regional-commissions-ofgeorgia/.

[^23]:    13 Plaintiffs' Illustrative Senate Plan also contains a majority-Black Senate District in the same general area of southwest Georgia, Illustrative Senate District 12 ( $57.97 \%$ BVAP).

[^24]:    14 The Macon-Bibb MSA includes the Counties of Twiggs, Macon-Bibb, Jones, Monroe, and Crawford. The adjacent Warner Robins MSA encompasses Houston and Peach Counties. As noted supra, MSAs are in part defined by "counties having a high degree of social and economic integration with the core as measured through commuting ties."
    15 The Illustrative Senate Plan infra also contains a majority-Black Senate District in the same general area of metropolitan Macon, Illustrative Senate District 12 ( $52.81 \%$ BVAP), in the counties of Macon-Bibb and Houston.

[^25]:    ${ }^{16}$ Sources:
    PL94-171 Redistricting File (Census 2020);
    Table S2901 -- CITIZEN, VOTING-AGE POPULATION BY SELECTED CHARACTERISTICS (1-year 2021 ACS)
    https://data.census.gov/cedsci/table?q=S2901\&g=0400000US13\&tid=ACSST1Y2021.S2901

    ## 2021 ACS 1-Year Estimates Public Use Microdata Sample

    https://data.census.gov/mdat/\#/search?ds=ACSPUMS1Y2021\&vv=AGEP\%2800,18\%3A99\%29 $\& \mathrm{cv}=$ RACBLK $\% 281 \% 29 \& \mathrm{rv}=$ ucgid,CIT\%281,2,3,4,\%29\&wt=PWGTP\&g=0400000US13

[^26]:    18 Atlanta Regional Commission, "About the Atlanta Region," https://atlantaregional.org/atlanta region/about-the-atlanta-region.

[^27]:    ${ }^{19}$ The county level data is available at: http://www.fairdata2000.com/ACS_2015_19/Georgia/ The community-level data is available at: http://www.fairdata2000.com/ACS_2015_19/Georgia/00_Places_2500+/

[^28]:    ${ }^{20}$ The August-Richmond MSA encompasses the Counties of Augusta-Richmond, Burke, Columbia, Lincoln, McDuffie, Wilkes, Jefferson, Warren, Jenkins and Screven.
    ${ }^{21}$ Available via: http://www.fairdata2000.com/ACS_2021/Georgia. Source:
    U.S. Census Bureau, "S0201 Selected Population Profile in the United States,"
    https://data.census.gov/cedsci/table?text=s0201\&t=001\%3A005\%3A451\&g=0400000US13,13\% 240500000_0500000US13067,13089,13121,13135_310XX00US12060,12260\&y=2021

[^29]:    ${ }^{24}$ See U.S. Census Bureau, Citizen Voting Age Population by Race and Ethnicity," https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html.

[^30]:    ${ }^{25}$ See supra n.3. NH DOJ BCVAP is the sum of voting age citizens who are single-race NH Black or of 2 races (NH Black and NH White).

[^31]:    ${ }^{26}$ The Illustrative Senate Plan places the booming Black population of Newton County in majority-Black District 43.

[^32]:    ${ }^{30}$ Page references to Exhibit CD in this section refer to the county-specific or place-specific documents in Exhibit CD entitled "Single-Race African Americans and Latinos vis-à-vis NonHispanic Whites - Selected Socio-Economic Data," which are based on the 2015-2019 ACS 5Year Estimates. See supra TII 68-69.

[^33]:    ${ }^{31}$ See U.S. Census Bureau, Citizen Voting Age Population by Race and Ethnicity," https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html.

[^34]:    ${ }^{32}$ Southwest Georgia Regional Commission, Corridor Management Plan (2014), http://www.dot.ga.gov/DriveSmart/Travel/ScenicByways/HistoricDixieHwy/HDHCorridorManagementPlan.pdf

[^35]:    ${ }^{33}$ Page references to Exhibit CD in this section refer to the county-specific or place-specific documents in Exhibit CD entitled "Single-Race African Americans and Latinos vis-à-vis NonHispanic Whites - Selected Socio-Economic Data," which are based on the 2015-2019 ACS 5Year Estimates. See supra TII 68-69.

