

EXHIBIT 1

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

COAKLEY PENDERGRASS et al.,

Plaintiffs,

v.

BRAD RAFFENSPERGER, in his official
capacity as the Georgia Secretary of State,
et al.,

Defendants.

CIVIL ACTION FILE

NO. 1:21-CV-05339-SCJ

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 45 voting rights cases since the late 1980s. 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.); *Old Person v. Brown*, No. 96-cv-0004 (D. Mont.); *Bone Shirt v. Hazeltine*, No. 01-cv-3032 (D.S.D.); *Alabama Legislative Black Caucus v. Alabama*, No. 12-cv-691 (M.D. Ala.), and *Thomas v. Reeves*, No. 18-cv-441 (S.D. Miss.). 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, *Georgia State Conference of NAACP v. Fayette County Board of Commissioners*, No. 11-cv-123 (N.D. Ga.), and *Georgia State Conference of NAACP v. Emanuel County Board of Commissioners*, No. 16-cv-21 (S.D. Ga.). 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 in advance of the 2020 elections: *Georgia State Conference of NAACP v. Gwinnett County Board of Commissioners*, No. 16-cv-2852 (N.D. Ga.), *Thompson v. Kemp*, No. 17-cv-1427 (N.D. Ga.), and *Dwight v. Kemp*, No. 18-cv-2869 (N.D. Ga.).

4. I currently serve as a redistricting consultant to the San Juan County, Utah Commission. On December 21, 2021, the San Juan County Commission

adopted a three-district commission plan that I developed. On January 4, 2022, the Commission adopted a five-district school board plan that I developed.

5. In October 2021, I briefly served as a consultant to the city council in Wenatchee, Washington and determined that the 2018 redistricting plan I drew is not malapportioned under the 2020 Census.

6. On January 5, 2022, I testified at trial in the Northern District of Alabama in *Caster v. Merrill*, No. 21-cv-1536 (N.D. Ala.), on behalf of plaintiffs challenging Alabama's 2021 congressional plan under Section 2 of the Voting Rights Act.

7. My redistricting experience is further documented in **Exhibit A**.

A. Purpose of Declaration

8. The attorneys for the Plaintiffs in this case asked me to determine whether the African American¹ population in Georgia is “sufficiently large and

¹ In this declaration, “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 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.

geographically compact”² to allow for the creation of an additional majority-Black congressional district in the Atlanta metropolitan area.

9. **Exhibit B** describes the sources and methodology I have employed in the preparation of this report and the Illustrative Plan. In short, I used the Maptitude for Redistricting software program as well as data and shapefiles from the U.S. Census Bureau and the Georgia Legislative and Congressional Reapportionment Office, among other sources.

B. Expert Conclusions

10. The Black population in metropolitan Atlanta is sufficiently numerous and geographically compact to allow for the creation of an additional compact majority-Black congressional district anchored in Cobb and Fulton Counties (District 6 in the Illustrative Plan).

11. The additional congressional district can be merged into the enacted 2021 Plan without making changes to six of the 14 districts: CD 1, CD 2, CD 5, CD 7, CD 8, and CD 12 are unaffected.

² This is the first *Gingles* precondition. See *Thornburg v. Gingles*, 478 U.S. 30 (1986).

C. Organization of Declaration

12. The remainder of this declaration is organized as follows: **Section II** reviews state-level and Metro Atlanta 1990–2020 demographics, as defined by the 29-county Atlanta-Sandy Springs-Alpharetta MSA.³ **Section III** provides maps and population statistics for the 2012 Benchmark Plan and the enacted 2021 Plan. **Section IV** presents the Illustrative Plan that I have prepared, based on the 2020 Census, which includes an additional majority-Black district in Metro Atlanta. **Section V** contains a concluding note about projected Black population growth in Metro Atlanta over the next 10 years.

³ In this declaration, Metro Atlanta refers to the 29-county Atlanta-Sandy Springs-Alpharetta Metropolitan Statistical Area (“MSA”). 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. As the Census Bureau has explained, “[m]etropolitan statistical areas 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.” Source: <https://www.census.gov/programs-surveys/metro-micro/about.html>.

II. DEMOGRAPHIC PROFILE

A. Georgia: 2010 to 2020

13. According to the 2020 Census, Georgia has a total population of 10,711,908 persons—up by 1.02 million since 2010.

[Intentionally Blank]

14. **Figure 1** reveals that Georgia's population growth since 2010 can be attributed entirely to gains in the overall minority population. Between 2010 and 2020, nearly half (47.26%) of the state's population gain is attributed to Black population growth.

Figure 1
Georgia: 2010 Census to 2020 Census Population by Race and Ethnicity

	2010 Population	Percent	2020 Population	Percent	2010–2020 Change (Persons)	2010–2020 Change (Percent)
Total Population	9,687,653	100.00%	10,711,908	100.00%	1,024,255	10.57%
NH White*	5,413,920	55.88%	5,362,156	50.06%	-51,764	-0.96%
Total Minority Population	4,273,733	44.12%	5,349,752	49.94%	1,076,019	25.18%
Latino	853,689	8.81%	1,123,457	10.49%	269,768	31.60%
NH Black*	2,910,800	30.05%	3,278,119	30.60%	367,319	12.62%
NH Asian*	311,692	3.22%	475,680	4.44%	163,988	52.61%
NH Hawaiian and Pacific Islander	5,152	0.05%	6,101	0.06%	949	18.42%
NH American Indian and Alaska Native*	21,279	0.22%	20,375	0.19%	-904	-4.25%
NH Other*	19,141	0.20%	55,887	0.52%	36,746	191.98%
NH Two or More Races*	151,980	1.57%	390,133	3.65%	238,153	156.70%
SR Black	2,950,435	30.46%	3,320,513	31.00%	370,078	12.54%
AP Black	3,054,098	31.53%	3,538,146	33.03%	484,048	15.85%

*Single race, non-Hispanic

15. Between 2010 and 2020, the Black population in Georgia increased by 484,048 persons. By contrast, during the same decade, the non-Hispanic White (“NH White”) population fell by 51,764 persons.

16. Georgia’s Black population, as a share of the overall statewide population, increased between 2010 and 2020, from 31.53% in 2010 to 33.03% in 2020.

17. Non-Hispanic Whites are a razor-thin majority of the state’s 2020 population (50.06%). Black Georgians account for one-third (33.03%) of the population and comprise the largest minority population, followed by Latinos (10.05%).

[Intentionally Blank]

B. Georgia: Voting Age and Citizen Voting Age

18. As shown in **Figure 2**, 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 8,220,274 persons, of whom 2,607,986 (31.73%) are AP Black. The NH White VAP is 4,342,333 (52.82%).

Figure 2
Georgia: 2020 Voting Age and 2019 Estimated Citizen Voting Age
Populations by Race and Ethnicity⁴

	2020 VAP	2020 VAP Percent	2019 CVAP Percent
Total	8,220,274	100.00%	100.00%
NH White	4,342,333	52.82%	57.6%
Total Minority	3,877,941	47.18%	42.4%
Latino	742,918	9.04%	5.0%
SR Black (Including Black Hispanic)	2,488,419	30.27%	32.9%
AP Black (Including Black Hispanic)	2,607,986	31.73%	33.8%

⁴ To prepare this table, I relied on the PL 94-171 redistricting file issued by the Census Bureau, Table S2901 of the 1-Year 2019 American Community Survey (“ACS”) (available at <https://data.census.gov/cedsci/table?q=S2901&g=0400000US13&tid=ACSST1Y2019.S2901>), and the Public Use Microdata Sample of the 1-Year 2019 ACS (available at [https://data.census.gov/mdat/#/search?ds=ACSPUMS1Y2019&vv=AGEP\(18:99\)&cv=RACBLK\(1\)&rv=ucgid,CIT\(1,2,3,4\)&wt=PWGTP&g=0400000US13](https://data.census.gov/mdat/#/search?ds=ACSPUMS1Y2019&vv=AGEP(18:99)&cv=RACBLK(1)&rv=ucgid,CIT(1,2,3,4)&wt=PWGTP&g=0400000US13)).

19. The rightmost column in Figure 2 reveals that both the Black and NH White populations comprise a higher percentage of the citizen voting age population (“CVAP”) than the corresponding voting age population, owing to higher non-citizenship rates among other minority populations.

20. According to estimates from the 1-year 2019 American Community Survey (“ACS”), African Americans represent 33.8% of the statewide CVAP—about two percentage points higher than the 2020 AP Black VAP. The NH White CVAP is 57.6%—nearly five percentage points higher than NH White VAP in the 2020 Census.⁵

[Intentionally Blank]

⁵ Due to the COVID-19 pandemic, the 1-Year 2020 ACS results will not be published. Source: <https://www.census.gov/newsroom/press-releases/2021/changes-2020-ac-s-1-year.html>.

C. Black Population as a Component of Total Population: 1990 to 2020

1. Georgia

21. As shown in **Figure 3**, 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 3
Georgia: 1990 Census to 2020 Census Population by Race and Ethnicity

	1990 Population	Percent	2000 Population	Percent	2010 Population	Percent	2020 Population	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 Population	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

22. Since 1990, the Black population has more than doubled: from 1.75 million to 3.54 million, an increase that is the equivalent of the populations of more than two congressional districts. The NH White population has also increased, but at a much slower rate: from 4.54 million to 5.36 million, amounting to an increase of only about 18% over the three-decade period.

2. Metro Atlanta

23. **Exhibit C** is a Census Bureau-produced map showing boundaries for the Atlanta MSA, along with other metropolitan and micropolitan areas in Georgia.

24. **Figure 4** demonstrates that 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.

Figure 4
Metro Atlanta: 1990 Census to 2020 Census Population by Race and Ethnicity

	1990 Population	Percent	2000 Population	Percent	2010 Population	Percent	2020 Population	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 Population	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

25. According to the 1990 Census, the area that today comprises the 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 1.25 million in 2010 to 2.19 million in 2020.

26. 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 represent 50.78% of the population.

27. According to the 2020 Census, the 11 core counties comprising the Atlanta Regional Commission (“ARC”) service area⁶ account for more than half (54.7%) of the statewide Black population. After expanding the region 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.

28. **Exhibit D** breaks down Black population changes from 2010 to 2020 by county for each of the 29 counties in Metro Atlanta.

[Intentionally Blank]

⁶ Source: <https://atlantaregional.org/atlanta-region/about-the-atlanta-region>.

29. **Figure 5** shows that the population gain in Metro Atlanta between 2010 and 2020 amounted to 803,087 persons—greater than the population of one of the state’s congressional districts—with about half of the gain coming from an increase in the Black population, which increased by 409,927 (or 23.07%). Meanwhile, over the same decade, the NH White population in Metro Atlanta fell by 22,736 persons.

Figure 5
Metro Atlanta: 2010 Census to 2020 Census Population by Race and Ethnicity

	2010 Number	Percent	2020 Number	Percent	2010–2020 Change (Persons)	2010–2020 Change (Percent)
Total Population	5,286,728	100.00%	6,089,815	100%	803,087	15.19%
NH White*	2,684,571	50.78%	2,661,835	43.7%	-22,736	-0.85%
Total Minority Population	2,602,157	49.22%	3,427,980	56.3%	825,823	31.74%
Latino	547,894	10.36%	730,470	12.0%	182,576	33.32%
NH Black*	1,684,178	31.86%	2,019,208	33.16%	335,030	19.89%
NH Asian*	252,616	4.78%	397,009	6.52%	144,393	57.16%
NH Hawaiian and Pacific Islander*	2,075	0.04%	2,386	0.04%	311	14.99%
NH American Indian and Alaska Native*	10,779	0.20%	10,562	0.17%	-217	-2.01%
NH Other*	13,749	0.26%	39,254	0.64%	25,505	185.50%
NH Two or More Races*	126,322	2.39%	229,091	4.25%	102,769	81.35%
SR Black	1,712,121	32.39%	2,048,212	31.00%	336,091	19.63%
AP Black	1,776,888	33.61%	2,186,815	33.03%	409,927	23.07%

*Single race, non-Hispanic

30. As shown in **Figure 6**, according to the 2020 Census, the 29-county MSA has a total VAP of 4,654,322 persons, of whom 1,622,469 (34.86%) are AP Black. The NH White VAP is 4,342,333 (52.1%).

Figure 6
Metro Atlanta: 2020 Voting Age and 2019 Estimated Citizen Voting Age Populations by Race and Ethnicity⁷

	2020 VAP	2020 VAP Percent	2015–2019 CVAP Percent
Total	4,654,322	100.00%	100.00%
NH White	2,227,679	47.86%	52.1%
Total Minority	2,426,643	52.14%	47.9%
Latino	487,286	10.47%	5.5%
SR Black (Including Black Hispanic)	1,541,370	33.12%	36.40%
AP Black (Including Black Hispanic)	1,622,469	34.86%	N/A

31. According to estimates from the 5-Year 2015–2019 ACS, African Americans represent 36.4% of the CVAP in Metro Atlanta—over three percentage points higher than the 2020 AP Black VAP. The NH White CVAP is 52.1%, over four percentage points higher than NH White VAP in the 2020 Census.

32. Given the dramatic increase in Georgia’s Black population in Metro Atlanta since 2010, the obvious focal point for determining whether an additional majority-Black district can be created in the state is indeed Metro Atlanta. And, as

⁷ To prepare this table, I relied on the PL 94-171 redistricting file issued by the Census Bureau and the 5-Year 2015-2019 ACS. The Census Bureau does not publish a citizenship estimate for the AP Black CVAP at the MSA level.

shown below, a new majority-Black district can readily be created in and around Cobb and Fulton Counties.

III. 2012 BENCHMARK PLAN AND 2021 PLAN

A. 2012 Benchmark Plan

33. **Exhibit E** contains a map packet depicting the 2012 Benchmark Plan, with corresponding 2010 Census statistics, prepared by the Georgia Legislative & Congressional Reapportionment Office (“GLCRO”).

34. **Exhibit F** is a table that I prepared, reporting 2020 Census population statistics for the 2012 Plan, as well as CVAP estimates from the Census Bureau’s 2015–2019 Special Tabulation.⁸

B. 2021 Plan

35. **Exhibit G** contains a map packet depicting the recently enacted 2021 Plan, with corresponding 2020 Census statistics, prepared by GLCRO.

36. **Exhibit H** is a table that I prepared reporting 2020 Census population statistics for the 2021 Plan, as well as CVAP estimates from the Census Bureau’s 2015–2019 Special Tabulation.

⁸ Source: <https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html>.

37. Additional 2021 Plan information regarding compactness scores, county splits, municipal splits, and VTD⁹ splits is reported for comparison with the Illustrative Plan described in the next section.

C. Comparison of 2012 Benchmark Plan to 2021 Plan

38. The 2021 Plan reduces CD 6's BVAP from 14.6% under the 2012 Benchmark Plan to 9.9%.

39. This decrease occurred in an area that has experienced significant growth in the Black population since the 2010 Census. Notably, the area is adjacent to two majority-Black districts (CD 4 and CD 13) with Black citizen voting age populations ("BCVAP") in the 60% range under both the Benchmark 2012 Plan and the 2021 Plan.

[Intentionally Blank]

⁹ "VTD" is a Census Bureau term meaning "voting tabulation district." VTDs generally correspond to precincts. Statewide, there are 2,698 2020 VTDs in Georgia.

40. As shown in **Figure 7**, based on the 2020 Census, the combined Black population in Cobb, Fulton, Douglas, and Fayette Counties is 807,076 persons, more than necessary to constitute an *entire* congressional district—or, put differently and to the point, a majority in two congressional districts.

Figure 7
Four-County Area: 2010 Census to 2020 Census Population and Black Population Changes

	2020 Population	2020 Black Population	2010–2020 Population Change	2010–2020 Black Population Change	Black Population Change Percentage of Total Change
Cobb	766,149	223,116	78,071	42,151	53.99%
Douglas	144,237	74,260	11,834	20,007	169.06%
Fayette	119,194	32,076	12,627	9,578	75.85%
Fulton	1,066,710	477,624	146,129	60,732	41.56%
Total	2,096,290	807,076	248,661	132,468	53.27%

41. More than half (53.27%) of the total population increase in the four counties since 2010 can be attributed to the increase in the Black population. Building off this growth, the Illustrative Plan described in the next section shows how an additional majority-Black congressional district can be drawn in the area encompassing Cobb, Fulton, Douglas, and Fayette Counties—with no meaningful impact on compactness or splits of political subdivisions (i.e., counties, VTDs, and municipalities).

IV. ILLUSTRATIVE PLAN

A. Traditional Redistricting Principles

42. The Illustrative Plan demonstrates that the Black population is sufficiently numerous and geographically compact to allow for the creation of an additional majority-Black congressional district in Metro Atlanta.

43. The Illustrative Plan adheres to traditional redistricting principles, including population equality, compactness, contiguity, respect for political subdivision boundaries, respect for communities of interest, and the non-dilution of minority voting strength.

44. The Illustrative Plan is drawn to follow, to the extent possible, county boundaries. Where counties are split to comply with one-person, one-vote requirements, 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, municipal boundaries, or census block groups.

45. In drafting the Illustrative Plan, I sought to minimize changes to the 2021 Plan, while abiding by all key traditional redistricting principles and ensuring that the plan does not dilute minority voting strength.

46. The result leaves intact six congressional districts in the enacted plan, modifying eight districts in the 2021 Plan to create an additional majority-Black district in and around Cobb and Fulton Counties.

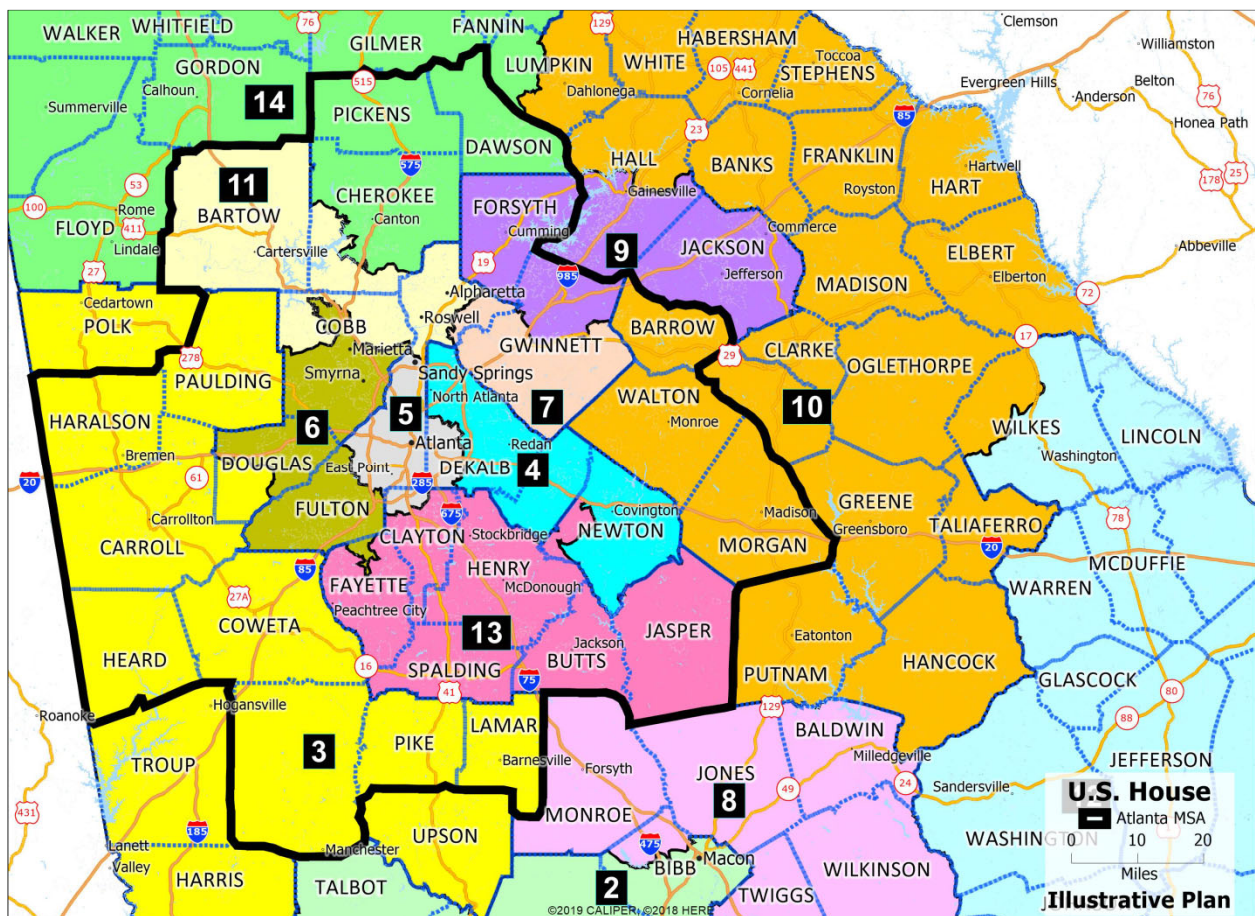
[Intentionally Blank]

B. Illustrative Plan

47. The map in **Figure 8** depicts Metro Atlanta with an overlay of the Illustrative Plan. District 6 is the new majority-Black district (50.23% BVAP and 50.69% NH BCVAP).

48. **Exhibit I-1** is a higher resolution of the Figure 8 map. **Exhibit I-2** is a statewide map that displays all 14 districts under the Illustrative Plan.

Figure 8
Illustrative Plan: Metro Atlanta



49. **Exhibit J** is a table reporting 2020 Census population statistics for the Illustrative Plan, as well as CVAP estimates from the Census Bureau’s 2015–2019 Special Tabulation.

50. **Exhibit K** is a set of maps zooming in on each of the eight districts that would change under the Illustrative Plan.

51. Notably, the Illustrative Plan does not reduce the number of majority-Black districts in the 2021 Plan. For reference, **Figure 9** compares BVAP and BCVAP under the Illustrative Plan and the 2021 Plan for the eight districts that change. (District 6 is the new majority-Black district, with 50.23% BVAP and 50.69% NH BCVAP.)

Figure 9
BVAP and BCVAP Comparison in the Eight Modified Districts:
Illustrative Plan and 2021 Plan

Illustrative Plan			2021 Plan		
District	% BVAP	% NH BCVAP		% BVAP	% NH BCVAP
03	20.92%	20.40%		23.32%	22.82%
04	52.40%	55.48%		54.52%	58.04%
06	50.23%	50.69%		9.91%	10.00%
09	11.66%	11.66%		10.42%	10.38%
10	14.31%	15.38%		22.60%	22.56%
11	13.27%	13.30%		17.95%	18.09%
13	51.40%	50.05%		66.75%	66.88%
14	5.17%	5.14%		14.28%	13.38%

C. Online Interactive Map

52. The Illustrative Plan can also be viewed online in detail on the Dave's Redistricting website at the following link: <https://davesredistricting.org/join/a19bc17b-e8d2-4471-814e-e9f57d1f568c>.

D. Supplemental Plan Information and Comparisons

53. Compactness scores for the Illustrative Plan are about the same as the 2021 Plan—and within the norm.¹⁰ **Exhibit L-1** contains compactness scores generated by Maptitude for the eight modified districts in the Illustrative Plan. Corresponding scores for the eight districts under the 2021 Plan are in **Exhibit L-2**.

[Intentionally Blank]

¹⁰ See, for example, the comparison of compactness scores across all states by the geospatial firm Azavea in their white paper titled *Redrawing the Map on Redistricting: 2012 Addendum* (available at https://2rct3i2488gxf9jvb1lqhek9-wpengine.netdna-ssl.com/wp-content/uploads/2019/08/Azavea_Redistricting-White-Paper-Addendum-2012_sm.pdf).

54. **Figure 10** (condensed from the Exhibit L series) is a summary, reporting the mean averages and low scores for the Reock¹¹ and Polsby-Popper¹² metrics under both the Illustrative Plan and the 2021 Plan (isolating the eight modified districts).

Figure 10
Compactness Comparison for the Eight Modified Districts:
Illustrative Plan and 2021 Plan

	Reock		Polsby-Popper	
	Mean	Low	Mean	Low
Illustrative Plan	.40	.23	.23	.16
2021 Plan	.43	.25	.25	.16

[Intentionally Blank]

¹¹ As the Maptitude for Redistricting software documentation (authored by the Caliper Corporation) explains, “[t]he 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.”

¹² As the Maptitude for Redistricting software documentation (authored by the Caliper Corporation) explains, “[t]he Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter: $4\pi\text{Area}/(\text{Perimeter}^2)$. The measure is always between 0 and 1, with 1 being the most compact. The Polsby-Popper test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan.”

55. County, VTD, and municipal splits are about the same under both the Illustrative Plan and the 2021 Plan. **Figure 11** summarizes county and 2020 VTD splits under the Illustrative Plan and the 2021 Plan (again isolating the eight modified districts).

Figure 11
County, VTD, and Municipal Splits Comparison for the Eight Modified Districts: Illustrative Plan and 2021 Plan¹³

	County Splits (Populated)	Unique County- District Combinations	Municipal Splits (Populated)	2020 VTD Splits (Populated)
Illustrative Plan	13	14	79	47
2021 Plan	12	19	90	44

56. **Exhibit M-1** contains a county and VTD split report generated by Maptitude for the eight modified districts in the Illustrative Plan. **Exhibit M-2** is a corresponding split report for the 2021 Plan.

57. **Exhibit N-1** (in a different format) identifies municipal splits for the eight modified districts under the Illustrative Plan. **Exhibit N-2** presents the same information for the 2021 Plan.

¹³ The Maptitude-generated reports in the Exhibit M series count splits of unpopulated areas. Figure 11 removes unpopulated splits in all but the column counting unique county/district combinations.

58. In sum, while the Illustrative Plan splits one more county than the 2021 Plan, it splits 11 fewer municipalities.

V. CONCLUSION

59. The Black population in metropolitan Atlanta is sufficiently numerous and geographically compact to allow for the creation of an additional compact majority-Black congressional district anchored in Cobb and Fulton Counties, without reducing the number of majority-Black districts in the 2021 Plan.

60. The Illustrative Plan would add an additional majority-Black district that complies with traditional redistricting principles in Metro Atlanta, where the Black population has increased by 938,006 persons since 2000—accounting for 75.1% of the statewide Black population increase this century—and where, according to the Governor’s Office of Planning and Budget, the Black population will continue to increase in the coming decade.¹⁴

###

¹⁴ Source: <https://opb.georgia.gov/census-data/population-projections>.

I reserve the right to continue to supplement my report in light of additional facts, testimony, and/or materials that might come to light.

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

Executed on: January 12, 2022

Bill Cooper

WILLIAM S. COOPER

DECLARATION OF WILLIAM S. COOPER: EXHIBIT A

October 31, 2021

William S. Cooper
P.O. Box 16066
Bristol, VA 24209
276-669-8567
bcooper@msn.com

Summary of Redistricting Work

I have a B.A. in Economics from Davidson College in Davidson, North Carolina.

Since 1986, I have prepared proposed redistricting maps of approximately 750 jurisdictions for Section 2 litigation, Section 5 comment letters, and for use in other efforts to promote compliance with the Voting Rights Act of 1965. I have analyzed and prepared election plans in over 100 of these jurisdictions for two or more of the decennial censuses – either as part of concurrent legislative reapportionments or, retrospectively, in relation to litigation involving many of the cases listed below.

From 1986 to 2020, I have prepared election plans for Section 2 litigation in Alabama, Connecticut, Florida, Georgia, Louisiana, Maryland, Mississippi, Missouri, Montana, Nebraska, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, and Wyoming.

Post-2010 Redistricting Experience

Since the release of the 2010 Census in February 2011, I have developed statewide legislative plans on behalf of clients in nine states (Alabama, Connecticut, Florida, Georgia, Kentucky, Mississippi, South Carolina, Texas, and Virginia), as well as over 150 local redistricting plans in approximately 30 states – primarily for groups working to protect minority voting rights. In addition, I have prepared congressional plans for clients in eight states (Alabama, Florida, Georgia, Louisiana, Maryland, Ohio, Pennsylvania, South Carolina, and Virginia).

October 31, 2021

In March 2011, I was retained by the Sussex County, Virginia Board of Supervisors and the Bolivar County, Mississippi Board of Supervisors to draft new district plans based on the 2010 Census. In the summer of 2011, both counties received Section 5 preclearance from the U.S. Department of Justice (DOJ).

Also in 2011, I was retained by way of a subcontract with Olmedillo X5 LLC to assist with redistricting for the Miami-Dade County, Florida Board of Commissioners and the Miami-Dade, Florida School Board. Final plans were adopted in late 2011 following public hearings.

In the fall of 2011, I was retained by the City of Grenada, Mississippi to provide redistricting services. The ward plan I developed received DOJ preclearance in March 2012.

In 2012 and 2013, I served as a redistricting consultant to the Tunica County, Mississippi Board of Supervisors and the Claiborne County, Mississippi Board of Supervisors.

In *Montes v. City of Yakima* (E.D. Wash. Feb. 17, 2015) the court adopted, as a remedy for the Voting Rights Act Section 2 violation, a seven single-member district plan that I developed for the Latino plaintiffs. I served as the expert for the Plaintiffs in the liability and remedy phases of the case.

In *Pope v. Albany County* (N.D.N.Y. Mar. 24, 2015), the court approved, as a remedy for a Section 2 violation, a plan drawn by the defendants, creating a new Black-majority district. I served as the expert for the Plaintiffs in the liability and remedy phases of the case.

In 2016, two redistricting plans that I developed on behalf of the plaintiffs for consent decrees in Section 2 lawsuits in Georgia were adopted (*NAACP v. Fayette County, Georgia* and *NAACP v. Emanuel County, Georgia*).

October 31, 2021

In 2016, two federal courts granted summary judgment to the plaintiffs based in part on my *Gingles 1* testimony: *Navajo Nation v. San Juan County, Utah* (C.D. Utah 2016) and *NAACP v. Ferguson-Florissant School District, Missouri* (E. D. Mo. August 22, 2016).

Also in 2016, based in part on my analysis, the City of Pasco, Washington admitted to a Section 2 violation. As a result, in *Glatt v. City of Pasco* (E.D. Wash. Jan. 27, 2017), the court ordered a plan that created three Latino majority single-member districts in a 6 district, 1 at-large plan.

In 2018, I served as the redistricting consultant to the Governor Wolf interveners at the remedial stage of *League of Women Voters, et al. v. Commonwealth of Pennsylvania*.

In August 2018, the Wenatchee City Council adopted a hybrid election plan that I developed – five single-member districts with two members at-large. The Wenatchee election plan is the first plan adopted under the Washington Voting Rights Acts of 2018.

In February 2019, a federal court ruled in favor of the plaintiffs in a Section 2 case regarding Senate District 22 in Mississippi, based in part on my *Gingles 1* testimony in *Thomas v. Bryant* (S.D. Ms. Feb 16, 2019).

In the summer of 2019, I developed redistricting plans for the Grand County (Utah) Change of Form of Government Study Committee.

In the fall of 2019, a redistricting plan I developed for a consent decree involving the Jefferson County, Alabama Board of Education was adopted *Traci Jones, et al. v. Jefferson County Board of Education, et al.*

In May 2020, a federal court ruled in favor of the plaintiffs in a Section 2 case in *NAACP et al. v. East Ramapo Central School District, NY*, based in part on my *Gingles 1* testimony. In October 2020, the federal court adopted a consent decree plan I developed for elections to be held in February 2021.

October 31, 2021

In May and June of 2020, I served as a consultant to the City of Quincy, Florida – the Defendant in a Section 2 lawsuit filed by two Anglo voters (*Baroody v. City of Quincy*). The federal court for the Northern District of Florida ruled in favor of the Defendants. The Plaintiffs voluntarily dismissed the case.

In the summer of 2020, I provided technical redistricting assistance to the City of Chestertown, Maryland.

I am currently a redistricting consultant and expert for the plaintiffs in *Jayla Allen v. Waller County, Texas*. I testified remotely at trial in October 2020.

Since 2011, I have served as a redistricting and demographic consultant to the Massachusetts-based Prison Policy Initiative for a nationwide project to end prison-based gerrymandering. I have analyzed proposed and adopted election plans in about 25 states as part of my work.

In 2018 (Utah) and again in 2020 (Arizona), I have provided technical assistance to the Rural Utah Project for voter registration efforts on the Navajo Nation Reservation.

Post-2010 Demographics Experience

My trial testimony in Section 2 lawsuits usually includes presentations of U.S. Census data with charts, tables, and/or maps to demonstrate socioeconomic disparities between non-Hispanic Whites and racial or ethnic minorities.

I served as a demographic expert for plaintiffs in four state-level voting cases related to the Covid-19 pandemic (South Carolina, Alabama, and Louisiana) and state court in North Carolina.

I have also served as an expert witness on demographics in non-voting trials. For example, in an April 2017 opinion in *Stout v. Jefferson County Board of Education* (Case no.2:65-cv-00396-MHH), a school desegregation case involving the City of Gardendale,

October 31, 2021

Ala., the court made extensive reference to my testimony.

I provide technical demographic and mapping assistance to the Food Research and Action Center (FRAC) in Washington D.C and their constituent organizations around the country. Most of my work with FRAC involves the Summer Food Program and Child and Adult Care Food Program. Both programs provide nutritional assistance to school-age children who are eligible for free and reduced price meals. As part of this project, I developed an online interactive map to determine site eligibility for the two programs that has been in continuous use by community organizations and school districts around the country since 2003. The map is updated annually with new data from a Special Tabulation of the American Community Survey prepared by the U.S. Census Bureau for the Food and Nutrition Service of the U.S. Department of Agriculture.

Historical Redistricting Experience

In the 1980s and 1990s, I developed voting plans in about 400 state and local jurisdictions – primarily in the South and Rocky Mountain West. During the 2000s and 2010s, I prepared draft election plans involving about 350 state and local jurisdictions in 25 states. Most of these plans were prepared at the request of local citizens' groups, national organizations such as the NAACP, tribal governments, and for Section 2 or Section 5 litigation.

Election plans I developed for governments in two counties – Sussex County, Virginia and Webster County, Mississippi – were adopted and precleared in 2002 by the U.S. Department of Justice. A ward plan I prepared for the City of Grenada, Mississippi was precleared in August 2005. A county supervisors' plan I produced for Bolivar County, Mississippi was precleared in January 2006.

In August 2005, a federal court ordered the State of South Dakota to remedy a

October 31, 2021

Section 2 voting rights violation and adopt a state legislative plan I developed (*Bone Shirt v. Hazeltine*).

A county council plan I developed for Native American plaintiffs in a Section 2 lawsuit (*Blackmoon v. Charles Mix County*) was adopted by Charles Mix County, South Dakota in November 2005. A plan I drafted for Latino plaintiffs in Bethlehem, Pennsylvania (*Pennsylvania Statewide Latino Coalition v. Bethlehem Area School District*) was adopted in March 2009. Plans I developed for minority plaintiffs in Columbus County, North Carolina and Montezuma- Cortez School District in Colorado were adopted in 2009.

Since 1986, I have testified at trial as an expert witness on redistricting and demographics in federal courts in the following voting rights cases (approximate most recent testimony dates are in parentheses). I also filed declarations and was deposed in most of these cases.

Alabama

Chestnut v. Merrill (2019)

Alabama State Conference of the NAACP v. Alabama (2018)

Alabama Legislative Black Caucus et al. v. Alabama et al. (2013)

Colorado

Cuthair v. Montezuma-Cortez School Board (1997)

Florida

Baroody v. City of Quincy (2020)

Georgia

Cofield v. City of LaGrange (1996)

Love v. Deal (1995)

Askew v. City of Rome (1995)

Woodard v. Lumber City (1989)

Louisiana

Terrebonne Parish NAACP v. Jindal, et al. (2017)

Wilson v. Town of St. Francisville (1996)

Reno v. Bossier Parish (1995)

Knight v. McKeithen (1994)

October 31, 2021

Maryland

Cane v. Worcester County (1994)

Mississippi

Thomas v. Bryant (2019)

Fairley v. Hattiesburg (2014)

Boddie v. Cleveland School District (2010)

Fairley v. Hattiesburg (2008)

Boddie v. Cleveland (2003)

Jamison v. City of Tupelo (2006)

Smith v. Clark (2002)

NAACP v. Fordice (1999)

Addy v Newton County (1995)

Ewing v. Monroe County (1995)

Gunn v. Chickasaw County (1995)

Nichols v. Okolona (1995)

Montana

Old Person v. Brown (on remand) (2001)

Old Person v. Cooney (1998)

Missouri

Missouri NAACP v. Ferguson-Florissant School District (2016)

Nebraska

Stabler v. Thurston County (1995)

New York

NAACP v. East Ramapo Central School District (2020)

Pope v. County of Albany (2015)

Arbor Hills Concerned Citizens v. Albany County (2003)

Ohio

A. Philip Randolph Institute, et al. v. Ryan (2019)

South Carolina

Smith v. Beasley (1996)

South Dakota

Bone Shirt v. Hazeltine (2004)

Cottier v. City of Martin (2004)

Tennessee

Cousins v. McWherter (1994)

Rural West Tennessee African American Affairs Council v. McWherter (1993)

October 31, 2021

Texas

Jayla Allen v. Waller County, Texas

Utah

Navajo Nation v. San Juan County (2017), brief testimony – 11 declarations, 2 depositions

Virginia

Smith v. Brunswick County (1991)

Henderson v. Richmond County (1988)

McDaniel v. Mehfoud (1988)

White v. Daniel (1989)

Wyoming

Large v. Fremont County (2007)

In addition, I have filed expert declarations or been deposed in the following cases that did not require trial testimony. The dates listed indicate the deposition date or date of last declaration or supplemental declaration:

Alabama

People First of Alabama v. Merrill (2020), Covid-19 demographics only

Alabama State NAACP v. City of Pleasant Grove (2019)

James v. Jefferson County Board of Education (2019)

Voketz v. City of Decatur (2018)

Arkansas

Mays v. Thurston (2020)-- Covid-19 demographics only)

Connecticut

NAACP v. Merrill (2020)

Florida

Florida State Conference of the NAACP v. Lee, et al, (2021)

Calvin v. Jefferson County (2016)

Thompson v. Glades County (2001)

Johnson v. DeSoto County (1999)

Burton v. City of Belle Glade (1997)

Georgia

Dwight v. Kemp (2018)

Georgia NAACP et al. v. Gwinnett County, GA (2018)

Georgia State Conference NAACP et al v. Georgia (2018)

Georgia State Conference NAACP, et al. v. Fayette County (2015)

Knighton v. Dougherty County (2002)

Johnson v. Miller (1998)

October 31, 2021

Jones v. Cook County (1993)

Kentucky

Herbert v. Kentucky State Board of Elections (2013)

Louisiana

Power Coalition for Equity and Justice v. Edwards (2020), Covid-19 demographics only

Johnson v. Ardoin (2019)

NAACP v. St. Landry Parish Council (2005)

Prejean v. Foster (1998)

Rodney v. McKeithen (1993)

Maryland

Benisek v. Lamone (2017)

Fletcher v. Lamone (2011)

Mississippi

Partee v. Coahoma County (2015)

Figgs v. Quitman County (2015)

West v. Natchez (2015)

Williams v. Bolivar County (2005)

Houston v. Lafayette County (2002)

Clark v. Calhoun County (on remand)(1993)

Teague v. Attala County (on remand)(1993)

Wilson v. Clarksdale (1992)

Stanfield v. Lee County(1991)

Montana

Alden v. Rosebud County (2000)

North Carolina

Lewis v. Alamance County (1991)

Gause v. Brunswick County (1992)

Webster v. Person County (1992)

Rhode Island

Davidson v. City of Cranston (2015)

South Carolina

Thomas v. Andino (2020), Covid-19 demographics only

Vander Linden v. Campbell (1996)

South Dakota

Kirkie v. Buffalo County (2004)

Emery v. Hunt (1999)

Tennessee

NAACP v. Frost, et al. (2003)

October 31, 2021

Virginia

Moon v. Beyer (1990)

Washington

Glatt v. City of Pasco (2016)

Montes v. City of Yakima (2014)

###

DECLARATION OF WILLIAM S. COOPER: EXHIBIT B

Exhibit B – Methodology and Sources

1. In the preparation of this report, I analyzed population and geographic data from the Decennial Census and the American Community Survey.

2. For my redistricting analysis, I used a geographic information system (GIS) software package called *Maptitude for Redistricting*, developed by the Caliper Corporation. This software is deployed by many local and state governing bodies across the country for redistricting and other types of demographic analysis.

3. The geographic boundary files that I used with *Maptitude* are created from the U.S. Census 1990-2020 TIGER (Topologically Integrated Geographic Encoding and Referencing) files.

4. I used population data from the 1990-2020 PL 94-171 data files published by the U.S. Census Bureau. The PL 94-171 dataset is published in electronic format and is the complete count population file designed by the Census Bureau for use in legislative redistricting. The file contains basic race and ethnicity data on the total population and voting-age population found in units of Census geography such as states, counties, municipalities, townships, reservations, school districts, census tracts, census block groups, precincts (called voting districts or “VTDs” by the Census Bureau) and census blocks.

5. I obtained 2020 block-level disaggregated citizenship (2015-19 ACS data from the Redistricting Data Hub.

6. The attorneys for the plaintiffs provided me with incumbent addresses.

7. For my analysis, I also relied on shapefiles for current and historical legislative plans available on the website of the Legislative and Congressional Reapportionment Office.

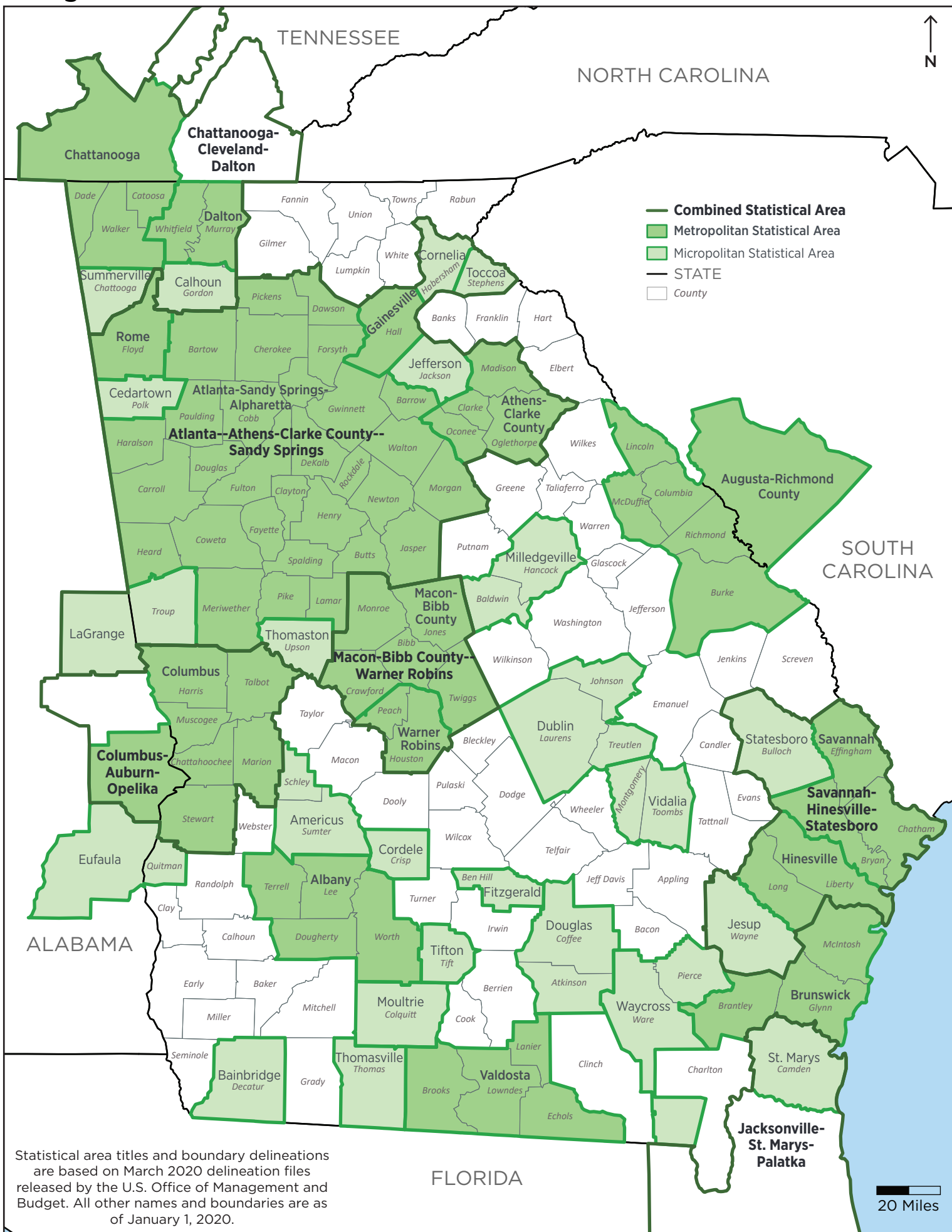
8. I developed the illustrative plans presented in this report using *Maptitude for Redistricting*. The *Maptitude for Redistricting* software processes the TIGER files to produce a map for display on a computer screen. The software also merges demographic data from the PL 94-171 files to match the relevant decennial Census geography.

9. I also reviewed and used data from the American Community Survey (“ACS”) conducted by the Census Bureau – specifically, the 1-year 2019 ACS, the 5-year 2015-2019 ACS, and the 5-year 2015-2019 ACS Special Tabulation of citizen population and voting age population by race and ethnicity (prepared by the Census Bureau for the U.S. Department of Justice) and available from the link below:

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

#

DECLARATION OF WILLIAM S. COOPER: EXHIBIT C



DECLARATION OF WILLIAM S. COOPER: EXHIBIT D

Metro Atlanta Black Population Change 2010-2020 by County

Illustrative District 6 Counties with Highlight

2010 -2020 Change

County (Metro Atlanta in Bold)	2020 Pop	AP Black	Latino	NH White	18+ Pop	18+ AP Black	18+ Latino	NH18+ White	Black Pop		Black		% Black
									Pop Change	Change	18+ Pop Change	18+Pop change	18+Pop change
BARROW	83505	11907	10560	55582	62195	8222	6726	43241	14138	3287	12417	2553	45.0%
BARTOW	108901	13395	10751	80159	83570	9377	6817	63759	8744	2365	10213	2083	28.6%
BUTTS	25434	7212	803	16628	20360	5660	559	13510	1779	595	2030	564	11.1%
CARROLL	119148	24618	9586	80725	90996	17827	6129	63803	8621	3049	8593	2916	19.6%
CHEROKEE	266620	21687	32111	197867	202928	14976	20915	156155	52274	7817	47502	6222	71.1%
CLAYTON	297595	216351	42546	25902	220578	158854	27378	23396	38171	40374	36133	37475	30.9%
COBB	766149	223116	111240	369182	591848	166141	74505	303300	78071	42151	80257	41430	33.2%
COWETA	146158	28289	11053	99421	111155	20196	7384	78073	18841	5130	18670	4501	28.7%
DAWSON	26798	392	1605	23544	21441	249	1047	19183	4468	203	4194	146	141.7%
DEKALB	764382	407451	81471	215895	595276	314230	55506	180161	72489	22898	68519	34330	12.3%
DOUGLAS	144237	74260	16035	49877	108428	53377	10212	41416	11834	20007	13558	17860	50.3%
FAYETTE	119194	32076	9480	68144	91798	23728	6168	55102	12627	9578	13330	8373	54.5%
FORSYTH	251283	13222	25226	159407	181193	8751	16204	122017	75772	7917	59087	5460	165.9%
FULTON	1066710	477624	86302	404793	847182	368635	61914	340541	146129	60732	146287	62029	20.2%
GWINNETT	957062	287687	220460	310583	709484	202762	146659	252041	151741	86155	138870	71745	54.8%
HARALSON	29919	1541	497	26825	22854	1106	323	20617	1139	13	1307	44	4.1%
HEARD	11412	1142	253	9589	8698	832	153	7407	-422	-101	-88	-60	-6.7%
HENRY	240712	125211	18437	86297	179973	89657	12030	69744	36790	46914	35708	38225	74.3%
JASPER	14588	2676	684	10771	11118	1966	402	8400	688	-466	693	-306	-13.5%
LAMAR	18500	5220	475	12344	14541	4017	323	9852	183	-611	93	-577	-12.6%
MERIWETHER	20613	7547	475	12084	16526	5845	299	9994	-1379	-1204	-256	-393	-6.3%
MORGAN	20097	4339	712	14487	15574	3280	434	11452	2229	20	2145	160	5.1%
NEWTON	112483	55901	7164	46746	84748	40433	4561	37631	12525	13634	13663	12748	46.0%
PAULDING	168661	41296	12564	108444	123998	28164	7974	83066	26337	15231	24768	11767	71.8%
PICKENS	33216	512	1198	30122	26799	319	755	24626	3785	124	4005	81	34.0%
PIKE	18889	1613	348	16313	14337	1254	207	12422	1020	-333	1306	-210	-14.3%
ROCKDALE	93570	57204	9540	24500	71503	41935	6089	21457	8355	16468	9202	14643	53.7%
SPALDING	67306	24522	3666	37105	52123	17511	2377	30612	3233	2894	4261	2752	18.6%
WALTON	96673	18804	5228	68499	73098	13165	3236	53647	12905	5086	11918	4068	44.7%
29-County MSA	6,089,815	2,186,815	730,470	2,661,835	4,654,322	1,622,469	487,286	2,156,625	803,087	409,927	768,385	380,629	30.7%

DECLARATION OF WILLIAM S. COOPER: EXHIBIT E

Map layers
Districts

Legislative & Congressional



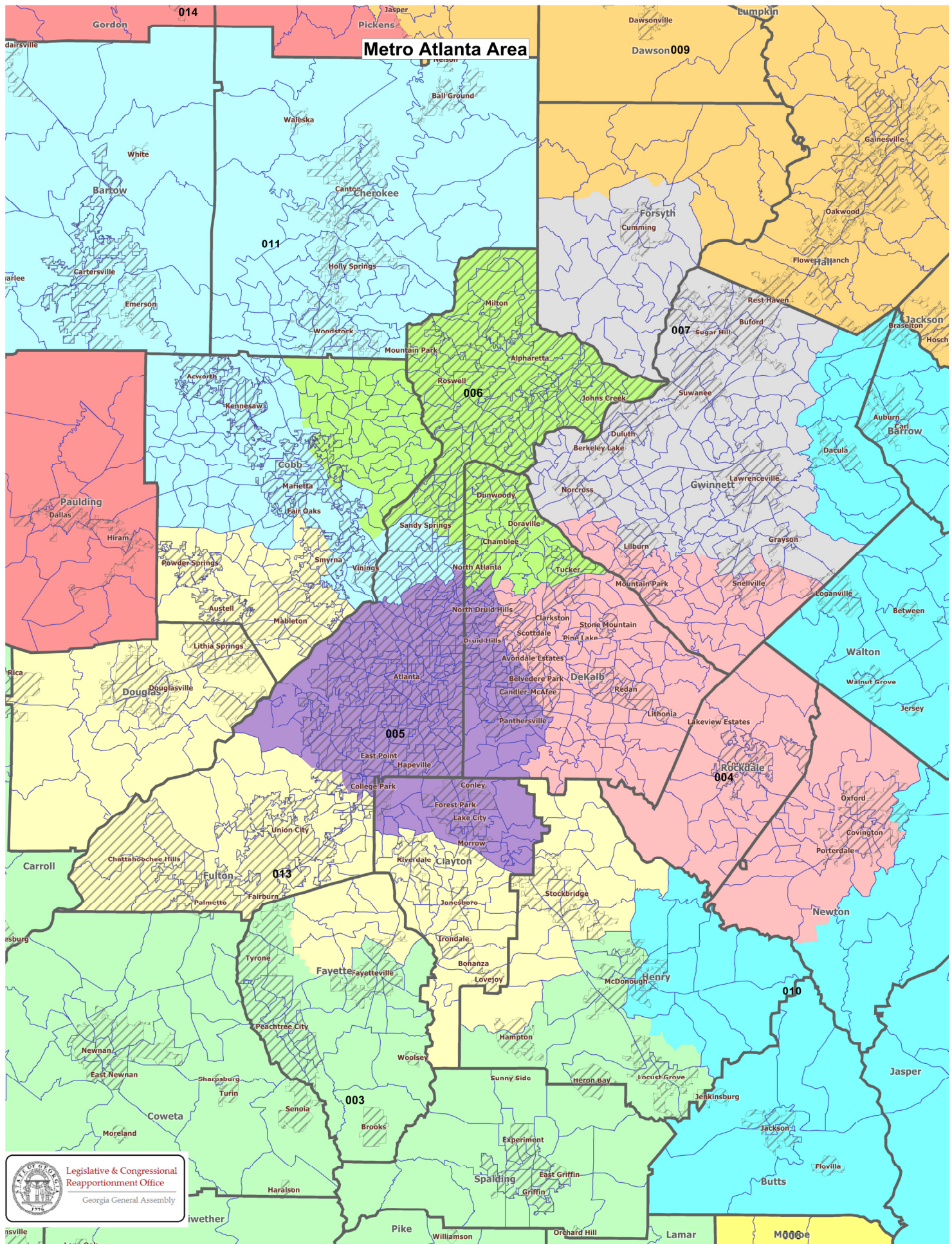
Georgia General Assembly

Districts

 County

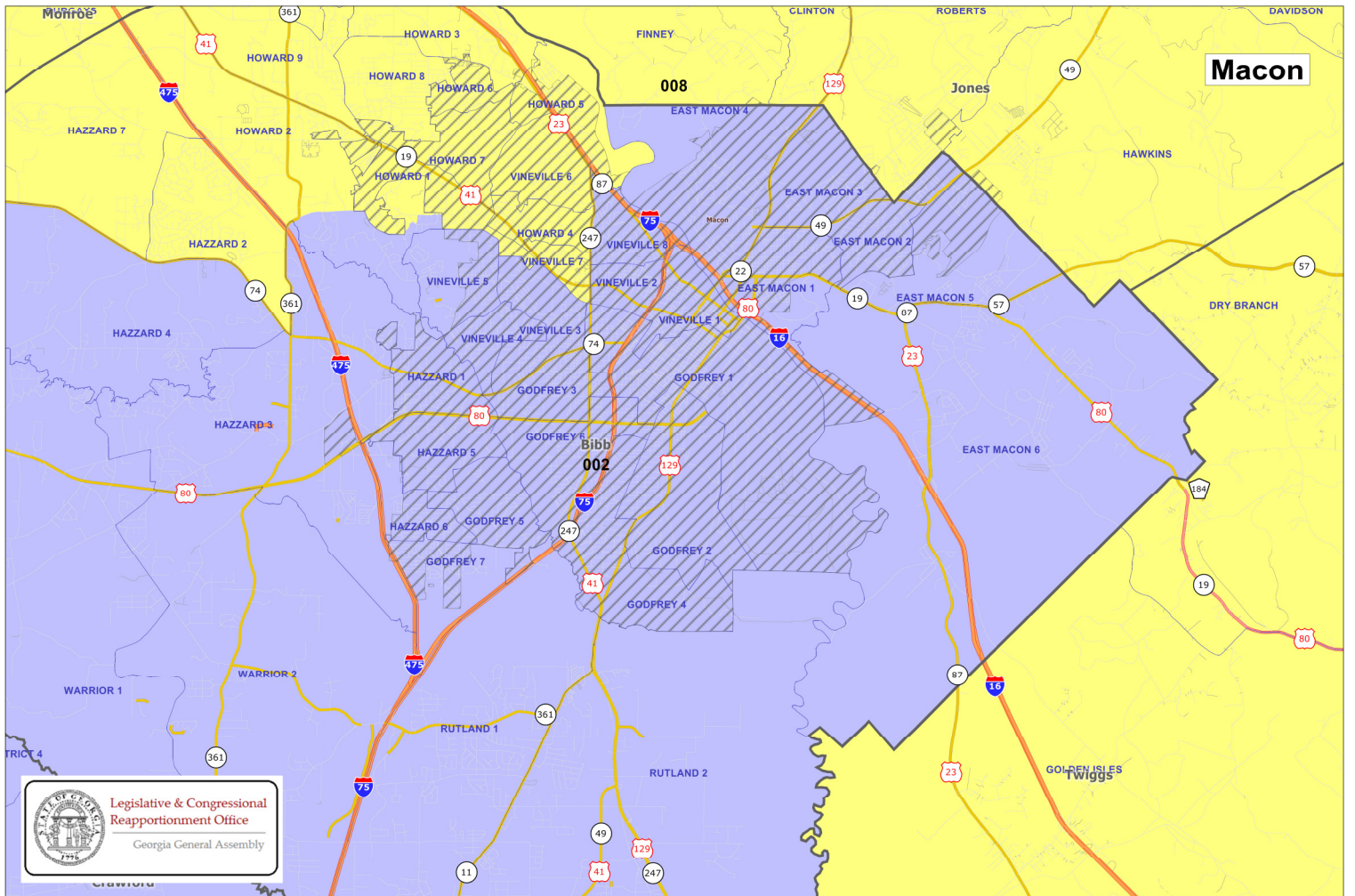
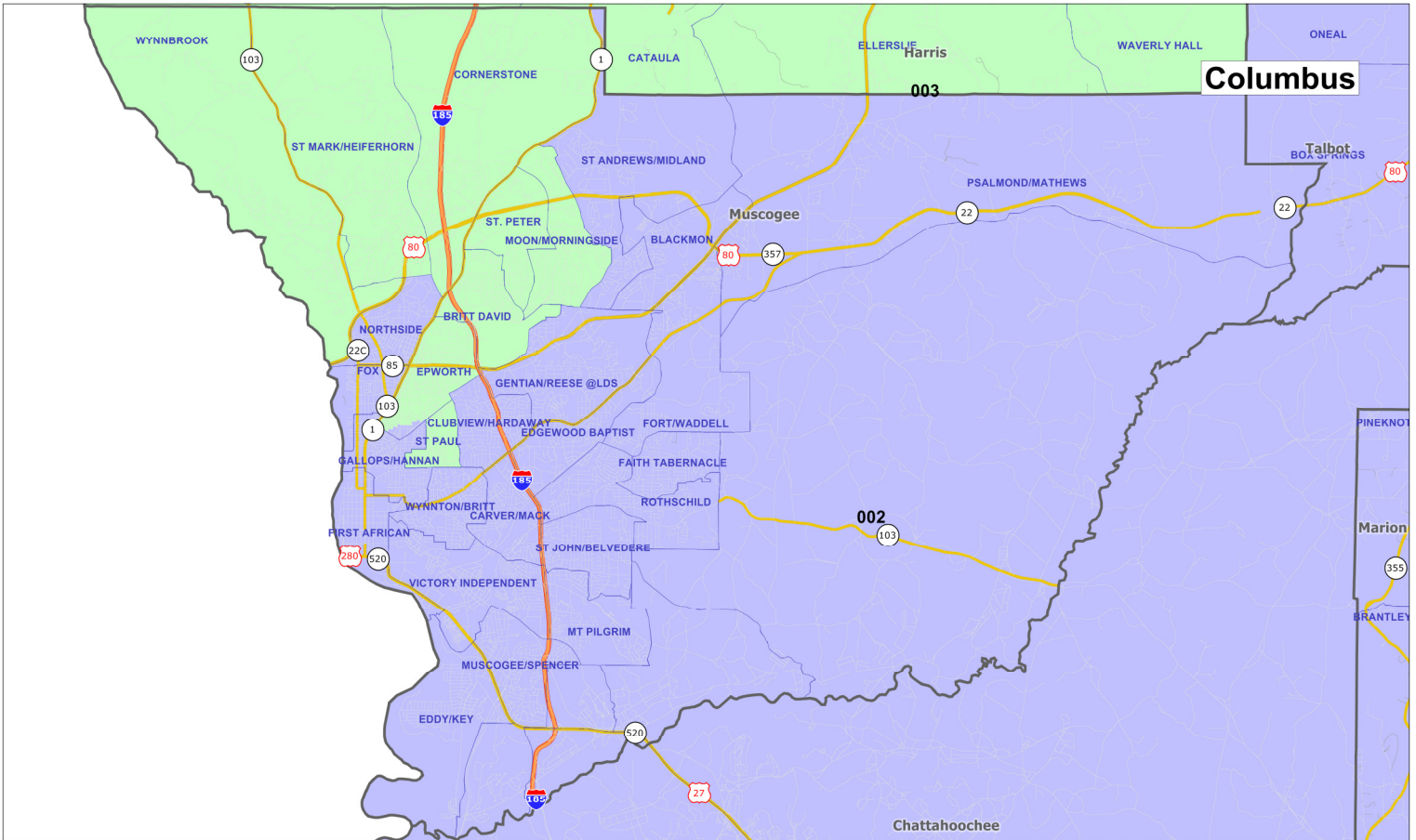
Georgia Congressional Districts

Client: State
Plan: Congress12
Type: Congress



Legislative & Congressional
Reapportionment Office
Georgia General Assembly

Georgia Congressional Districts



Plan Name: **Congress12**Plan Type : **Congress**User: **staff**Administrator: **State**

DISTRICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
001	691,974	-1	0.00%	207,711	30.02%	8,443	216,154	31.24%	39,767	5.75%
VAP	518,743			147,082	28.35%	3,105	150,187	28.95%	25,656	4.95%
002	691,976	1	0.00%	354,925	51.29%	6,835	361,760	52.28%	31,577	4.56%
VAP	516,392			252,570	48.91%	2,847	255,417	49.46%	20,824	4.03%
003	691,974	-1	0.00%	159,578	23.06%	7,034	166,612	24.08%	34,910	5.04%
VAP	511,518			112,315	21.96%	2,247	114,562	22.40%	22,243	4.35%
004	691,976	1	0.00%	397,911	57.50%	10,608	408,519	59.04%	64,605	9.34%
VAP	503,508			278,767	55.36%	5,240	284,007	56.41%	41,041	8.15%
005	691,976	1	0.00%	409,269	59.14%	9,031	418,300	60.45%	54,614	7.89%
VAP	541,900			306,497	56.56%	5,708	312,205	57.61%	37,210	6.87%
006	691,975	0	0.00%	86,265	12.47%	6,771	93,036	13.44%	92,409	13.35%
VAP	519,046			64,149	12.36%	3,330	67,479	13.00%	62,253	11.99%
007	691,975	0	0.00%	125,010	18.07%	8,298	133,308	19.26%	129,930	18.78%
VAP	489,868			83,770	17.10%	3,453	87,223	17.81%	82,112	16.76%
008	691,976	1	0.00%	204,995	29.62%	5,455	210,450	30.41%	39,578	5.72%
VAP	518,240			145,966	28.17%	1,898	147,864	28.53%	25,129	4.85%
009	691,975	0	0.00%	46,065	6.66%	3,675	49,740	7.19%	79,413	11.48%
VAP	520,856			33,384	6.41%	1,014	34,398	6.60%	46,597	8.95%
010	691,976	1	0.00%	172,398	24.91%	5,577	177,975	25.72%	32,589	4.71%
VAP	521,343			123,759	23.74%	1,963	125,722	24.12%	20,668	3.96%
011	691,975	0	0.00%	107,707	15.57%	7,554	115,261	16.66%	75,109	10.85%
VAP	512,598			76,732	14.97%	3,130	79,862	15.58%	47,452	9.26%
012	691,975	0	0.00%	238,190	34.42%	7,297	245,487	35.48%	36,890	5.33%
VAP	518,253			169,848	32.77%	2,741	172,589	33.30%	23,384	4.51%
013	691,976	1	0.00%	382,493	55.28%	11,657	394,150	56.96%	71,303	10.30%
VAP	495,652			262,130	52.89%	5,163	267,293	53.93%	43,142	8.70%
014	691,974	-1	0.00%	57,918	8.37%	5,428	63,346	9.15%	70,995	10.26%
VAP	508,184			40,501	7.97%	1,480	41,981	8.26%	41,291	8.13%

Plan Name: **Congress12**Plan Type : **Congress**User: **staff**Administrator: **State**

DISTRICT	POPULATION	DEVIATION	% DEVIATION	BLACK	% BLACK	BLACK COMBO	TOTAL BLACK	%TOTAL BLACK	HISP. OR LATINO	%HISP
----------	------------	-----------	----------------	-------	------------	----------------	----------------	-----------------	--------------------	-------

Total Population: 9,687,653

Ideal Value: 691,975

Summary Statistics

Population Range: 691,974 to 691,976

Absolute Overall Range: 2

Relative Range: 0.00% to 0.00%

Relative Overall Range: 0.00%

DECLARATION OF WILLIAM S. COOPER: EXHIBIT F

Population Summary Report

Georgia U.S. House -- 2020 Census -- 2012 Benchmark Plan

District	Population	Deviation	% Deviation	AP Black	% AP Black	Latino	% Latino	NH White	% NH White
01	755781	-9355	-1.22%	230595	30.51%	59037	7.81%	431902	57.15%
02	673028	-92108	-12.04%	357993	53.19%	38403	5.71%	259967	38.63%
03	763075	-2061	-0.27%	210025	27.52%	49428	6.48%	467888	61.32%
04	773761	8625	1.13%	478654	61.86%	84862	10.97%	160581	20.75%
05	788126	22990	3.00%	450410	57.15%	65869	8.36%	229087	29.07%
06	765793	657	0.09%	111594	14.57%	107495	14.04%	425616	55.58%
07	859440	94304	12.33%	192903	22.45%	179379	20.87%	327075	38.06%
08	719919	-45217	-5.91%	234178	32.53%	49867	6.93%	410808	57.06%
09	775367	10231	1.34%	58090	7.49%	102240	13.19%	580920	74.92%
10	775012	9876	1.29%	204453	26.38%	52350	6.75%	480661	62.02%
11	802515	37379	4.89%	147155	18.34%	101218	12.61%	501446	62.48%
12	738624	-26512	-3.47%	270885	36.67%	49500	6.70%	390796	52.91%
13	792916	27780	3.63%	509032	64.20%	95919	12.10%	164627	20.76%
14	728551	-36585	-4.78%	82179	11.28%	87890	12.06%	530782	72.85%
Total	10711908		24.37%	3538146	33.03%	1123457	10.49%	5362156	50.06%

District	18+ Pop	18+ SR Black	% 18+ SR Black	18+ AP Black	% 18+ AP Black	18+ Latino	% 18+ Latino	18+ NH White	% 18+ NH White
01	582105	157603	27.07%	165850	28.49%	39826	6.84%	349176	59.99%
02	518145	257952	49.78%	264896	51.12%	25509	4.92%	214262	41.35%
03	583475	144198	24.71%	151383	25.95%	32235	5.52%	373021	63.93%
04	587002	342687	58.38%	357025	60.82%	55810	9.51%	136384	23.23%
05	635913	337506	53.07%	350672	55.14%	47194	7.42%	200864	31.59%
06	589600	76565	12.99%	85256	14.46%	72875	12.36%	342630	58.11%
07	635791	125592	19.75%	136048	21.40%	120021	18.88%	261700	41.16%
08	549306	163622	29.79%	169305	30.82%	32639	5.94%	328086	59.73%
09	603376	37833	6.27%	41315	6.85%	64783	10.74%	471167	78.09%
10	599155	143138	23.89%	149396	24.93%	34397	5.74%	386676	64.54%
11	622759	100488	16.14%	109414	17.57%	67723	10.87%	404958	65.03%
12	565091	189400	33.52%	197124	34.88%	32450	5.74%	313867	55.54%
13	596630	359769	60.30%	373783	62.65%	62186	10.42%	140659	23.58%
14	551926	52066	9.43%	56519	10.24%	55270	10.01%	418883	75.89%
Total	8220274	2488419	30.27%	2607986	31.73%	742918	9.04%	4342333	52.82%

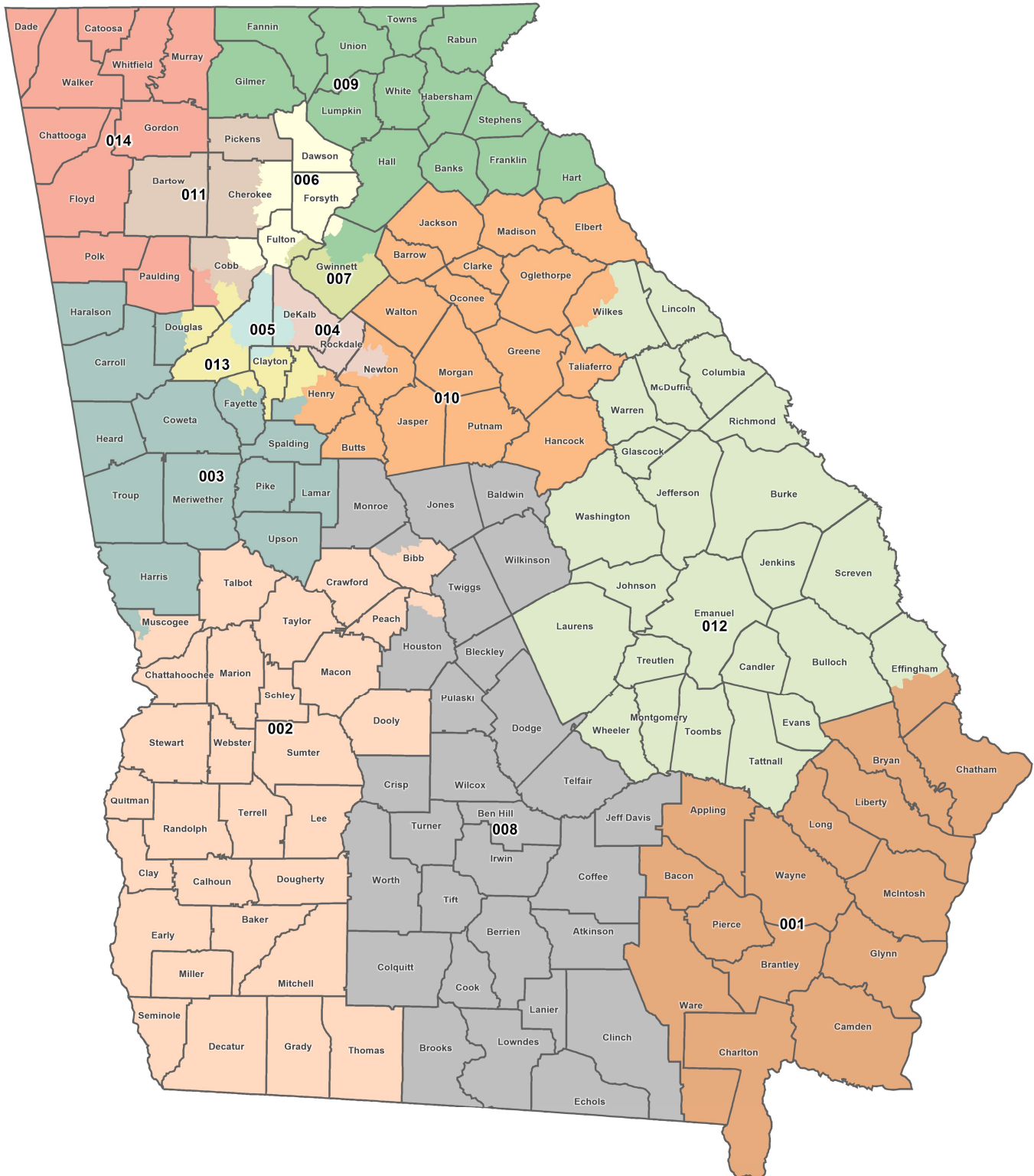
District	% NH Single-Race Black CVAP*	% Latino CVAP	% NH Single-Race Asian CVAP*	% SR NH White CVAP
001	30.09%	4.47%	1.55%	62.88%
002	51.78%	2.96%	1.00%	43.47%
003	24.88%	3.61%	1.60%	69.06%
004	63.91%	3.95%	3.45%	27.85%
005	59.21%	3.50%	3.41%	33.18%
006	15.20%	5.78%	8.07%	70.14%
007	22.46%	9.90%	11.84%	54.91%
008	31.28%	3.20%	1.28%	63.51%
009	7.15%	5.32%	1.12%	85.39%
010	25.49%	3.29%	1.89%	68.68%
011	17.37%	5.62%	2.67%	73.54%
012	35.23%	3.75%	1.45%	58.83%
013	61.85%	5.45%	2.46%	29.45%
014	9.57%	5.27%	0.85%	83.31%

Note: Citizen Voting Age Population (CVAP) percentages are disaggregated from block-group level ACS estimates (with a survey midpoint of July 2017)

Source for CVAP disaggregation: Redistricting Data Hub

<https://redistrictingdatahub.org/dataset/georgia-cvap-data-disaggregated-to-the-2020-block-level-2019/>

DECLARATION OF WILLIAM S. COOPER: EXHIBIT G

Proposed Joint Congressional Districts of Georgia

Legislative and Congressional
Reapportionment Office

Georgia General Assembly
Suite 407 Coverdell Legislative Office Bldg.

©2021 CALIPER

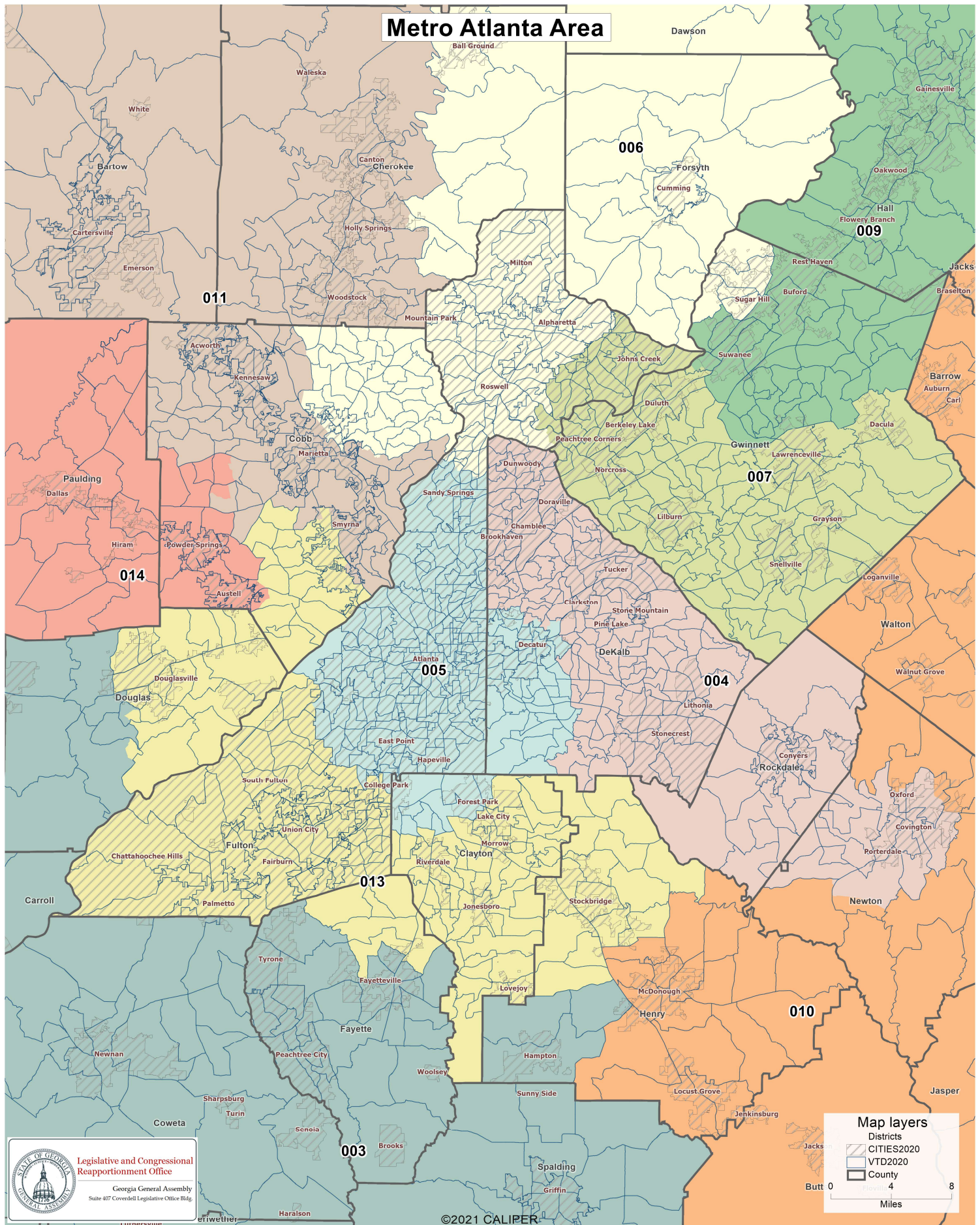
Map layers

Districts

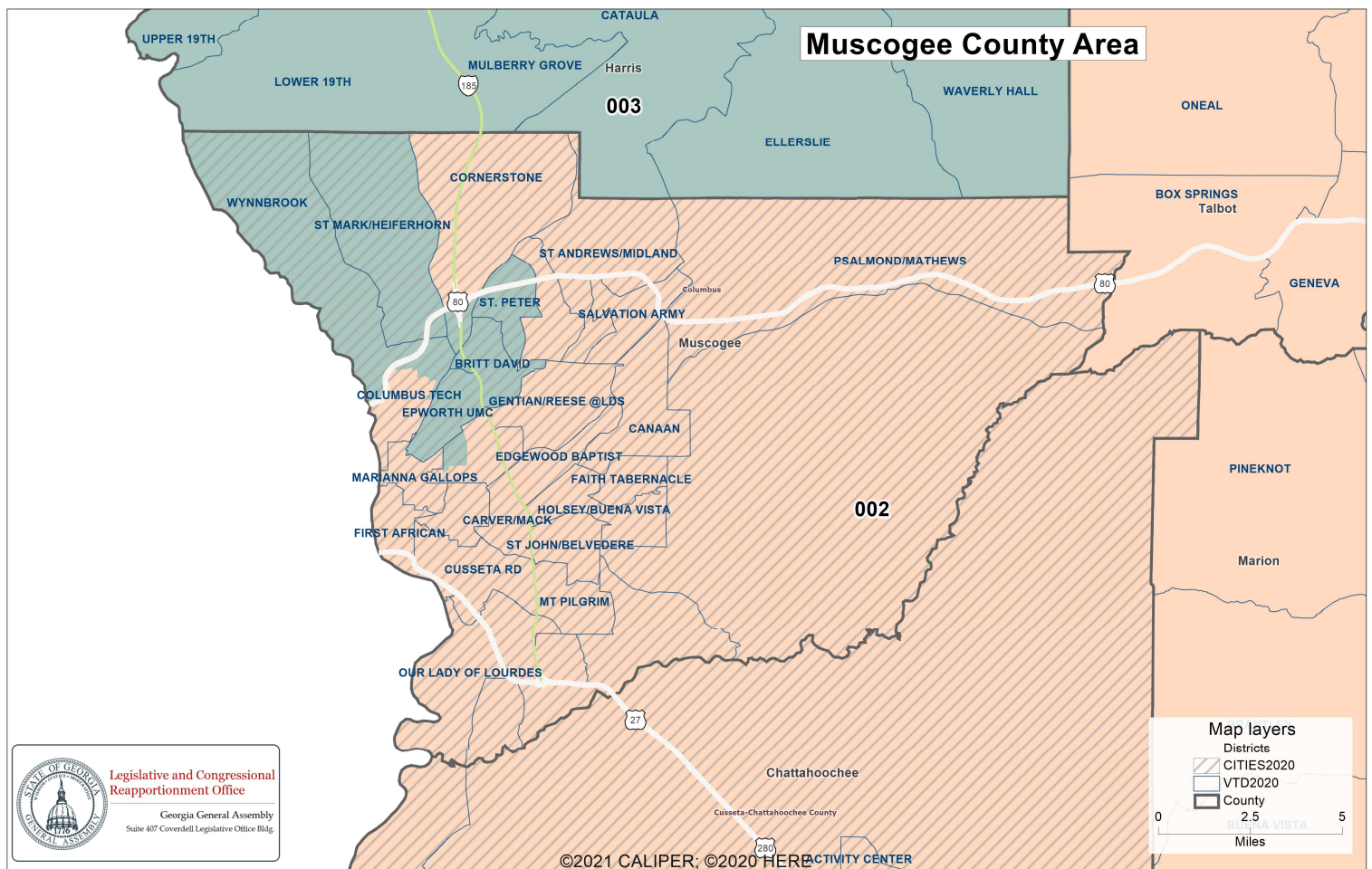
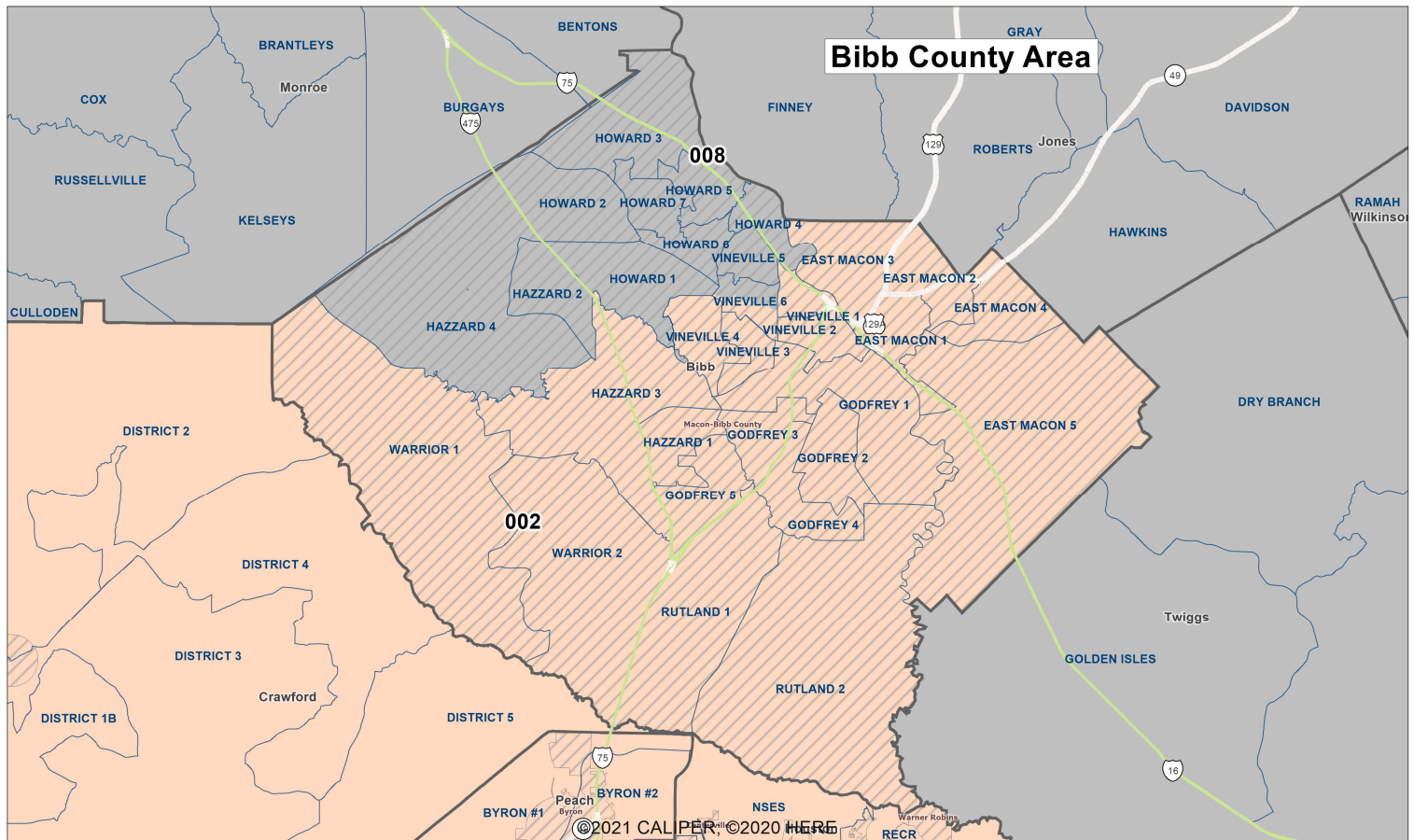
County

0 20 40
Miles

Proposed Joint Congressional Districts of Georgia



Proposed Joint Congressional Districts of Georgia



Legislative and Congressional
Reapportionment Office

Georgia General Assembly
Suite 407 Cowdell Legislative Office Bldg.

User: S018

Plan Name: Congress-prop1-2021

Plan Type: Congress

Population Summary

Summary Statistics:

Population Range:	765,135 to 765,137
Ratio Range:	0.00
Absolute Range:	-1 to 1
Absolute Overall Range:	2
Relative Range:	0.00% to 0.00%
Relative Overall Range:	0.00%
Absolute Mean Deviation:	0.71
Relative Mean Deviation:	0.00%
Standard Deviation:	0.80

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
001	765,137	1	0.00%	589,266	77.01%	57.59%	27.54%	7.75%	2.19%	0.24%	0.16%	0.44%	4.1%
002	765,137	1	0.00%	587,555	76.79%	39.94%	49.03%	5.95%	1.34%	0.21%	0.1%	0.34%	3.09%
003	765,136	0	0.00%	586,319	76.63%	64.37%	22.61%	6.31%	2.09%	0.21%	0.04%	0.47%	3.91%
004	765,135	-1	0.00%	589,470	77.04%	25.82%	52.19%	11.63%	6.13%	0.16%	0.04%	0.65%	3.39%
005	765,137	1	0.00%	621,515	81.23%	35.79%	48.53%	7.38%	4.09%	0.16%	0.04%	0.52%	3.49%
006	765,136	0	0.00%	574,797	75.12%	63.7%	8.58%	10.23%	12.4%	0.16%	0.04%	0.69%	4.21%
007	765,137	1	0.00%	566,934	74.1%	29.52%	28.11%	23.77%	14.26%	0.16%	0.04%	0.69%	3.45%
008	765,136	0	0.00%	585,857	76.57%	57.91%	29.72%	7.17%	1.56%	0.19%	0.05%	0.31%	3.09%
009	765,137	1	0.00%	592,520	77.44%	64.7%	9.72%	15.39%	5.95%	0.2%	0.04%	0.42%	3.59%
010	765,135	-1	0.00%	588,874	76.96%	63.58%	22.12%	7.66%	2.26%	0.17%	0.04%	0.53%	3.63%
011	765,137	1	0.00%	595,201	77.79%	61.33%	16.33%	13.04%	3.76%	0.19%	0.04%	0.82%	4.49%
012	765,136	0	0.00%	588,119	76.86%	52.13%	36.12%	5.63%	1.83%	0.21%	0.11%	0.36%	3.61%
013	765,137	1	0.00%	574,789	75.12%	16.35%	64.26%	12.23%	3.17%	0.18%	0.05%	0.66%	3.1%
014	765,135	-1	0.00%	579,058	75.68%	68.07%	13.58%	12.69%	1.14%	0.22%	0.05%	0.4%	3.85%

Total: 10,711,908

Ideal District: 765,136

User: S018

Plan Name: Congress-prop1-2021

Plan Type: Congress

Population Summary

Summary Statistics:

Population Range:	765,135 to 765,137
Ratio Range:	0.00
Absolute Range:	-1 to 1
Absolute Overall Range:	2
Relative Range:	0.00% to 0.00%
Relative Overall Range:	0.00%
Absolute Mean Deviation:	0.71
Relative Mean Deviation:	0.00%
Standard Deviation:	0.80

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
001	765,137	1	0.00%	589,266	77.01%	60.41%	26.44%	6.78%	2.36%	0.26%	0.14%	0.37%	3.24%
002	765,137	1	0.00%	587,555	76.79%	42.73%	47.62%	5.12%	1.41%	0.23%	0.09%	0.28%	2.53%
003	765,136	0	0.00%	586,319	76.63%	66.83%	22%	5.33%	2.08%	0.22%	0.04%	0.38%	3.11%
004	765,135	-1	0.00%	589,470	77.04%	28.25%	51.79%	10.12%	6.09%	0.16%	0.04%	0.58%	2.96%
005	765,137	1	0.00%	621,515	81.23%	37.92%	47.14%	6.67%	4.53%	0.16%	0.04%	0.48%	3.07%
006	765,136	0	0.00%	574,797	75.12%	66.63%	8.61%	9.11%	11.44%	0.14%	0.04%	0.63%	3.41%
007	765,137	1	0.00%	566,934	74.1%	32.78%	27.35%	21.27%	14.97%	0.16%	0.04%	0.59%	2.85%
008	765,136	0	0.00%	585,857	76.57%	60.52%	28.84%	6.1%	1.6%	0.2%	0.05%	0.25%	2.43%
009	765,137	1	0.00%	592,520	77.44%	68.29%	9.37%	12.89%	5.94%	0.21%	0.03%	0.34%	2.92%
010	765,135	-1	0.00%	588,874	76.96%	66.2%	21.34%	6.51%	2.3%	0.19%	0.03%	0.46%	2.98%
011	765,137	1	0.00%	595,201	77.79%	63.99%	16.25%	11.22%	3.82%	0.2%	0.04%	0.75%	3.73%
012	765,136	0	0.00%	588,119	76.86%	54.65%	35.06%	4.87%	1.95%	0.22%	0.1%	0.3%	2.86%
013	765,137	1	0.00%	574,789	75.12%	18.82%	63.75%	10.52%	3.38%	0.19%	0.05%	0.61%	2.68%
014	765,135	-1	0.00%	579,058	75.68%	71.33%	13.14%	10.58%	1.17%	0.23%	0.04%	0.32%	3.2%

Total: 10,711,908

Ideal District: 765,136

DECLARATION OF WILLIAM S. COOPER: EXHIBIT H

Population Summary Report

Georgia U.S. House -- 2020 Census -- 2021 Plan

District	Population	Deviation	% Deviation	AP Black	% AP Black	Latino	% Latino	NH White	% NH White
001	765137	1	0.00%	230783	30.16%	59328	7.75%	440636	57.59%
002	765137	1	0.00%	393195	51.39%	45499	5.95%	305611	39.94%
003	765136	0	0.00%	188947	24.69%	48285	6.31%	492494	64.37%
004	765135	-1	0.00%	423763	55.38%	88947	11.63%	197536	25.82%
005	765137	1	0.00%	392822	51.34%	56496	7.38%	273819	35.79%
006	765136	0	0.00%	78871	10.31%	78299	10.23%	487400	63.70%
007	765137	1	0.00%	239717	31.33%	181851	23.77%	225905	29.52%
008	765136	0	0.00%	241628	31.58%	54850	7.17%	443123	57.91%
009	765137	1	0.00%	87130	11.39%	117758	15.39%	495078	64.70%
010	765135	-1	0.00%	184137	24.07%	58645	7.66%	486487	63.58%
011	765137	1	0.00%	143404	18.74%	99794	13.04%	469264	61.33%
012	765136	0	0.00%	294961	38.55%	43065	5.63%	398843	52.13%
013	765137	1	0.00%	520094	67.97%	93554	12.23%	125106	16.35%
014	765135	-1	0.00%	118694	15.51%	97086	12.69%	520854	68.07%
Total	10711908		0.00%	3538146	33.03%	1123457	10.49%	5362156	50.06%

District	18+ Pop	18+ SR Black	% 18+ SR Black	18+ AP Black	% 18+ AP Black	18+ Latino	% 18+ Latino	18+ NH White	% 18+ NH White
01	589266	157770	26.77%	166025	28.17%	39938	6.78%	355947	60.41%
02	587555	281564	47.92%	289612	49.29%	30074	5.12%	251047	42.73%
03	586319	130099	22.19%	136708	23.32%	31274	5.33%	391849	66.83%
04	589470	308266	52.30%	321379	54.52%	59670	10.12%	166544	28.25%
05	621515	295885	47.61%	308271	49.60%	41432	6.67%	235652	37.92%
06	574797	50334	8.76%	56969	9.91%	52353	9.11%	382971	66.63%
07	566934	157650	27.81%	169071	29.82%	120604	21.27%	185838	32.78%
08	585857	170421	29.09%	175967	30.04%	35732	6.10%	354572	60.52%
09	592520	56416	9.52%	61747	10.42%	76361	12.89%	404611	68.29%
10	588874	126798	21.53%	133097	22.60%	38336	6.51%	389823	66.20%
11	595201	98212	16.50%	106811	17.95%	66802	11.22%	380895	63.99%
12	588119	207872	35.35%	215958	36.72%	28628	4.87%	321394	54.65%
13	574789	370024	64.38%	383663	66.75%	60467	10.52%	108160	18.82%
14	579058	77108	13.32%	82708	14.28%	61247	10.58%	413030	71.33%
Total	8220274	2488419	30.27%	2607986	31.73%	742918	9.04%	4342333	52.82%

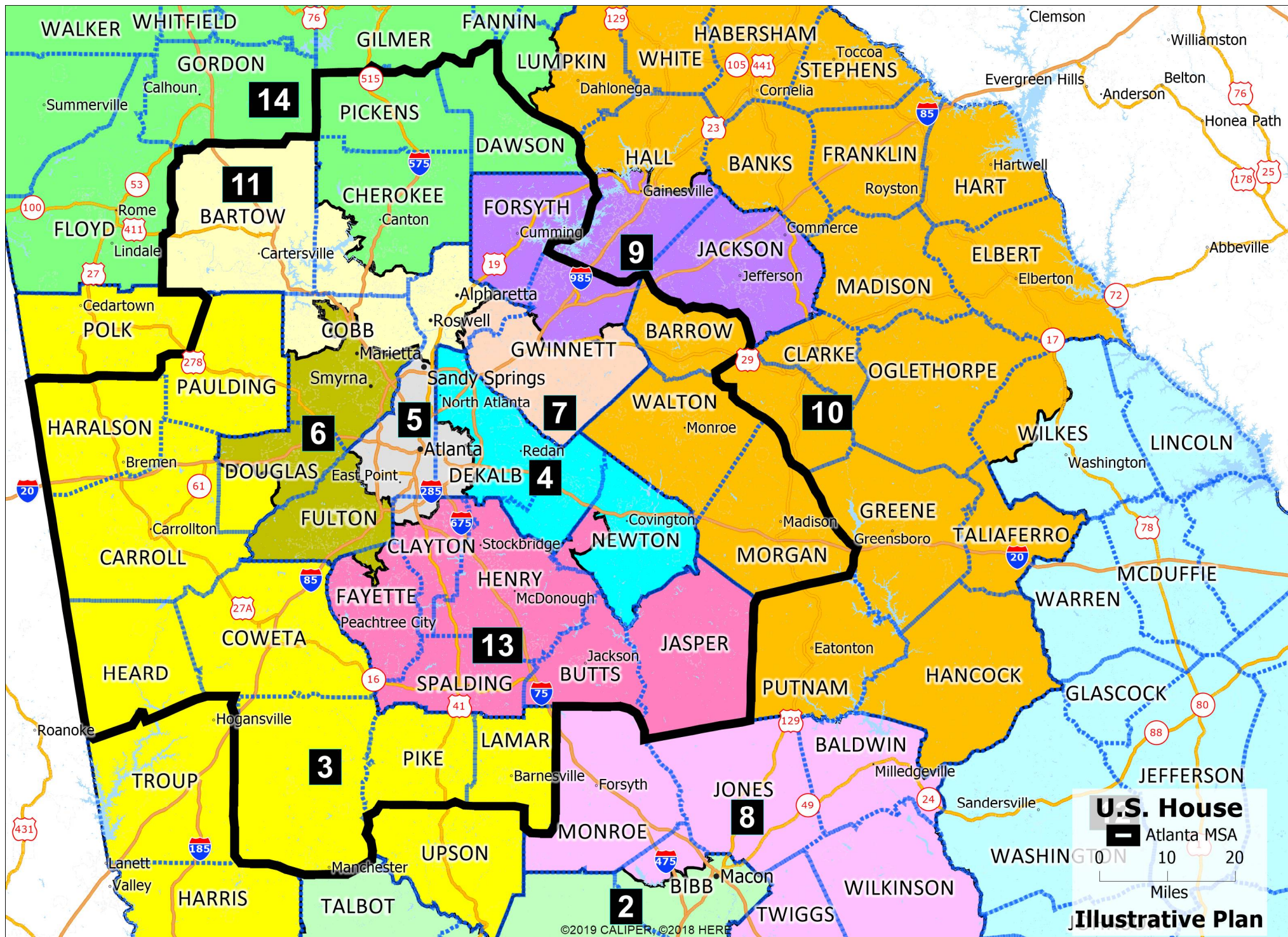
District	% NH Single-Race Black CVAP*	% Latino CVAP	% NH Single-Race Asian CVAP*	% SR NH White CVAP
001	29.85%	4.32%	1.53%	63.37%
002	50.00%	3.11%	1.05%	44.97%
003	22.82%	3.35%	1.47%	71.44%
004	58.04%	3.74%	3.77%	33.70%
005	53.48%	3.24%	3.08%	39.58%
006	10.00%	5.31%	6.15%	77.67%
007	31.93%	10.21%	11.79%	45.17%
008	30.61%	3.37%	1.26%	64.11%
009	10.38%	6.58%	3.92%	78.18%
010	22.56%	3.53%	1.70%	71.57%
011	18.09%	5.82%	2.69%	72.26%
012	37.20%	3.32%	1.45%	57.28%
013	66.88%	5.43%	3.05%	23.84%
014	13.38%	5.67%	1.04%	79.04%

Note: Citizen Voting Age Population (CVAP) percentages are disaggregated from block-group level ACS estimates (with a survey midpoint of July 2017)

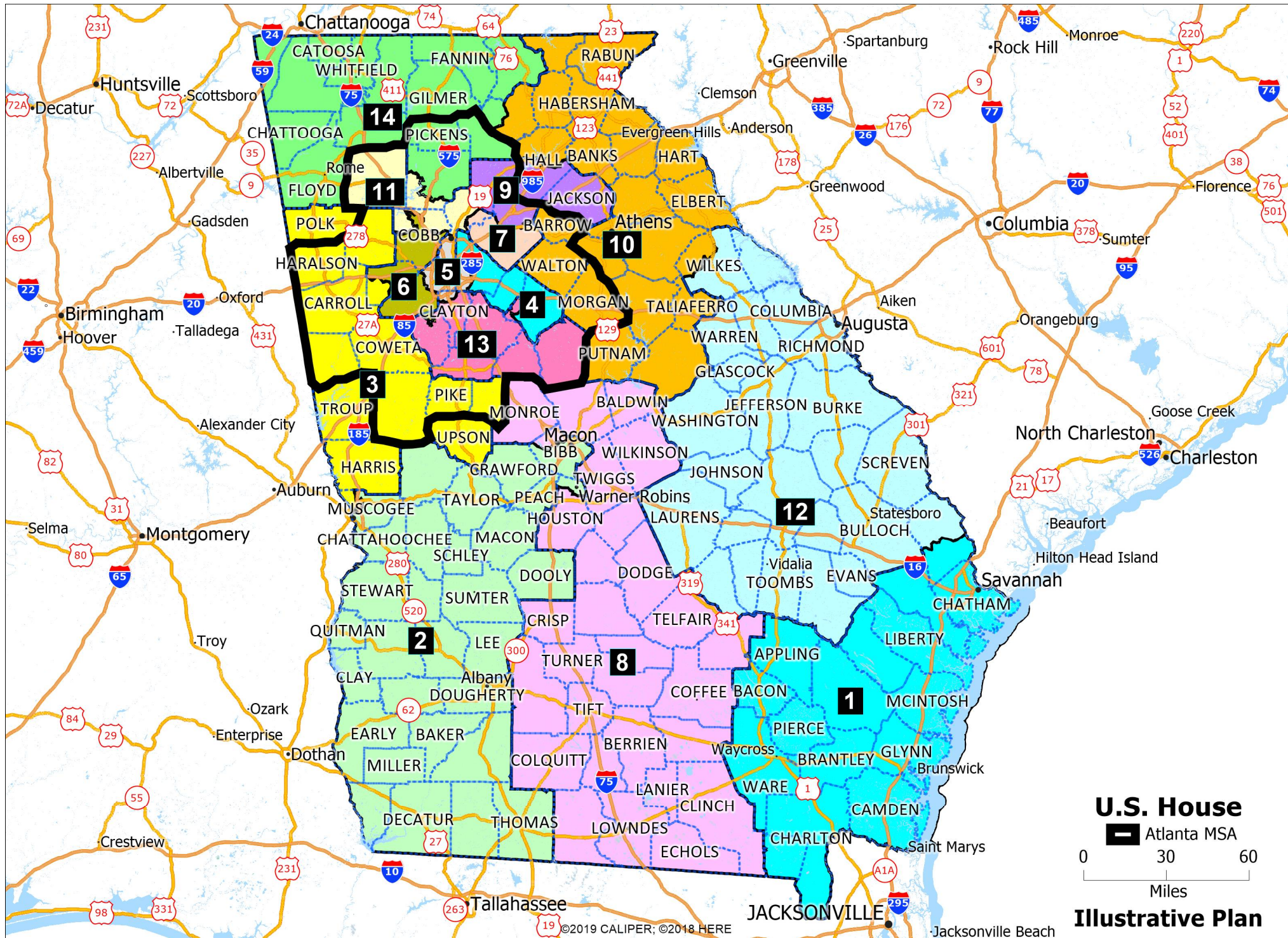
Source for CVAP disaggregation: Redistricting Data Hub

<https://redistrictingdatahub.org/dataset/georgia-cvap-data-disaggregated-to-the-2020-block-level-2019/>

DECLARATION OF WILLIAM S. COOPER: EXHIBIT I-1



DECLARATION OF WILLIAM S. COOPER: EXHIBIT I-2



DECLARATION OF WILLIAM S. COOPER: EXHIBIT J

Population Summary Report**Georgia U.S. House -- 2020 Census -- Illustrative Plan**

District	Population	Deviation	% Deviation	AP Black	% AP Black	Latino	% Latino	NH White	% NH White
001	765137	1	0.00%	230783	30.16%	59328	7.75%	440636	57.59%
002	765137	1	0.00%	393195	51.39%	45499	5.95%	305611	39.94%
003	765137	1	0.00%	169940	22.21%	50613	6.61%	513780	67.15%
004	765135	-1	0.00%	407044	53.20%	87771	11.47%	214908	28.09%
005	765137	1	0.00%	392822	51.34%	56496	7.38%	273819	35.79%
006	765137	1	0.00%	396936	51.88%	106608	13.93%	225248	29.44%
007	765137	1	0.00%	239717	31.33%	181851	23.77%	225905	29.52%
008	765136	0	0.00%	241628	31.58%	54850	7.17%	443123	57.91%
009	765136	0	0.00%	94059	12.29%	128393	16.78%	429340	56.11%
010	765137	1	0.00%	118199	15.45%	61244	8.00%	548312	71.66%
011	765135	-1	0.00%	107364	14.03%	82166	10.74%	496255	64.86%
012	765136	0	0.00%	294961	38.55%	43065	5.63%	398843	52.13%
013	765136	0	0.00%	407053	53.20%	71777	9.38%	250713	32.77%
014	765135	-1	0.00%	44445	5.81%	93796	12.26%	595663	77.85%
Total	10711908		0.00%	3538146	33.03%	1123457	10.49%	5362156	50.06%

District	18+ Pop	18+ SR Black	% 18+ SR Black	18+ AP Black	% 18+ AP Black	18+ Latino	% 18+ Latino	18+ NH White	% 18+ NH White
001	589266	157770	26.77%	166025	28.17%	39938	6.78%	355947	60.41%
002	587555	281564	47.92%	289612	49.29%	30074	5.12%	251047	42.73%
003	580628	115094	19.82%	121443	20.92%	32286	5.56%	403737	69.53%
004	590588	296712	50.24%	309449	52.40%	58928	9.98%	179975	30.47%
005	621515	295885	47.61%	308271	49.60%	41432	6.67%	235652	37.92%
006	588518	282569	48.01%	295632	50.23%	70849	12.04%	192244	32.67%
007	566934	157650	27.81%	169071	29.82%	120604	21.27%	185838	32.78%
008	585857	170421	29.09%	175967	30.04%	35732	6.10%	354572	60.52%
009	564244	59821	10.60%	65790	11.66%	83453	14.79%	335720	59.50%
010	602127	81481	13.53%	86178	14.31%	39876	6.62%	447109	74.25%
011	587214	69915	11.91%	77925	13.27%	55438	9.44%	395951	67.43%
012	588119	207872	35.35%	215958	36.72%	28628	4.87%	321394	54.65%
013	576089	284619	49.41%	296082	51.40%	46414	8.06%	205295	35.64%
014	591620	27046	4.57%	30583	5.17%	59266	10.02%	477852	80.77%
Total	8220274	2488419	30.27%	2607986	31.73%	742918	9.04%	4342333	52.82%

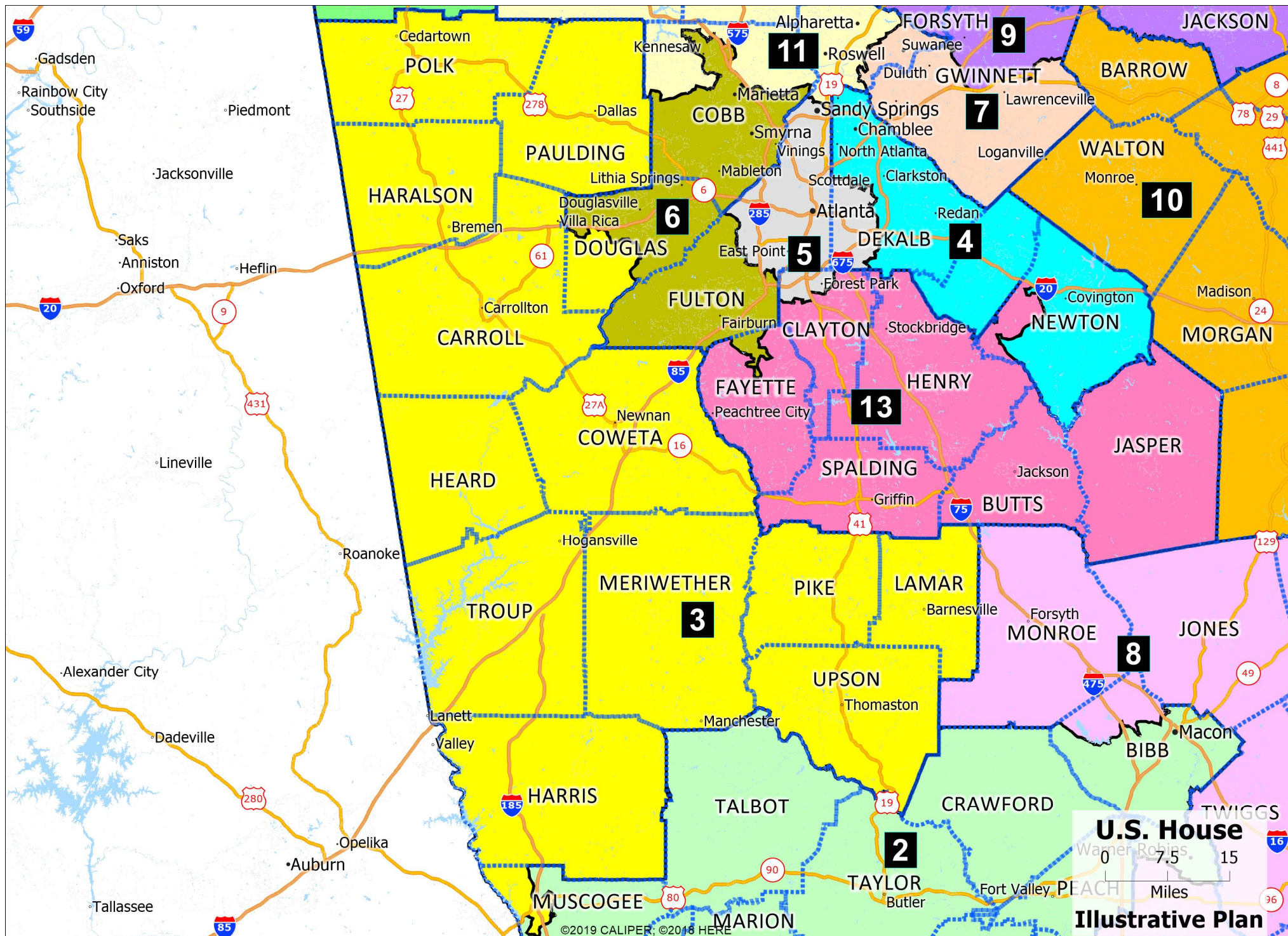
District	% NH Single-Race Black CVAP*	% Latino CVAP	% NH Single-Race Asian CVAP*	% SR NH White CVAP
001	29.85%	4.32%	1.53%	63.37%
002	50.00%	3.11%	1.05%	44.97%
003	20.40%	3.48%	1.12%	74.12%
004	55.48%	3.65%	3.73%	36.35%
005	53.48%	3.24%	3.08%	39.58%
006	50.69%	6.22%	2.65%	39.76%
007	31.93%	10.21%	11.79%	45.17%
008	30.61%	3.37%	1.26%	64.11%
009	11.66%	8.11%	6.82%	72.61%
010	15.38%	3.54%	1.62%	78.72%
011	13.30%	5.31%	4.38%	76.14%
012	37.20%	3.32%	1.45%	57.28%
013	50.05%	4.56%	3.01%	41.49%
014	5.14%	4.98%	0.80%	87.82%

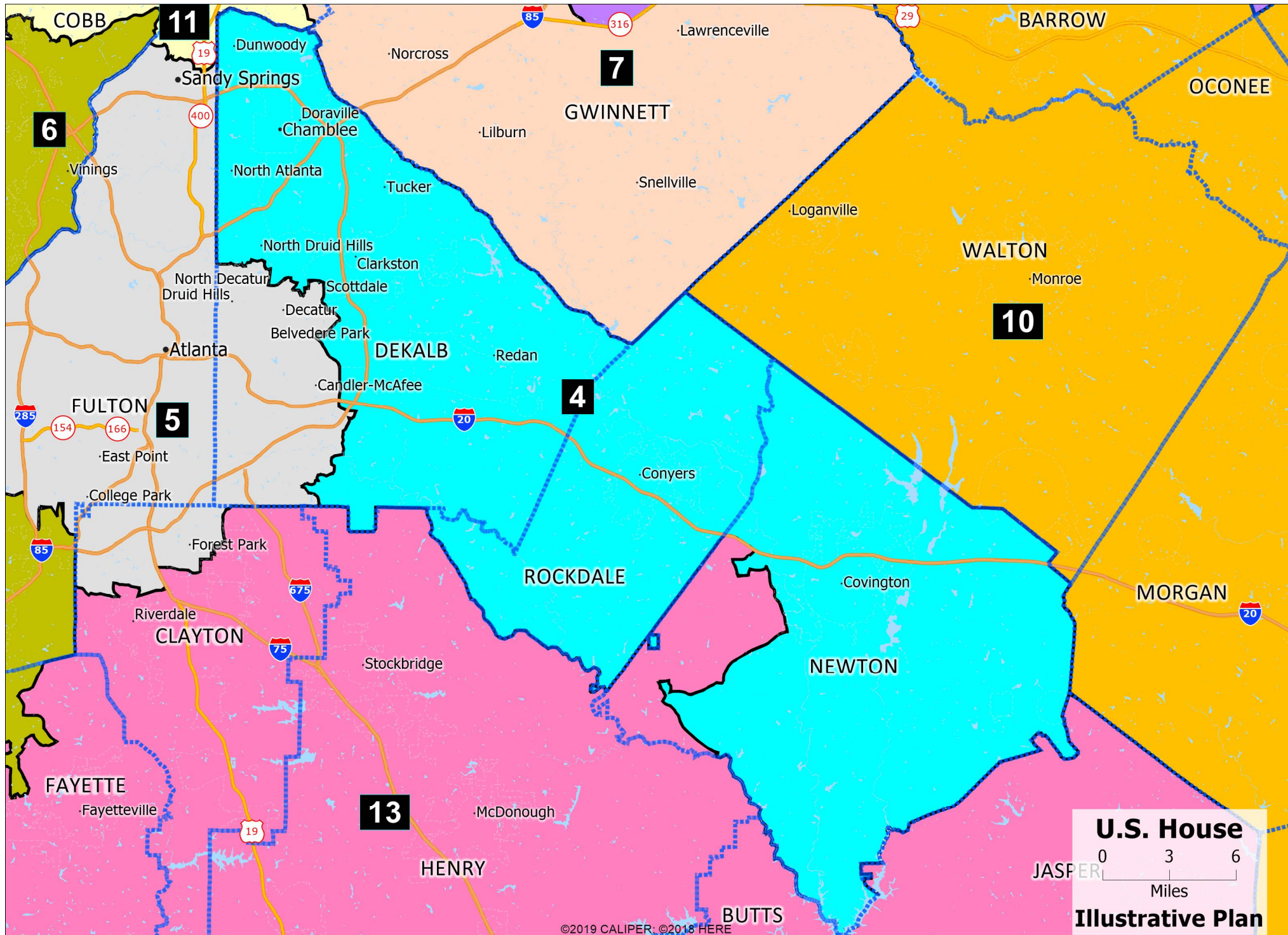
Note: Citizen Voting Age Population (CVAP) percentages are disaggregated from block-group level ACS estimates (with a survey midpoint of July 2017)

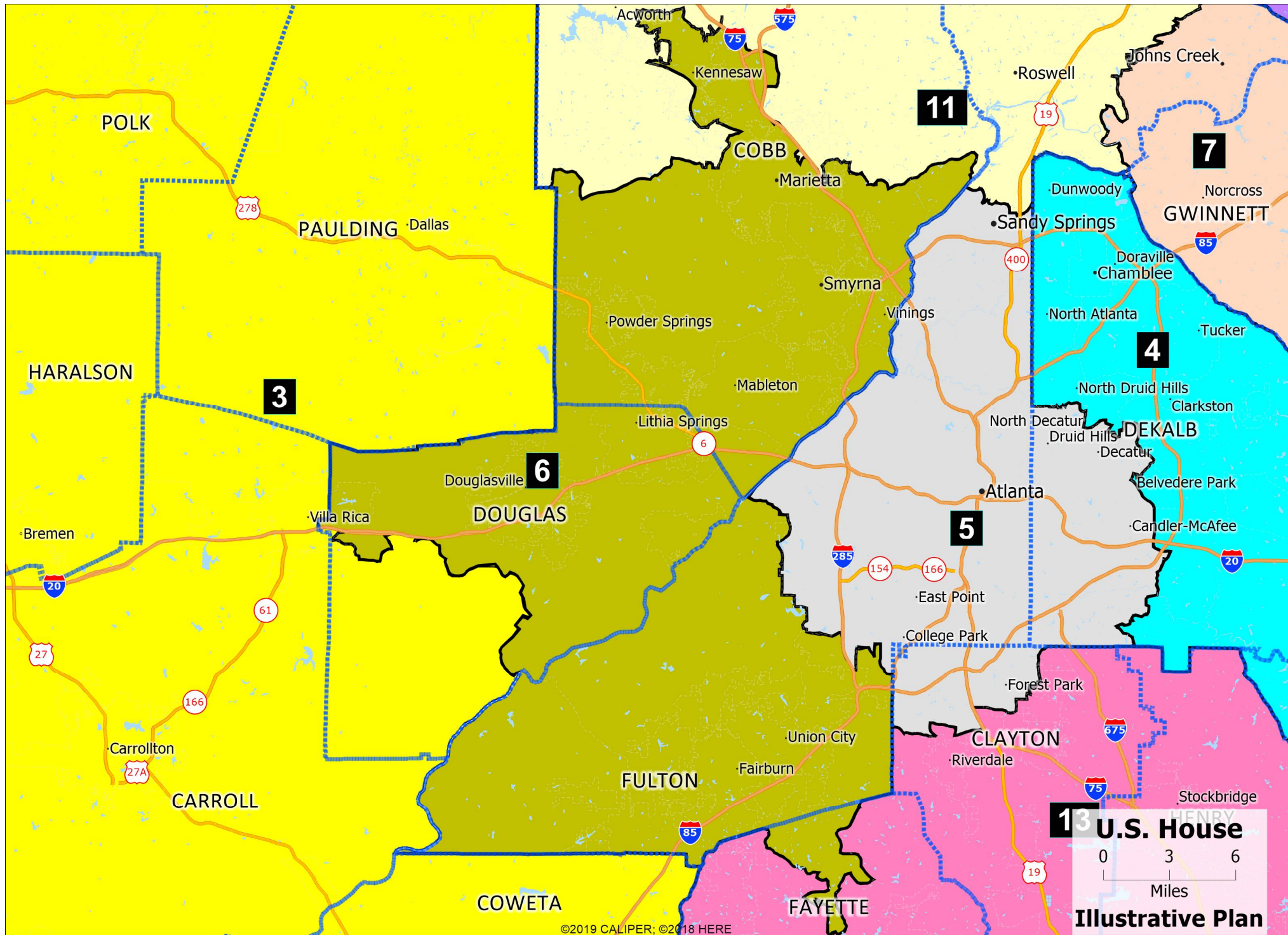
Source for CVAP disaggregation: Redistricting Data Hub

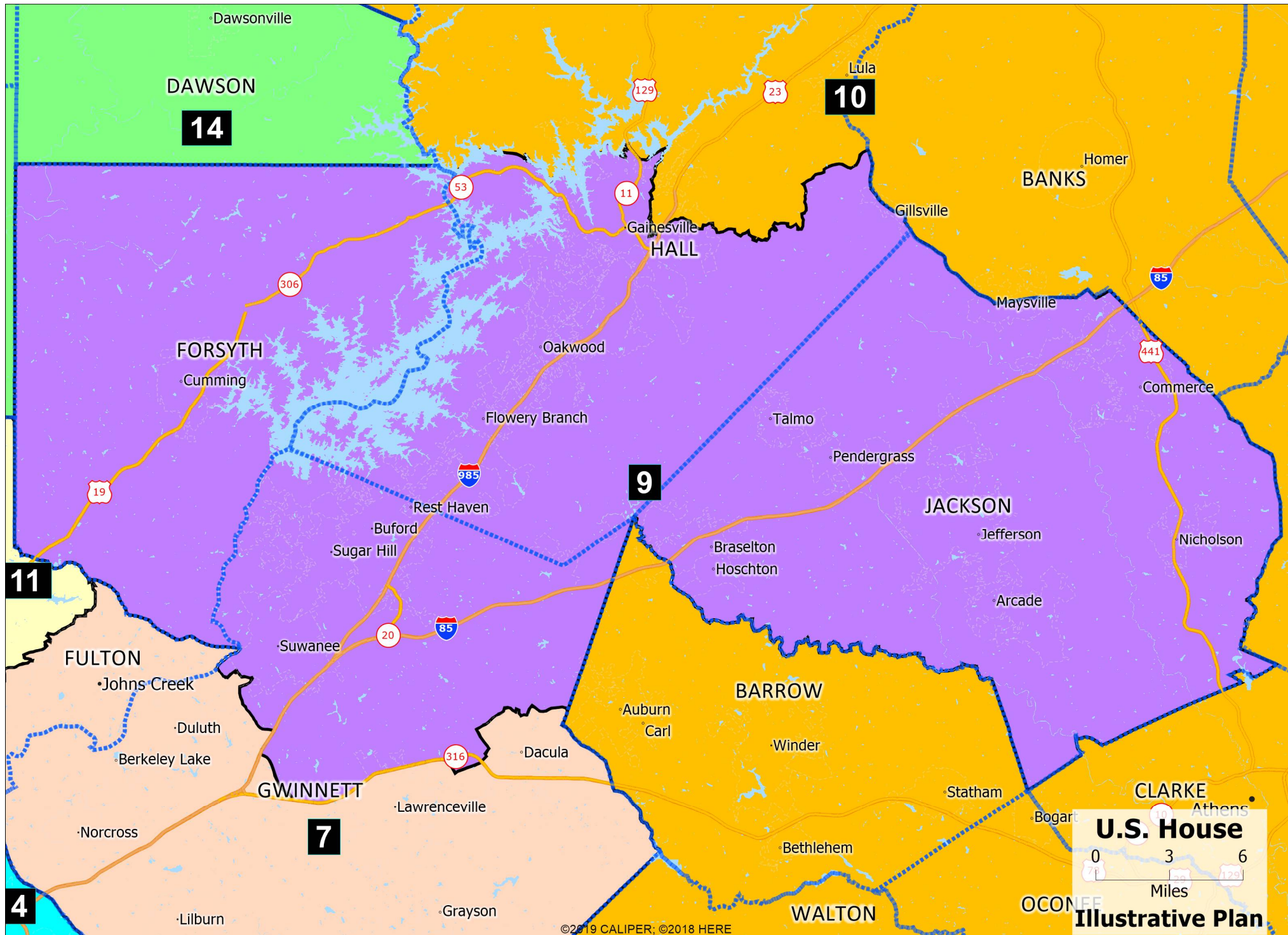
<https://redistrictingdatahub.org/dataset/georgia-cvap-data-disaggregated-to-the-2020-block-level-2019/>

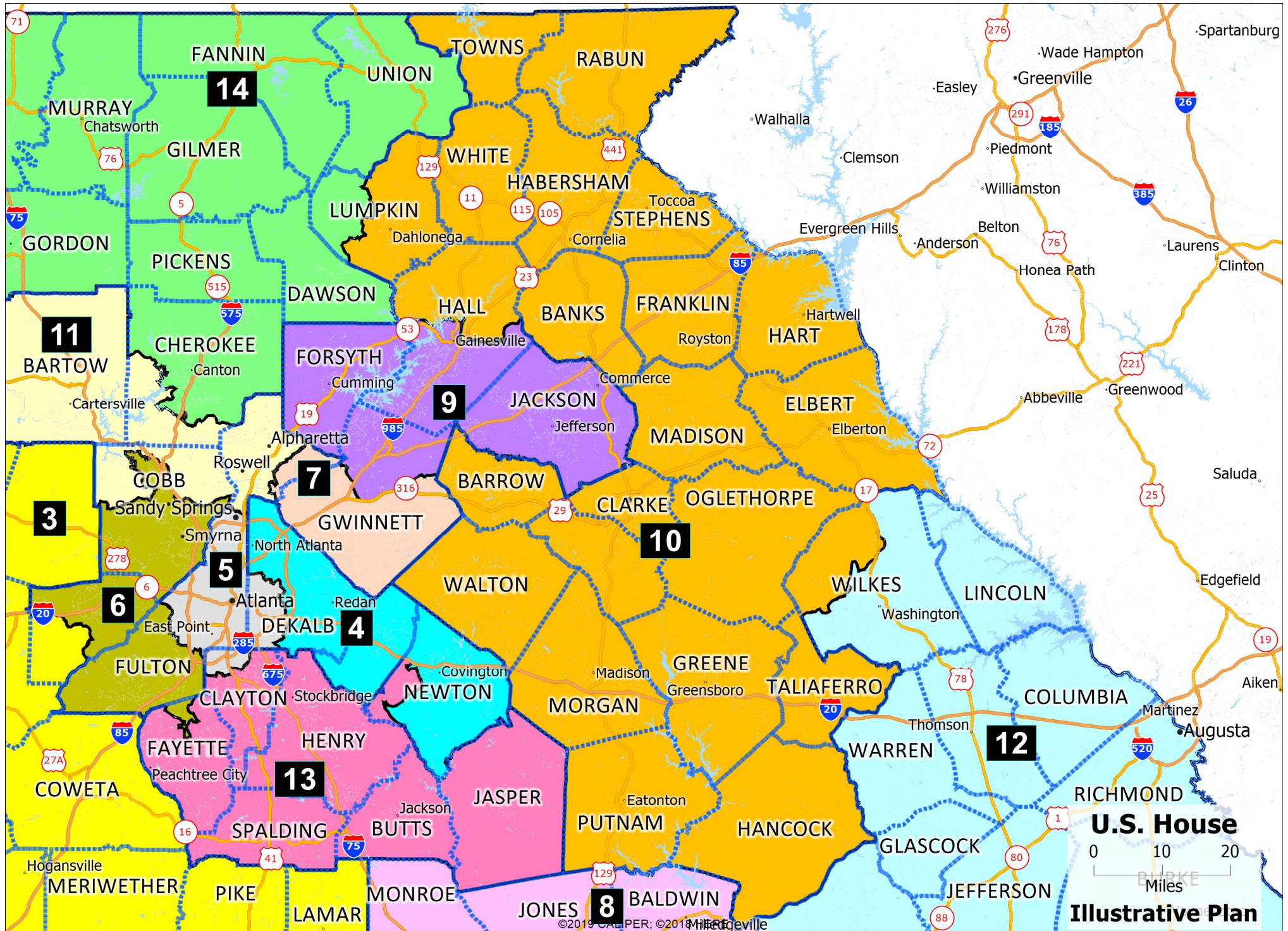
DECLARATION OF WILLIAM S. COOPER: EXHIBIT K

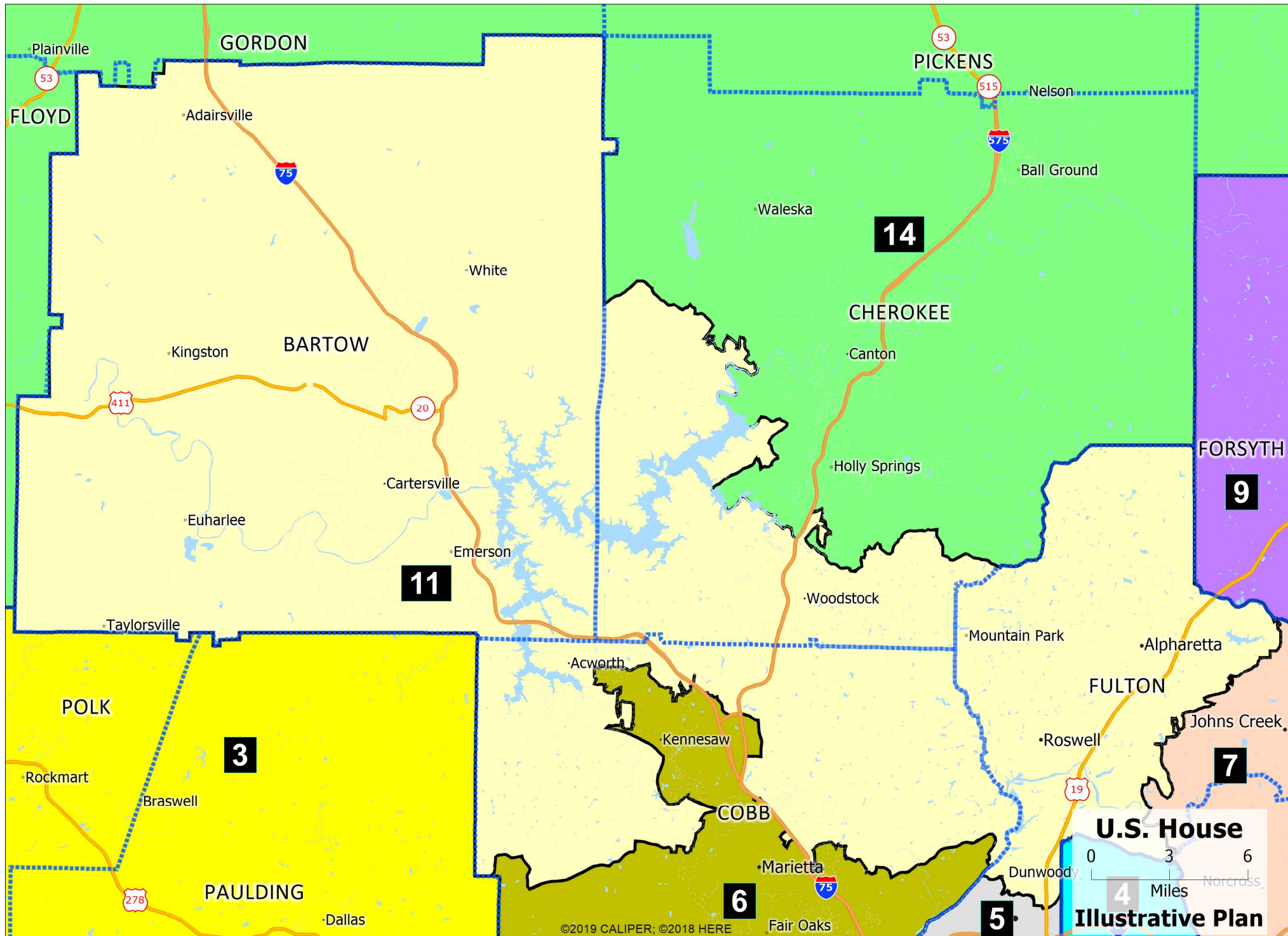


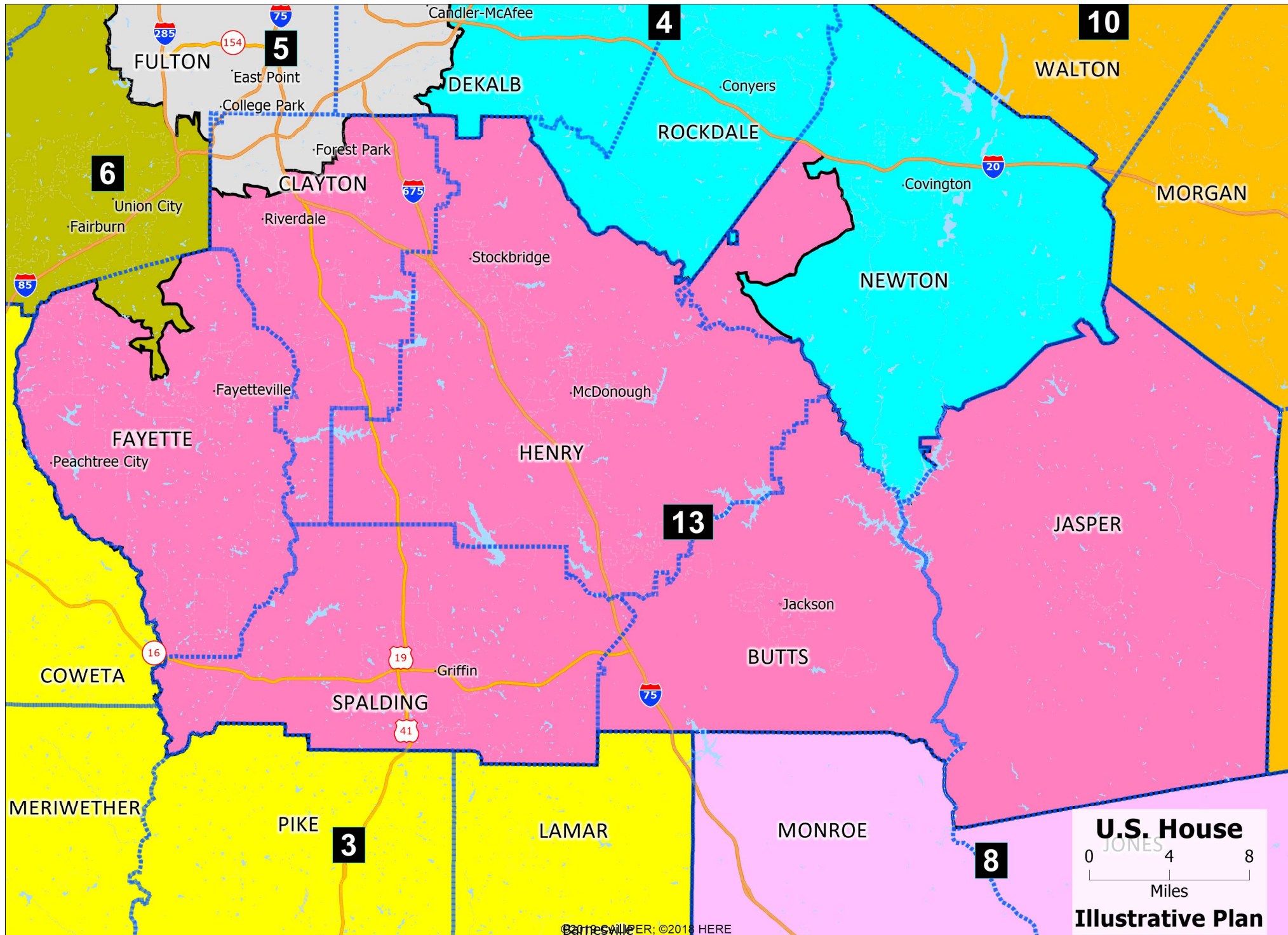


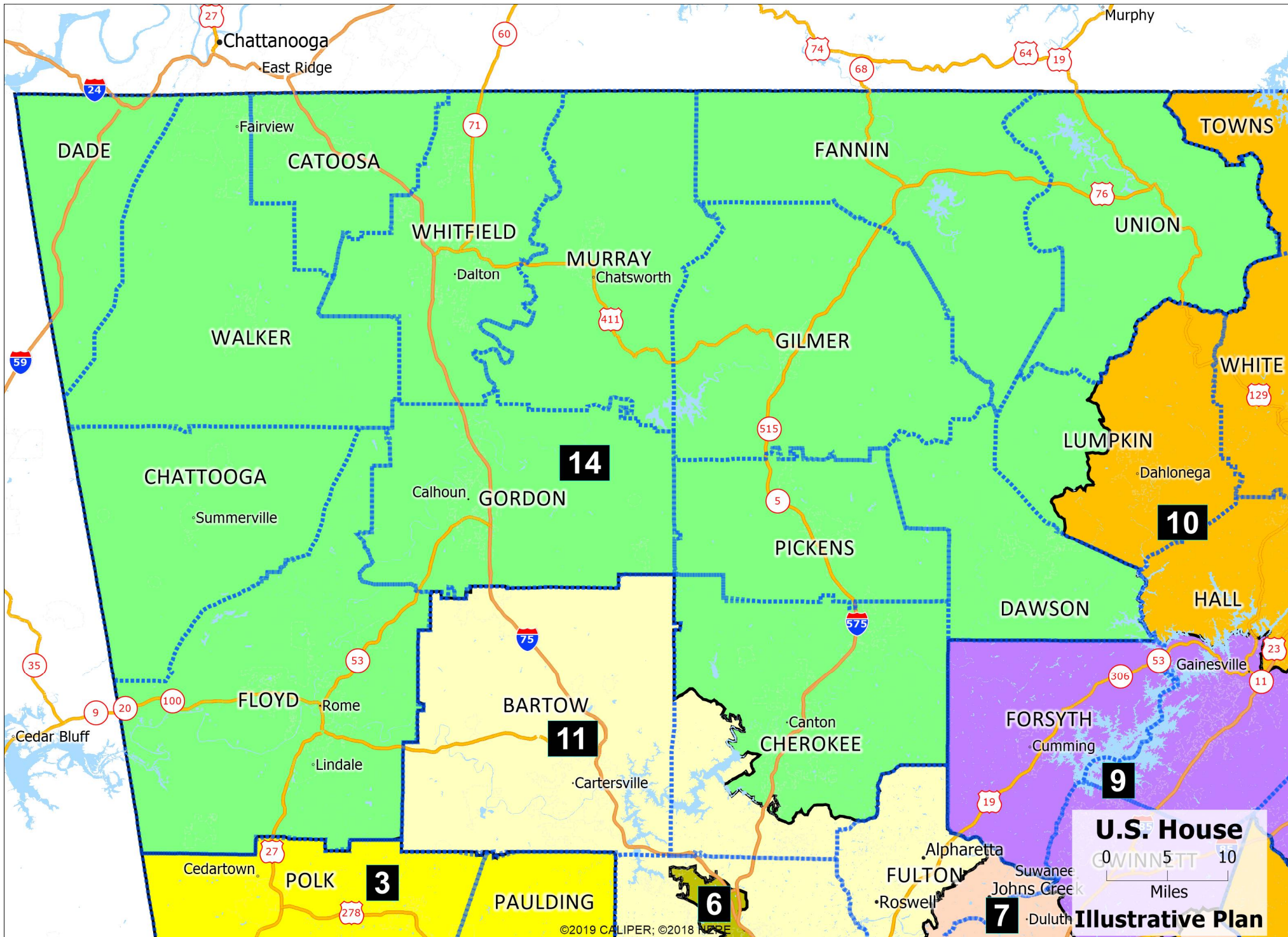












DECLARATION OF WILLIAM S. COOPER: EXHIBIT L-1

User:

Plan Name: [ga_congress_illustrative_changed_districts](#)Plan Type: [Senate](#)

Measures of Compactness Report

Monday, January 10, 2022

7:21 AM

	Reock	Polsby-Popper
Sum	N/A	N/A
Min	0.29	0.16
Max	0.48	0.34
Mean	0.40	0.23
Std. Dev.	0.05	0.07

District	Reock	Polsby-Popper
003	0.40	0.25
004	0.29	0.21
006	0.38	0.16
009	0.40	0.32
010	0.40	0.18
011	0.40	0.16
013	0.42	0.25
014	0.48	0.34

Measures of Compactness Report

ga_congress_illustrative_chan

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.

DECLARATION OF WILLIAM S. COOPER: EXHIBIT L-2

User:

Plan Name: [ga_congress_2021_plan_8_district_comparison](#)Plan Type: [Senate](#)

Measures of Compactness Report

Monday, January 10, 2022

7:26 AM

	Reock	Polsby-Popper
Sum	N/A	N/A
Min	0.31	0.16
Max	0.56	0.37
Mean	0.43	0.25
Std. Dev.	0.08	0.06

District	Reock	Polsby-Popper
003	0.46	0.28
004	0.31	0.25
006	0.42	0.20
009	0.38	0.25
010	0.56	0.28
011	0.48	0.21
013	0.38	0.16
014	0.43	0.37

Measures of Compactness Report

ga_congress_2021__plan_8_di

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.

DECLARATION OF WILLIAM S. COOPER: EXHIBIT M-1

User:

Plan Name: [ga_congress_illustrative_changed_districts](#)Plan Type: [Senate](#)

Political Subdivison Splits Between Districts

Monday, January 10, 2022

7:22 AM

Split Counts

Number of subdivisions split into more than one district: Number of splits involving no population:

County 13 County 0

Number of times a subdivision is split into multiple districts:

County 14

Voting District 49

County	District	Population
<i>Split Counties:</i>		
Cherokee GA	011	122,400
Cherokee GA	014	144,220
Clayton GA	013	259,676
Cobb GA	006	477,809
Cobb GA	011	288,340
DeKalb GA	004	601,451
Douglas GA	003	25,423
Douglas GA	006	118,814
Fayette GA	006	4,143
Fayette GA	013	115,051
Fulton GA	006	164,371
Fulton GA	011	245,494
Gwinnett GA	009	284,483
Hall GA	009	153,463
Hall GA	010	49,673
Lumpkin GA	010	29,598
Lumpkin GA	014	3,890
Muscogee GA	003	31,767
Newton GA	004	70,114
Newton GA	013	42,369
Wilkes GA	010	1,802

Split VTDs:

Cherokee GA	011	5,916
Cherokee GA	014	623
Cherokee GA	011	373
Cherokee GA	014	8,830
Cobb GA	006	2,122
Cobb GA	011	5,213
Cobb GA	006	70
Cobb GA	011	7,152
Cobb GA	006	7,529
Cobb GA	011	3,661
Cobb GA	006	411

Political Subdivison Splits Between Districts

ga_congress_illustrative_chan

County	District	Population
Cobb GA	011	3,511
Cobb GA	006	4,742
Cobb GA	011	459
Cobb GA	006	5,693
Cobb GA	011	177
Cobb GA	006	2,972
Cobb GA	011	1,471
Cobb GA	006	7,666
Cobb GA	011	64
Cobb GA	006	747
Cobb GA	011	2,444
Cobb GA	006	4,228
Cobb GA	011	106
Cobb GA	006	1,933
Cobb GA	011	2,828
Cobb GA	006	3,022
Cobb GA	011	1,532
Cobb GA	006	102
Cobb GA	011	3,068
Cobb GA	006	103
Cobb GA	011	3,873
Cobb GA	006	1,886
Cobb GA	011	5,051
DeKalb GA	004	341
DeKalb GA	004	2,220
DeKalb GA	004	2,482
Douglas GA	003	5,224
Douglas GA	006	369
Douglas GA	003	6,402
Douglas GA	006	97
Fayette GA	006	399
Fayette GA	013	3,340
Fayette GA	006	2,820
Fayette GA	013	330
Fayette GA	006	22
Fayette GA	013	3,458
Fayette GA	006	902
Fayette GA	013	1,838
Fulton GA	006	700
Fulton GA	006	1,718
Fulton GA	011	164
Fulton GA	011	7,186
Fulton GA	006	773
Fulton GA	011	3,803
Fulton GA	011	900
Fulton GA	011	5,019
Fulton GA	011	594

Political Subdivison Splits Between Districts

ga_congress_illustrative_chan

County	District	Population
Fulton GA	011	309
Gwinnett GA	009	5,138
Hall GA	009	6,606
Hall GA	010	181
Hall GA	009	25
Hall GA	010	6,845
Hall GA	009	366
Hall GA	010	5,685
Lumpkin GA	010	29,598
Lumpkin GA	014	3,890
Muscogee GA	003	1,271
Muscogee GA	003	192
Muscogee GA	003	1,082
Newton GA	004	2,860
Newton GA	013	3,695
Newton GA	004	533
Newton GA	013	6,697
Newton GA	004	2,170
Newton GA	013	6,451
Wilkes GA	010	106
Wilkes GA	010	774

DECLARATION OF WILLIAM S. COOPER: EXHIBIT M-2

User:

Plan Name: **ga_congress_2021_plan_8_district_comparison**Plan Type: **Senate**

Political Subdivison Splits Between Districts

Monday, January 10, 2022

7:29 AM

Split Counts

Number of subdivisions split into more than one district: Number of splits involving no population:

County 14 County 2

Number of times a subdivision is split into multiple districts:

County 19

Voting District 47

County	District	Population
<i>Split Counties:</i>		
Cherokee GA	006	40,881
Cherokee GA	011	225,739
Clayton GA	013	259,676
Cobb GA	006	165,925
Cobb GA	011	397,281
Cobb GA	013	125,029
Cobb GA	014	77,914
DeKalb GA	004	601,451
Douglas GA	003	42,970
Douglas GA	013	101,267
Fayette GA	003	102,685
Fayette GA	013	16,509
Franklin GA	009	23,424
Franklin GA	010	0
Fulton GA	006	245,494
Fulton GA	013	164,371
Gilmer GA	009	31,353
Gilmer GA	014	0
Gwinnett GA	006	34,755
Gwinnett GA	009	249,728
Henry GA	003	23,975
Henry GA	010	118,452
Henry GA	013	98,285
Muscogee GA	003	31,767
Newton GA	004	70,114
Newton GA	010	42,369
Wilkes GA	010	1,802
<i>Split VTDs:</i>		
Cherokee GA	006	2,468
Cherokee GA	011	7,593
Cobb GA	006	3,511
Cobb GA	011	411
Cobb GA	006	459

Political Subdivison Splits Between Districts

ga_congress_2021_plan_8_di

County	District	Population
Cobb GA	011	4,742
Cobb GA	006	177
Cobb GA	011	5,693
Cobb GA	011	2,051
Cobb GA	014	3,151
Cobb GA	013	5,999
Cobb GA	014	1,103
Cobb GA	013	4,152
Cobb GA	014	1,531
Cobb GA	006	106
Cobb GA	011	4,228
Cobb GA	006	2,828
Cobb GA	011	1,933
Cobb GA	006	1,532
Cobb GA	011	3,022
Cobb GA	011	6,108
Cobb GA	013	18
Cobb GA	011	3,804
Cobb GA	013	807
Cobb GA	011	3,496
Cobb GA	014	1,409
Cobb GA	006	1,900
Cobb GA	011	1,785
Cobb GA	006	5,051
Cobb GA	011	1,886
Cobb GA	011	6,191
Cobb GA	013	3,601
Cobb GA	011	1,557
Cobb GA	013	5,432
Cobb GA	011	366
Cobb GA	013	8,229
DeKalb GA	004	341
DeKalb GA	004	2,220
DeKalb GA	004	2,482
Douglas GA	003	7,167
Douglas GA	013	324
Douglas GA	003	2,125
Douglas GA	013	1,028
Franklin GA	009	3,503
Franklin GA	010	0
Fulton GA	013	700
Fulton GA	013	1,718
Fulton GA	006	164
Fulton GA	006	7,186
Fulton GA	013	773
Fulton GA	006	3,803
Fulton GA	006	900

Political Subdivison Splits Between Districts

ga_congress_2021__plan_8_di

County	District	Population
Fulton GA	006	5,019
Fulton GA	006	594
Fulton GA	006	309
Gilmer GA	009	1,533
Gilmer GA	014	0
Gwinnett GA	009	5,138
Muscogee GA	003	1,271
Muscogee GA	003	192
Muscogee GA	003	1,082
Newton GA	004	6,251
Newton GA	010	464
Newton GA	004	2,372
Newton GA	010	712
Newton GA	004	114
Newton GA	010	8,507
Newton GA	004	4,260
Newton GA	010	2,077
Newton GA	004	1,737
Newton GA	010	2,304
Wilkes GA	010	0
Wilkes GA	010	106
Wilkes GA	010	774

DECLARATION OF WILLIAM S. COOPER: EXHIBIT N-1

User:

Plan Name: **ga_congress_illustrative_changed_districts**Plan Type: **Senate****Communities of Interest (Condensed)**

Monday, January 10, 2022

8:42 AM

Whole City/Town : 636**City/Town Splits: 83****Zero Population City/Town Splits: 4**

District	City/Town	Population	% Pop	District	City/Town	Population	% Pop
Unassigned	Riverdale	0	0.00%	004	Avondale	341	9.56%
Unassigned	Forest Park	14,165	71.07%		Estates		
Unassigned	Conley	2,256	33.77%	004	Scottdale	9,615	89.88%
Unassigned	North Decatur	2,019	10.91%	004	North Druid Hills	19,868	97.46%
Unassigned	Panthersville	10,685	95.09%	004	Atlanta	42	0.01%
Unassigned	Candler-McAfee	17,374	77.33%	004	Porterdale	1,720	95.61%
Unassigned	Belvedere Park	6,327	41.86%	006	Villa Rica	5,810	34.24%
Unassigned	Avondale Estates	3,226	90.44%	006	Chattahoochee Hills	2,948	99.93%
Unassigned	Scottdale	1,083	10.12%	006	Palmetto	4,510	88.94%
Unassigned	Sandy Springs	54,549	50.47%	006	Tyrone	0	0.00%
Unassigned	North Druid Hills	517	2.54%	006	Fayetteville	231	1.22%
Unassigned	Roswell	4,165	4.49%	006	South Fulton	103,705	96.53%
Unassigned	South Fulton	3,731	3.47%	006	College Park	4,972	35.69%
Unassigned	College Park	8,958	64.31%	006	East Point	3,706	9.66%
Unassigned	East Point	34,652	90.34%	006	Atlanta	700	0.14%
Unassigned	Atlanta	497,973	99.85%	006	Acworth	2,216	9.88%
Unassigned	Columbus	175,155	84.65%	006	Kennesaw	25,679	77.73%
Unassigned	Manchester	92	2.57%	006	Marietta	50,307	82.51%
Unassigned	Alpharetta	4,390	6.67%	009	Auburn	225	3.00%
Unassigned	Suwanee	346	1.66%	009	Braselton	11,396	85.03%
Unassigned	Loganville	3,155	22.33%	009	Gainesville	39,707	93.88%
Unassigned	Lawrenceville	29,016	94.73%	009	Gillsville	212	69.28%
Unassigned	Dacula	6,882	100.00%	009	Maysville	834	44.67%
003	Villa Rica	11,160	65.76%	009	Suwanee	20,440	98.34%
003	Chattahoochee Hills	2	0.07%	009	Lawrenceville	1,613	5.27%
003	Palmetto	561	11.06%	009	Dacula	0	0.00%
003	Columbus	31,767	15.35%	010	Social Circle	4,969	99.90%
003	Manchester	3,492	97.43%	010	Auburn	7,270	97.00%
003	Taylorsville	35	13.89%	010	Braselton	2,007	14.97%
004	Social Circle	5	0.10%	010	Gainesville	2,589	6.12%
004	North Decatur	16,492	89.09%	010	Gillsville	94	30.72%
004	Panthersville	552	4.91%	010	Maysville	1,033	55.33%
004	Candler-McAfee	5,094	22.67%	010	Loganville	10,972	77.67%
004	Belvedere Park	8,786	58.14%	011	Sandy Springs	53,531	49.53%
				011	Roswell	88,668	95.51%
				011	Acworth	20,224	90.12%
				011	Kennesaw	7,357	22.27%
				011	Alpharetta	61,428	93.33%
				011	Taylorsville	217	86.11%
				011	Marietta	10,665	17.49%
				011	Woodstock	33,557	95.70%

Communities of Interest (Condensed)

ga_congress_illustrative_chan

District	City/Town	Population	% Pop	District	City/Town	Population	% Pop
011	Holly Springs	45	0.28%				
013	Tyrone	7,658	100.00%				
013	Fayetteville	18,726	98.78%				
013	Riverdale	15,129	100.00%				
013	Forest Park	5,767	28.93%				
013	Conley	4,424	66.23%				
013	Porterdale	79	4.39%				
014	Woodstock	1,508	4.30%				
014	Holly Springs	16,168	99.72%				

DECLARATION OF WILLIAM S. COOPER: EXHIBIT N-2

User:

Plan Name: [ga_congress_2021_plan_8_district_comparison](#)Plan Type: [Senate](#)**Communities of Interest (Condensed)**

Monday, January 10, 2022

8:36 AM

Whole City/Town : 631**City/Town Splits: 96****Zero Population City/Town Splits: 6**

District	City/Town	Population	% Pop	District	City/Town	Population	% Pop
Unassigned	Riverdale	0	0.00%	004	Candler-McAfee	5,094	22.67%
Unassigned	Forest Park	14,165	71.07%	004	Belvedere Park	8,786	58.14%
Unassigned	Conley	2,256	33.77%	004	Avondale Estates	341	9.56%
Unassigned	North Decatur	2,019	10.91%	004	Scottdale	9,615	89.88%
Unassigned	Panthersville	10,685	95.09%	004	North Druid Hills	19,868	97.46%
Unassigned	Candler-McAfee	17,374	77.33%	004	Atlanta	42	0.01%
Unassigned	Belvedere Park	6,327	41.86%	006	Sandy Springs	53,531	49.53%
Unassigned	Avondale Estates	3,226	90.44%	006	Roswell	88,668	95.51%
Unassigned	Scottdale	1,083	10.12%	006	Alpharetta	61,428	93.33%
Unassigned	Sandy Springs	54,549	50.47%	006	Suwanee	0	0.00%
Unassigned	North Druid Hills	517	2.54%	006	Nelson	596	52.05%
Unassigned	Roswell	4,165	4.49%	006	Sugar Hill	19,576	78.07%
Unassigned	South Fulton	3,731	3.47%	006	Buford	695	4.05%
Unassigned	College Park	8,958	64.31%	006	Marietta	8,207	13.46%
Unassigned	East Point	34,652	90.34%	006	Holly Springs	404	2.49%
Unassigned	Atlanta	497,973	99.85%	006	Mountain Park	571	97.94%
Unassigned	Columbus	175,155	84.65%	009	Royston	2,648	99.96%
Unassigned	Manchester	92	2.57%	009	Auburn	225	3.00%
Unassigned	Alpharetta	4,390	6.67%	009	Braselton	7,160	53.42%
Unassigned	Suwanee	346	1.66%	009	Maysville	1,033	55.33%
Unassigned	Loganville	3,155	22.33%	009	Suwanee	20,440	98.34%
Unassigned	Lawrenceville	29,016	94.73%	009	Lawrenceville	1,613	5.27%
Unassigned	Dacula	6,882	100.00%	009	Dacula	0	0.00%
003	Chattahoochee Hills	2	0.07%	009	Sugar Hill	5,500	21.93%
003	Douglasville	1,139	3.29%	009	Buford	16,449	95.95%
003	Palmetto	561	11.06%	010	Royston	1	0.04%
003	Tyrone	7,658	100.00%	010	Heron Bay	3,955	84.53%
003	Fayetteville	18,554	97.87%	010	Stockbridge	0	0.00%
003	Heron Bay	724	15.47%	010	McDonough	28,018	96.44%
003	McDonough	1,033	3.56%	010	Covington	238	1.68%
003	Columbus	31,767	15.35%	010	Oxford	33	1.43%
003	Manchester	3,492	97.43%	010	Auburn	7,270	97.00%
004	Covington	13,954	98.32%	010	Braselton	6,243	46.58%
004	Oxford	2,275	98.57%	010	Maysville	834	44.67%
004	North Decatur	16,492	89.09%	010	Loganville	10,972	77.67%
004	Panthersville	552	4.91%	011	Nelson	549	47.95%
				011	Taylorsville	217	86.11%
				011	Marietta	52,765	86.54%
				011	Smyrna	30,193	54.24%

Communities of Interest (Condensed)

ga_congress_2021__plan_8_di

District	City/Town	Population	% Pop	District	City/Town	Population	% Pop
011	Holly Springs	15,809	97.51%				
011	Mountain Park	12	2.06%				
013	Chattahoochee Hills	2,948	99.93%				
013	Douglasville	33,511	96.71%				
013	Palmetto	4,510	88.94%				
013	Tyrone	0	0.00%				
013	Fayetteville	403	2.13%				
013	Stockbridge	28,973	100.00%				
013	Riverdale	15,129	100.00%				
013	Forest Park	5,767	28.93%				
013	Conley	4,424	66.23%				
013	South Fulton	103,705	96.53%				
013	Mableton	39,325	96.30%				
013	College Park	4,972	35.69%				
013	East Point	3,706	9.66%				
013	Atlanta	700	0.14%				
013	Austell	126	1.63%				
013	Smyrna	25,470	45.76%				
014	Mableton	1,509	3.70%				
014	Austell	7,587	98.37%				
014	Taylorville	35	13.89%				